

The Fish River Chain of Lakes Concept Plan

Volume 1 – Petition for Rezoning



December 2014

**Fish River Chain of Lakes Concept Plan
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Volume 1**

PETITION FOR REZONING

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LUPC Petition for Rezoning Application Form

For office use:

	ZP		\$	
Tracking No.		Permit No.		Fee Received



Petition for Rezoning

To Implement a Resource Plan Protection (P-RP) Subdistrict
Under the Provision of a Concept Plan

1. **Petitioner:** Allagash Timberlands LP
Aroostook Timberlands LLC
Maine Woodlands Realty Company

Mailing Address: P.O. Box 5777
300 Union Street
Saint John, NB E2L4M3
Canada

Daytime Telephone: (506) 632-7777
E-mail Address: _____

2. **Petitioner's Status:**

_____	Individual or sole proprietorship (d/b/a):	_____
<u>X</u>	Partnership (Provide names of partners):	<u>Allagash Timberlands LP;</u> <u>Eagle Lake Timberlands Inc.;</u> <u>Consolidated Rambler Mines</u> <u>Limited; Allagash Holdings</u> <u>Limited; J.D. Irving, Limited</u>
<u>X</u>	Corporation (Provide name of corporation):	<u>Maine Woodlands Realty</u> <u>Company</u>
<u>X</u>	Other entity (Please explain):	<u>Aroostook Timberlands LLC</u>

3. **Agent Authorization:** If you have an agent, such as a realtor, lawyer or contractor, acting on your behalf regarding this petition, complete the following authorization:

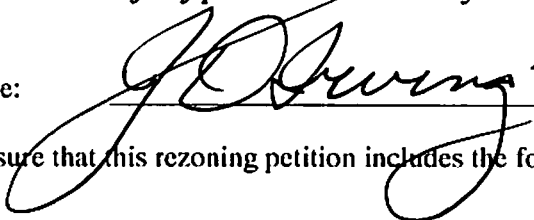
Name of Agent: See Tab 2

Mailing Address: _____

Daytime Telephone: _____

E-mail Address: _____

I hereby authorize the above-listed individual to act as my legal agent in all matters relating to this Petition for Rezoning. I understand that I am ultimately responsible for compliance with all conditions and limitations of any permit issued to me by the Land Use Regulation Commission.

Petitioner's Signature:  **Date:** Dec 22, 2014

4. **Exhibits:** Please ensure that this rezoning petition includes the following required exhibits prior to submission:

<u>X</u>	Application Fee (nonrefundable): Submit a check or money order payable to "Treasurer, State of Maine" for the appropriate fee: \$5,000.00 plus \$25.00 per acre of new areas proposed for development, including infrastructure. Due to the typical complexities of concept plans, additional	See Application Fee Attached to
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fees may apply. Please consult with LURC staff for a determination regarding whether or not your application will constitute an Extraordinary Project under the provisions of 12 MRSA Section 685-F.

**Cover
Letter**

X **Notice of Filing:** Attach a copy of a completed Notice of Filing form that was sent to landowners and officials. Please review the instructions to determine which persons must be provided notice of this rezoning petition. **See Tab 4**

X **Exhibit A: Corporate Good Standing.** If petitioner's status is a Corporation, submit a Certificate of Good Standing from the Secretary of State, State of Maine. **See Tab 5**

X **Exhibit B: Right, Title or Interest.** The law requires that a petitioner (other than a state or federal agency) must own or lease all of the property for which rezoning is being petitioned. To demonstrate right, title or interest, submit complete, signed copies of all deed(s) or lease(s) which document the petitioner's right, title or interest in all of the land addressed in this rezoning petition. **See Tab 6**

X **Exhibit C: Location Map.** Submit a large Land Use Guidance Map on which you have clearly marked the boundaries of the property for which rezoning is petitioned, using the same scale as shown on the guidance map. **See Tab 7**

X **Exhibit D: On-Site Soils Mapping.** Submit on-site soils mapping conducted by a soil scientist for all areas proposed for development, including roads. Soils information should be at a minimum scale of 1:62,500 or 1" to the mile, with 40 acre minimum mapping units. Soils mapping should include: **See Tab 8**

- the location of all test pits and/or borings,
- a description of all soil mapping units referring to soil grouping designations according to both the USDA soils series names and the Maine State Plumbing Code profile and condition,
- the boundary lines of all proposed subdivisions, roads and other development areas,
- topographic contour lines at a minimum of five foot intervals,
- the percent and direction of slopes, and
- the location of all streams and waterbodies.

The map must be drawn to the same scale as any other site plans that are submitted and must be dated and include the signature and license number of the soil scientist responsible for the work.

X **Exhibit E: Letters Evaluating Impacts.** Submit letters from town, plantation, county and/or other officials describing what they anticipate as impacts, both favorable and unfavorable, of the proposed use of the land on the local community and surrounding area. If the property is located in a town or plantation, contact the selectmen or assessors for such a letter. If the property is located in a township, contact the regional planning commission, county commissioners or similar officials. **See Tab 9**

- X Exhibit F: Letters Confirming Availability of Services:** If the proposed rezoning and subsequent use of the land will require municipal services, submit letters from town, plantation, and/or county officials and school administrative districts indicating that needed municipal or county services (i.e. solid waste disposal, fire and police protection, schools and school transportation, etc.) will be available. The letters should describe any special circumstances or conditions that must be met prior to providing such services. **See Tab 10**
- X Exhibit G:** Submit a copy of all documents demonstrating that the proposed easement holder meets the Commission’s *Guidelines for Selection of Easement Holders*. **See Tab 11**
- X Concept Plan:** Submit a written concept plan that, at minimum, identifies (1) all areas where new, lake-related development is to be located; (2) resource values or shoreland areas to be protected; (3) mechanisms that will be used to conserve important resources or areas; and (4) the life span of the plan. Additional details about the proposal may be necessary to include within the plan. Please refer to the Commission’s *Guide to Preparing a Concept Plan* for more information. **See Concept Plan**

Please respond to the following questions about your proposal either on a separate sheet of paper or, preferably, within the text of the concept plan.

- 5. **Location of Property:** List all towns, townships, and plantations that include land proposed for rezoning to the P-RP subdistrict. Include the number of acres that you own or lease, the number of acres proposed for rezoning, and the names of waterbodies and roads located on or adjacent to land proposed for rezoning. **See Tab 12**

Town, Township or Plantation	County	Acres Owned	Acres to Rezone	Waterbodies	Roads
Total Acres:					

- 6. **Notice of Filing:** Provide the names and mailing addresses of all individuals, companies or others who own land within 1,000 feet of the property for which you seek rezoning and any other persons to whom notice of this rezoning petition was provided. Also provide the date such notice was provided. **Failure to submit a complete list of landowners may invalidate this petition, even if otherwise approvable.** **See Tab 13**

Name	Mailing Address	Notice Date

7. **Existing Zoning:** List the zones currently applied to the area(s) proposed for rezoning. **See Tab 14**
8. **Current Use:** Describe the current and historical use of the land proposed for rezoning. **See Tab 15**
9. **Surrounding Uses and Resources:** Describe the uses and resources of the area/region surrounding the land proposed for rezoning (i.e. commercial forest, farm land, seasonal/year-round residential use, commercial uses, etc.). **See Tab 16**
9. **Existing Development:** Describe existing development in the area/region and within the area proposed for rezoning, including type, amount, density, and proximity (by road) to the area proposed for rezoning. If the plan includes only a portion of a lake, describe existing development on the rest of the lake in sufficient detail to understand the context of the proposed plan. **See Tab 16**
10. **Proposed Uses:** Describe all proposed uses of the land involved in this rezoning petition. If any subdivisions are proposed, describe the types of subdivisions (seasonal, year-round, residential, commercial, etc.) and the numbers and sizes of lots within each subdivision (including any common areas or lots designated to remain undeveloped). Attach a site plan that shows all locations of the proposed subdivisions within the concept plan. If structural development is proposed, describe its type, size and use and attach a preliminary site plan that shows how such structural development and support facilities will be located. If any other use is proposed, describe in detail what that use will be and why it is being proposed. **See Tab 17**

Under provisions of the Commission’s statute, 12 M.R.S.A. §685-A(8), no change in a district boundary may be approved unless:

1. There is substantial evidence that the change would be consistent with the standards for district boundaries in effect at the time, the Comprehensive Land Use Plan, and the purpose, intent and provisions of Chapter 206-A (the Land Use Regulation Law); and
2. The change in zoning will satisfy a demonstrated need in the community or area and will have no undue adverse impact on existing uses or resources or is more appropriate for the protection and management of existing uses and resources within the affected area.

[Note: In the instance of a concept plan, the latter provision, “is more appropriate...,” is the applicable standard of approval.]

The following questions are intended to generate information that will be useful in assessing whether the proposal meets the Commission’s statutory rezoning criteria.

11. **Consistency with the Comprehensive Land Use Plan:** The Commission’s plan includes specific goals to guide the location of new development; to protect and conserve forest, recreational, plant or animal habitat and other natural resources; to ensure the compatibility of land uses with one another; and to allow for a reasonable range of development opportunities important to the people of Maine. **See Tab 18**

Carefully read and refer to the Commission's *Comprehensive Land Use Plan* (particularly the objectives and policy statements found on pages 134-143). Explain how the proposed change in zoning will be consistent with the Commission's *Comprehensive Land Use Plan*.

12. **Adjacency Criterion:** The Commission's plan encourages orderly growth within and proximate to existing, compatible developed areas. This is referred to as the "adjacency" criterion. When considering any petition for rezoning, the Commission places considerable weight on this objective. However, the Commission may consider adjusting the adjacency criterion when assessing concept plans, provided any such relaxation is matched by comparable conservation measures. **See Tab 19**

Does your proposal fit the adjacency objective? If so, describe in detail the type and amount of existing nearby development. Include the distance (by straight line and by road) of such development from your proposed area(s) of development.

Does the proposal require adjustment of the Commission's adjacency policy? If so, explain why such adjustment is justified in the context of the Commission's policies, and describe how the development gained through the adjustment is matched by comparable conservation measures.

13. **Protection Zoning:** Is the P-RP zone that you propose more appropriate for the protection and management of *existing* uses and resources in the area? If so, describe how the P-RP zone is more appropriate. **See Tab 20**

14. **Shoreland Criteria:** The Commission's lake management program contains policy statements that include review criteria for permit applications (including petitions for rezoning prior to such activities) that could affect the shoreline. These special review criteria for intensive development proposed on lakes are included in the Commission's *Land Use Districts and Standards* under provisions of Section 10.13,B,2. **See Tab 21**

If your petition for rezoning includes any shoreland areas, carefully read and refer to the Review Criteria for Shoreland Permits in Appendix C of the *Comprehensive Land Use Plan* (pages C-4 and C-5) and the Review Standards for Structures Adjacent to Lakes in Section 10.13,B,2 of the Commission's *Land Use Districts and Standards*. Explain how the proposed rezoning is consistent with the following criteria:

- a. Natural and Cultural Resource Values: The proposal will not adversely affect natural and cultural resource values identified as significant or outstanding in the Wildland Lakes Assessment;
- b. Water Quality: The proposal will not, alone or in conjunction with other development, have an undue adverse impact on water quality;
- c. Traditional Uses: The proposal will not have an undue adverse impact on traditional uses, including without limitation, non-intensive public recreation, sporting camp operations, timber harvesting, and agriculture;
- d. Regional Diversity: The proposal will not substantially alter the diversity of lake-related uses afforded within the region in which the activity is proposed;
- e. Natural Character: Adequate provision has been made to maintain the natural character of shoreland;

- f. Lake Management Goals: The proposal is consistent with the management intent of the affected lakes classification; and
- g. Landowner Equity: Where future development on a lake may be limited for water quality or other reasons, proposed development on each landownership does not exceed its proportionate share of total allowable development.

15. **Anticipated Favorable Impacts:** Do you anticipate that your proposed use of the land would result in any favorable impacts on any of the surrounding land, resources, and/or uses in the community or area? If so, describe in detail the anticipated favorable impacts. **See Tab 22**
16. **Anticipated Unfavorable Impacts:** Do you anticipate that your proposed use of the land would result in any unfavorable impacts on any of the surrounding land, resources, and/or uses in the community or area? If so, describe in detail the anticipated unfavorable impacts and any measures proposed to control or minimize them. **See Tab 23**
17. **Public Services:** What municipal, county, or other services (i.e. solid waste disposal, fire and police protection, schools and school transportation, etc.) will your proposed use of the land require? Describe by what means these public services will be obtained. **See Tab 24**
18. **Compliance with Laws and Standards:** If your proposal includes a subdivision or development proposal, provide information in response to the following questions concerning whether the land is likely to be suitable for the proposed use. **See Tab 25**

Describe what provisions will be made to comply with the Commission’s development standards and other environmental laws.

- a. Water Supply: What provisions will be made for securing and maintaining a healthy water supply to the area?
- b. Soil Conditions: Are soil conditions appropriate for proposed uses, particularly in areas proposed for development?
- c. Traffic: What provisions will be made for parking and safe traffic flow?
- d. Erosion Control: What provisions will be made for stabilization and erosion control of the site?
- e. Subsurface Waste Water Disposal: What provisions will be made to comply with the requirements of the Subsurface Waste Water Disposal Rules of the Maine State Plumbing Code?
- f. Harmonious Fit: What measures will be taken to fit the proposal into the existing surroundings? Include any special considerations given to siting, design, size, coloring, landscaping or other factors that will lessen the impact of the proposal on the surroundings.
- g. Scenic Impacts: What measures will be taken to minimize impacts of the proposal on the scenic quality of the area? Consideration should be given to visibility from roads and water bodies.
- h. Wildlife Habitat: What measures will be made to minimize impacts on wildlife habitat including birds and water fowl? Consideration should be given to riparian zones along waterbodies.

Note: Should your petition for rezoning be approved, the Commission will require more detailed information about any proposed development within the concept plan area in the specific subdivision or development permit application.

Under provisions of Section 10.16,F,6 of the Commission’s *Land Use Districts and Standards*, the Commission may approve a concept plan only if it finds that the following criteria are also satisfied:

1. The plan conforms with the Commission’s *Land Use Districts and Standards*, where applicable.
2. The plan, taken as a whole, is at least as protective of the natural environment as the subdistricts which it replaces. In the case of lake concept plans, this means that any development gained through any waiver of the adjacency criterion is matched by comparable conservation measures.
3. The plan includes in its purpose the protection of those resources in need of protection.
4. The plan strikes a reasonable and publicly beneficial balance between appropriate development and long-term conservation of lake resources.
5. Conservation measures apply in perpetuity, except where it is demonstrated by clear and convincing evidence that other alternative conservation measures fully provide for long-term protection or conservation.

The following questions are intended to generate information that will be useful in assessing whether the proposal meets the Commission’s criteria associated with rezoning to the P-RP subdistrict.

- | | | |
|-----|--|-------------------|
| 19. | Conformance with the Commission’s Standards: Does the proposal meet or exceed the Commission’s normal standards for site suitability, including the Commission’s minimum dimensional requirements? If the plan includes any provisions that deviate from the Commission’s <i>Land Use Districts and Standards</i> , explain in detail how the provisions differ from the Commission’s rules and provide reasons for the proposed deviations. | See Tab 26 |
| 20. | Resource Protection: Is the proposal at least as protective of the natural environment as the Commission’s existing protections? How does the proposal maintain or enhance the protection of the natural resources and public values within the areas involved? | See Tab 27 |
| 21. | Balance between Development and Conservation: How does the proposal strike a reasonable and publicly beneficial balance between appropriate development and long-term conservation of lake resources? Please keep in mind that proposed conservation measures must provide clear and significant public benefits. | See Tab 28 |
| 22. | Conservation Measures: If conservation easements are proposed, describe their substantive provisions (e.g. area of easement, allowed uses, access, special restrictions). Describe how the proposed easement holder meets the Commission’s <i>Guidelines for Selection of Easement Holders</i> . If alternative conservation measures are proposed, describe their substantive provisions and describe how these measures fully provide for long-term protection or conservation. | See Tab 29 |

23 **Additional Information:** State any additional facts regarding this petition for rezoning that you feel may further explain your proposal or assist the Commission in its review of your petition. Address any important issues identified by the public and other interested parties during the initial project planning.

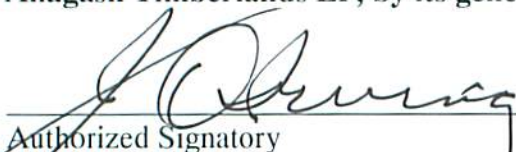
See Tab 30

Please read and sign the certification, below and attach a copy of the completed *Notice of Filing of Zoning Petition*.

By signing this petition, I certify that notice of this petition has been given to all owners of abutting property and those within 1,000 feet of the subject property and, if applicable, to Town or Plantation officials and County Commissioners.

I have personally examined and am familiar with the information submitted in this petition for rezoning, including all attachments, and I believe the information to be true, accurate and complete. I further certify that I will comply with all applicable statutes and with rules adopted by the Maine Land Use Regulation Commission.

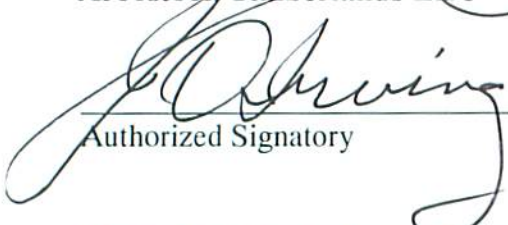
Allagash Timberlands LP, by its general partner Eagle Lake Timberlands Inc.



Authorized Signatory

Dec 22, 2014
Date

Aroostook Timberlands LLC



Authorized Signatory

Dec 22, 2014
Date

Maine Woodlands Realty Company



Authorized Signatory

Dec 22, 2014
Date



Agent Authorization

AGENT AUTHORIZATION

1. Agent Information

Anthony Hourihan
Irving Woodlands LLC
P.O. Box 5777
300 Union Street
Saint John, NB E2L 4M3
(506) 632-7777
Hourihan.Anthony@jdirving.com

Brian Rayback, Esq.
Pierce Atwood LLP
Merrill's Wharf
254 Commercial Street
Portland, ME 04101
(207) 791-1188
brayback@pierceatwood.com

Terrence DeWan, ASLA
Terrence J. DeWan & Associates
121 W Main Street
Yarmouth, ME 04096
(207) 846-0757
dewan@tjda.net

Noel Musson, Principal
The Musson Group
P.O. Box 286
Southwest Harbor, ME 04679
(207) 944-3132
noel@themussongroup.com

2. Landowner Information

*If the applicant(s) listed on the application, to which this supplement relates, is/are NOT the landowner(s), please complete the landowner information below and then explain on what legal authority you are able to apply for permits on the landowner's behalf:

Submit as part of Exhibit B (or any other Exhibit regarding title, right, or interest), authority from the landowner to represent them in all land use matters.

See Petition for Rezoning form

3. Agent Authorization

I hereby authorize the individual or business listed above to act as my legal agent in all matters relating to my/our permit application(s). I understand that I am ultimately responsible for complying with all applicable regulations and with all conditions and limitations of any permits issued to me by the LUPC. I hereby authorize the agent (individual or business) to act as my legal agent in all matters relating to this permit application.

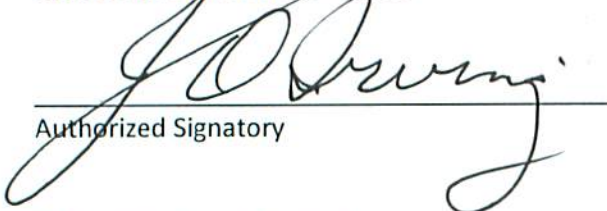
Caution: The person(s) signing below must demonstrate that they have a legal right to apply for this permit, either as the landowner, lease holder, or via a legal agreement or other written contract with the landowner.

Allagash Timberlands LP, by its general partner Eagle Lake Timberlands Inc.


Authorized Signatory

Dec 22, 2014
Date

Aroostook Timberlands LLC


Authorized Signatory

Dec 22, 2014
Date

Maine Woodlands Realty Company


Authorized Signatory

Dec 22, 2014
Date



Financial Capacity

John Hancock Financial Services

Bond and Corporate Finance Group
Natural Resources Team
128 S. Tryon Street
Suite 1700
Charlotte, NC 28202

(704) 377-1866
Fax: (704) 377-8545
whill@jhancock.com

C. Whitney Hill
Managing Director



July 30, 2014

Nicholas Livesay, Executive Director
Land Use Planning Commission
18 Elkins Lane
22 State House Station
Augusta, Maine 04330

Dear Sir:

We understand that Allagash Timberlands LP and Aroostook Timberlands LLC (the "Companies") are preparing an application to the State of Maine Land Use Planning Commission (LUPC) to rezone some of their timberlands in Aroostook County, Maine for future residential or recreational development. We understand that as part of the application the LUPC bills the applicant the costs associated with hiring consultants, such as soil scientists, and for other costs relating to the application process. The Companies have estimated these costs to be in the order of \$100,000 to \$200,000 (the "Costs").

We hereby confirm that the Companies have the financial ability to pay the Costs associated with the application.

Yours truly,

A handwritten signature in blue ink, appearing to read "Whit Hill".

Whit Hill

Notice of Filing

**NOTICE OF FILING OF REZONING PETITION
WITH THE MAINE LAND USE PLANNING COMMISSION**

This is to notify you that Allagash Timberlands LP, Aroostook Timberlands LLC, and Maine Woodlands Realty Company, P.O. Box 5777, 300 Union Street, Saint John, NB E2L 4M3, Canada, has filed a Petition for Rezoning with the Maine Land Use Planning Commission (“LUPC”) pursuant to the provisions of 12 M.R.S. section 685-A to rezone approximately 51,015 acres of land around the Fish River chain of lakes in T17 R5 (Cross Lake Township), T17 R4, T17 R3, T16 R5, T16 R4 (Madawaska Lake Township), and T15 R5 in northern Aroostook County from its present General Management Subdistrict (M-GN), General Development Subdistrict (D-GN), Residential Development Subdistrict (D-RS), Wetland Protection Subdistrict (P-WL), Great Pond Protection Subdistrict (P-GP), Fish and Wildlife Protection Subdistrict (P-FW), Flood Prone Area Protection Subdistrict (P-FP), and Shoreland Protection Subdistrict (P-SL) designations to a Resource Protection Subdistrict (P-RP) for purposes of implementing a Concept Plan.

Concept Plans are landowner created, long-range plans for the development and conservation of a large area. The plans are a clarification of long term landowner intent and indicate, in a general way, the areas where development is to be focused, the relative density of future development, and the means by which significant natural and recreational resources are to be protected. The LUPC established the concept plan process as a flexible alternative to traditional subdivision and development regulation, designed to accomplish both public and private objectives. Concept plans are initiated by the landowner and must be approved by the Commission.

The Petition for Rezoning, also referred to as the proposed Fish River Lakes Concept Plan (the “Petition”) was filed at the LUPC offices in Ashland and Augusta on or about December 24, 2014. Paper copies of the Petition are available for public inspection by appointment in the offices of the LUPC at:

LUPC Ashland Office
45 Radar Road
Ashland, Maine 04732-3600
(207) 435-7963 (extension 207 or 208)

LUPC Augusta Office
18 Elkins Lane, Harlow Building
4th Floor
Augusta, Maine 04333-0022

A copy will be available on the web at: www.maine.gov/dacf/lupc.

Copies are also available for public inspection at the following locations:

Aroostook County Commissioner Office
c/o Paul Bernier
144 Sweden St, Suite 1
Caribou, ME 04736
(207) 493-3318
Hour: M-F, 8:00-4:30
*Please call Mr. Bernier to make an
appointment*

Fort Kent Town Office
416 W. Main St.
Fort Kent, ME 04743
(207) 834-3003
Hours: M-F, 8:30-4:30

The LUPC will schedule one or more public hearings to gather oral and written testimony from the public about this Petition. Written comments from interested persons should be sent to the Maine Land Use Planning Commission, 22 State House Station, Augusta, Maine 04333-0022. The deadline for comments will be established once a public hearing is scheduled.

If you wish to receive email notices about upcoming public hearings and important deadlines related to the LUPC's review of this Petition, please go to <https://public.govdelivery.com/accounts/MEDACF/subscriber/new> and find the LUPC projects and topics at the bottom of the list, including the proposed Fish River Lakes Concept Plan. If you wish to receive postal notices, contact the LUPC by calling (207) 287-2631. Information about concept plans in general is also available on the web at www.maine.gov/dacf/lupc/.

Exhibit A – Corporate Good Standing Certificate

State of Maine



Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and of the reports of formation, amendment and cancellation of certificates of limited partnership and annual reports filed by the same.

I further certify that ALLAGASH TIMBERLANDS LP is a duly formed limited partnership under the laws of the State of Maine and that the date of formation is February 23, 1999.

I further certify that said limited partnership has filed annual reports due to this Department, and that no action is now pending by or on behalf of the State of Maine to forfeit the certificate of limited partnership and that according to the records in the Department of the Secretary of State, said limited partnership is a legally existing limited partnership in good standing under the laws of the State of Maine at the present time.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this tenth day of September 2014.



A handwritten signature in black ink, appearing to read 'Matthew Dunlap', written over a horizontal line.

Matthew Dunlap
Secretary of State

State of Maine



Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and of the reports of formation, amendment and cancellation of articles of organization of limited liability companies and annual reports filed by the same.

I further certify that AROOSTOOK TIMBERLANDS LLC is a duly formed limited liability company under the laws of the State of Maine and that the date of formation is December 17, 1998.

I further certify that said limited liability company has filed annual reports due to this Department, and that no action is now pending by or on behalf of the State of Maine to forfeit the articles of organization and that according to the records in the Department of the Secretary of State, said limited liability company is a legally existing limited liability company in good standing under the laws of the State of Maine at the present time.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this tenth day of September 2014.

A handwritten signature in black ink, appearing to read 'Matthew Dunlap', written over a horizontal line.

Matthew Dunlap
Secretary of State

State of Maine



Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and of the reports of organization, amendment and dissolution of corporations and annual reports filed by the same.

I further certify that MAINE WOODLANDS REALTY COMPANY, formerly IRVING GREEN WOODLANDS, INC., formerly AMERICAN WOODLANDS REALTY COMPANY is a duly organized business corporation under the laws of the State of Maine and that the date of incorporation is January 13, 1999.

I further certify that said business corporation has filed annual reports due to this Department, and that no action is now pending by or on behalf of the State of Maine to forfeit the charter and that according to the records in the Department of the Secretary of State, said corporation is a legally existing business corporation in good standing under the laws of the State of Maine at the present time.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this tenth day of September 2014.



A handwritten signature in black ink, appearing to read 'Matthew Dunlap', written over a horizontal line.

Matthew Dunlap
Secretary of State

Exhibit B – Right, Title or Interest

Exhibit B: Right, Title and Interest

The land within the area covered by the Concept Plan (the “Plan Area”) is owned by Aroostook Timberlands LP, Allagash Timberlands LLC, and Maine Woodlands Realty Company. Collectively these entities are referred to as “Irving” throughout the Petition Application and Concept Plan. The property is managed by Irving Woodlands LLC (Irving Woodlands).

The table below summarizes Irving’s Right, Title and Interest in the properties included in the Petition. A map illustrating the locations of these parcels is provided in Volume 3 at Map 38.

DEED			OWNER	TOWNSHIP	TAX MAP		
DOC	BOOK	PAGE			MAP	PLAN	LOT
871	1150	188	Allagash Timberlands LP	TWP 17 R 3	AR011	1	1
871	1150	188	Allagash Timberlands LP	TWP 17 R 3	AR011	1	2
871	1150	188	Allagash Timberlands LP	TWP 17 R 4	AR021	3	41.1 41.2 44
871	1150	188	Allagash Timberlands LP	TWP 17 R 4	AR021	1	25
871	1150	188	Allagash Timberlands LP	TWP 17 R 5 Cross Lake TWP	AR031	1	53 54 55 56 107 108 109
871	1150	188	Allagash Timberlands LP	TWP 17 R 5 Cross Lake TWP	AR031	1	69 70
870	1150	158	Allagash Timberlands LP	TWP 17 R 5 Cross Lake TWP	AR031	1	57 58 68 69 76 106 110 111 112
870	1150	158	Allagash Timberlands LP	TWP 16 R 5	AR030	5	35
870	1150	158	Allagash Timberlands LP	TWP 16 R 5	AR030	1	2.1 3 3.1 3.2 3.3
2768	1816	105	Maine Woodlands Realty Company	TWP 16 R 5	AR030	1	12
870	1150	158	Allagash Timberlands LP	TWP 16 R 4	AR020	1	9

DEED			OWNER	TOWNSHIP	TAX MAP		
DOC	BOOK	PAGE			MAP	PLAN	LOT
							10 10.1 12 13 14
870	1150	158	Allagash Timberlands LP	TWP 15 R 4	AR019	1	3
870	1150	158	Allagash Timberlands LP	TWP 15 R 5	AR029	1	1 2 3
3445	1456	326	Aroostook Timberlands LLC	TWP 17 R 4	AR021	1	25
3685	1460	74	Aroostook Timberlands LLC	TWP 17 R 4	AR021	1	25

Quitclaim Deed with Covenant

Irving Pulp & Paper, Limited, a New Brunswick corporation, for consideration paid, grants to Allagash Timberlands LP, a Maine limited partnership with a mailing address of R.R.#3, Box 436, Fort Kent, Maine 04743, with Quitclaim Covenant, the property situated in Aroostook County, Maine, more particularly described on Schedule A attached hereto.

The property is conveyed together with all estates, tenements, hereditaments and appurtenances belonging thereto, except to the extent of any limitations specifically set forth herein.

It is the intent of the Grantor to convey to the Grantee and there is hereby conveyed all of Grantor's right, title and interest in the property, whether or not said interest is specifically described herein or in Schedule A, and without limitation by any fraction or decimal set forth in Schedule A, including, but not limited to all real property, improvements, buildings, flowage, estates, tenements, hereditaments, and appurtenances to the premises herein conveyed, except as expressly set forth herein.

In witness whereof, Irving Pulp & Paper, Limited has caused this instrument to be signed in its corporate name as an instrument under seal, by James D. Irving, its President and by W. D. Jamieson its Secretary, hereunto duly authorized, as of the 1st day of March, 1999.

Witness:

Irving Pulp & Paper, Limited

Randy Mac Miller

By: [Signature]
Name: James D. Irving
Capacity: President

Randy Mac Miller

By: [Signature]
Name: W. D. Jamieson
Capacity: Secretary



MAINE
REAL ESTATE
TRANSFER TAX
PAID

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On the 15 day of March 1999, before me personally came J.D. Irving to me known, who, being by me duly sworn, did depose and say that he resides at Rothesay, New Brunswick; that he is the President of **IRVING PULP & PAPER, LIMITED**, a New Brunswick corporation, the corporation described in and which executed the above instrument; and that he signed his name thereto as a duly authorized officer of the said corporation; and that he signed the same as the voluntary act and deed of said corporation.



Channabel Latham

Notary Public
[Notarial Seal] CHANNABEL LATHAM
NOTARY PUBLIC, State of New York
No. 41-4889335
Qualified in Queens County
Certificate Filed in New York County
Commission Expires April 13, 1999

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On the 15 day of March 1999, before me personally came W.D. Jamieson to me known, who, being by me duly sworn, did depose and say that he resides at Rothesay, New Brunswick; that he is the Secretary of **IRVING PULP & PAPER, LIMITED**, a New Brunswick corporation, the corporation described in and which executed the above instrument; and that he signed his name thereto as a duly authorized officer of the said corporation; and that he signed the same as the voluntary act and deed of said corporation.



Channabel Latham

Notary Public
[Notarial Seal] CHANNABEL LATHAM
NOTARY PUBLIC, State of New York
No. 41-4889335
Qualified in Queens County
Certificate Filed in New York County
Commission Expires April 13, 1999

Schedule A

First (Allagash):

Five eighths (5/8) in common and undivided of a specified tract in Township 17, Range 11, heretofore set off by Commissioners to the trustees of T. U. Coe et als in 1936, and further described as follows:

Beginning at a cedar post surrounded with stones, situate on the west line of said township and being three hundred and seventy-seven chains and twenty links (377.20) more or less north of the St. John River, said post marked on the southeast "Coe"; on the northeast "G.L.Co"; on the west "17 R. 12 ↓" § 1936"; and witnessed " § ";

Thence south 66° 45' east one hundred and sixty-seven chains and eighty-three links (167.83) to a cedar post surrounded with stones and marked on the northwest "G.L. Co."; on the southwest "Coe"; on the east "P&W" and witnessed " § 1936"; being the northeast corner thereof; thence south 22° west two hundred and sixty-five chains and seventy-three links (265.73) to a cedar post surrounded with stones and marked on the northwest "Coe"; on the southwest " § 1936"; on the southeast "Coe"; on the northeast "P&W"; and witnessed " § 1936".

Thence south 68° east seventy-seven chains and forty-six links (77.46) to a cedar post surrounded with stones situate on the north bank of the St. John River where the north and south center line of township 17, range 11 intersects said River, said post is marked on the south "Coe"; on the north and east "P&W"; on the west " § 1936".

Thence in a westerly direction by and along the St. John River, to a cedar post and stones; thence south 57° west fifty-three chains and eighty links (53.80) along the back line of the Aaron Jackson lot, to a cedar post and stones on the bank of the St. John River; thence westerly up the St. John River to a cedar post and stones marking the southeast corner of the Bishop Lot; thence north 30° east twenty chains (20.00) to a cedar post and stones marking the northeast corner of the Bishop Lot; thence north 60° west fifty-three chains and thirty-five links (53.35) to a cedar post and stones marking the northwest corner of the Bishop lot; thence south 30° west nineteen chains and ninety-two links (19.92) to a cedar post and stones marking the southwest corner of the Bishop Lot; thence westerly by and along the St. John River to a cedar post and stones marking the southeast corner of the American Realty Co. et als tract. Thence north 22° east two hundred and four chains and eighty links (204.80) to a cedar post and stones marked "A.R.Co. et als" and "Coe" and witnessed " § 1936" thence north 68° west sixty-six chains and fifty links (66.50) more or less to the west line of township 17, range 11 W.E.L.S. and a cedar post and stones marked "Coe" and "A.R.Co. et als"; thence north 22° east along west line of this township one hundred and six chains and twenty links (106.20) to a cedar post and stones, being the point of beginning, containing 4,520

acres, more or less, as surveyed and the spots painted with red paint by Frank M. Call during 1936.

Said fractional part of said specified tract containing, exclusive of the Public Lot, two thousand eight hundred and twenty-five (2,825) acres more or less.

For source of title see deed from The Merrill Trust Company, Trustee, to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County, Registry of Deeds (Northern Division).

Second (Allagash):

One eight (1/8) in common and undivided of a specified tract in Township 17, Range 11, heretofore set off by Commissioners to the trustees of T. U. Coe et als. in 1936, said fractional part of said specified tract containing exclusive of the Public Lot, five hundred and sixty-five (565.0) acres, more or less.

For source of title see deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division).

The foregoing parcel is conveyed together with all right, title and interest acquired by Saint John Sulphite Limited, under said deeds whether or not expressly described, and subject to all terms, conditions and limitations in said deeds.

Third (Allagash):

(a) That part of Township No. 17, R. 11 (Allagash Plantation) in the County of Aroostook and State of Maine, which was set off to Garfield Land Company by the Commissioners under Court decree in October 1936, all as shown by deed recorded in the Registry of Deeds Northern District, Aroostook County, Maine, Book 158, Page 43, to which deed and the record thereof reference is hereby made for a more particular description of said premises.

EXCEPTING AND RESERVING therefrom to and for the use of Garfield Land Company, its successors or assigns, and any and all other persons hereafter permitted to use the same by the Garfield Land Company, its successors and assigns. (a) a right to use the existing travelled roads and ways and such other roads or ways as may be laid out across said premises to provide access to other lands and (b) the right to flow any and all portion of said premises along and adjacent to the banks of any brooks, streams, or lakes thereon up to the present highest water mark, together with the right to use the premises adjacent to said brooks streams or lakes and particularly for booming, driving or towing logs, pulpwood and other lumber along Little Black Stream and Fall Brook Lake.

(b) That part of Twp. NO. 17; R. 11 (Allagash Plantation) in the County of Aroostook and State of Maine, which was set off to Anna P. Phillips, Richard Wheatland and Stephen Wheatland, Trustees under the Will of Ann Maria Wheatland, and to Anna P. Phillips, by the Commissioners under Court decree in October 1936, all as shown by deed recorded in the Registry of Deeds Northern District, Aroostook County, Maine in Book 158, Page 143 to which deed and record thereof reference is hereby made for a more particular description of said premises.

EXCEPTING AND RESERVING therefrom to and for the use of Stephen Wheatland, David P. Wheatland and Stephen Phillips, Trustees under the Will of Ann Maria Wheatland, and Stephen Phillips and Stephen W. Phillips, their heirs and assigns, and any and all other persons hereafter permitted to use the same by the said Stephen Wheatland et al, their heirs and assigns. (a) The right to use the existing travelled roads and ways and such other roads or ways as may be laid out across said premises to provide access to other lands and (b) the right to flow any and all portion of said premises along and adjacent to the banks of any brooks, streams, or lakes thereon up to the present highest water mark, together with the right to use the premises adjacent to said brooks, streams or lakes and particularly for booming, driving or towing logs, pulpwood and other lumber along Little Black Stream, the lands and premises hereby conveyed containing in all 15,198 acres, more or less.

For source of title see deed from Eastern Exporting Company to Irving Pulp & Paper, Limited, dated October 28, 1957, and recorded in Book 271, Page 461, of the Aroostook County Registry of Deeds (Northern Division).

Fourth (Allagash):

A 5/27ths interest in common and undivided of a 1,576 acre tract in the southwest part of Township 17 Range 11 set off to American Realty Co, et als further described as follows:

Beginning at a cedar post surrounded with stones on the north bank of the St. John River and on the west line of township numbered 17 Range 11 W.E.L.S. marked on the West "T. 16 R. 12"; on the east "17 R 11" and "§ 1936"; and witnessed "§ 1936"; thence north 22 degrees east two hundred and seventy-one (271.00) chains to a cedar post and stones, marked on the northeast "Coe"; on the southeast "A.R. Co. et als", on the west ". L. § 1936"; and witnessed "§ 1936"; being the northwest corner thereof; thence south 68 degrees east sixty-six chains and fifty links (66.50) more or less to a cedar post surrounded with stones being marked on the northwest "Coe"; on the southeast "Coe"; on the southwest "A.R. Co. et als"; on the northeast "§ 1936; and witnessed "§ 1936"; being the northeast corner thereof. Thence South 22 degrees west two hundred and four chains and eighty links (204.80) to a cedar post surrounded with stones on the north bank of the St. John River being marked on the west "A.R. Co. et als"; on the east "Coe"; on the south "§ 1936"; and witnessed "§ 1936"; being the southeast corner thereof. These westerly by and

along the St. John River to the point of beginning, containing 1576 acres, be the same more or less, as surveyed and the spots painted with red paint during 1936 by Frank M. Call.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Fifth (Allagash):

2/3 of 1/4 in common and undivided of a specified tract in Township 17, Range 11 heretofore set off by Commissioners to the Trustees of T.U. Coe, et als. In 1936, being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 158, Page 43, said fractional part of said specified tract containing, exclusive of the Public Lot, three hundred seventy-six and sixty-seven hundredths (376.67) acres, more or less. No interest in the public lot is involved in this conveyance. One Ninth (1/9) in common and undivided of that portion of Township Seventeen (17) Range Eleven (11) set of to the American Realty Company, et als. The total acreage hereby conveyed based on said above common and undivided interests is approximately 175.11 acres. No interest in the public lot is involved in this conveyance.

One twenty-seventh (1/27) in common and undivided of that portion of Township Seventeen (17) Range Eleven (11) set of to the American Realty Company, et als. The total acreage hereby conveyed based on said above common and undivided interests is approximately 58.37 acres. No interest in the public lot is involved in this conveyance.

For source of title see a deed from J.M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989 and recorded in Book 793, Page 292 of the Aroostook County Registry of Deeds (Northern Division).

Sixth (Allagash):

A 91.66667 percent interest in and to all right, title and interest conveyed by Roland Jackson and Eva Jackson to Irving Pulp & Paper, Limited, in a July 20, 1990 deed to Irving Pulp & Paper, Limited, and others, recorded in Book 812, Page 6, in the Aroostook County Registry of Deeds (Northern Division). Being a deed to confirm the common boundary line between the Grantors and Grantees.

Seventh (Allagash):

The following described land in that portion of Allagash formerly known as Township 17, Range 11, W.E.L.S., conveyed by Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, by deed dated September 8, 1990, and

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recorded in Book 816, Page 349, of the Aroostook County Registry of Deeds (Northern Division): 1/3 of 1/4 in common and undivided of a specified tract in Township 17, Range 11, heretofore set off by Commissioners to the trustees of T. U. Coe et als in 1936, being recorded in the Aroostook Registry of Deeds (Northern Division) in Book 158, beginning at Page 43, said fractional part of said specified tract containing, exclusive of the Public Lot, three hundred seventy-six and sixty-seven hundredths (376.67) acres, more or less.

Subject to Line Establishment Agreement dated September 2, 1981 and recorded in Book 566, Page 217 of said Registry.

For source of title see deed from Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated September 8, 1990, and recorded in Book 816, Page 349, of the Aroostook County Registry of Deeds (Northern Division).

Eighth (Allagash):

A certain lot or parcel of land, situated in Township 16, Range 11, in the County of Aroostook and State of Maine, bounded and described as follows:

A 90-rod strip of land running from the St. John River near Carter Brook and extending southerly one mile as described in a deed from David Jackson, et als, to Charles Jackson dated July 16, 1946, recorded in Book 210, Page 249, and also described in a deed from David Jackson, et als, to Charles Jackson dated July 16, 1946, recorded in Book 213, Page 113; all of the Aroostook S.S. County Registry of Deeds.

For source of title see deed from IP Timberlands Operating Company Ltd., to Irving Pulp & Paper, Limited, dated February 3, 1994, and recorded in Book 975, Page 244, of the Aroostook County Registry of Deeds (Northern Division); for source of Mineral Rights, see deed from International Paper Company to Irving Pulp & Paper, Limited, dated February 3, 1994, and recorded in Book 975, Page 242, of the Aroostook County Registry of Deeds (Northern Division).

Subject to the following exceptions, easements, and conveyances (Allagash):

FIRST OUTCONVEYANCE:

The land in that part of Allagash, formerly known as Township Seventeen (17) Range Eleven (11), W.E.L.S., in Aroostook County, Maine, described as follows:

Beginning at a post at the generally northeasterly corner of the Settler's Lots, so called; thence South sixty-nine degrees East (S 69° E) four (4) chains, more or less, to a post set in the east line of Township Seventeen (17) Range Eleven (11).

W.E.L.S.; thence South twenty-one degrees West (S 21° W) by and along the east line of Township Seventeen (17) Range Eleven (11), W.E.L.S. sixty-four and seventy-one hundredths (64.71) chains to a post; thence continuing South twenty-one degrees West (S 21° W) by and along said town line twenty-eight and twelve hundredths (28.12) chains, more or less, to the bank of the Saint John River; thence in a generally northwesterly direction by and along the bank of the Saint John River fourteen and six hundredths (14.06) chains, more or less, to the southeasterly corner of property now or formerly owned or occupied by Albert McBreairty; thence North thirty-two degrees East (N 32° E) by and along property of said McBreairty twenty and eighty hundredths (20.80) chains to a post; thence North twenty degrees West (N 20° W) by and along property of said McBreairty sixteen and forty-one hundredths (16.41) chains to a post set in the generally easterly line of said Settlers' Lots; thence North thirty-four degrees East (N 34° E) by and along said easterly line of the Settlers' Lots forty-nine and five hundredths (49.05) chains to the point of beginning.

The above-described parcel of land contains seventy-three (73) acres, more or less.

Being the land conveyed to C. McBreairty by Irving Pulp & Paper. Limited by Deed recorded in Book 461, Page 329 of the Aroostook County Registry of Deeds (Northern Division).

SECOND OUTCONVEYANCE:

The land in that part of Allagash, formerly known as Township Seventeen (17) Range Eleven (11), W.E.L.S., in Aroostook County, Maine, described as follows: Beginning at a post at the generally northwesterly corner of the Settlers' Lots, so called; thence South seventy-one degrees West (S 71° W) seventy-three (73) chains, more or less, to a post; thence South nineteen degrees East (S 19° E) twenty-six (26) chains, more or less, and crossing a road to a post; thence continuing South nineteen degrees East (S 19° E) twelve (12) chains, more or less, to a post set in the bank of the Saint John River; thence by and along the bank of the Saint John River in a generally northeasterly direction to a post at the generally southwestly corner of the Settlers' Lots, so called; thence by and along the generally westerly boundary of the Settlers' Lots North twenty-one degrees East (N 21° E) fifty and seventy-five hundredths (50.75) chains to the point of beginning.

The above-described parcel of land contains two hundred and eight (208) acres, more or less.

Being the land conveyed to J. Kelly by Irving Pulp & Paper. Limited by Deed recorded in Book 462, Page 35 of the Aroostook County Registry of Deeds (Northern Division).

THIRD OUTCONVEYANCE:

Excepting all right, title and interest of Irving Pulp & Paper, Limited, released to Roland Jackson and Eva Jackson, in and to all that certain real estate situated southeasterly of a line described as follows: Commencing at a point on the northerly edge of the Saint John River in Township 17, Range 11, W.E.L.S. Aroostook County, Maine, at the generally southerly corner of land of the Grantors, said point being South 56° West from a post which is North 15° 15' West (13.6 feet) from a 21-inch spruce blazed and marked "X", thence North 56° East 4,896 feet, more or less, to a point on the shore of the Saint John River.

Being the land conveyed by deed from Irving Pulp & Paper, Limited, to Roland Jackson and Eva Jackson, dated June 18, 1990, and recorded in Book 812, Page 114, of the Aroostook County Registry of Deeds (Northern Division).

FOURTH OUTCONVEYANCE:

Excepting the premises described in a deed from John Kelly to Tylor Kelly recorded in Book 681, Page 189 (conveying land in that portion of Allagash formerly of Township 17, Range 11) of the Northern Aroostook Registry of Deeds, possession to which parcel was affirmed by Judgment in the matter entitled Irving Pulp & Paper, Limited vs. Guy Kelly, Jr. and Tylor Kelly (Aroostook County Superior Docket No. CV-89-12) recorded in Book 1123, Page 306, as affirmed by Maine Supreme Judicial Court decision No. Mem-98-107, a copy of which is recorded in Book 1123, Page 307 of Aroostook County Registry of Deeds (Northern Division). Said parcel is described as follow:

Commencing at a blazed post Forty (40) feet north of the point where Kelly Brook intersects the west boundary of the Little Black River; thence in a southerly direction along the bank of Little Black River a distance of Two Thousand (2,000) feet for the point of beginning; thence southerly along the bank of the Little Black River Two Thousand (2,000) feet to a point at the bogan located in the center of Lutes and Sirois land; thence northerly from the southeast corner of said bogan Two Thousand Two Hundred Eighty-five (2,285) feet, more or less, to the southwest corner of land previously deeded by the Grantor to Guy Kelly, Jr. on September 26, 1985; thence easterly along the south line of said land previously deeded to Guy Kelly, Jr. a distance of Two Thousand Two Hundred (2,200) feet to the bank of the little Black River and the point of beginning.

Being a part of the same premises held openly, notoriously and adversely by said John Kelly for a period of over Fifty (50) years.

FIFTH OUTCONVEYANCE:

Excepting the premises described in a deed from John Kelly to Tylor Kelly recorded in Book 681, Page 125 (conveying land in that portion of Allagash formerly known as Township 17, Range 11) of the Northern Aroostook Registry of Deeds, possession

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to which parcel was affirmed by Judgment in the matter entitled Irving Pulp & Paper, Limited vs. Guy Kelly, Jr. and Tylor Kelly (Aroostook County Superior Docket No. CV-89-12) recorded in Book 1123, Page 306, as affirmed by Maine Supreme Judicial Court decision No. Mem-98-107, a copy of which is recorded in Book 1123, Page 307 of Aroostook County Registry of Deeds (Northern Division). Said parcel is further described as follows:

Commencing at a blazed post Forty (40) feet north of the point where Kelly Brook intersects the west boundary of the little Black River; thence in a southerly direction along the bank of Little Black River a distance of Two Thousand (2,000) feet to blazed markings on two trees; thence in a westerly direction a distance of Two Thousand Two Hundred (2,200) feet to a blazed tree marking the east boundary of Irving land; thence in a northerly direction along the easterly margin of said Irving land and the west boundary of the herein granted premises a distance of Two Thousand Three Hundred Fifteen (2,315) feet to blazed tree on the northerly side of said Kelly Brook; thence in an easterly direction Forty (40) feet north of said Kelly Brook a distance of One Thousand Eight Hundred Ninety (1,890) feet to the blazed post and point of beginning.

Reserving unto the Grantor, his heirs and assigns, the right of ingress and egress along Kelly Brook Road, so-called, said Kelly Brook Road, so-called running northerly and southerly on the aforegranted premises and joining the public road, said road to be maintained by the Grantee.

Being part of the same premises held openly, notoriously and adversely by said John Kelly for a period of over Fifty (50) years.

FIRST Easement Outconveyance: Subject to a right of way for purposes of ingress and egress granted by Irving Pulp & Paper, Limited to Roland Jackson and Eva Jackson by deed recorded in Book 812, Page 7 of the Aroostook County Registry of Deeds (Northern Division).

Ninth (Cyr Plantation):

3/20ths in Township L, Range Two (2), W.E.L.S. now Cyr Plantation, County of Aroostook, being a part of the southwest quarter (SW1/4) of said Township, bounded and described as follows: On the south by the south line of the Town, on the west by the west line of the Town and the Public Lot, on the north by land conveyed by the State to G. W. Smith and lots seventy-eight (78) and seventy-nine (79), on the east by part of the west line of road lot thirty-three (33) and west lines of road lots number thirty-five (35), thirty-seven (37), thirty-nine (39), forty-one (41), forty-three (43), forty-five (45), forty-seven (47), forty-nine (49) and fifty-one (51). said tract

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containing thirty four hundred sixty three acres (3,463), more or less, also 3/20ths of the following lots in said Cyr Plantation: Two (2), Three (3), Fifteen (15), Sixteen (16), Seventeen (17), Eighteen (18), Thirty-Nine (39), Forty-One (41), Forty-Two (42), Forty-Three (43), Forty-Four (44), Forty-Five (45), Forty-Six (46), Forty-Seven (47), Forty-Eight (48), Fifty (50) and Ninety-Seven (97).

Also all right, title and interest in Cyr Plantation, if any, acquired from Eustis Pennock and other Grantors, in the deed to Irving Pulp & Paper, Limited, recorded in Book 253, Page 558.

For source of title see deed from Eustis Pennock and others to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and a deed from Granite Trust Company to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

SUBJECT TO rights acquired by the State of Maine by and through its State Highway Commission pursuant to Notice of Layout and Taking, dated February 6, 1963, and recorded in Book 310, Page 379, of the Aroostook County Registry of Deeds (Northern Division).

SUBJECT TO rights acquired by the State of Maine by and through its State Highway Commission pursuant to Notice of Layout and Taking, dated August 17, 1966, and recorded in Book 344, Page 300, of the Aroostook County Registry of Deeds (Northern Division).

Tenth (Cyr Plantation):

Land in Cyr Plantation, Aroostook County, Maine, described as follows:

All of a special tract in the SE 1/4, containing three thousand nine hundred two (3,902) acres, more or less, conveyed to Great Northern Paper Company by deed from Aroostook Lumber Co., dated June 6, 1944, and recorded in the Northern Aroostook Registry of Deeds in Book 174, Page 322; and to Great Northern Nekoosa Corporation from December Bowring, dated May 13, 1986, and recorded in the Northern Aroostook Registry of Deeds in Book 677, Page 119.

Excepting and reserving rights described in Notice of Layout and Taking to State of Maine dated August 17, 1966 recorded in Book 344, Page 300.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Eleventh (Cyr Plantation):

Land in Cyr Plantation, Aroostook County, Maine, described as follows:

All of a special tract in the NW 1/4, containing two thousand two hundred thirty-three (2,233) acres, more or less, conveyed to Great Northern Paper Company by deed from International Paper Company dated December 24, 1957 and recorded in the Northern Aroostook Registry of Deeds in Book 271, Page 318.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Twelfth (Cyr Plantation):

A 1/160th in common and undivided interest in land situated in Cyr Plantation, County of Aroostook, State of Maine:

A certain lot of land in the southwest quarter (S. W. ¼) of L. Range Two (2), now Cyr Plantation, bounded and described as follows: on the south by the south line of town, on west by west line of town and the public lot, on north by land conveyed by State of G. W. Smith and lots Seventy-eight and Seventy-nine (78 and 79), on east by part of west line of Road Lot Thirty-three (33) and west lines of Road Lots Nos. Thirty-five (35), Thirty-seven (37), Thirty-nine (39), Forty-one (41), Forty-three (43), Forty-five (45), Forty-seven (47), Forty-nine (49) and Fifty-one (51), said tract containing thirty-four hundred sixty-three (3463) acres, more or less; also, the following lots in said Cyr Plantation: Two (2), Three (3), Fifteen (15), Sixteen (16), Seventeen (17), Eighteen (18), Thirty-nine (39), Forty-one (41), Forty-two (42), Forty-three (43), Forty-four (44), Forty-five (45), Forty-six (46), Forty-seven (47), Forty-eight (48), Fifty (50) and Ninety-seven (97).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

For source of title see deed from Desert State Life Management Services as conservator for Thomas Ahern, III to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 245, of the Aroostook County Registry of Deeds (Northern Division).

BK 1150PG200

Thirteenth (Cyr Plantation):

A 1/160th in common and undivided interest in land situated in Cyr Plantation, County of Aroostook, State of Maine:

A certain lot of land in the southwest quarter (S. W. ¼) of L. Range Two (2), now Cyr Plantation, bounded and described as follows: on the south by the south line of town, on west by west line of town and the public lot, on north by land conveyed by State of G. W. Smith and lots Seventy-eight and Seventy-nine (78 and 79), on east by part of west line of Road Lot Thirty-three (33) and west lines of Road Lots Nos. Thirty-five (35), Thirty-seven (37), Thirty-nine (39), Forty-one (41), Forty-three (43), Forty-five (45), Forty-seven (47), Forty-nine (49) and Fifty-one (51), said tract containing thirty-four hundred sixty-three (3463) acres, more or less; also, the following lots in said Cyr Plantation: Two (2), Three (3), Fifteen (15), Sixteen (16), Seventeen (17), Eighteen (18), Thirty-nine (39), Forty-one (41), Forty-two (42), Forty-three (43), Forty-four (44), Forty-five (45), Forty-six (46), Forty-seven (47), Forty-eight (48), Fifty (50) and Ninety-seven (97).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

For source of title see deed from Sharon A. Ahern to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 251, of the Aroostook County Registry of Deeds (Northern Division).

Fourteenth (Cyr Plantation):

A 1/160th in common and undivided interest in land situated in Cyr Plantation, County of Aroostook, State of Maine:

A certain lot of land in the southwest quarter (S. W. ¼) of L. Range Two (2), now Cyr Plantation, bounded and described as follows: on the south by the south line of town, on west by west line of town and the public lot, on north by land conveyed by State of G. W. Smith and lots Seventy-eight and Seventy-nine (78 and 79), on east by part of west line of Road Lot Thirty-three (33) and west lines of Road Lots Nos. Thirty-five (35), Thirty-seven (37), Thirty-nine (39), Forty-one (41), Forty-three (43), Forty-five (45), Forty-seven (47), Forty-nine (49) and Fifty-one (51), said tract containing thirty-four hundred sixty-three (3463) acres, more or less; also, the following lots in said Cyr Plantation: Two (2), Three (3), Fifteen (15), Sixteen (16), Seventeen (17), Eighteen (18), Thirty-nine (39), Forty-one (41), Forty-two (42), Forty-three (43), Forty-four (44), Forty-five (45), Forty-six (46), Forty-seven (47), Forty-eight (48), Fifty (50) and Ninety-seven (97).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

For source of title see deed of Joan N. Curry to Irving Pulp & Paper, Limited dated July 31, 1998 and recorded in Book 1126, Page 257 of Aroostook County Registry of Deeds. (Northern Division)

Fifteenth (Cyr Plantation):

A 1/40th in common and undivided interest in land situated in Cyr Plantation, County of Aroostook, State of Maine:

A certain lot of land in the southwest quarter (S. W. ¼) of L. Range Two (2), now Cyr Plantation, bounded and described as follows: on the south by the south line of town, on west by west line of town and the public lot, on north by land conveyed by State of G. W. Smith and lots Seventy-eight and Seventy-nine (78 and 79), on east by part of west line of Road Lot Thirty-three (33) and west lines of Road Lots Nos. Thirty-five (35), Thirty-seven (37), Thirty-nine (39), Forty-one (41), Forty-three (43), Forty-five (45), Forty-seven (47), Forty-nine (49) and Fifty-one (51), said tract containing thirty-four hundred sixty-three (3463) acres, more or less; also, the following lots in said Cyr Plantation: Two (2), Three (3), Fifteen (15), Sixteen (16), Seventeen (17), Eighteen (18), Thirty-nine (39), Forty-one (41), Forty-two (42), Forty-three (43), Forty-four (44), Forty-five (45), Forty-six (46), Forty-seven (47), Forty-eight (48), Fifty (50) and Ninety-seven (97).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

For source of title see deed from Hinch Company, Inc. to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 263, of Aroostook County Registry of Deeds (Northern Division).

Sixteenth (Grand Isle):

A certain piece or parcel of land No. 220-221-222 situated in Township 18 of the third range of townships, W.E.L.S. now the town of Grand Isle and described as follows:

Beginning at the Eastern line of lot No. two hundred and twenty-two (222) and running on a parallel line with land owned by the Bangor and Aroostook R.R. Co., and running westerly the whole width of said lots No. 220-221-222 to the farm line of Fred Levasser.

Thence southerly a distance of about eighty feet (80) more or less to a post and including all the land on which the piers of said Madawaska Company are now built.

Thence easterly the whole width of said lots No. 220-221-222 to lot No. 223.

Thence: Northerly a distance of about forty feet (40) more or less to the place of beginning. Said piece or parcel of land is running semi-circely. This conveyance comprises all the land lying between W.W. Thomas' shore rights and the pier line.

SUBJECT TO the right of Madawaska Company to attach booms to said piers also with the right and privilege to occupy lands near the piers for the extension of said booms at high and low water marks.

For source of title see a deed from the Madawaska Company to Saint John Sulphite, Limited dated November 30, 1946 and recorded in Book 202, Page 432 of the Aroostook County Registry of Deeds (Northern Division).

Seventeenth (Hamlin):

A certain tract of land in the Town of Hamlin, County of Aroostook and State of Maine, described as follows:

All of Lots 6, 8, 9, 10, S/2 of Lot 11, E/2 of Lot 12, Lots 13 through 17 inclusive, Lots 22 through 25 inclusive, and Lots 31 through 36 inclusive, containing three thousand thirty-three (3,033) acres, more or less.

Title to the above described premises was acquired by Great Northern Paper Company, by deed from J. M. Pierce et als, dated June 30, 1961, and recorded in the Northern Aroostook Registry of Deeds in Book 301, Page 502 and in the Southern Aroostook Registry of Deeds in Book 841, Page 209; and to Great Northern Nekoosa Corporation from J. M. Huber Corp., dated June 29, 1970, and recorded in the Northern Aroostook Registry of Deeds in Book 381, Page 708.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Eighteenth (Stockholm):

A certain tract of land in the Town of Stockholm, County of Aroostook and State of Maine, described as follows:

All of Lot J, in E/2 of Town of Stockholm, containing eighty (80) acres, more or less.

Being the same premises described in a deed from J. M. Pierce et als, dated June 30, 1961, and recorded in the Northern Aroostook Registry of Deeds in Book 301, Page 502 and in the Southern Aroostook Registry of Deeds in Book 841, Page 209.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Nineteenth (Stockholm):

A certain tract of land in the Town of Stockholm, County of Aroostook and State of Maine, described as follows:

An 11/16th interest in common and undivided of the following described tracts:

Commencing at the southeast corner of said Town; thence north on the easterly line of said Town to the northeast corner of said Town; thence westerly along the northerly line of said Town to the center line of said Town, being the northwest corner of Section 84; thence southerly on the center line of said Town to the northwest corner of Lot "K"; thence easterly on the north line of Lots "K" and "L" to the west line of Lot 101 of the Public Lots, so-called; thence northerly on the west line of Lot 101 to the northwest corner thereof; thence easterly along the northerly line of Lots 101, 102, 103, 104, 105, 106 to the easterly line of Lot 106; thence southerly along the easterly line of Lot 106 to the southeast corner thereof; thence westerly along the southerly line of Lots 106, 105, 104, 103, 102 to the northeast corner of Lot "L"; thence southerly along the easterly line of Lots "L", "M", "F", and "D", to the north line of Lot 8; thence easterly along the north line of Lot 8 to the northeast corner thereof; thence southerly on the easterly line of Lot 8 to the southeast corner thereof; thence westerly along the southerly line of Lot 8 to the westerly corner of Lot 7 on the Stockholm-Van Buren Road; thence southeasterly along said road to the northwesterly corner of Lot 6; thence easterly along the northerly line of Lot 6 to the northeast corner of Lot 6; thence southerly along the easterly line of Lots 6, 5, 4 to the south line of said Town of Stockholm; thence easterly along the southerly line of said Town to the point of beginning.

Excepting and reserving a lot of land sold to Roland H. and Anna O. Peterson, Sept. 4, 1930 by Book 117, Page 159. Said piece of land so sold to said Petersons containing seventy-six and six-tenths (76.6) acres, and lying just easterly of Lot "D".

Excepting and reserving Lot 101A north of Lot 101, containing eighty and five-tenths (80.5) acres which was sold to the Town for a wood lot, being parts of Lots 55, 56, 59, 60, 63 and 64, by Book 168, Page 110.

Also conveying Lots 1, 2 and 3 in said Town of Stockholm, except one parcel of one hundred (100) acres off the east side of Lots 1, 2 and 3.

Title to the above described premises was acquired by Great Northern Paper Company, by deed from J. M. Pierce et als, dated June 30, 1961, and recorded in the Northern Aroostook Registry of Deeds in Book 301, Page 502, and in the Southern Aroostook Registry of Deeds in Book 841, Page 209; and from Alice F. M. Lawlis, dated September 8, 1961, and recorded in the Northern Aroostook Registry of Deeds in Book 301, Page 499, and in the Southern Aroostook Registry of Deeds in Book 841, Page 204.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Twentieth (Stockholm):

A certain tract of land in the Town of Stockholm, County of Aroostook and State of Maine, described as follows:

Situated in the west half of Township 16 Range 3, W.E.L.S. in said County of Aroostook, now the Town of Stockholm: Beginning on the north bank of Madawaska Stream on the west side of Main Street in said Stockholm (formerly known as the County Road); thence westerly along the north bank of the Madawaska Stream a distance of four hundred (400) feet from the west line of Main Street; thence northerly parallel with the west line of Main Street to a point on the south line of the bed of a spur railroad track crossing said Main Street which is four hundred (400) feet westerly of the west line of said Main Street; thence easterly along the south line of the bed of said spur track four hundred (400) feet to the west line of Main Street; thence southerly along the west line of Main Street to the north bank of Madawaska Stream and place of beginning, containing three and seven-tenths (3.7) acres, more or less.

Being the same premises described in a deed from Annie C. and Robert W. Antworth, dated May 22, 1957 and recorded in the Northern Aroostook Registry of Deeds in Book 256, Page 543.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Twenty-first (Stockholm):

The land in Stockholm, Aroostook County, Maine, described as follows:

- a) Lot "K" in the east half of said Stockholm containing in said lot Eighty (80) acres, more or less. Also lot "L" in the east half of said Stockholm containing in said lot One Hundred Twenty-five (125) acres, more or less.
- b) Lot "E" in the east half of said Stockholm, containing Eighty (80) acres, more or less, according to plan and survey of Henry H. Jewell, reserving the right to locate a road across said lot; and Lot "M" in the east half of said Stockholm, containing Eighty (80) acres, more or less, with the buildings thereon, according to plan and survey of Henry H. Jewell in 1907.

For source of title see deed from Louis Pelletier to Irving Pulp & Paper, Limited, dated June 22, 1998, and recorded in Book 1120, Page 55, of the Northern Aroostook County Registry of Deeds (Northern Division).

Twenty-second (Stockholm):

A 5/16th in common and undivided interest in and to land in the east half of Stockholm, Aroostook County, Maine described as follows:

Commencing at the southeast corner of said Town; thence north on the easterly line of said Town to the northeast corner of said Town; thence westerly along the northerly line of said Town to the center line of said Town, being the northwest corner of section 84; thence southerly on the center line of said Town to the northwest corner of lot "K" thence easterly on the north line of lots "K" and "L" to the west line of lot 101 of the Public Lots, so-called; thence northerly on the west line of lot 101 to the northwest corner thereof; thence easterly along the northerly lines of lots 101, 102, 103, 104, 105, 106, to the easterly line thereof; thence southerly along the easterly line of lot 106 to the southeast corner thereof; thence westerly along the southerly line of lots 106, 105, 104, 103, 102 to the northeast corner of lot "L"; thence southerly along the easterly line of lots "L", "M", "F" and "D" to the north line of lot 8; thence easterly along the north line of lot 8 to the northeast corner thereof; thence southerly on the easterly line of lot 8 to the southeast corner thereof; thence westerly along the southerly line of lot 8 to the westerly corner of lot 7 on the Stockholm-Van Buren Road; thence southeasterly along said road to the northwesterly corner of lot 6; thence easterly along the northerly line of lot 6 to the northeast corner of lot 6; thence southerly along the

easterly line of lots 6, 5, 4, to the south line of said Town of Stockholm; thence easterly along the southerly line of said Town to the point of beginning.

EXCEPTING AND RESERVING a lot of land sold to Roland H. and Anna O. Peterson, September 4, 1930. Said piece of land so sold to said Petersons containing 76.6 acres and lying just easterly of lot "D".

ALSO, EXCEPTING AND RESERVING lot 101A sold to the Town of Stockholm, November 1934.

ALSO GRANTING all of the Grantor's right, title and interest, if any, in lot 4, containing 103.5 acres, more or less.

ALSO GRANTING all of the Grantor's right, title and interest, if any, in lots 1, 2, 3 excepting 100 acres off of the east side of said lots 1, 2, 3.

Being the same premises conveyed by John S. Donworth to Prentiss & Carlisle Company, Inc. and McCrillis Timberland, Inc., by deed dated April 12, 1973 and recorded in Northern Aroostook County Registry of Deeds in Book 401, Page 195.

For source of title see deed from Prentiss & Carlisle Company, Inc. and McCrillis Timberland, Inc., to Irving Pulp & Paper, Limited, dated August 20, 1998, and recorded in Book 1127, Page 124, of the Aroostook County Registry of Deeds (Northern Division).

Twenty-third (T14 R5):

A certain lot or parcel of land in the generally northeasterly corner of Township 14, Range 5, W.E.L.S., bounded and described as follows:

Beginning at a post located in the northeasterly corner of Township 14, Range 5, W.E.L.S.; thence due west by and along the generally southerly town line of Township 15, Range 5, W.E.L.S., 15,041.9 feet to a point; thence S 0° 30' E 8,986.2 feet to a point; thence S 88° 30' E 14,974.2 feet to a point located in the generally westerly line of Perham; thence due north by and along the generally westerly line of Perham 9361.4 feet to the northeast corner of Township 14, Range 5, W.E.L.S., and the point of beginning.

The above-described property contains 3,160.3 acres, more or less.

The above-described property is conveyed subject to the right of the State of Maine, Great Northern Nekoosa Corporation, and J. M. Huber Corporation to cross the property herein conveyed reserved in the deeds from the State of Maine to Sarah W. Richards, et al., dated September 26, 1984, recorded in the Aroostook County Registry of Deeds, Northern District, Book 636, Page 178, Great Northern Nekoosa Corporation to Sarah W. Richards, et al., dated July 14, 1983, recorded in said

Registry, Book 602, Page 211, and J. M. Huber Corporation to Sarah W. Richards, et al., dated August 15, 1989, recorded in said Registry, Book 784, Page 332.

Subject to terms, exceptions and reservations set forth in the deed of Sarah W. Richards, Alice N. Wellman, et al., to Irving Pulp & Paper, Limited, recorded September 17, 1992, in Book 881, Page 127, of the Aroostook County Registry of Deeds (Northern Division).

For source of title see deed from Sarah W. Richards, et al., to Irving Pulp & Paper, Limited, recorded September 17, 1992, in Book 881, Page 127, of the Aroostook County Registry of Deeds (Northern Division) and a deed from Richard Wheatland, et al., to Irving Pulp & Paper, Limited, dated December 11, 1992, and recorded in Book 894, Page 324, of the Aroostook County Registry of Deeds (Northern Division); said deed of the Trustees of the Trust made for the benefit of Alice Ingraham Lorenz recorded in Book 894, Page 324, to confirm and correct the earlier deed of Sarah W. Richards, et al., to Irving Pulp & Paper, Limited, recorded in Book 881, Page 127.

Twenty-fourth (T15 R10):

The real estate in Township 15, Range 10, W.E.L.S., Aroostook County, Maine, described as follows:

Beginning at the southwest corner of Township 15, Range 10, W.E.L.S.; thence about S 68° E by and along the south line of said Township one hundred ninety-six and fifty hundredths (196.50) chains to the westerly line of part of a tract allocated to Great Northern Paper Co. by deed of partition dated September 13, 1943, and recorded in the Aroostook County Registry of Deeds (Northern District) in Book 138, Page 197, and a cedar post, set with stones, marked "T. 14, R. 10↔W.-P. et als ~~8~~ T. 15, R. 10 G.N.P. Co.-1942", witnessed "~~8~~ 1942"; thence N. 22° E. by and along said westerly line one hundred five and thirty-nine hundredths (105.39) chains to the thread of Big Brook, and passing through a cedar post, set with stones, two and thirty-two hundredths (2.32) chains southerly of said thread, marked "G.N.P. Co. W.-P et als ~~8~~ 1942", witnessed "~~8~~ 1942"; thence down the thread of said Brook to the westerly line of said Township; thence about S. 22° W. by and along said westerly line to the point of beginning.

Subject to exceptions and reservations in favor of Stephen Wheatland, Trustee, et al, in the deed to Irving Pulp & Paper, Limited, dated May 16, 1985, and recorded in Book 656, Page 328, of the Aroostook County Registry of Deeds (Northern Division), being the source of title to the above-described parcel.

BK 1150 PG 208

Twenty-fifth (T15 R11):

A 711/861 interest in the following land in Township 15, Range 11, W.E.L.S., set aside to Henry S. Coe, J. M. Huber Corporation, Irving Pulp & Paper, Limited, Fish River Company, Yankee Fork Corporation and Lost River Company, as tenants in common, under Judgment on Commissioners' Report recorded June 4, 1984, in Book 622, Page 123, of the Aroostook County Registry of Deeds (Northern Division):

A 2848 acres (more or less) tract in Township 15, Range 11, South 1/2, W.E.L.S., Aroostook County, bounded and described as follows:

Beginning at a point on the west town line, said point being the northwesterly corner of the tract to be divided; thence easterly, by and along the property line 154 chains, more or less to a point; thence southerly through the tract and passing through the Allagash Wilderness Waterway to a point on the north line of the Public Lot; said point being 25 chains, more or less, east of the northwest corner of said Public Lot; thence westerly by and along the north line of the Public Lot to the northwest corner thereof; thence southerly by and along the west line of the Public Lot to the southwest corner thereof; said point also being on the south town line of the township; thence westerly by and along the south town line, passing through the Allagash Wilderness Waterway to the southwest corner of the township; thence northerly by and along the west town line to the point of beginning; excepting from this description the Allagash Wilderness Waterway.

Together with the benefit of and subject to rights to cross and recross the land in Township 15, Range 11, south-half, set forth in the aforesaid Judgment, recorded in Book 622, Page 123.

For source of title see deed from The Merrill Trust Company, Trustee, to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County Registry of Deeds (Northern Division); deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division); as partitioned by the Superior Court in an order dated May 11, 1984 and recorded in Book 622, Page 123 of the Aroostook County Registry of Deeds (Northern Division).

Twenty-sixth (T15 R11):

All of the south one half of Township 15, Range 11 W.E.L.S., in Aroostook County, Maine, excepting and reserving the Public Lots in said Township as located by the State of Maine.

Also excepting and reserving a certain parcel of land situate in the south one-half of Township 15, Range 11, W.E.L.S., bounded and described as follows:

Beginning at a point, said point designated as point (37) on sheet 44, on the south line of Township 15, Range 11, W.E.L.S., said point being three thousand forty-five (3045) feet easterly along the south line of Township 15, Range 11, W.E.L.S.; from the southwest corner of Township 15, Range 11, W.E.L.S.; thence easterly along the south line of Township 15, Range 11, W.E.L.S. sixteen hundred ninety-five (1695) feet to a point designated as point (38) as designated on sheet 44; point (38) being on the south line of Township 15, Range 11, W.E.L.S.; thence N 16° 10' W two hundred fourteen (214) feet to a point designated as point (39) on sheet 44; thence N 48° 23' E eleven hundred ninety-seven (1197) feet to a point designated as point (40) on sheet 45; thence N 16° 44' W seventeen hundred fifty-four (1754) feet to a point designated as point (41) on sheet 45; thence N 27° 58' W eleven hundred eighty-three (1183) feet to a point designated as point (42) on sheet 45; thence N 04° 46' W seventeen hundred forty-six (1746) feet to a point designated as point (43) on sheet 45; thence N 29° 36' W eighteen hundred sixty-three (1863) feet to a point designated as point (44) on sheet 45; thence N 48° 29' E sixteen hundred twenty-nine (1629) feet to a point designated as point (45) on sheet 45; thence S 83° 49' E two thousand one hundred thirty-seven (2137) feet to a point designated as point (46) on sheet 45; thence S 69° 47' E thirteen hundred seventy-five (1375) feet to a point designated as point (47) on sheet 45; thence S 60° 42' E twelve hundred sixty-seven (1267) feet to a point designated as point (48) on sheet 45; thence S 67° 32' E one thousand thirty-three (1033) feet to a point designated as point (49) on sheet 45; thence S 72° 30' E fifteen hundred sixty-two (1562) feet to a point designated as point (50) on sheet 45; thence S 21° 12' E seven hundred eighty-eight (788) feet to a point designated as point (51) on sheet 46; thence S 54° 17' E nine hundred forty-two (942) feet to a point designated as point (52) on sheet 46; thence S 87° 56' E nineteen hundred thirty-six (1936) feet to a point designated as point (53) on sheet 46; thence S 78° 02' E sixteen hundred fifteen (1615) feet to a point designated as point (54) on sheet 46; thence S 88° 35' E one thousand fifteen (1015) feet to a point designated as point (55) on sheet 46; thence N 56° 24' E nine hundred sixty-seven (967) feet to a point designated as point (56) on sheet 46; thence N 08° 22' W six hundred ninety (690) feet to a point designated as point (56A) on sheet 46, point (56A) being on the south line of the Allagash Falls Dam Lot; thence N 08° 22' W six hundred eighty-five (685) feet to a point designated as point (57) on sheet 46; thence N 67° 57' E fourteen hundred fifty-one (1451) feet to a point designated as point (58) on sheet 46; thence N 37° 31' E nine hundred seventy-seven (977) feet to a point designated as point (59) on sheet 46; thence S 67° 42' E twelve hundred ninety-two (1292) feet to a point designated as point (60) on sheet 46; thence N 82° 20' E one thousand forty-nine (1049) feet to a point designated as point (61) on sheet 46; thence N 40° 42' E four hundred ten (410) feet to a point designated as point (61A) on sheet 46, point (61A) being on the east line of the Allagash Falls Dam Lot; thence N 40° 42' E twelve hundred thirty-nine (1239) feet to a point designated as point (62) on sheet 46; thence N 29° 25' E one thousand seventy-nine (1079) feet to a point designated as point (63) on sheet 46; thence N 71° 12' E twenty-four hundred eighty-two (2482) feet to a point designated as point (64) on sheet 46; thence N 20° 12' E fifteen hundred ninety-three (1593) feet to a point designated as point (65) on sheet 47; thence N 75° 58' E seventeen hundred fifty-two (1752) feet to point designated as point (66) on sheet 47; thence S 86° 49' E one thousand eighty-two

(1082) feet to a point designated as point (67) on sheet 47; thence N 58° 08' E fourteen hundred seventy-eight (1478) feet to a point designated as point (68) on sheet 47; thence N 34° 00' E one thousand eight hundred fifteen (1815) feet to point designated as point (69) on sheet 47; thence N 41° 16' E one thousand four hundred sixty-three (1463) feet to a point designated as point (70) on sheet 47; point (70) being on the east line of Township 15, Range 11, W.E.L.S.; thence northerly along the east line of Township 15, Range 11, W.E.L.S. to a point designated as point (12B) on sheet 47, point (12B) being at the intersection of the east line of Township 15, Range 11, W.E.L.S. and the division line dividing the north one-half of Township 15, Range 11, W.E.L.S. from the south one-half of Township 15, Range 11, W.E.L.S.; thence westerly along said division line sixteen hundred sixty-five (1665) feet to a point designated as point (12A) on sheet 47, point (12A) being on said division line; thence S 42° 37' W seventy-five (75) feet to a point designated as point (13) on sheet 47; thence S 27° 04' W twenty-three hundred nineteen (2319) feet to a point designated as point (14) on sheet 47; thence S 81° 56' W two thousand four hundred fifty-nine (2459) feet to a point designated as point (15) on sheet 47; thence S 63° 18' W nineteen hundred ninety-two (1992) feet to a point designated as point (16) on sheet 47; thence S 36° 03' W fourteen hundred seventy-eight (1478) feet to a point designated as point (17) on sheet 47; thence S 71° 31' W eighteen hundred sixty-one (1861) feet to a point designated as point (18) on sheet 46; thence S 32° 33' W eleven hundred seventy-eight (1178) feet to a point designated as point (18A) on sheet 46, point (18A) being on the east line of the Allagash Falls Dam Lot; thence S 32° 33' W five hundred sixty (560) feet to a point designated as point (19) on sheet 46; thence S 40° 51' W one thousand twenty-four (1024) feet to a point designated as point (20) on sheet 46; thence N 74° 16' W one thousand nine hundred seventeen (1917) feet to a point designated as point (21) on sheet 46; thence S 45° 13' W eighteen hundred eighty-eight (1888) feet to a point designated as point (22) on sheet 46; thence S 76° 10' W one thousand four (1004) feet to a point designated as point (23) on sheet 46; thence S 66° 23' W one hundred fifty-five (155) feet to a point designated as point (23A) on sheet 46, point (23A) being on the west line of the Allagash Falls Dam Lot; thence S 66° 23' W nine hundred thirty-one (931) feet to a point designated as point (24) on sheet 46; thence S 78° 34' W fourteen hundred thirteen (1413) feet to a point designated as point (25) on sheet 46; thence N 63° 53' W three thousand seven hundred forty-eight (3748) feet to a point designated as point (26) on sheet 45; thence N 82° 34' W two thousand one hundred twenty-eight (2128) feet to a point designated as point (27) on sheet 45; thence N 08° 30' W thirteen hundred nineteen (1319) feet to a point designated as point (28) on sheet 45; thence N 55° 25' W one thousand seventy-five (1075) feet to a point designated as point (29) on sheet 45; thence S 79° 31' W two thousand four hundred forty-six (2446) feet to a point designated as point (30) on sheet 45; thence S 68° 51' W two thousand four hundred sixty-six (2466) feet to a point designated as point (31) on sheet 45; thence S 43° 32' W seventeen hundred eighty-six (1786) feet to a point designated as point (32) on sheet 45; thence S 02° 40' E thirteen hundred ninety-seven (1397) feet to a point designated as point (33) on sheet 45; thence S 28° 34' E seventeen hundred twenty-five (1725) feet to a point designated as point (34) on sheet 45; thence S 05° 46' E fifteen hundred ninety-three (1593) feet to a point designated as point (35) on sheet 45; thence S 29° 45' E eleven hundred sixty-nine

(1169) feet to a point designated as point (36) on sheet 45; thence S 20° 10' W two thousand four hundred sixty-six (2466) feet to a point designated as point (37) on sheet 44; point (37) being on the south line of Township 15, Range 11, W.E.L.S. and being the point of beginning.

All bearings are correct to true North. All references in the above description to sheets 44, 45, 46 and 47 are references to sheet 44 of 48, sheet 45 of 48, sheet 46 of 48 and sheet 47 of 48 of a map entitled "Allagash Wilderness Waterway - Maine State Park & Recreation Commission - Planimetric Base Map - Dec. 1967" as compiled by James W. Sewall Company and recorded in the Aroostook Registry of Deeds, Northern District, Plan Book 5.

Also, excepting and reserving from Township 15, Range 11, South 1/2, W.E.L.S., the Allagash Falls Dam Lot, so-called, which dam lot is excepted and reserved from a deed given by the Land Agents of the Commonwealth of Massachusetts and the State of Maine to Zebulon Ingersoll, said deed being dated March 13, 1849 and recorded in the Aroostook County Registry of Deeds (Northern District) in Book 2, Page 396, the excepted lot being described therein as one mile square or 640 acres and including the Allagash Falls.

Further excepting from Township 15, Range 11, South 1/2, W.E.L.S. that portion of said Township set off and partitioned under Judgment in the proceedings Mary W. Schley, et al. v. Henry Coe, et al., Civil Action Docket No. CV-83-137, Superior Court, Aroostook County, a copy of which is recorded in the Aroostook County Registry of Deeds (Northern District) in Book 622, Page 123, bounded and described as follows:

Beginning at a point on the west town line, said point being the northwesterly corner of the South 1/2 of T15R11 W.E.L.S.; thence easterly, by and along the property line 154 chains, more or less to a point; thence southerly through the tract and passing through the Allagash Wilderness Waterway to a point on the north line of the Public Lot; said point being 25 chains, more or less, east of the northwest corner of said Public Lot; thence westerly by and along the north line of the Public Lot to the northwest corner thereof; thence southerly by and along the west line of the Public Lot to the southwest corner thereof; said point also being on the south town line of the township; thence westerly by and along the south town line, passing through the Allagash Wilderness Waterway to the southwest corner of the township; thence northerly by and along the west town line to the point of beginning; excepting from this description the Allagash Wilderness Waterway.

Subject to rights to cross and recross reserved by Sarah W. Richards, et al., in their deed to Irving Pulp & Paper, Limited, dated June 27, 1985, and recorded in Book 656, Page 295, of the Aroostook County Registry of Deeds (Northern Division).

Further subject to the right to cross and recross granted by said Judgment in the proceedings Mary W. Schley, et al. v. Henry Coe, et al., recorded in said Registry, Book 622, Page 123.

For source of title, see the aforesaid deed of Sarah W. Richard, et al, recorded in Book 656, Page 295.

Twenty-seventh (T15 R11):

80/861 interest in common and undivided of the following described premises in Township 15, Range 11 W.E.L.S.

Beginning at a point on the west town line, said point being the northwesterly corner of the tract to be conveyed; thence easterly, by and along the property line 154 chains, more or less, to a point; thence southerly through the tract and passing through the Allagash Wilderness Waterway to a point on the north line of the Public Lot; said point being 25 chains, more or less, east of the northwest corner of said Public Lot; thence westerly by and along the north line of the Public Lot to the northwest corner thereof; thence southerly by and along the west line of the Public Lot to the southwest corner thereof; said point also being on the south town line of the township; thence westerly by and along the south town line, passing through the Allagash Wilderness Waterway to the southwest corner of the township; thence northerly by and along the west town line to the point of beginning; excepting from this description the Allagash Wilderness Waterway.

Together with and subject to easements for all parties involved in said below referred Final Judgment of Partition for the right to cross and recross, for all purposes, with men and equipment, over the property set off in the below-referred to Final Judgment of Partition as described herein.

The total acreage hereby conveyed based on the below partition is approximately 264.62 acres in common and undivided. No interest in the public lot is involved in this conveyance excepting and reserving from the above described parcel so much thereof as was conveyed by Sada Coe Robinson to the State of Maine by deed dated October 7, 1969 and recorded in the Aroostook County Registry of Deeds, Northern Division, Book 375, Page 485.

Being part of the premises set off to J. M. Huber Corporation, et als. in the partition of said township, which partition may be found in the records of the Superior Court, Aroostook County, Civil Action Docket No. CV-83-137 dated May 11, 1984, a copy of the Final Judgment being recorded in said Registry of Deeds in Book 622, Page 123.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

Twenty-eighth (T15 R11):

a) 1/3 of 31/1664 in common and undivided of the north one-half of Township 15, Range 11, W.E.L.S., said fractional part containing, exclusive of the Public Lot, sixty-five and eighty-two hundredths (65.82) acres. Excepting and reserving from the above-described parcel so much thereof as was conveyed by Sada Coe Robinson to the State of Maine by deed dated October 7, 1969, and recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 375, Page 485.

b) 40/861 in common and undivided of a 2848 acre (more or less) tract in the south one-half of Township 15, Range 11, W.E.L.S., as set forth in a Judgment of Partition dated May 11, 1984 and recorded in Book 621, Page 123 of the Aroostook County Registry of Deeds, Northern Division.

The above interests in the north and south halves of Township 15, Range 11, W.E.L.S., were conveyed to Irving Pulp & Paper, Limited, by the September 8, 1990 deed of Nancy Patricia Coe and Winnifred Coe Verbica, recorded in Book 816, Page 349 of said Registry.

For further reference to the description to that portion of the land of the real estate located in the south one-half of Township 15, Range 11, W.E.L.S., see the Corrective Deed of Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated July 17, 1991, and recorded in 844, Page 69, of the Aroostook County Registry of Deeds (Northern Division).

Twenty-ninth (T15 R13):

Two thousand one hundred and thirty-nine thirty-eight thousand nine hundred and sixtieths (2139/38960) undivided interest in the Dunn Block in Township 15 Range 13 W.E.L.S., Aroostook County, together with a ½ undivided interest in the St. John Land Company Block in the said township

For source of title see deed from Madawaska Company to Saint John Sulphite, Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of the Aroostook County Registry of Deeds (Northern Division).

Thirtieth (T15 R13):

One hundred thirty four hundred eighty-sevenths (130/487) in common and undivided of a specified tract in Township 15, Range 13, heretofore set off by Commissioners to Dunn et als in 1929, said fractional part of said specified tract, containing, exclusive of the Public Lot, one thousand three hundred and fifty (1350) acres, more or less,

For source of title see deed from The Merrill Trust Company, Trustee, to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-first (T15 R13):

Twenty-six four hundred eighty-sevenths (26/487) in common and undivided of a specified tract in Township 15, Range 13, heretofore set off by Commissioners to Dunn et als 1929, said fractional part of said specified tract containing, exclusive of the Public Lot, two hundred and seventy (270.0) acres, more or less.

For source of title see deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-second (T15 R13):

(a) One thousand three hundred ninety five fifteen thousand five hundred eighty-fourths (1395/15584) in common and undivided of that part of Township Numbered Fifteen (15) Range Thirteen (13) that was set off to George Dunn et als in a partition proceeding commenced September 29, 1928, and recorded in Aroostook Registry of Deeds, Northern District, Book 123, Page 333, and supplemental report of Commissioners recorded in said Registry of Deeds in Book 123, Page 534. Said part so set off is described as follows:

Beginning on the westerly line of said Township at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said Township and at post in stones marked W. "Dunn", S. E. "P. Lot", N. E. "Dunn 1929"; Thence: Northerly along the westerly line of said Township for 185.44 chains to post in stones marked N. E. "Pierce", S. E. "Dunn 1929", S. W. "Dunn ___"; Thence S. 68 degrees 30 minutes E. for 166.83 chains to post in stones marked, N. "Pierce ___"; S. "Dunn 1929"; Thence: S. 70 degrees 00 minutes E. for 115.60 chains, more or less, to the center line of the St. John River (there being a post on the westerly bank of said river marked N "Pierce ___" S. "Dunn 1929", E. "Pingree"); Thence: Southerly and westerly following the center line of said river for 92 chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked, E. "Pingree", W. "Dunn 1929", N. "Dunn 1929"; Thence: S. 21 degrees 30 minutes W. through said post for 212.41 chains to the southerly line of said Township and post in stones marked, N. E. "Pingree", N. W. "Dunn", S. "T. L. 1929 ___"; Thence: westerly along the southerly line of said Township for 73.96 chains to post in stones marked, N. E. "Dunn ___"; N. W. "P. Lot 1929", S. "T. L. ↔"; Thence N 22 degrees 00 minutes E. for 58.92 chains to post in stones marked S. W. "P. Lot", E. "Dunn 1929", N. "Dunn 1929"; Thence: N. 68 degrees 50 minutes W. for 165.80 chains to the westerly line of said Township and

point of beginning, said fractional part containing four hundred fifty-two and sixty-eight hundredths (452.68) acres more or less, and one thousand one hundred forty-seven six thousand six hundred fifty-sixths (1147/6656) in common and undivided of the right to cut and carry away the timber and grass from the Public Lot in said Township said fractional part containing one hundred seventy-two and thirty-two hundredths (172.32) acres more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division).

(b) That part of Township Numbered Fifteen (15) Range Thirteen (13) that was set off to M. C. Pierce et als in a partition proceeding commenced September 29, 1928, recorded in Aroostook Registry of Deeds, Northern District, Book 123, Page 333 and supplemental report of Commissioners recorded in said Registry of Deeds in Book 123 Page 534. Said part so set off is described as follows:

Beginning on the westerly line of said Township at a point 108.15 chains southerly along said westerly line from the northwest corner of said Township and at post and stones marked, N. E. "S. J. L. Co. ___", N. W. "S. J. L. Co. 1929"; S. E. "Peirce", S. W. "Peirce"; Thence: S. 68 degrees 30 minutes E. for 167.52 chains to post marked, N. "S. J. L. Co. ↔ 1929", S. "Peirce ↔"; Thence on same course for 75.80 chains, more or less, to the center line of the St. John River (there being a post in stones on the westerly bank of said river marked, N. W. "S. J. L. Co. ___", S. W. "Peirce 1929", E. "Pingree"; Thence: south-easterly for 147.00 chains, more or less, along center line of said river to a point opposite a post on the westerly bank of said river marked, N. "Peirce ___", S. "Dunn 1929", E. "Pingree"; Thence N. 70 degrees 00 minutes W. for 166.83 chains to the westerly line of said town and post in stones marked "N.E. "Pierce", S. E. "Dunn 1929". S. W. "Dunn ___"; Thence: Northerly along said town line for 131.25 chains to the point of beginning, containing three thousand five hundred nine (3509) acres more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-third (T15 R13):

279/9740ths in that part of Township fifteen (15) Range thirteen (13), W.E.L.S., set off to George B. Dunn et als by judgment for partition rendered at the April Term 1929, of the Supreme Judicial Court for Aroostook County, said fractional part containing one hundred forty-four and eighty-five hundredths (144.85) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, by deed dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-fourth (T15 R13):

A 837/19480ths in that part of Township Fifteen (15), Range Thirteen (13), W.E.L.S. County of Aroostook which was set off to George B. Dunn et al by Decree of the Supreme Judicial Court, said fractional part containing two hundred seventeen and twenty eight hundredths (217.28) acres, more or less.

For source of title see deed from Eustis Pennock, et al., to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and a deed from Granite Trust Company, Executor of the Will of Eustis Pennock, to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-fifth (T15 R13):

A one-half (1/2) interest in common and undivided in and to the following parcel of land set of to the St. John Land Company in Township 15, Range 13:

Beginning at the northwest corner of Township Number Fifteen (15) Range Thirteen (13); thence southerly along the westerly line of said town for 108.15 chains to post in stones marked, N.E. "S. J. L. Co. ___", N.W. "S. J. L. Co. 1929", S. E. "Peirce", S.W. "Peirce"; thence S. 68 degrees 30 minutes E. for 167.52 chains to post marked, N. "S. J. L. Co. ↔ 1929", S. "Peirce ↔ ___"; thence on same course for 75.80 chains, more or less, to the center line of the St. John River (there being a post in stones on the westerly bank of said river marked, N. W. "S. J. L. Co. ___", S. W. "Peirce 1929", E. "Pingree"); thence northeasterly for 131 chains, more or less, following center line of said river to the point of its intersection with the line between Sections 2 and 3; thence N. 22 degrees 00 minutes E. (there being a post on the northerly bank of said river marked, N. E. "Pingree", N.W. "S. J. L. Co. 1929 ___") for 19.80 chains, more or less, from center line of said river to the northerly line of said town and post in stones marked, S. E. "Pingree 1929", S.W. "S. J. L. Co. ___" N. T. L. ↔"; thence westerly along the northerly line of said town for 326.57 chains to the northwest corner of said town and point of beginning; containing portions of Sections 1 and 2 according to Prentiss & Carlisle Co. Survey of 1929 and containing three thousand one hundred eight (3108) acres, more or less.

For source of title see deed from Blin W. Page to Irving Pulp & Paper, Limited, dated December 7, 1963, and recorded in Book 319, Page 5, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-sixth (T15 R13):

a) A 93/4,870 common and undivided interest in the Dunn block, so called, conveyed by Prentiss & Carlisle Co., Inc., in a deed with others to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, (being Parcel #2 thereof) more fully described as follows:

Beginning on the westerly line of Township Number Fifteen Range Thirteen at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said town and at post in stones marked, W. "Dunn", S. E. "P. Lot", N. E. "Dunn 1929"; Thence: Northerly along the westerly line of said town for 185.44 chains to post in stones marked, N. E. "Peirce", S. E. "Dunn 1929" S. W. "Dunn"; Thence: S 68 degrees 30 minutes E; for 166.83 chains to post in stones marked, N. "Peirce"; S. "Dunn 1929"; Thence: S 70 degrees 00 minutes E for 115.60 chains, more or less, to the center of the St. John River (there being a post on the westerly bank of said river, marked, N. "Peirce", S. "Dunn 1929", E. "Pingree"); Thence: Southerly and westerly following the center line of said river for 92 chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked E. "Pingree," W. "Dunn 1929", N. "Dunn 1929"; Thence: S 21 degrees 30 minutes W through said post for 212.41 chains to the southerly line of said town and post in stones marked, N. E. "Pingree", N. W. "Dunn", S. "T. L. 1929"; Thence: Westerly along the southerly line of said town for 73.96 chains to post in stones marked, N. E. "Dunn", N. W. "P. Lot 1929", S. "T. L."; Thence: N 22 degrees 00 minutes E for 58.92 chains to post in stones marked, S. W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; Thence: N 68 degrees 50 minutes W for 165.80 chains to the westerly line of said town and point of beginning; containing portions of Sections 4, 5, 7 and 8 according to Prentiss & Carlisle Co. Survey of 1929 and containing Five thousand fifty-seven (5,057) acres, more or less.

b) A 93/19,480 common and undivided interest in the Dunn block, so called, conveyed by McCrillis Timberland, Inc., in a deed with others to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, (being Parcel #10 thereof) more fully described as follows:

Beginning on the westerly line of Township Number Fifteen Range Thirteen at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said town and at post in stones marked, W. "Dunn", S. E. "P. Lot", N.E. "Dunn 1929"; Thence: Northerly along the westerly line of said town for 185.44 chains to post in stones marked, N. E. "Peirce", S. E. "Dunn 1929" S. W. "Dunn"; Thence: S 68 degrees 30 minutes E; for 166.83 chains to post in stones marked, N. "Peirce", S. "Dunn 1929"; Thence: S 70

degrees 00 minutes E for 115.60 chains, more or less, to the center of the St. John River (there being a post on the westerly bank of said river, marked, N. "Peirce", S. "Dunn 1929", E. "Pingree"); Thence: Southerly and westerly following the center line of said river for 92 chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked, E. "Pingree," W. "Dunn 1929", N. "Dunn 1929"; Thence: S 21 degrees 30 minutes W through said post for 212.41 chains to the southerly line of said town and post in stones marked, N. E. "Pingree", N. W. "Dunn", S. "T. L. 1929"; Thence: Westerly along the southerly line of said town for 73.96 chains to post in stones marked, N. E. "Dunn", N. W. "P. Lot 1929", S. "T. L."; Thence: N 22 degrees 00 minutes E for 58.92 chains to post in stones marked, S. W. "P Lot", E. "Dunn 1929", N. "Dunn 1929"; Thence: N 68 degrees 50 minutes W for 165.80 chains to the westerly line of said town and point of beginning; containing portions of Sections 4, 5, 7 and 8 according to Prentiss & Carlisle Co. Survey of 1929 and containing five thousand fifty-seven (5,057) acres, more or less.

For source of title see deed from Prentiss & Carlisle Co., Inc., et al., to Irving Pulp & Paper, Limited, by deed dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-seventh (T15 R13):

a) A five twelfths of two hundred seventy nine-nineteen thousand four hundred eightieths (5/12 of 279/19480) interest in common and undivided of the Dunn Block so-called in Township numbered Fifteen, Range Thirteen (T15 R13) as set off to J. Hopkins Smith and other by Judgment for Partition of the Supreme Judicial Court for Aroostook County at the November Term 1929 and therein described as follows:

Beginning on the westerly line of Township Fifteen, Range Thirteen (T15 R13) at the northwest corner of the Public Lot situated sixty and eighty-six hundredths (60.86) chains northerly along said westerly line from the southwest corner of said town and at a post; thence northerly along the westerly line of said town one hundred eighty-five and forty-four hundredths (185.44) chains to a post; thence south sixty-eight degrees thirty minutes east (S 68° 30' E) one hundred sixty-six and eighty-three hundredths (166.83) chains to a post; thence south seventy degrees no minutes East (S 70° 00' E) one hundred fifteen and sixty hundredths (115.60) chains more or less to the center of the St. John River; thence southerly and westerly following the center line of said river ninety-two (92) chains more or less to a point opposite a post on the southerly bank of said river; thence south twenty-one degrees thirty minutes west (S 21° 30' W) through said post two hundred twelve and forty-one hundredths (212.41) chains to the southerly line of said town; thence westerly along the southerly line of said town seventy-three and ninety-six hundredths (73.96) chains to a post; thence north twenty-two degrees no minutes east (N 22° 00' E) fifty-eight and ninety-two hundredths (58.92) chains to a post; thence north sixty-eight degrees fifty minutes west (N 68° 50' W) one hundred sixty-five and eighty hundredths (165.80) chains to the west line of said town and place of

beginning, containing five thousand fifty-seven (5,057) acres more or less. The total acreage hereby conveyed based on said above common and undivided interests is approximately 30.18 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Herbert E. Locke dated July 1, 1942 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 517, Page 596.

b) Eight hundred thirty-seven (837) Fifteen thousand five hundred eighty-fourths (15584) in common and undivided of that portion of Township Fifteen (15), Range Thirteen (13) W.E.L.S. set off to Geo. B. Dunn, et als. The total acreage hereby conveyed based on said above common and undivided interests is 271.61 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Grover C. Bradford dated June 25, 1943 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 535, Page 593.

c) Two hundred seventy-nine (279) Fifteen thousand five hundred eighty fourths (15584) in common and undivided of that portion of Township Fifteen (15), Range Thirteen (13) W.E.L.S. set off to Geo. B. Dunn, et als. the total acreage hereby conveyed based on said above common and undivided interests is 90.54 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Grover C. Bradford dated July 21, 1943 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 541, Page 68.

d) A .0201823 common and undivided interest, being 20.18 unlocated acres more or less, in the 1,000 acre public lot in Township 15, Range 13 W.E.L.S., which public lot is described as follows:

Beginning at the southwest corner of Township Number Fifteen (15) in Range Thirteen (13); thence northerly along the westerly line of said town for 60.86 chains to post in stones marked, W. "Dunn", S.E. "P. Lot", N.E. "Dunn 1929"; thence S. 68 degrees 50 minutes E. for 165.80 chains to post in stones marked S. W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; thence S. 22 degrees 00 minutes W. for 58.92 chains to the southerly line of said town and post in stones marked N. E. "Dunn ____", N. W. "P. Lot 1929" S. "T. L. ↔"; thence westerly along said town line 165.40 chains crossing and recrossing and crossing again the St. John River to the southwest corner of said town and the point of beginning; containing a part of Section 7 according to the Prentiss & Carlisle Co. Survey of 1929.

J. M. Huber Corporation having acquired these interests by deed of the State of Maine dated November 15, 1976 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 1267, Page 217.

c) A 1/3 of 52/487 in common and undivided of a specified tract in Township 15, Range 13 W.E.L.S., heretofore set off by Commissioners to Dunn, et als. in 1929, the Commissioners' report being recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 123 beginning at Page 333, said fractional part of said specified tract containing, exclusive of the Public Lot, one hundred seventy-nine and ninety-nine hundredths (179.99) acres, more or less. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Dorothy Watts, Ancillary Executrix of the Will of Sada Coc Robinson, dated June 30, 1980 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 1487, Page 55.

d) A 1/3 of 52/487 in common and undivided of a specified tract in Township 15, Range 13 W.E.L.S., heretofore set off by Commissioners to Dunn, et als. in 1929, the Commissioners' report being recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 123 beginning at Page 333, said fractional part of said specified tract containing, exclusive of the Public Lot, one hundred seventy-nine and ninety-nine hundredths (179.99) acres, more or less. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of the President and Trustees of Bowdoin College dated 1980 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 1487, Page 41.

g) All the interest of J. M. Huber Corporation, in common and undivided, in certain premises described below in Township 15, Range 13 W.E.L.S. (Dunn Block), which premises contains a minimum of 5057 acres. Marjorie Dunn (Fernald) and Myrtie H. D. Rogers each having inherited 1/15th of 93/1664ths interest in said premises from their father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division), Docket 6, Page 211. Said premises hereby conveyed in Township 15, Range 13 W.E.L.S. being more particularly described as follows:

Beginning on the westerly line of township Number Fifteen, Range Thirteen at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said town and at post in stones marked, W. "Dunn", S.E. "P. Lot", N.E. "Dunn 1929"; thence northerly along the westerly line of said town for 185.44 chains to post in stones marked, N.E. "Peirce", S.E. "Dunn 1929" S., W. "Dunn ____"; thence S 68 degrees, 30 minutes E, for 166.83 chains to post in stones marked N "Peirce ____", S. "Dunn 1929"; thence S 70 degrees 00 minutes E for 115.60 chains, more or less, to the center of the St. John River (there being a post on the westerly bank of said river, marked, N. "Peirce ____", S.

"Dunn 1929", E. "Pingree"; thence southerly and westerly following the center line of said river for 92 chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked, E "Pingree," W. "Dunn 1929", N. "Dunn 1929"; thence S 21 degrees 30 minutes W through said post for 212.41 chains to the southerly line of said town and post in stones marked N. E. "Pingree", N. W. "Dunn", S. "T. L. 1929 ___"; thence westerly along the southerly line of said town for 73.96 chains to post in stones marked, N. E. "Dunn ___", N. W. "P. Lot 1929", S. "T. L. ↔"; thence N 22 degrees 00 minutes E for 58.92 chains to post in stones marked, S. W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; thence N 68 degrees 50 minutes W for 165.80 chains to the westerly line of said town and point of beginning, containing portions of Sections 4, 5, 7 and 8 according to Prentiss & Carlisle Co. survey of 1929 and containing five thousand fifty-seven (5,057) acres, more or less.

Marjorie Dunn Fernald, Myrtic H. D. Rogers, et als., interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated November 12, 1929, and a copy of the partition including the Final Judgment being recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 123, Page 534.

Marjorie Dunn (Fernald) acquired a 3/16ths interest of the interest of her sister, Myrtic H. D. Rogers, in said premises by deed dated July 3, 1948 and recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald, who died October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division), Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests is approximately 86.01 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Jane Fernald Boyd dated May 5, 1985 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 1804, Page 245, and by deed of Jane Fernald Boyd in her capacity as personal representative of the estate of Marjorie Dunn Fernald dated May 5, 1985 and recorded in said Registry in Book 1804, Page 260.

h) All of the right, title and interest of J. M. Huber Corporation acquired by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 1950, Page 299, in common and undivided, in certain premises described below in Township 15, Range 13 W.E.L.S. (Dunn Block), which premises contains a minimum of 5057 acres. Said premises hereby conveyed in Township 15, Range 13 W.E.L.S. being more particularly described as follows:

Beginning on the westerly line of township Number Fifteen, Range Thirteen at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said town and at post in stones marked,

W "Dunn", S.E. "P. Lot", N. E. "Dunn 1929"; thence northerly along the westerly line of said town for 185.44 chains to post in stones marked, N.E. "Peirce", S. E. "Dunn 1929" S., W. "Dunn ____"; thence S 68 degrees, 30 minutes E; for 166.83 chains to post in stones marked, N. "Peirce ____", S. "Dunn 1929", thence S 70 degrees 00 minutes E for 115.60 chains, more or less, to the center of the St. John River (there being a post on the westerly bank of said river, marked, N. Peirce ____", S. "Dunn 1929", E. "Pingree"; thence southerly and westerly following the center line of said river for 92 chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked, E. "Pingree," W. "Dunn 1929", N. "Dunn 1929"; thence S 21 degrees 30 minutes W through said post of 212.41 chains to the southerly line of said town and post in stones marked, N. E. "Pingree", N. W. "Dunn", S. "T. L. 1929 ____"; thence westerly along the southerly line of said town for 73.96 chains to post in stones marked, N. E. "Dunn ____", N.W. "P. Lot 1929", S. "T. L. ↔"; thence N 22 degrees 00 minutes E for 58.92 chains to post in stones marked, S. W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; thence N 68 degrees 50 minutes W for 165.80 chains to the westerly line of said town and point of beginning, containing portions of Sections 4, 5, 7 and 8 according to Prentiss & Carlisle Co. survey of 1929 and containing five thousand fifty-seven (5,057) acres, more or less.

Natalie M. Daggett, et als. interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated November 12, 1929, and a copy of the partition including the Final Judgment being recorded in the Aroostook County Registry of Deeds (Southern Division) in Book 123, Page 534.

The total acreage hereby conveyed based on said above common and undivided interests is approximately 108.64 acres. No interest in the public lot is involved in this conveyance.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, by deed dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-eighth (T15 R13):

1/3 of 52/487 in common and undivided of a specified tract in Township 15, Range 13, W.E.L.S., heretofore set off by Commissioners to Dunn et als in 1929, the Commissioners' report being recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 123 beginning at Page 333, said fractional part of said specified tract containing, exclusive at the Public Lot, one hundred seventy-nine and ninety-nine hundredths (179.99) acres, more or less.

Being the same interest conveyed by Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, by deed dated September 8, 1990, and recorded in Book 816, Page 349, of the Aroostook County Registry of Deeds (Northern Division).

Thirty-ninth (T15 R13):

Nine hundred eighty (980) acres, more or less, in common and undivided in the 1,000 acre public lot in Township 15, Range 13 WELS, said public lot bounded and described as follows:

Beginning at the Southwest corner of Township 15, Range 13; Thence: Northerly along the westerly line of said Town for 60.86 chains to post in stones marked, S.E. "P.L. 1929", N.E. "Dunn et al", witnessed " 1929"; Thence: S. 68 degrees 50 minutes E. for 165.80 chains to post in stones marked, S.W. "P.L. 1929", N.E. "Dunn et al", witnessed " 1929"; Thence: S. 22 degrees 00' W. for 59.92 chains to the southerly line of said town and post in stones marked N.W. "P.L.", N.E. "Dunn et al 1929", witnessed " 1929"; Thence: Westerly along said town line for 165.40 chains crossing and recrossing and crossing again the St. John River to the Southwest corner of said Town and the point of beginning; containing a part of Section 7 according to the Prentiss & Carlisle Co. Survey of 1929. Reference is made to the Land Office Records, Vol. VIII, Page 72.

Hereby conveying all of the State's right, title and interest in this public lot after conveyance of twenty (20) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, dated October 19, 1990, and recorded in Book 821, Page 196, of the Aroostook County Registry of Deeds (Northern Division).

Fortieth (T15 R13):

A 5,859/6,136,200ths interest in and to the so-called Dunn Lot which represents the equivalent of 4.83 acres out of a total ownership acreage of 5,057 acres, exclusive of the public lot, if any, in said parcel: Part of Township 15, Range 13, W.E.L.S.

Beginning on the westerly line of Township Number Fifteen Range Thirteen at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said town and at a post in stones marked, W. "Dunn", S. E. "P. Lot", N.E. "Dunn 1929"; Thence: Northerly along the westerly line of said town for 185.44 chains to post in stones marked, N.E. "Peirce", S. E. "Dunn 1929" S. W. "Dunn ___"; Thence: S. 68 degrees 30 minutes E; for 166.83 chains to post in stones marked, N. "Peirce ___", S. "Dunn 1929"; Thence: S. 70 degrees 00 minutes E. for 115.60 chains, more or less, to the center of the St. John River there being a post on the westerly bank of said river, marked, N. "Peirce ___", S. "Dunn 1929", E. "Pingree"; Thence: Southerly and westerly following the center line of said river for 92 chains, more or less, to a point opposite a post in

stones on the southerly bank of said river marked, E. "Pingree," W. "Dunn 1929", N. "Dunn 1929"; thence: S 21 degrees 30 minutes W. Through said post for 212.41 chains to the southerly line of said town and post in stones marked, N. E. "Pingree", N. W., "Dunn", S. "T. L. 1929 ___"; Thence: Westerly along the southerly line of said town for 73.96 chains to post in stones marked, N.E. "Dunn ___", N.W. "P. Lot 1929", S. "T. L. ↔"; Thence: N. 22 degrees 00 minutes E. for 58.92 chains to post in stones marked, S.W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; Thence: N. 68 degrees 50 minutes W. for 165.80 chains to the westerly line of said town and point of beginning: containing portions of Sections 4, 5, 7, and 8 according to Prentiss & Carlisle Co. Survey of 1929 and containing Five thousand fifty-seven (5,057) acres, more or less.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

Forty-first (T15 R13):

A 5,859/136,360ths interest in and to the following described land (Dunn Lot) which represents the equivalent of 217 acres out of a total ownership acreage of 5,057 acres, exclusive of the public lot, if any, in said parcel: Part of Township 15, Range 13, W.E.L.S.

Beginning on the westerly line of Township Number Fifteen Range Thirteen at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said town and at a post in stones marked, W. "Dunn", S. E. "P. Lot", N. E. "Dunn 1929"; Thence: Northerly along the westerly line of said town for 185.44 chains to post in stones marked, N. E. "Peirce", S. E. "Dunn 1929" S. W. "Dunn ___"; Thence: S. 68 degrees 30 minutes E; for 166.83 chains to post in stones marked, N. "Peirce ___", S. "Dunn 1929"; Thence: S. 70 degrees 00 minutes E. for 115.60 chains, more or less, to the center of the St. John River there being a post on the westerly bank of said river, marked, N. "Peirce ___", S. "Dunn 1929", E. "Pingree"; Thence: Southerly and westerly following the center line of said river for 92 chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked, E. "Pingree," W. "Dunn 1929". N. "Dunn 1929"; Thence: S. 21 degrees 30 minutes W. Through said post for 212.41 chains to the southerly line of said town and post in stones marked, N. E. "Pingree", N. W. "Dunn", S. "T. L. 1929 ___"; Thence: Westerly along the southerly line of said town for 73.96 chains to post in stones marked, N. E. "Dunn ___", N. W. "P. Lot 1929", S. "T. L. ↔"; Thence: N. 22 degrees 00 minutes E. for 58.92 chains to post in stones marked, S. W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; Thence: N. 68 degrees 50 minutes W. for 165.80 chains to the westerly line of said town and point of beginning: containing portions of Sections 4, 5, 7, and 8 according to Prentiss & Carlisle Co. Survey of 1929 and containing Five thousand fifty-seven (5,057) acres, more or less.

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For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the trust of Caroline D. Tyler, dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

Forty-second (T15 R13):

A 0.005149 decimal interest in and to the following described land (Dunn Lot) which represents the equivalent of 26.04 acres out of a total parcel acreage of 5,057 acres, exclusive of the public lot, if any, in said parcel: Part of Township 15, Range 13, W.E.L.S.

Beginning on the westerly line of Township Number Fifteen (15), Range Thirteen (13) at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line form the southwest corner of said town at post in stones marked, W. "Dunn", S. E. "P. Lot", N. E. "Dunn 1929"; Thence: Northerly along the westerly line of said town for 185.44 chains to post in stones marked, N. E. "Pierce", S. E. "Dunn 1929" S. W. "Dunn ___"; Thence: South sixty-eight degrees thirty minutes East (S 68° 30' E) for one hundred sixty-six and eighty-three hundredths (166.83) chains to post in stones marked, N. "Pierce ___", S. "Dunn 1929"; Thence: South seventy degrees zero minutes East (S 70° 00' E) for one hundred fifteen and sixty-hundredths (115.60) chains, more or less, to the center of the St. John River there being a post on the westerly bank of said river, marked, N. "Pierce ___", S. "Dunn 1929". E. "Pingree"; Thence: Southerly and westerly following the center line of said river for ninety-two (92) chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked, E. "Pingree", W. "Dunn 1929", N. "Dunn 1929"; Thence: South twenty-one degrees thirty minutes West (S 21° 30' W) through said post for two hundred twelve and forty-one hundredths (212.41) chains to the southerly line of said town and post in stones marked, N. E. "Pingree", N. W. "Dunn", S. "T. L. 1929 ___"; Thence: Westerly along the southerly line of said town for seventy-three and ninety-six hundredths (73.96) chains to post in stones marked, N. E. "Dunn ___", N. W. "P. Lot 1929", S. "T. L. ↔"; Thence: North twenty-two degrees zero minutes East (N 22° 00' E) for fifty-eight and ninety-two hundredths (58.92) chains to post in stones marked, S. W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; Thence: North sixty-eight degrees fifty minutes West (N 68° 50' W) for one hundred sixty-five and eighty hundredths (165.80) chains to the westerly line of said town and point of beginning, containing portions of Sections 4, 5, 7 and 8 according to Prentiss & Carlisle Co. Survey of 1929 and containing Five thousand fifty-seven (5,057) acres, more or less.

For source title see deed from Fraser Paper Limited to Irving Pulp & Paper, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

BK 1150PG226

Forty-third (T15 R13):

A 0.005149 decimal interest in and to the following described land (Dunn Lot) which represents the equivalent of 26.04 acres out of a total parcel acreage of 5,057 acres, exclusive of the public lot, if any, in said parcel: Part of Township 15, Range 13, W.E.L.S.

Beginning on the westerly line of Township Number Fifteen (15), Range Thirteen (13) at the northwest corner of the Public Lot situated 60.86 chains northerly along said westerly line from the southwest corner of said town and at post in stones marked, W. "Dunn", S. E. "P. Lot", N.E., "Dunn 1929"; Thence: Northerly along the westerly line of said town for 185.44 chains to post in stones marked, N.E. "Pierce", S. E. "Dunn 1929" S. W. "Dunn ___"; Thence: South sixty-eight degrees thirty minutes East (S 68° 30' E) for one hundred sixty-six and eighty-three hundredths (166.83) chains to post in stones marked, N. "Pierce ___", S. "Dunn 1929"; Thence: South seventy degrees zero minutes East (S 70° 00' E) for one hundred fifteen and sixty-hundredths (115.60) chains, more or less, to the center of the St. John River there being a post on the westerly bank of said river, marked, N. "Pierce ___", S. "Dunn 1929", E. "Pingree"; Thence: Southerly and westerly following the center line of said river for ninety-two (92) chains, more or less, to a point opposite a post in stones on the southerly bank of said river marked, E. "Pingree", W. "Dunn 1929", N. "Dunn 1929"; Thence: South twenty-one degrees thirty minutes West (S 21° 30' W) through said post for two hundred twelve and forty-one hundredths (212.41) chains to the southerly line of said town and post in stones marked, N. E. "Pingree", N. W. "Dunn", S. "T.L. 1929 ___"; Thence: Westerly along the southerly line of said town for seventy-three and ninety-six hundredths (73.96) chains to post in stones marked, N. E. "Dunn ___", N. W. "P. Lot 1929", S. "T. L.↔"; Thence: North twenty-two degrees zero minutes East (N 22° 00' E) for fifty-eight and ninety-two hundredths (58.92) chains to post in stones marked, S. W. "P. Lot" E. "Dunn 1929", N. "Dunn 1929"; Thence: North sixty-eight degrees fifty minutes West (N 68° 50' W) for one hundred sixty-five and eighty hundredths (165.80) chains to the westerly line of said town and point of beginning; containing portions of Sections 4, 5, 7 and 8 according to Prentiss & Carlisle Co. Survey of 1929 and containing Five thousand fifty-seven (5,057) acres, more or less.

For source of title see deed from Fraser Papers Inc., to Irving Pulp & Paper, Limited, dated December 10, 1996, and recorded in Book 1093, Page 326, of the Aroostook County Registry of Deeds (Northern Division).

Forty-fourth (T15 R14):

.0549025 undivided interest in the Dunn Block in Township 15 Range 14 W.E.L.S. Aroostook County,

BK 1150PG227

together with 1/2 undivided interest in St. John Land Company Block in the said township.

For source of title see deed from Madawaska Company to Saint John Sulphite Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of the Aroostook County Registry of Deeds (Northern Division).

Forty-fifth (T15 R14):

One hundred and thirty four hundred eighty-sevenths (130/487) in common and undivided of a specified tract in Township 15, Range 14, heretofore set off by Commissioners to Dunn et als in 1929, said fractional part of said specified tract containing, exclusive of the Public Lot one thousand seven hundred thirteen and five tenths (1713.5) acres, more or less.

For source of title see deed from The Merrill Trust Company, Trustee, to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County Registry of Deeds (Northern Division).

Forty-sixth (T15 R14):

Twenty-six, four hundred eighty-sevenths (26/487) in common and undivided of a specified tract in Township 15, Range 14, heretofore set off by Commissioners to Dunn et als in 1929, said fractional part of said specified tract containing, exclusive of the Public Lot, three hundred and forty-two and seven-tenths (342.7) acres, more or less.

For source of title see deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division).

Forty-seventh (T15 R14):

279/9740ths in that part of Township fifteen (15), Range fourteen (14), W.E.L.S., set off to George B. Dunn et als by judgment for partition rendered at the November Term 1929, of the Supreme Judicial Court, for Aroostook County, said fractional part containing one hundred eighty-three and eighty-seven hundredths (183.87) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division).

Forty-eighth (T15 R14):

837/19480ths in that part of Township Fifteen (15), Range Fourteen (14) W.E.L.S. County of Aroostook which was set off to George B. Dunn et al by Decree of the Supreme Judicial Court, said fractional part containing two hundred seventy five and eight tenths (275.8) acres, more or less.

For source of title see deed from Eustis Pennock, et al., to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division).

Forty-ninth (T15 R14):

837/19480ths in that part of Township Fifteen (15), Range Fourteen (14) W.E.L.S. County of Aroostook which was set off to George B. Dunn et al by Decree of the Supreme Judicial Court, said fractional part containing two hundred seventy five and eight tenths (275.8) acres, more or less.

For source of title see deed from Granite Trust Company, executor under the will of Eustis Pennock, to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

Fiftieth (T15 R14):

a) Grantor's one-half (1/2) interest in common and undivided in one-ninth (1/9) of the Public Lot in Township 15, Range 14, said Public Lot being bounded and described as follows:

Beginning on the northerly line of Township Fifteen (15) Range Fourteen (14) at a point 209.54 chains westerly, along said line, from the northeast corner of said town and at post in stones marked, S. E. "S. J. L. Co. 1929", S.W. "P Lot" ~~1~~ N 1929 T.L."; thence S. 21 degrees 30 minutes W. for 160.29 chains to post in stones marked N.W. "P. Lot 1929", S.E. "Pierce ~~1~~", N.E. "Pierce"; thence N. 68 degrees 50 minutes W. for 63.39 chains to post marked, W. "Pingree 1929", N.E. "P. Lot ~~1~~ S.E. "Pierce"; thence N. 21 degrees 30 minutes E. for 160.29 chains to the northerly line of said town and post in stones marked, S.W. "Pingree ~~1~~", S.E. "P. Lot 1929", N. "T. L."; thence easterly along the northerly line of said town for 61.19 chains to the point of beginning; containing a part of Section 2 according to Prentiss & Carlisle Co. Survey of 1929.

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b) A one-half (1/2) interest in common and undivided in and to the following parcel of land set off to the St. John Land Co. in Township 15, Range 14:

Beginning at the northeast corner of Township Number Fifteen (14) Range Fourteen (14); thence southerly along the easterly line of said town for 108.15 chains to post in stones marked, N. E. "S. J. L. Co. ~~Ⓢ~~", N.W. "S. J. L. Co. 1929", S.E. "Peirce", S. W. "Peirce"; thence N. 68 degrees 30 minutes W. for 159.61 chains to post marked, N. "S. J. L. Co. ~~Ⓢ~~", S. Peirce"; thence same course for 47.46 chains to cedar tree marked, W. "P. Lot ↔", N.E. "S. J. L. Co. ~~Ⓢ~~", S.E. "Peirce 1929"; thence N. 21 degrees 30 minutes E. for 110.65 chains to the northerly line of said town and post in stones marked, S.E. "S. J. L. Co. 1929", S.W. "P. Lot ~~Ⓢ~~" N. "1929 T. L. "; thence easterly along the northerly line of said town for 209.54 chains to the northeast corner of said town and the point of beginning; containing portions of Sections 2 and 3 according to Prentiss & Carlisle Co. Survey of 1929 and containing two thousand two hundred twenty-eight (2228) acres, more or less.

For source of title see deed from Blin W. Page to Irving Pulp & Paper, Limited, dated December 7, 1963, and recorded in Book 319, Page 5, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-first (T15 R14):

The following described lots or tracts of land commonly known as the Pierce Block situated in Township Fifteen (15) in Range numbered Fourteen (14) west from east line of the State of Maine (T. 15, R. 14, W.E.L.S.) County of Aroostook:

All that tract in the East Central part of said T. 15, R. 14 described as follows: Beginning at a point on the easterly line of said Township Number Fifteen (15), Range Fourteen (14), 108.15 chains southerly along said easterly line, from the northeast corner of said Town, and at a post in stones marked, N. E. "S. J. L. Co. ~~Ⓢ~~", N. W. "S. J. L. Co. 1929", S. E. "Peirce", S. W. "Peirce"; thence, Southerly along the easterly line of said Town for 132.00 chains to post marked, N. E. "Peirce"; N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn ~~Ⓢ~~"; thence, N. 68 degrees 30 minutes W. for 158.67 chains to post marked, N. "Peirce ↔", S. "Dunn 1929"; thence same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce ~~Ⓢ~~", S. E. "Dunn 1929"; thence N. 21 degrees 30 minutes E. for 80.86 chains to post marked W. "Pingree 1929"; N. E. "P. Lot ~~Ⓢ~~", S. E. "Peirce"; thence S. 68 degrees 50 minutes E. for 63.39 chains to post and stones marked, N. W. "P. Lot 1929", S. E. "Peirce ~~Ⓢ~~", N. E. "Peirce"; thence N. 21 degrees 30 minutes E. for 49.64 chains to cedar tree marked, W. "P. Lot ↔", N. E. "S. J. L. Co. ~~Ⓢ~~", S. E. "Peirce 1929"; thence S. 68 degrees 30 minutes E. for 47.46 chains to post marked, "N. S. J. L. Co. ~~Ⓢ~~", S. "Peirce"; thence same course for 159.61 chains to the easterly line of said Town and point of beginning; containing portions of Sections 2, 3, 5 and 6 according to Prentiss & Carlisle Co. survey of 1929 and containing three thousand one

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hundred eighty-four (3,184) acres; more or less. For Grantor's source of title reference may be had to the following deeds: (1) Eastern Trust & Banking Company and Ada Peirce McCormick, Trustees under the Will of Mellon C. Peirce to Great Northern Paper Company dated April 17, 1945 recorded in Aroostook County Registry of Deeds, Northern District, Book 216, Page 523; (2) Hayford Peirce to Great Northern Paper Company dated April 17, 1945 recorded in Aroostook County Registry of Deeds, Northern District, Book 216, Page 527; (3) Merchants National Bank of Bangor, Trustee under Trust Indenture from Waldo Peirce and Ivy Troutman Peirce, to Great Northern Paper Company dated April 17, 1945 recorded in Aroostook County Registry of Deeds, Northern District, Book 216, Page 531; (4) Ada Peirce McCormick to Great Northern Paper Company dated April 17, 1945 recorded in Aroostook County Registry of Deeds, Northern District, Book 216, Page 534; and (5) Eastern Trust and Banking Company, Trustee under the Will of Mellon C. Peirce, to Great Northern Paper Company dated April 17, 1945 recorded in Aroostook County Registry of Deeds, Northern District, Book 216, Page 538. Grantor's title being directly derived from the first parcel described in deed of Great Northern Nekoosa Corporation (formerly Great Northern Paper Company) dated June 15, 1979 and recorded in said Registry of Deeds in Book 380, Page 172.

For source of title reference see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-second (T15 R14):

A 93/4,870 common and undivided interest in the Dunn block, so called, described as follows:

Beginning at the southeast corner of Township Number Fifteen Range Fourteen; Thence: northerly along the easterly line of said town for 245.55 chains to post marked, N. E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn"; Thence: N 68 degrees 30 minutes W for 158.67 chains to post marked, N. "Peirce", S. "Dunn 1929"; Thence: Same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce", S. E. "Dunn 1929", thence: S 21 degrees 30 minutes W for 79.40 chains to post marked, N. E. "Dunn 1929", S. W. "Pingree", S. E. "Dunn"; Thence: Same course for 6.10 chains, more or less, to the center of Five Mile Brook (there being a post in stones on the northerly bank of said brook marked, W. "Pingree", E. "Dunn 1929"); Thence Easterly following the center line of said brook to its intersection with the Big Black River; Thence: Southerly following the center line of the Big Black River to its intersection with the southerly line of said town; Thence: Easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. Survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

For source of title see parcel one of a deed **Book 150 PG 231** from Prentiss & Carlisle Co., Inc., et al., to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-third (T15 R14):

A 93/19,480 common and undivided interest in the Dunn block, so called, described as follows:

Beginning at the southeast corner of Township Number Fifteen Range Fourteen; Thence: northerly along the easterly line of said town for 245.55 chains to post marked, N. E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn ___"; Thence: N 68 degrees 30 minutes W for 158.67 chains to post marked, N. "Peirce ___", S. "Dunn 1929"; Thence: Same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce ___", S. E. "Dunn 1929", thence: S 21 degrees 30 minutes W for 79.40 chains to post marked, N. E. "Dunn 1929", S. W. "Pingree ___", S.E. "Dunn"; Thence: Same course for 6.10 chains, more or less, to the center of Five Mile Brook (there being a post in stones on the northerly bank of said brook marked, W. "Pingree ___", E. "Dunn 1929"; Thence Easterly following the center line of said brook to its intersection with the Big Black River; Thence: Southerly following the center line of the Big Black River to its intersection with the southerly line of said town; Thence: Easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. Survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

For source of title see parcel 14 of a deed from Prentiss & Carlisle Co., Inc., et al., to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-fourth (T15 R14):

A 176/16,640 in common and undivided interest, in the Dunn block, so called, located in T15, R14, W.E.L.S., described as follows:

Beginning at the southeast corner of Township Number Fifteen Range Fourteen; Thence: northerly along the easterly line of said town for 245.55 chains to post marked, N. E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn ___"; Thence: N 68 degrees 30 minutes W for 158.67 chains to post marked, N. "Peirce ___", S. "Dunn 1929"; Thence: Same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce ___", S. E. "Dunn 1929", thence: S 21 degrees 30 minutes W for 79.40 chains to post marked, N. E. "Dunn 1929", S. W. "Pingree ___", S.E. "Dunn"; Thence: Same course for 6.10 chains, more or less, to the center of Five Mile Brook

(there being a post in stones on the northerly bank of said brook marked, W. "Pingree", E. "Dunn 1929"; Thence Easterly following the center line of said brook to its intersection with the Big Black River; Thence: Southerly following the center line of the Big Black River to its intersection with the southerly line of said town; Thence: Easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. Survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

For source of title see parcel 20 of a deed from Prentiss & Carlisle Co., Inc., and others dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-fifth (T15 R14):

a) A five-twelfths of two hundred seventy nine-nineteen thousand four hundred eightieths (5/12 of 279/19480) interest in common and undivided of the Dunn Block in Township Fifteen, Range Fourteen (T15 R14) W.E.L.S. as set off to J. Hopkins Smith and others by Judgment for Partition of the Supreme Judicial Court for Aroostook County at the November Term, 1929 and therein described as follows:

Beginning at the southeast corner of Township Fifteen, Range Fourteen (T15 R14); thence north sixty-eight degrees thirty minutes west (N 68° 30' W) one hundred fifty-eight and sixty-seven hundredths (158.67) chains to a post; thence same course one hundred nine and five one hundredths (109.05) chains to a post; thence south twenty-one degrees thirty minutes west (S 21° 30' W) seventy-nine and forty hundredths (79.40) chains to a post; thence same course six and ten one hundredths chains (6.10) to the center line of Five Mile Brook; thence easterly following said brook to its intersection with the Big Black River; thence southerly following the center line of the Big Black River to its intersection with the southerly line of said town; thence easterly two hundred seventy-five and sixty-four hundredths (275.64) chains more or less from the center line of said river to the southeast corner of said town and place of beginning, containing six thousand four hundred nineteen (6,419) acres more or less. The total acreage hereby conveyed based on said above common and undivided interests is approximately 38.31 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Herbert E. Locke dated July 1, 1942 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 188, Page 465.

b) Eight hundred thirty-seven (837) Fifteen thousand five hundred eighty-fourths (15584) in common and undivided of that portion of Township Fifteen (15), Range Fourteen (14) W.E.L.S. set off to Geo. B. Dunn, et als. The total acreage hereby

conveyed based on said above common and undivided interests is approximately 344.76 acres. No interest in the public lots involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Grover C. Bradford dated June 25, 1943 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 195, Page 1.

c) Two hundred seventy-nine (279) Fifteen thousand five hundred eighty-fourths (15584) in common and undivided of that portion of Township Fifteen (15), Range Fourteen (14) W.E.L.S. set off to Geo. B. Dunn, et als. The total acreage hereby conveyed based on said common and undivided interests is approximately 114.92 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Grover C. Bradford dated July 21, 1943 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 195, Page 55.

d) The following described lot or tract of land, known as the Dunn Block, situated in Township Fifteen (15) in Range numbered Fourteen (14) west from the east line of the State of Maine (T15 R14 W.E.L.S.) County of Aroostook:

One thousand three hundred ninety-five Fifteen thousand five hundred eighty-fourths (1395/15584) in common and undivided of a tract of land in the South East part of said T15 R14 described as follows:

Beginning at the southeast corner of Township Number Fifteen (15) Range Fourteen (14); thence northerly along the easterly line of said Town for 245.55 chains to post marked N.E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn ~~1929~~"; thence N 68 degrees 30 minutes W for 158.67 chains to post marked N. "Peirce ~~↔~~", S. "Dunn 1929"; thence same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce ~~↔~~", S. E. "Dunn 1929"; thence S 21 degrees 30 minutes W for 79.40 chains to post marked N. E. "Dunn 1929", S. W. Pingree ~~↔~~", S. E. "Dunn"; thence same course for 6.10 chains, more or less, to the center line of Five Mile Brook (there being a post in stones on the northerly bank of said brook marked, W. "Pingree ~~↔~~", E. "Dunn 1929"); thence easterly following the center line of said brook to its intersection with the Big Black River; thence southerly following the center line of the Big Black River to its intersection with the southerly line of said town; thence easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said Town and the point of beginning, containing all of Section 9 and portions of Sections 5, 6, and 8 according to the Prentiss & Carlisle Co. survey of 1929; the acreage hereby conveyed in Parcel Second is 574.59 acres, more or less. For Grantor's source of title reference may be had to the following deeds: (1) Merrill Mortgage Company to Great Northern Paper Company dated February 13, 1937 recorded in Aroostook County Registry of Deeds, Northern District, Book 158, Page 352; and (2) Prentiss & Carlisle Company, Incorporated to Great Northern Paper Company dated April 20, 1937 recorded in

Aroostook County Registry of Deeds, Northern District, Book 166, Page 542. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Great Northern Nekoosa Corporation dated June 15, 1970 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 380, Page 172.

e) 1/3 of 52/487 in common and undivided of Township 15, Range 14 W.E.L.S., heretofore set off by Commissioners to Dunn, et als. in 1929, said fractional part of said specified tract containing, exclusive of the Public Lot two hundred twenty-eight and forty-seven hundredths (228.47) acres, more or less. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired this interest by deed of Dorothy Watt, Ancillary Executrix of the Will of Sada Coe Robinson dated June 30, 1980 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 527, Page 333.

f) 1/3 of 52/487 in common and undivided of Township 15, Range 14 W.E.L.S., heretofore set off by Commissioners to Dunn, et als. in 1929, said fractional part of said specified tract containing, exclusive of the Public Lot two hundred twenty-eight and forty-seven hundredths (228.47) acres, more or less. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired this interest by deed of the President and Trustees of Bowdoin College dated 1980 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 527, Page 346.

g) All of the interest of J. M. Huber Corporation, in common and undivided, in certain premises described below in Township 15, Range 14 W.E.L.S. (Dunn Block), which premises contains approximately 6,419 acres. Marjorie Dunn (Fernald) and Myrtie H. D. Rogers each having inherited 1/15ths of 93/1664ths interest in said premises from their father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division), Docket 6, Page 211. Said premises hereby conveyed in Township 15, Range 14 W.E.L.S., being more particularly described as follows:

Beginning at the southeast corner of Township Number Fifteen Range Fourteen; thence northerly along the easterly line of said town for 245.55 chains to post marked N.E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn ~~⊥~~"; thence N 68 degrees 30 minutes W for 158.67 chains to post marked N "Peirce ↔", S. "Dunn 1929"; thence same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce ~~⊥~~", S. E. "Dunn 1929"; thence S 21 degrees 30 minutes W for 79.40 chains to post marked, N. E. "Dunn 1929", S. W. "Pingree ~~⊥~~", S. E. "Dunn"; thence same course for 6.10 chains, more or less, to the center line of Five Mile Brook (there being a post in stones on the northerly bank of said brook marked W "Pingree

±", E "Dunn 1929"; thence easterly following the center line of said brook to its intersection with the Big Black River; thence southerly following the center line of the Big Black River to its intersection with the southerly line of said town; thence easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

Marjorie Dunn Fernald, Myrtie H. D. Rogers, et als., interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated November 12, 1929, and a copy of the partition including Final Judgment being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 123, Page 534.

Marjorie Dunn (Fernald) acquired 3/16ths interest of the interest of her sister, Myrtie H. D. Rogers, in said premises by deed dated July 3, 1948 and recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald, who died October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division), Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 109.18 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Jane Fernald Boyd dated May 5, 1985 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 646, Page 58, and by deed of Jane Fernald Boyd in her capacity as personal representative of the estate of Marjorie Dunn Fernald dated May 5, 1985 and recorded in said Registry in Book 646, Page 73.

h) All of the right, title and interest of J. M. Huber Corporation acquired by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56, in common and undivided, in certain premises described below in Township 15, Range 14 W.E.L.S. (Dunn Block), which premises contains a minimum of 6,419 acres. Said premises hereby conveyed in Township 15, Range 14 W.E.L.S., being more particularly described as follows:

Beginning at the southeast corner of Township Number Fifteen Range Fourteen; thence northerly along the easterly line of said town for 245.55 chains to post marked N.E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn ±"; thence N 68 degrees 30 minutes W for 158.67 chains to post marked N "Peirce ↔", S. "Dunn 1929"; thence same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce ±", S. E. "Dunn 1929"; thence S 21 degrees 30 minutes W for 79.40 chains to post marked, N. E. "Dunn 1929", S. W. "Pingree ±", S. E. "Dunn"; thence

same course for 6.10 chains, more or less, to the center line of Five Mile Brook (there being a post in stones on the northerly bank of said brook marked W "Pingree ~~P~~", E "Dunn 1929"; thence easterly following the center line of said brook to its intersection with the Big Black River; thence southerly following the center line of the Big Black River to its intersection with the southerly line of said town; thence easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

Natalie M. Daggett, et als. interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated November 12, 1929, and a copy of the partition including Final Judgment being recorded in said Registry in Book 123, Page 534.

The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 137.90 acres. No interest in the public lot is involved in this conveyance.

i) A .2018230 common and undivided interest, being 201.82 unlocated acres, more or less, in the 1,000 acre public lot in Township 15, Range 14 W.E.L.S., which public lot is located on the ground.

J. M. Huber having acquired these interests by deed from the State of Maine dated November 15, 1976 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 445, Page 230.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, by deed dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-sixth (T15 R14):

1/3 of 52/487 in common and undivided of Township 15, Range 14, W.E.L.S., heretofore set off by Commissioners to Dunn et als in 1929, said fractional part of said specified tract containing, exclusive the Public Lot, two hundred twenty-eight and forty-seven hundredths (228.47) acres, more or less.

For source of title see deed from Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated September 8, 1990, and recorded in Book 816, Page 349, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-seventh (T15 R14):

Seven hundred and ninety-eight (798) acres, more or less, in common and undivided in the 1,000 acre public lot in Township 15, Range 14 WELS, said public lot bounded and described as follows:

Beginning on the northerly line of Township 15, Range 14 WELS at a point 206.34 chains westerly, along said line, from the Northeast corner of said town and at post in stones marked, S.W. "P.L. 1929", S.E. "St. J.L. Co.", witnessed "1929 3"; Thence: S. 21 degrees 10 minutes W. for 160.29 chains to post in stones marked, N.W. "P.L. 1929", E & S. "Peirce et al" witnessed "1929 3"; Thence N. 68 degrees 50 minutes W. for 62.39 chains to post in stones marked, N.E. "P.L. 1929", S.E. "Peirce et al," W. "Pingree et al," witnessed "1929 3"; Thence: N. 21 degrees 10 minutes east for 160.29 chains to northerly line of said town and post in stones marked, S.E. "P.L.", S.W. "Pingree et al," witnessed "1929 3"; Thence: Easterly along the northerly line of said town 62.39 chains to the point of beginning; containing a part of Section 2 according to Prentiss & Carlisle Co. Survey of 1929. Reference is made to Land Office Records, Book 8, Page 72.

Hereby conveying all of the State's right, title and interest in this public lot after conveyance of two hundred and two (202) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, by deed dated October 19, 1990, and recorded in Book 821, Page 202, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-eighth (T15 R14):

A 5,859/6,136,200ths fractional interest in and to the following described land, known as the Dunn Block, which represents the equivalent of 6.13 acres out of a total acreage of 6,419 acres in said parcel: Part of Township 15, Range 14, W.E.L.S.

Beginning at the southeast corner of Township Number Fifteen Range Fourteen: Thence: northerly along the easterly line of said town for 245.55 chains to post marked, N.E. "Peirce", N.W. "Peirce", S.E. "Dunn 1929", S.W. "Dunn 2"; Thence N. 68 degrees 30 minutes W. for 158.67 chains to post marked, N. "Peirce ↔," S. "Dunn 1929"; Thence: Same course for 109.05 chains to post marked, W. "Pingree", N. E. "Peirce 2", S.E. "Dunn 1929"; Thence: S 21 Degrees 30 minutes W. for 79.40 chains to post marked, N.E. "Dunn 1929", S.W. "Pingree 2", S.E. "Dunn"; Thence: Same course for 6.10 chains, more or less, to the center line of Five Mile Brook there being a post in stones on the northerly bank of said brook marked, W. "Pingree 2", E. "Dunn 1929"; Thence Easterly following the center line of said brook to its

intersection with the Big Black River; Thence: Southerly following the center line of the Big Black River to its intersection with the southerly line of said town; Thence: Easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. Survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 134, of the Aroostook County Registry of Deeds (Northern Division).

Fifty-ninth (T15 R14):

A 5,859/136,360ths fractional interest in and to the following described land known as the Dunn Block, which represents the equivalent of 276 acres out of a total acreage of 6,419 acres in said parcel: Part of Township 15, Range 14, W.E.L.S.

Beginning at the southeast corner of Township Number Fifteen Range Fourteen; Thence: northerly along the easterly line of said town for 245.55 chains to post marked, N. E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn $\frac{1}{2}$ "; Thence N. 68 degrees 30 minutes W. for 158.67 chains to post marked, N. "Peirce \leftrightarrow ," S. Dunn 1929; Thence: Same course for 109.05 chains to post marked, W "Pingree", N. E. "Peirce $\frac{1}{2}$ ", S. E. "Dunn 1929"; Thence: S 21 degrees 30 minutes W. for 79.40 chains to post marked, N. E. "Dunn 1929", S. W. "Pingree $\frac{1}{2}$ ", S. E. "Dunn"; Thence: Same course for 6.10 chains, more or less, to the center line of Five Mile Brook there being a post in stones on the northerly bank of said brook marked, W. "Pingree $\frac{1}{2}$ ", E. "Dunn 1929"; Thence Easterly following the center line of said brook to its intersection with the Big Black River; Thence: Southerly following the center line of the Big Black River to its intersection with the southerly line of said town; Thence: Easterly for 275.64 chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. Survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the trust of Caroline D. Tyler, dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

Sixtieth (T15 R14):

A 0.005148 decimal interest in and to the following described land, known as the Dunn Block, which represents the equivalent of 33.05 acres out of a total parcel acreage of 6,419 acres, exclusive of the public lot, if any, in said parcel: Part of Township 15, Range 14, W.E.L.S.

Beginning at the southeast corner of Township Number Fifteen (15), Range Fourteen (14); thence northerly along the easterly line of said town for two hundred forty-five and fifty-five hundredths (245.55) chains to post marked, N. E. "Peirce", N. W. "Peirce", S. E. "Dunn 1929", S. W. "Dunn $\frac{1}{2}$ "; Thence: North sixty-eight degrees thirty minutes West (N 68° 30' W) for one hundred fifty-eight and sixty-seven hundredths (158.67) chains to post marked, N. "Peirce ↔", S. "Dunn 1929"; Thence: Same course for one hundred nine and five hundredths (109.05) chains to post marked, W. "Pingree", N. \swarrow "Peirce $\frac{1}{2}$ ", S. E. "Dunn 1929"; Thence: South twenty-one degrees thirty minutes West (S 21° 30' W) for seventy-nine and forty hundredths (79.40) chains to post marked, N. E. "Dunn 1929", S. W. "Pingree $\frac{1}{2}$ ", S. E. "Dunn"; Thence: Same course for six and ten hundredths (6.10) chains, more or less, to the center line of Five Mile Brook there being a post in stones on the northerly bank of said brook marked, W. "Pingree $\frac{1}{2}$ ", E. "Dunn 1929"; Thence: Easterly following the center line of said brook to its intersection with the Big Black River; Thence: Southerly following the center line of the Big Black River to its intersection with the southerly line of said town; Thence: Easterly for two hundred seventy-five and sixty-four hundredths (275.64) chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to Prentiss & Carlisle Co. Survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

For source title see deed from Fraser Paper Limited to Irving Pulp & Paper, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-first (T15 R14):

A 0.005148 decimal interest in and to the following described land, known as the Dunn Block, which represents the equivalent of 33.05 acres out of a total parcel acreage of 6,419 acres, exclusive of the public lot, if any, in said parcel: Part of Township 15, Range 14, W.E.L.S.

Beginning at the southeast corner of Township Number Fifteen (15), Range Fourteen (14); thence northerly along the easterly line of said town for two hundred forty-five and fifty-five hundredths (245.55) chains to post marked, N. E. "Pierce", N. W. "Pierce", S. E. "Dunn 1929", S. W. "Dunn $\frac{1}{2}$ "; Thence: North sixty-eight

degrees thirty minutes West (N 68° 30' W) for one hundred fifty-eight and sixty-seven hundredths (158.67) chains to post marked, N. "Pierce ↔", S. "Dunn 1929"; Thence: Same course for one hundred nine and five hundredths (109.05) chains to post marked, W. "Pingree", N. C. "Pierce P", S.E. "Dunn 1929"; Thence: South twenty-one degrees thirty minutes West (S 21° 30' W) for seventy-nine and forty hundredths (79.40) chains to post marked, N. E. "Dunn 1929", S. W. Pingree P", S. E. "Dunn"; Thence: Same course for six and ten hundredths (6.10) chains, more or less, to the center line of Five Mile Brook there being a post in stones on the northerly bank of said brook marked, W. "Pingree P", E. "Dunn 1929"; Thence: Easterly following the center line of said brook to its intersection with the Big Black River; Thence: Southerly following the center line of the Big Black River to its intersection with the southerly line of said town; Thence: Easterly for two hundred seventy-five and sixty-four hundredths (275.64) chains, more or less, from the center line of said river to the southeast corner of said town and the point of beginning; containing all of Section 9 and portions of Sections 5, 6 and 8 according to the Prentiss & Carlisle Co. Survey of 1929 and containing six thousand four hundred nineteen (6,419) acres, more or less.

For source of title see deed from Fraser Papers Inc., to Irving Pulp & Paper, Limited, dated December 10, 1996, and recorded in Book 1093, Page 326, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-second (T15 R8):

1/3 of 1/96 in common and undivided of the south one-half of Township 15, Range 8, W.E.L.S., said fractional part containing, exclusive of the Public Lot, thirty-seven and five hundredths (37.05) acres, more or less.

For source of title see deed from Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated September 8, 1990, and recorded in Book 816, Page 349, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-third (T16 R12):

a) All of the following "special tract", described as follows:

Beginning on the north line of said Township at a point 152.00 chains westerly of the northeast corner thereof, being the northwest corner of the tract allocated to the International Paper Co. September 13, 1943 in Partition Deed recorded in Book 198, Page 117, and at a cedar post, set with stones and marked "G.N.P. Co. - 1942, T16, R12 ↔ I.P. Co. 3 T17 R12 ↔" witnessed "3 1942"; thence about N. 68 degrees W. by and along said north line of said Township to the northeast corner of the Public Lot at a point one hundred chains easterly of the northwest corner of said Township, and at a cedar post, set with stones, marked "G.N.P. Co. 3 P. Lot-1942,

T16 R12 ↔", "T17 R12 ↔", witnessed "§ 1942"; thence S. 22 degrees W. by and along the easterly line of said Public Lot 100.30 chains to the southeast corner with the Public Lot, and a spruce post marked "Public Lot G.N.P. Co. G.N.P. Co. 1942", witnessed "§ 1942"; thence N. 68 degrees W. by and along the southerly line of said Public Lot 99.55 chains to the southwest corner thereof on the westerly line of said Township, and a cedar post, set with stones, marked "Public Lot § T16 R12 ↔ G.N.P. Co. 1942 T16 R13 ↔" witnessed "§ 1942"; thence about S. 22 degrees W. by and along said westerly line of said Township to the thread of the Saint John River; thence down the thread of said River to where said thread is intersected by the thread of the Fox Brook; thence up said thread of Fox Brook to where it is intersected by the westerly line of said International Paper Co. tract as the same is drawn S. 22 degrees W. from a point on the north line of said Township and 152.00 chains westerly of the northeast corner thereof; thence N. 22 degrees E. by and along said International Paper Co. west line passing through a cedar post, set with stones on the northeasterly bank of said Fox Brook; marked "G.N.P. Co. 1942, T16 R12 § I.P. Co.", about 179.73 chains to the point of beginning. Containing 7,433 acres, more or less.

b) Public Lot: A parcel of land in the extreme northwest corner of said Township, bounded and described as follows: Beginning at the northwest corner of said Township; thence about S. 68 degrees E. by and along the north line of Township 100.00 chains to the northeast corner of said Public Lot, and a cedar post, set with stones, marked "G.N.P. Co. § P. Lot-1942, T16 R 12 ↔, T17 R12 ↔", witnessed "1942"; thence S. 22 degrees W. 100.30 chains to the southeast corner of said lot and a spruce post marked "Public Lot G.N.P. Co. §, G.N.P. Co., - 1942", witnessed "§ 1942"; thence N. 68 degrees W., 99.55 chains to the southwest corner of said lot on the westerly line of said township, at a cedar post set with stones, marked "Public Lot § T16 R12 ↔, G.N.P. Co. 1942, T16 R12 ↔", witnessed "§ 1942"; thence about N. 22 degrees E. by and along said westerly line of said Township about 100.00 chains to the point of beginning. Containing one thousand (1,000) acres, more or less.

Being the same premises described in a deed from the State of Maine, dated November 12, 1975, and recorded in the Northern Aroostook Registry of Deeds in Book 424, Page 640 and in the Southern Aroostook Registry of Deeds in Book 1219, Page 164.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-fourth (T16 R13):

.167009 undivided interest in Township 16 Range 13 W.E.L.S Aroostook County.

For source of title see deed from Madawaska Company to Saint John Sulphite, Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-fifth (T16 R13):

Four hundred fifteen six thousand six hundred fifty-sixths (415/6656) in common and undivided of Township Numbered Sixteen (16) Range Thirteen (13), said fractional part, exclusive of the Public Lot, containing one thousand three hundred seventy-four and six hundredths (1374.06) acres more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-sixth (T16 R13):

83/4160ths of Township sixteen (16), Range thirteen (13), W.E.L.S., said fractional part containing, exclusive of the Public Lot, four hundred thirty-nine and seven tenths (429.7) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-seventh (T16 R13):

.1033 of Township Sixteen (16), Range Thirteen (13), W.E.L.S. County of Aroostook, said proportional part containing, exclusive of the Public Lots, two thousand two hundred seventy eight and seventy two hundredths (2,278.72) acres, more or less.

For source of title see deed from Eustis Pennock, et al., to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and deed from Granite Trust Company, acting executor of the last will and testament of Eustis Pennock, to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-eighth (T16 R13):

a) A five-twelfths of .033146 (5/12 of .003146) interest in common and undivided of Township 16, Range 13 (W.E.L.S.) excepting the Public Lots. Said Township exclusive of said Public Lots is believed to contain twenty-two thousand thirty-eight (22,038) acres. The total acreage hereby conveyed based on said above common and undivided interests is approximately 28.88 acres.

J. M. Huber Corporation having acquired these interests by deed of Herbert E. Locke dated July 1, 1942 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 188, Page 465.

b) Two hundred forty-nine (249) Six thousand six hundred fifty-sixths (6656) in common and undivided in Township Sixteen (16), Range Thirteen (13) W.E.L.S. The total acreage hereby conveyed based on said above common and undivided interests is approximately 824.44 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed from Grover C. Bradford dated June 25, 1943 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 195, Page 1.

c) Eighty-three (83) Six thousand six hundred fifty-sixths (6656) in common and undivided in Township Sixteen (16), Range Thirteen (13) W.E.L.S. The total acreage hereby conveyed based on said above common and undivided interests is approximately 274.81 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed from Grover C. Bradford dated July 21, 1943 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 195, Page 55.

d) A 1/15th of 249/1664ths interest and a 3/16ths of 1/15th of 249/1664ths interest, both interests in common and undivided in Township 16, Range 13 W.E.L.S., which township contains approximately 22,038 acres, exclusive of the 1,000 acre unlocated public lot. Marjorie Dunn (Fernald) having inherited a 1/15th of 249/1664ths interest in said township from her father, Elbridge G. Dunn, Jr., whose estate is administered in the Aroostook County Probate Court (Southern Division) Docket No. 6, Page 211. Marjorie Dunn (Fernald) acquired a 3/16ths of 1/15ths of 249/1664ths interest in said township from her sister, Myrtle H. D. Rogers, by deed dated July 3, 1948 recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in the Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests is approximately 261.07 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Jane Fernald Boyd dated May 5, 1985 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 646, Page 58, and by deed of Jane Fernald Boyd in her capacity as personal representative of the estate of Marjorie Dunn Fernald dated May 5, 1985 and recorded in said Registry in Book 646, Page 73.

e) (A) 83/8320ths interest, and (B) 83/16640ths interest, both interests in common and undivided of Township 16, Range 13 W.E.L.S., which township contains a minimum of 22,038 acres, exclusive of the 1,000 acre unlocated public lot. The 83/8320ths interest being acquired through the estate of Sarah E. Dunn and the 83/16640ths interest being acquired through the estates of Clara D. Mooers and Rachel M. Hunter and deed of Charles Hunter dated February 20, 1986. the total acreage hereby conveyed based on said above common and undivided interests is approximately 329.77 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation acquired these interests by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

Sixty-ninth (T16 R13):

A 1,743/2,620,800ths fractional interest in and to the following described land which represents the equivalent of 14.39 acres out of a total acreage of 21,631 acres in said parcel: Township 16, Range 13, W.E.L.S., being all of said Township, except that part thereof lying southeast of the St. John River.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

Seventieth (T17 R12):

.191946 undivided interest in Township 17 Range 12, W.E.L.S. Aroostook County.

For source of title see deed from Madawaska Company to Saint John Sulphite, Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-first (T17 R12):

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3071/6656ths of Township Seventeen (17), Range Twelve (12), W.E.L.S., said fractional part containing, exclusive of the Public Lots, ten thousand one hundred sixty-eight (10,168) acres, more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated March 28, 1952, and recorded in Book 230, Page 375, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-second (T17 R12):

83/4160ths of Township seventeen (17), Range twelve (12), W.E.L.S., said fractional part containing, exclusive of the Public Lot, four hundred thirty-nine and sixty-eight hundredths (439.68) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-third (T17 R12):

.1033 of Township seventeen (17), Range Twelve (12), W.E.L.S. County of Aroostook, said, proportional part containing, exclusive of the Public Lots, two thousand two hundred seventy six and four tenths (2,276.4) acres, more or less.

For source of title see deed from Eustis Pennock, et al., to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and a deed from Granite Trust Company, as executor of the last will and testament of Eustis Pennock, to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-fourth (T17 R12):

The following described premises owned undivided and in common with others situated in Township Seventeen (17) and Range numbered Twelve (12) west from the east line of the State of Maine (T.17, R.12, W.E.L.S.) in the County of Aroostook:

a) An interest consisting of five-twelfths (5/12) of .033147 in common and undivided of said T.17, R.12, W.E.L.S. excepting the Public Lots. Said Township exclusive of said Public Lots is believed to contain twenty-two thousand thirty-seven (22,037) acres. The said Public Lots are believed to contain one thousand (1,000) acres. Said premises hereby conveyed containing 304.35 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by deed of Herbert E.

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Locke dated July 1, 1942 and recorded in Aroostook County Registry of Deeds, Northern Division, Book 188, Page 465.

b) Two hundred forty-nine (249) six thousand six hundred fifty-sixths (6656) in common and undivided in said T.17, R.12 W.E.L.S., excepting the Public Lots. Said premises hereby conveyed containing 824.40 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated June 25, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 1.

c) Eighty-three (83) six thousand six hundred fifty-sixths (6,656) in common and undivided in said T.17, R.12, W.E.L.S. excepting the Public Lots. Said premises hereby conveyed containing 274.80 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated July 21, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 55.

d) A .0636798 in common and undivided interest being 64 unlocated acres, more or less in the 1,000 acre unlocated Public Lot in said T.17, R.12, W.E.L.S. Being a portion of the same premises conveyed to J. M. Huber Corporation by the State of Maine by deed dated November 15, 1976 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 445, Page 230.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-fifth (T17 R12):

a) a 83/24,960 common and undivided interest in the township exclusive of the public lot.

b) a 83/24,960 common and undivided interest in the township exclusive of the public lot.

For source of title see deed from Prentiss & Carlisle Co., Inc., et als., to Irving Pulp & Paper, Limited, by deed dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-sixth (T17 R12):

a) A 1/15th of 249/1664ths interest, and

a 3/16th of 1/15th of 249/1664ths interest, both interests in common and undivided in Township 17, Range 12 W.E.L.S. which township contains a minimum of 22,037 acres, exclusive of the 1,000 acre unlocated public lot.

Marjorie Dunn (Fernald) having inherited 1/15th of 249/1664ths interest in said township from her father, Elbridge G. Dunn, Jr., whose estate is administered in the Aroostook County Probate Court (Southern Division) Docket No. 6, Page 211. Marjorie Dunn (Fernald) acquired a 34/16ths of 1/15th of 249/1664ths interest in said township from her sister, Myrtie H. D. Rogers, by deed dated July 3, 1948 recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in the Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests is approximately 261.06 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Jane Fernald Boyd dated May 5, 1985 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 646, Page 58, and by deed of Jane Fernald Boyd in her capacity as personal representative of the estate of Marjorie Dunn Fernald dated May 5, 1985 and recorded in said Registry in Book 646, Page 73.

b) A 83/8320ths interest, and

a 83/16640ths interest, both interests in common and undivided of Township 17, Range 12 W.E.L.S., which township contains approximately 22,037 acres, exclusive of the 1,000 acre unlocated public lot.

The total acreage hereby conveyed based on said above common and undivided interests is approximately 329.76 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation acquired these interests by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-seventh (T17 R12):

Nine hundred and thirty-six (936) acres, in common and undivided, in and to Township 17, Range 12 WELS hereby conveying all of the State's right, title and

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interest in and to the 1,000 acre unlocated public lot in said township remaining after conveyance of sixty-four (64) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, dated December 30, 1988, and recorded in Book 821, Page 196, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-eighth (T17 R12):

A 1,743/2,620,800ths fractional interest in and to the following described land which represents the equivalent of 14.66 acres out of a total acreage of 22,037 acres in said parcel: Township 17, Range 12, W.E.L.S.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

Seventy-ninth (T17 R12):

A 249/8,320ths fractional interest in and to the following described land which represents the equivalent of 660 acres out of a total acreage of 22,037 acres in said parcel: Township 17, Range 12, W.E.L.S.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the trust of Caroline D. Tyler, dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

Eightieth (T17 R12):

A 0.003586 decimal interest in and to the following described land which represents the equivalent of 79.04 acres out of a total parcel acreage of 22,037 acres, exclusive of the public lot, if any, in said parcel: Township 17, Range 12, W.E.L.S.

For source title see deed from Fraser Paper Limited to Irving Pulp & Paper, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

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Eighty-second (T17 R13):

.166991 undivided interest in Township 17 Range 13 W.E.L.S., Aroostook County.

For source of title see deed from Madawaska Company to Saint John Sulphite, Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of the Aroostook County Registry of Deeds (Northern Division).

Eighty-third (T17 R13):

3071/6656ths of Township Seventeen (17), Range Thirteen (13), W.E.L.S., Aroostook County, said fractional part containing, exclusive of the Public Lots, ten thousand two hundred eighty-eight (10,288) acres, more or less.

For source of title see deed from Leonard P. Pierce, et al., to Irving Pulp & Paper, Limited, dated March 28, 1952, and recorded in Book 253, Page 199, of the Aroostook County Registry of Deeds (Northern Division).

Eighty-fourth (T17 R13):

83/4160ths of Township seventeen (17), Range thirteen (13), W.E.L.S., said fractional part containing, exclusive of the Public Lot, four hundred forty-four and ninety hundredths (444.90) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division).

Eighty-fifth (T17 R13):

.1033 of Township Seventeen (17), Range Thirteen (13), W.E.L.S. County of Aroostook, said proportional part containing, exclusive of the Public Lots, two thousand three hundred five and seventy two hundredths (2,305.72) acres, more or less.

For source of title see deed from Eustis Pennock, et al., to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and a deed from Granite Trust Company, as executor of the last will and testament of Eustis Pennock, to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

Eighty-sixth (T17 R13):

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The following described premises owned undivided and in common with others situated in Township Seventeen (17) and Range numbered Thirteen (13) west from the east line of the State of Maine (T.17, R.13, W.E.L.S.) in the County of Aroostook:

- a) An interest consisting of five-twelfths (5/12) of an interest which reduced to decimal fractions is .033121 in common and undivided of said T.17, R.13, W.E.L.S., excepting the Public Lots. Said Township exclusive of said Public Lots is believed to contain twenty-two thousand two hundred ninety-nine (22,299) acres. The Said Public Lots are believed to contain one thousand (1,000) acres. Said premises hereby conveyed containing 307.73 acres, more or less, being a portion of the same premises conveyed to J. M. Huber Corporation by deed of Herbert E. Locke dated July 1, 1942 and recorded in Aroostook County Registry of Deeds, Northern Division, Book 188, Page 465.
- b) Two hundred forty-nine (249) six thousand six hundred fifty-sixths (6,656) in common and undivided in said T.17, R.13, W.E.L.S. excepting the Public Lots. Said premises hereby conveyed containing 834.20 acres, more or less and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated June 25, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 1.
- c) Eighty-three (83) six thousand six hundred fifty-sixths (6,656) in common and undivided in T.17, R.13, W.E.L.S., excepting the Public Lots. Said premises hereby conveyed containing 278.06 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated July 21, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 55.
- d) A .0636798 common and undivided interest, being 64 unlocated acres, more or less in the 1,000 acre unlocated Public Lot in said T.17, R.13 W.E.L.S. Being a portion of the same premises conveyed to J. M. Huber Corporation by the State of Maine by deed dated November 15, 1976 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 445, Page 230.

For source of title see deed from J. M. Huber corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, and recorded in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

Eighty-seventh (T17 R13):

- a) a 83/24,960 common and undivided interest in the township exclusive of the public lot.
- b) a 83/24,960 common and undivided interest in the township exclusive of the public lot.

BK 1150PG251

For source of title see deed of Prentiss & Carlisle Co., Inc., et als., to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

Eighty-eighth (T17 R13):

a) A 1/15th of 249/1664ths interest and

3/16ths of 1/15th of 249/1664ths interest, both interests in common and undivided in Township 17, Range 13 W.E.L.S., which township contains a minimum of 22,299 acres, exclusive of the 1,000 acre unlocated public lot.

Marjorie Dunn (Fernald) having inherited a 1/15ths of 249/1664ths interest in said premises from her father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division) Docket No. 6, Page 211. Marjorie Dunn (Fernald) acquired a 3/16ths of 1/15th of 249/1664ths interest in said township from her sister, Myrtie H. D. Rogers, by deed dated July 3, 1948 recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests is approximately 264.16 acres. No interest in the public lot is involved in this conveyance.

b) A 83/8320ths interest, and

a 83/16640ths interest, both interests in common and undivided of Township 17, Range 13 W.E.L.S., which township contains a minimum of 22,299 acres, exclusive of the 1,000 acre unlocated public lot.

The 83/8320ths interest being acquired through the estate of Sarah E. Dunn and the 83/16640ths interest being acquired through the estates of Clara D. Mooers and Rachel M. Hunter and deed of Charles Hunter dated February 20, 1986. The total acreage hereby conveyed based on said above common and undivided interests is approximately 333.68 acres. No interest in the public lot is involved in this conveyance.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

Eighty-ninth (T17 R13):

BK 1150PG252

Nine hundred and thirty-six (936) acres, in common and undivided, in and to Township 17, Range 13 WELS, hereby conveying all of the State's right, title and interest in and to the 1,000 acre unlocated public lot in said township remaining after conveyance of sixty-four (64) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp Paper, Limited, by deed dated October 19, 1990, and recorded in Book 821, Page 202, of the Aroostook County Registry of Deeds (Northern Division).

Ninetieth (T17 R13):

A 1,743/2,620,800 fractional interest in and to the following described land which represents the equivalent of 14.83 acres out of a total acreage of 22,299 acres in said parcel: Township 17, Range 13, W.E.L.S.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

Ninety-first (T17 R13):

A 249/8,320 fractional interest in and to the following described land which represents the equivalent of 667 acres out of a total acreage of 22,299 acres in said parcel: Township 17, Range 13, W.E.L.S.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the trust of Caroline D. Tyler, dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

Ninety-second (T17 R13):

A 0.003586 decimal interest in and to the following described land which represents the equivalent of 79.98 acres out of a total parcel acreage of 22,299 acres, exclusive of the public lot, if any, in said parcel:

Township 17, Range 13, W.E.L.S.

BK 1150PG253

For source title see deed from Fraser Paper Limited to Irving Pulp & Paper, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

See also the corrective deed of Fraser's Paper, Inc. (formerly Fraser Paper Limited) to Irving Pulp & Paper, Limited dated December 10, 1997 and recorded in Book 1093, Page 326, and recorded in the Aroostook County Registry of Deeds (Northern Division).

Ninety-third (T17 R14):

.3557 undivided interest in Township 17 Range 14 W.E.L.S., Aroostook County.

For source of title see deed from Madawaska Company to Saint John Sulphite, Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of the Aroostook County Registry of Deeds (Northern Division).

Ninety-fourth (T17 R14):

1147/6656ths of Township Seventeen (17), Range Fourteen (14), W.E.L.S. Aroostook County, said fractional part containing, exclusive of the Public Lots, two thousand two hundred eighty-six (2,286) acres, more or less.

For source of title see deed from Leonard A. Pierce, et al, to Irving Pulp & Paper, Limited, dated March 28, 1952, and recorded in Book 253, Page 199, of the Aroostook County Registry of Deeds (Northern Division).

Ninety-fifth (T17 R14):

31/4160ths of Township seventeen (17), Range fourteen (14), W.E.L.S. said fractional part containing, exclusive of the Public Lot, ninety-eight and eighty-four hundredths (98.84) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division).

Ninety-sixth (T17 R14):

.079 of Township Seventeen (17), Range Fourteen (14), W.E.L.S. County of Aroostook, said proportional part containing, exclusive of the Public Lots, one thousand forty seven and ninety four hundredths (1,047.94) acres, more or less.

BK 1150PG254

For source of title see deed from Eustis Pennock, et al., to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and a deed from the Granite Trust Company, executor of will of Eustis Pennock, to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

Ninety-seventh (T17 R14):

The following described premises owned undivided and in common with others situated in Township Seventeen (17) and Range numbered Fourteen (14) west from the east line of the State of Maine (T.17, R.14, W.E.L.S.) in the County of Aroostook:

a) A five-twelfths of .290721 (5/12 of .290721) interest in common and undivided of said T.17, R.14, W.E.L.S., excepting the Public Lots. Said Township exclusive of said Public Lots is believed to contain thirteen thousand two hundred sixty-five (13,265) acres. The said Public Lots are believed to contain eight hundred seventy-five (875) acres. Said premises hereby conveyed containing 1606.83 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by deed of Herbert E. Locke dated July 1, 1942 and recorded in Aroostook County Registry of Deeds, Northern Division Book 188, Page 465.

b) Ninety-three (93) six thousand six hundred fifty-sixths (6,656) in common and undivided of said T.17, R.14, W.E.L.S. excepting the Public Lots. Said premises hereby conveyed containing 185.34 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated June 25, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 1.

c) Thirty-one (31) six thousand six hundred fifty-sixths (6,656) in common and undivided of T.17, R.14, W.E.L.S., excepting the Public Lots. Said premises hereby conveyed containing 61.78 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated July 21, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 55.

d) A .1254583 common and undivided interest being 110 unlocated acres, more or less, in the 875 acre unlocated Public Lot in said T.17, R. 14, W.E.L.S. Being a portion of the same premises conveyed to J. M. Huber Corporation by the State of Maine by deed dated November 15, 1976 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 445, Page 230.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

BK 1150PG255

Ninety-eighth (T17 R14):

Consisting of 2487/14140 interest in common and undivided of Township 17, Range 14, containing 2487 acres, more or less, excepting any interest in the unlocated public lot in Township 17, Range 14, W.E.L.S.

For source of title see deed from Augustus P. Loring, et al., to Irving Pulp & Paper, Limited, dated February 22, 1983, and recorded in Book 588, Page 45, of the Aroostook County Registry of Deeds (Northern Division).

Ninety-ninth (T17 R14):

The following in common and undivided interests:

- a) A 31/24,960 common and undivided interest in the township exclusive of the public lot, conveyed by Prentiss & Carlisle Co., Inc.
- b) A 31/24,960 common and undivided interest in the township exclusive of the public lot, conveyed by McCrillis Timberland Inc.

For source of title see deed from Prentiss & Carlisle Co., Inc. and McCrillis Timberland Inc. to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

One Hundredth (T17 R14):

- a) A 1/15ths of 93/1664ths interest and a 3/16ths of 1/15th of 93/1664ths interest, both interests in common and undivided in Township 17, Range 14 W.E.L.S., which premises contain approximately 13,265 acres, exclusive of the 875 acre unlocated public lot.

Marjorie Dunn (Fernald) having inherited a 1/15th of 93/1664ths interest in said township from her father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate (Southern Division) Docket No. 6, Page 211. Marjorie Dunn (Fernald) acquired a 3/16ths of 1/15th of 93/1664ths interest in said township from her sister, Myrtie H. D. Rogers by deed dated July 3, 1948 recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400. The total acreage hereby

BK 1150PG256

conveyed based on said above common and undivided interests is approximately 58.69 acres. No interest in the public lot is involved in this conveyance.

b) A 31/8320ths interest, and a

31/16640ths interest, both interests in common and undivided of Township 17, Range 14 W.E.L.S., which premises contain approximately 13,265 acres, exclusive of the 875 acre unlocated public lot.

The 31/8320ths interest being acquired through the estate of Sarah E. Dunn and the 31/16640ths interest being acquired through the estates of Clara D. Mooers and Rachel M. Hunter and deed of Charles Hunter dated February 20, 1986. The total acreage hereby conveyed based on said above common and undivided interests is approximately 74.14 acres. No interest in the public lot is involved in this conveyance.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred First (T17 R14):

Seven hundred and sixty-five (765) acres, in common and undivided, in and to Township 17, Range 14 WELS, hereby conveying all of the State's right, title and interest in and to the 875 acre unlocated public lot in said township remaining after conveyance of one hundred and ten (11) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, dated October 19, 1990, and recorded in Book 821, Page 202 of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Second (T17 R14):

A 651/2,620,800ths fractional interest in and to the following described land which represents the equivalent of 3.30 acres out of a total acreage of 13,256 acres in said parcel: Township 17, Range 14, W.E.L.S.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Third (T17 R14):

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BK 1150PG257

A 93/8320ths fractional interest in and to the following described land which represents the equivalent of 148 acres out of a total acreage of 13,265 acres in said parcel: Township 17, Range 14, W.E.L.S.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the trust of Caroline D. Tyler, dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241 to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fourth (T17 R14):

A 0.001339 decimal interest in and to the following described land which represents the equivalent of 17.77 acres out of a total parcel acreage of 13,265 acres, exclusive of the public lot, if any, in said parcel: Township 17, Range 14, W.E.L.S.

For source title see deed from Fraser Paper Limited to Irving Pulp & Paper, Limited, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

See also the corrective deed of Fraser's Paper, Inc. (formerly Fraser Paper Limited) to Irving Pulp & Paper, Limited dated December 10, 1997 and recorded in Book 1093, Page 326, and recorded in the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifth (T17 R3):

a) A certain tract of land situated in Township 17 Range 3 W.E.L.S. (T17 R3), County of Aroostook and State of Maine, described as follows:

A 4,077/4,160ths interest in common and undivided of the north one-half of Township 17 Range 3.

b) A certain tract of land situated in Township 17 Range 3 W.E.L.S. (T17 R3), County of Aroostook and State of Maine, described as follows:

A 9/10ths interest in common and undivided of the south one-half of Township 17 Range 3.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixth (T17 R3):

The following described parcel of land in Township Seventeen, Range Three (T17, R3) W.E.L.S. in the County of Aroostook and State of Maine:

One eightieth (1/80) in common and undivided of the south half (S 1/2) of Township Seventeen (17), Range Three (3) W.E.L.S. The interest in the above-described premises herein conveyed to the grantee contains approximately one hundred twenty-nine (129) acres.

For source of title see deed from Moosehead Manufacturing Co., to Irving Pulp & Paper, Ltd., dated December 28, 1990, and recorded in Book 826, Page 251, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventh (T17 R3):

(a) A 83/66,560 in common and undivided interest in land situated in Township Seventeen, Range Three, W.E.L.S., County of Aroostook, State of Maine:

The north one-half (N1/2) of Township Seventeen (17), Range Three (3).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

SUBJECT to a lease of a portion of said lot by Virginia H. Ahern, et als. to Jackie Pelletier dated June 19, 1981, recorded in the Northern Aroostook Registry of Deeds in Book 547, Page 97.

(b) a 1/160 in common and undivided interest in land situated in Township Seventeen, Range Three, County of Aroostook, State of Maine:

The South one-half (S1/2) of Township Seventeen (17), Range Three (3).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

EXCEPTING from the south one-half of Township 17, Range 3 several parcels conveyed to the Bangor & Aroostook Railroad Co. by two deeds, dated June 18,

1900, recorded in Northern Aroostook Registry in Book 40, Page 48, and May 27, 1907, recorded in said Registry in Book 53, Page 175, containing in all 70.82 acres.

EXCEPTING from the foregoing lots and interests any rights released to the State of Maine by Release Deed dated July 31, 1985, recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

For source of title see deed of Desert State Life Management Services as conservator for Thomas Ahern, III to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 245, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighth (T17 R3):

(a) a 83/66,560 in common and undivided interest in land situated in Township Seventeen, Range Three, W.E.L.S., County of Aroostook, State of Maine:

The north one-half (N1/2) of Township Seventeen (17), Range Three (3).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

SUBJECT to a lease of a portion of said lot by Virginia H. Ahern, et als. to Jackie Pelletier dated June 19, 1981, recorded in the Northern Aroostook Registry of Deeds in Book 547, Page 97.

(b) a 5/480 in common and undivided interest in land situated in Township Seventeen, Range Three, County of Aroostook, State of Maine:

The South one-half (S1/2) of Township Seventeen (17), Range Three (3).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

EXCEPTING from the south one-half of Township 17, Range 3 several parcels conveyed to the Bangor & Aroostook Railroad Co. by two deeds, dated June 18, 1900, recorded in Northern Aroostook Registry in Page 40, Page 48, and May 27, 1907, recorded in said Registry in Page 53, Page 175, containing in all 70.82 acres.

EXCEPTING from the foregoing lots and interests any rights released to the State of Maine by Release Deed dated July 31, 1985, recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

For source of title see deed from Sharon A. Ahern to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 251, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Ninth (T17 R3):

(a) A 83/66,560 in common and undivided interest in land situated in Township Seventeen, Range Three, W.E.L.S., County of Aroostook, State of Maine:

The north one-half (N1/2) of Township Seventeen (17), Range Three (3).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

SUBJECT to a lease of a portion of said lot by Virginia H. Ahern, et als. to Jackie Pelletier dated June 19, 1981, recorded in the Northern Aroostook Registry of Deeds in Book 547, Page 97.

(b) a 5/480 in common and undivided interest in land situated in Township Seventeen, Range Three, County of Aroostook, State of Maine:

The South one-half (S1/2) of Township Seventeen (17), Range Three (3).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

EXCEPTING from the south one-half of Township 17, Range 3 several parcels conveyed to the Bangor & Aroostook Railroad Co. by two deeds, dated June 18, 1900, recorded in Northern Aroostook Registry in Book 40, Page 48, and May 27, 1907, recorded in said Registry in Book 53, Page 175, containing in all 70.82 acres.

EXCEPTING from the foregoing lots and interests any rights released to the State of Maine by Release Deed dated July 31, 1985, recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

BK 1150PG261

For source of title see deed from Joan N. Curry to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 257, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Tenth (T17 R3):

A 83/16,640 in common and undivided interest in land situated in Township Seventeen, Range Three, W.E.L.S., County of Aroostook, State of Maine:

The north one-half (N1/2) of Township Seventeen (17), Range Three (3).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

SUBJECT to a lease of a portion of said lot by Virginia H. Ahern, et als. to Jackie Pelletier dated June 19, 1981, recorded in the Northern Aroostook Registry of Deeds in Book 547, Page 97.

EXCEPTING from the foregoing lots and interests any rights released to the State of Maine by Release Deed dated July 31, 1985, and recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

For source of title see deed from Hinch Company, Inc. to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 263, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Eleventh (T17 R3):

ALSO GRANTING the following easements in T17, R3 W.E.L.S. conveyed by Bangor & Aroostook Railroad to Irving Pulp & Paper, Limited by deed dated December 14, 1994 and recorded in Book 974, Page 257:

- a) An easement fifty (50) feet wide, the centreline of which is perpendicular to and intersects the former Bangor and Aroostook Railroad centreline at Mile Post 248.02.
- b) An easement fifty (50) feet wide, the centreline of which is perpendicular to and intersects the former Bangor and Aroostook Railroad centreline at Mile Post 252.08.

Subject to the following exceptions, restrictions, and encumbrances:

FIRST OUTCONVEYANCE:

BK 1150PG262

EXCEPTING an unlocated tract of land in a deed from Irving Pulp & Paper, Limited to State of Maine, dated October 19, 1990, and recorded in Book 821, Page 196, of the Aroostook County Registry of Deeds (Northern Division).

SECOND OUTCONVEYANCE

EXCEPTING all that certain lot, piece, or parcel of land situate, lying, and being in Township Number 17, Range 3 W.E.L.S. in the County of Aroostook and State of Maine described as follows:

Commencing at a stake located on the T17 R3 W.E.L.S./Grand Isle town line approximately 994.49 feet from the north east corner of Township 17, Range 3;

Thence 200 degrees (mag.) a distance of 843.74 feet to a post;

Thence 290 degrees (mag.) a distance of 1036.46 feet;

Thence 20 degrees (mag) a distance of 867.57 feet to the T17 R3 W.E.L.S./Grand Isle town line;

Thence 110 degrees (mag) along said township line a distance of 1029.01 feet to the point of beginning.

Being twenty acres (20ac.) in area, more or less.

Subject to an easement to Patrick Michaud, his heirs and assigns to pass on foot and by vehicle over an existing woods road that runs from the public road to the above described premises.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 116, of the Aroostook County Registry of Deeds (Northern Division).

FIRST LEASE:

SUBJECT TO A Lease between Van Buren-Madawaska Corp., as agent for Irving Pulp & Paper, Limited (Lessor) and Robert Bouchard relating to Lot #14 of Township 17, Range 3. The lease was collaterally assigned by Robert Bouchard to Fraser Federal Credit Union by collateral assignment dated November 1, 1995, and recorded in Book 1008, Page 007, of the Aroostook County Registry of Deeds (Northern Division).

SECOND LEASE

SUBJECT TO A lease of Lot # 14, which was collaterally assigned to Robert C. Bouchard and Michelle A. Bouchard by collateral assignment dated May 22, 1996

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and recorded in Book 1034, Page 96. This leased land is part of the premises conveyed to Irving Pulp & Paper, Limited by Quitclaim Deed of Great Northern Nekoosa Corporation dated December 16, 1988, recorded in the Northern Aroostook Registry of Deeds in Book 770, Page 104.

One Hundred Twelfth (T17 R4):

The land together with any buildings or improvements thereon in Township Number 17, Range 4, Aroostook County, State of Maine, described as follows:

a) Beginning on the T17, R4 town line at the northwest corner of the public lot; thence northerly on said town line 150 chains to the northwest corner of T17, R4; thence easterly along the north line of T17, R4 55.22 chains to a post; thence southerly perpendicular to the town line on a blue line 40 chains; thence easterly parallel to the north town line 25 chains; thence southerly and parallel to the west town line 38.64 chains to a post; thence easterly parallel to the north town line 114.59 chains to a post and stones; thence S 47° W 10.32 chains to a post; thence S 20° E, 48 chains to Rt. 162; thence westerly and southerly along the north bound of Rt. 162 to a point which marks the intersection of the easterly line of the Public Lot and the northerly bound of said Rt. 162; thence northerly on said east line of the public lot 57 chains to the northeast corner of said Public Lot; thence westerly 60 chains on the northerly line of the Public Lot to the town line and the point of beginning.

Excepting and reserving therefrom certain Tarbell Cottage Lots, being Lots 18, 19, 20 and 25 on Section #1 of said Cottage Lot Plan recorded in Plan Book 8, Page 94 - Ft. Kent Registry of Deeds. Also Lots 145-156 inclusive on Section #6 of Cottage Lots Plan recorded in Plan Book 8, Page 74 - Ft. Kent Registry of Deeds. Also, Lots 177-181 inclusive on Section #7 of said Plan recorded in Plan Book 8, Page 75 - Ft. Kent Registry of Deeds.

The parcel herein described contains 2,247 acres, more or less.

b) Beginning on the shore of Long Lake at the rod marking the northwest corner of Lot #61 - Tarbell Cottage Lots Plan - Section 3 recorded in Plan Book 8, Page 66 - Ft. Kent Registry; thence S 1° 2' 12" E, 75 chains, more or less, to a post on a line which divides T17, R4 equally north/south; thence easterly 244 chains, more or less, to a point on the east town line, said point being the southeast corner of the north 1/2 of T17, R4; thence northerly along the easterly line of T17, R4 to the south shore of Long Lake; thence westerly by said shore to the point of beginning. Said shoreline distance being 280 chains, more or less.

Excepting therefrom:

(1) Lots 61 - 103 inclusive by Tarbell Cottage Lots Plans, Sections 3 and 4, recorded in Plan Book 8, Pages 66 and 67 - Ft. Kent Registry;

- (2) So-called Sjostedt Farm, containing 30 acres, more or less;
- (3) Certain lands sold to Patrick Cunan by deed recorded in Book 684, Page 86, of the Ft. Kent Registry.
- (4) Those four hundred acres of land bounded and described as follows:

A certain piece or parcel of land, situated in Township 17, Range 4, in the County of Aroostook and State of Maine, which may be more particularly bounded and described as follows:

BEGINNING at the Southeasterly corner of Lot #103 of Tarbell Subdivision where same intersects with the Westerly boundary line of land presently owned by Patrick Cunan as conveyed to him by the Grantors herein, Eaton W. Tarbell, Caroline Torres-Paez and Anne C.T. Abercrombie, by Warranty Deed dated March 27, 1986, which appears of record at the Northern Aroostook Registry of Deeds in Book 684, at Page 86; THENCE, South Seventy Degrees, Nine Minutes West (S 70° 09' W), following the Southerly boundary line of Lots #103, 102, 101, and part of Lot 100, of the aforesaid Tarbell Subdivision, so-called, for a distance of Five Hundred Sixty-eight and Six Tenths (568.6) feet to a center line of a certain existing gravel road which leads in a general Southeasterly direction to the Westerly shore of Long Lake, so-called; THENCE, in a Southeasterly direction, following the center line of said existing gravel road for a total distance of Three Thousand Ninety-five and Two Tenths (3,095.2) feet to a point; THENCE, South Fifty-seven Degrees, Ten Minutes East (S 57° 10' E), for a total distance of Eight Thousand Seven Hundred Ninety-eight and Five Tenths (8,798.5) feet, to the Westerly boundary line of Township 17, Range 3; THENCE, North Twenty-one Degrees, Twenty-one Minutes East (N 21° 21' E), for a total distance of Five Hundred Twelve (512) feet following the Northwesterly boundary line of Township 17, Range 3, to the Southeasterly corner of said land now owned by Patrick Cunan; THENCE, North Thirty-nine Degrees, Thirty-five Minutes West (N 39° 35' W), following the Southwesterly boundary line of said land of Patrick Cunan, for a distance of Four Thousand One Hundred Forty-nine and One Tenth (4,149.1) feet, to a four inch by four inch cedar post; THENCE, North Fifty-three Degrees, Thirty-seven Minutes West (N 53° 37' W), following the Southwesterly boundary line of said land of Patrick Cunan, for a total distance of Five Thousand Nine Hundred Twenty-six and Three Tenths (5,926.3) feet to a four inch by four inch cedar post; THENCE, South Fifty-two Degrees, Thirty Minutes West (S 52° 30' W), for a distance of Two Thousand Eight Hundred Thirty-five and Seven Tenths (2,835.7) feet, following the Southerly boundary line of said land of Patrick Cunan, for a distance of Two Thousand Eight Hundred Thirty-five and Seven Tenths (2,835.7) feet, to a post; THENCE, North Seventeen Degrees, Eleven Minutes West (N 17° 11' W), following the Southwesterly boundary line of land of Patrick Cunan, for a distance of Four Hundred Forty-five (445) feet, to the place of beginning; said parcel of land containing Four Hundred (400) acres.

Said Parcel 2 contains Two Thousand Thirty (2,030) acres, more or less.

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For source of title see deed from Eaton W. Tarbell, et al., to Irving Pulp & Paper, Limited, dated November 19, 1987, and recorded in Book 730, Page 253, of the Aroostook County Registry of Deeds (Northern Division) and a deed from Glenn Zetterman, Jr., to Irving Pulp & Paper, Limited, dated October 21, 1994, and recorded in Book 1018, Page 190, of the Aroostook County Registry of Deeds (Northern Division).

OUTCONVEYANCE:

EXCEPTING all that certain lot, piece, or parcel of land situate, lying and being in the County of Aroostook and State of Maine in Township 17, Range 4 (T17, R4)
W.E.L.S.:

Commencing at a 6" diameter trembling aspen tree found on the St. Agathe/T17 R4 W.E.L.S. town line approximately 1767.5 feet from the north west corner of T17 R4.

Thence 227 degrees (mag) a distance of 235.0 feet to a 2" fir tree:

Thence 163 degrees (mag) a distance of 453.3 feet;

Thence 210 degrees (mag) a distance of 518.8 feet;

Thence 246 degrees 30 minutes a distance of 250.4 feet;

Thence 151 degrees 30 minutes (mag) a distance of 381.7;

Thence 67 degrees (mag) a distance of 1373.8 feet;

Thence 328 degrees (mag) a distance of 235 feet to a 12" trembling aspen tree that has an old fence embedded in it;

Thence 60 degrees 30 minutes a distance of 492.6 feet to the T17 R4/St. Agathe town line:

Thence 290 degrees along the said town line a distance of 1296 feet to the point of beginning.

And being thirty-seven acres (37 ac.) in area, more or less.

Being part of the premises conveyed to Irving Pulp & Paper, Limited by Deed of Caroline Torres-Paez and Anne C. T. Abercrombie dated November 19, 1987, of record at the Northern District Aroostook Registry of Deeds in Book 730, Page 253 and also being part of premises conveyed to Irving Pulp & Paper, Limited by quitclaim deed of Glenn Zetterman, Jr. dated October 21, 1994, of record at the Northern District Aroostook Registry of Deeds, immediately prior hereto.

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Also conveying an easement as reserved by Irving Pulp & Paper, Limited in its December 11, 1995 deed to Glenn Zetterman, Jr. recorded in Book 1018, Page 193 of the Aroostook County Registry of Deeds. (Northern Division) to pass on foot or by vehicle over the existing road that runs through the above described premises.

One Hundred Thirteenth (T17 R4):

(a) A 9/10ths interest in common and undivided of the south one-half of Township 17 Range 4.

(b) five hundred (500) acres, more or less, in common and undivided, in and to the south one-half of Township 17 Range 4 W.E.L.S., hereby conveying all of the unlocated public lot in the south half of said Township.

Excepting and reserving from the above described premises the easement described in a deed from Great Northern Paper Co. to Maine Public Service Co., dated March 31, 1952, and recorded in the Northern Aroostook Registry of Deeds in Book 230, Page 386, deed dated April 16, 1951 and recorded in Book 230, Page 185 and deed dated October 26, 1951 and recorded in Book 230, Page 187.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fourteenth (T17 R4):

A 1/160 in common and undivided interest in land situated in Township Seventeen, Range Four, W.E.L.S., County of Aroostook, State of Maine:

The South one-half (S1/2) of Township Seventeen (17), Range Four (4).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

EXCEPTING from the south one-half of Township 17, Range 4 the following parcels of land: lot No. 17 deeded to Cyrille Guerette June 17, 1898, containing twenty-one and six-tenths (21.6) acres, recorded in the Northern Aroostook Registry Book 30, Page 593; lot No. 11 deeded to Octave Cyr, June 17, 1898, containing fifteen and 2/10 (15.2) acres, recorded in said Registry in Book 37, Page 2; lot No. 15 deeded to Sophia Langley December 8, 1898, containing fifty-one and 7/10 (51.7) acres, recorded in said Registry in Book 37, Page 81; lot four (4) deeded to Joseph Pelletier

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June 17, 1898, containing fifteen and 5/10 (15.5) acres, recorded in said Registry in Book 37, Page 233; lot No. 19 deeded to Fred Albert June 17, 1898, containing thirty-six and 41/100 (36.41) acres, recorded in said Registry in Book 37, Page 284; lot No. 18 deeded to Xavier Cyr June 17, 1898, containing eighty and 9/10 (80.9) acres, recorded in said Registry in Book 37, Page 374; lot No. 5 deeded to Cram Fisher June 17, 1898, containing seventeen and 6/10 (17.6) acres, recorded in said Registry in Book 37, Page 556; lot No. 14 deeded to Cram Fisher June 17, 1898, containing twenty-two and 1/10 (22.1) acres, recorded in said Registry in Book 37, Page 556; Lot No. 2 deeded to Leon Fisher June 17, 1898, containing forty-one and 9/10 (41.9) acres, recorded in said Registry in Book 44, Page 50; lot No. 10 deeded to James Gagnon June 17, 1898, containing nine and 8/10 (9.8) acres, recorded in said Registry in Book 44, Page 231; lot No. 16 deeded to Fred Dubay June 17, 1898, containing twenty-five and 2/10 (25.2) acres, recorded in said Registry in Book 44, Page 232; lot No. 20 deeded to Joseph Guerette June 17, 1898, containing ninety and 4/10 (90.4) acres, recorded in said Registry in Book 44, Page 285; lot No. 9 deeded to John Bouchard June 17, 1898, containing twelve (12) acres, recorded in said Registry in Book 44, Page 300; lot No. 13 deeded to Israel Dubay June 17, 1898, containing twenty-eight and 82/100 (28.82) acres, recorded in said Registry in Book 44, Page 343; lot No. 6 deeded to Richard Dubay June 17, 1898, containing twenty-seven and 5/10 (27.5) acres, recorded in said Registry in Book 44, Page 356; lot No. 8 deeded to George Legasse June 17, 1898, containing eighteen and 1/10 (18.1) acres, recorded in said Registry in Book 53, Page 405; lot No. 3 deeded to Abram Gagnon June 17, 1898, containing twenty-seven (27) acres, recorded in said Registry in Book 53, Page 553; lot No. 12 deeded to George Guerette June 17, 1889, containing forty-eight and 9/10 (48.9) acres, recorded in said Registry in Book 69, Page 308.

EXCEPTING from the foregoing lot and interest any right released to the State of Maine by Release deed dated July 31, 1985, recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

For source of title see deed of Desert State Life Management Services as conservator for Thomas Ahern, III to Irving Pulp & Paper, Limited dated July 31, 1998, and recorded in Book 1126, Page 245, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifteenth (T17 R4):

A 1/160 in common and undivided interest in land situated in Township Seventeen, Range Four, W.E.L.S., County of Aroostook, State of Maine:

The South one-half (S1/2) of Township Seventeen (17), Range Four (4).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

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Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

EXCEPTING from the south one-half of Township 17, Range 4 the following parcels of land: lot No. 17 deeded to Cyrille Guerette June 17, 1898, containing twenty-one and six-tenths (21.6) acres, recorded in the Northern Aroostook Registry Book 30, Page 593; lot No. 11 deeded to Octave Cyr, June 17, 1898, containing fifteen and 2/10 (15.2) acres, recorded in said Registry in Book 37, Page 2; lot No. 15 deeded to Sophia Langley December 8, 1898, containing fifty-one and 7/10 (51.7) acres, recorded in said Registry in Book 37, Page 81; lot four (4) deeded to Joseph Pelletier June 17, 1898, containing fifteen and 5/10 (15.5) acres, recorded in said Registry in Book 37, Page 233; lot No. 19 deeded to Fred Albert June 17, 1898, containing thirty-six and 41/100 (36.41) acres, recorded in said Registry in Book 37, Page 284; lot No. 18 deeded to Xavier Cyr June 17, 1898, containing eighty and 9/10 (80.9) acres, recorded in said Registry in Book 37, Page 374; lot No. 5 deeded to Cram Fisher June 17, 1898, containing seventeen and 6/10 (17.6) acres, recorded in said Registry in Book 37, Page 556; lot No. 14 deeded to Cram Fisher June 17, 1898, containing twenty-two and 1/10 (22.1) acres, recorded in said Registry in Book 37, Page 556; Lot No. 2 deeded to Leon Fisher June 17, 1898, containing forty-one and 9/10 (41.9) acres, recorded in said Registry in Book 44, Page 50; lot No. 10 deeded to James Gagnon June 17, 1898, containing nine and 8/10 (9.8) acres, recorded in said Registry in Book 44, Page 231; lot No. 16 deeded to Fred Dubay June 17, 1898, containing twenty-five and 2/10 (25.2) acres, recorded in said Registry in Book 44, Page 232; lot No. 20 deeded to Joseph Guerette June 17, 1898, containing ninety and 4/10 (90.4) acres, recorded in said Registry in Book 44, Page 285; lot No. 9 deeded to John Bouchard June 17, 1898, containing twelve (12) acres, recorded in said Registry in Book 44, Page 300; lot No. 13 deeded to Israel Dubay June 17, 1898, containing twenty-eight and 82/100 (28.82) acres, recorded in said Registry in Book 44, Page 343; lot No. 6 deeded to Richard Dubay June 17, 1898, containing twenty-seven and 5/10 (27.5) acres, recorded in said Registry in Book 44, Page 356; lot No. 8 deeded to George Legasse June 17, 1898, containing eighteen and 1/10 (18.1) acres, recorded in said Registry in Book 53, Page 405; lot No. 3 deeded to Abram Gagnon June 17, 1898, containing twenty-seven (27) acres, recorded in said Registry in Book 53, Page 553; lot No. 12 deeded to George Guerette June 17, 1889, containing forty-eight and 9/10 (48.9) acres, recorded in said Registry in Book 69, Page 308.

EXCEPTING from the foregoing lot and interest any right released to the State of Maine by Release deed dated July 31, 1985, recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

For source of title see deed from Sharon A. Ahern to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 251, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixteenth (T17 R4):

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A 1/160 in common and undivided interest in land situated in Township Seventeen, Range Four, W.E.L.S., County of Aroostook, State of Maine:

The South one-half (S1/2) of Township Seventeen (17), Range Four (4).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

EXCEPTING from the south one-half of Township 17, Range 4 the following parcels of land: lot No. 17 deeded to Cyrille Guerette June 17, 1898, containing twenty-one and six-tenths (21.6) acres, recorded in the Northern Aroostook Registry Book 30, Page 593; lot No. 11 deeded to Octave Cyr, June 17, 1898, containing fifteen and 2/10 (15.2) acres, recorded in said Registry in Book 37, Page 2; lot No. 15 deeded to Sophia Langley December 8, 1898, containing fifty-one and 7/10 (51.7) acres, recorded in said Registry in Book 37, Page 81; lot four (4) deeded to Joseph Pelletier June 17, 1898, containing fifteen and 5/10 (15.5) acres, recorded in said Registry in Book 37, Page 233; lot No. 19 deeded to Fred Albert June 17, 1898, containing thirty-six and 41/100 (36.41) acres, recorded in said Registry in Book 37, Page 284; lot No. 18 deeded to Xavier Cyr June 17, 1898, containing eighty and 9/10 (80.9) acres, recorded in said Registry in Book 37, Page 374; lot No. 5 deeded to Cram Fisher June 17, 1898, containing seventeen and 6/10 (17.6) acres, recorded in said Registry in Book 37, Page 556; lot No. 14 deeded to Cram Fisher June 17, 1898, containing twenty-two and 1/10 (22.1) acres, recorded in said Registry in Book 37, Page 556; lot No. 2 deeded to Leon Fisher June 17, 1898, containing forty-one and 9/10 (41.9) acres, recorded in said Registry in Book 44, Page 50; lot No. 10 deeded to James Gagnon June 17, 1898, containing nine and 8/10 (9.8) acres, recorded in said Registry in Book 44, Page 231; lot No. 16 deeded to Fred Dubay June 17, 1898, containing twenty-five and 2/10 (25.2) acres, recorded in said Registry in Book 44, Page 232; lot No. 20 deeded to Joseph Guerette June 17, 1898, containing ninety and 4/10 (90.4) acres, recorded in said Registry in Book 44, Page 285; lot No. 9 deeded to John Bouchard June 17, 1898, containing twelve (12) acres, recorded in said Registry in Book 44, Page 300; lot No. 13 deeded to Israel Dubay June 17, 1898, containing twenty-eight and 82/100 (28.82) acres, recorded in said Registry in Book 44, Page 343; lot No. 6 deeded to Richard Dubay June 17, 1898, containing twenty-seven and 5/10 (27.5) acres, recorded in said Registry in Book 44, Page 356; lot No. 8 deeded to George Legasse June 17, 1898, containing eighteen and 1/10 (18.1) acres, recorded in said Registry in Book 53, Page 405; lot No. 3 deeded to Abram Gagnon June 17, 1898, containing twenty-seven (27) acres, recorded in said Registry in Book 53, Page 553; lot No. 12 deeded to George Guerette June 17, 1889, containing forty-eight and 9/10 (48.9) acres, recorded in said Registry in Book 69, Page 308.

EXCEPTING from the foregoing lot and interest any right released to the State of Maine by Release deed dated July 31, 1985, recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

For source of title see deed from Joan N. Curry to Irving Pulp & Paper, Limited, dated July 31, 1998, and recorded in Book 1126, Page 257, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventeenth (T17 R4):

A 1/40 in common and undivided interest in land situated in Township Seventeen, Range Four, W.E.L.S., County of Aroostook, State of Maine:

The South one-half (S1/2) of Township Seventeen (17), Range Four (4).

Together with any interest, if any, in the aforescribed parcel of land in excess of the undivided fractional interest set forth above.

Together with any and all other rights, easements, privileges and appurtenances belonging to the above-described property.

EXCEPTING from the south one-half of Township 17, Range 4 the following parcels of land: lot No. 17 deeded to Cyrille Guerette June 17, 1898, containing twenty-one and six-tenths (21.6) acres, recorded in the Northern Aroostook Registry Book 30, Page 593; lot No. 11 deeded to Octave Cyr, June 17, 1898, containing fifteen and 2/10 (15.2) acres, recorded in said Registry in Book 37, Page 2; lot No. 15 deeded to Sophia Langley December 8, 1898, containing fifty-one and 7/10 (51.7) acres, recorded in said Registry in Book 37, Page 81; lot four (4) deeded to Joseph Pelletier June 17, 1898, containing fifteen and 5/10 (15.5) acres, recorded in said Registry in Book 37, Page 233; lot No. 19 deeded to Fred Albert June 17, 1898, containing thirty-six and 41/100 (36.41) acres, recorded in said Registry in Book 37, Page 284; lot No. 18 deeded to Xavier Cyr June 17, 1898, containing eighty and 9/10 (80.9) acres, recorded in said Registry in Book 37, Page 374; lot No. 5 deeded to Cram Fisher June 17, 1898, containing seventeen and 6/10 (17.6) acres, recorded in said Registry in Book 37, Page 556; lot No. 14 deeded to Cram Fisher June 17, 1898, containing twenty-two and 1/10 (22.1) acres, recorded in said Registry in Book 37, Page 556; Lot No. 2 deeded to Leon Fisher June 17, 1898, containing forty-one and 9/10 (41.9) acres, recorded in said Registry in Book 44, Page 50; lot No. 10 deeded to James Gagnon June 17, 1898, containing nine and 8/10 (9.8) acres, recorded in said Registry in Book 44, Page 231; lot No. 16 deeded to Fred Dubay June 17, 1898, containing twenty-five and 2/10 (25.2) acres, recorded in said Registry in Book 44, Page 232; lot No. 20 deeded to Joseph Guerette June 17, 1898, containing ninety and 4/10 (90.4) acres, recorded in said Registry in Book 44, Page 285; lot No. 9 deeded to John Bouchard June 17, 1898, containing twelve (12) acres, recorded in said Registry in Book 44, Page 300; lot No. 13 deeded to Israel Dubay June 17, 1898, containing twenty-eight and 82/100 (28.82) acres, recorded in said Registry in

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Book 44, Page 343; lot No. 6 deeded to Richard Doby June 17, 1898, containing twenty-seven and 5/10 (27.5) acres, recorded in said Registry in Book 44, Page 356; lot No. 8 deeded to George Legasse June 17, 1898, containing eighteen and 1/10 (18.1) acres, recorded in said Registry in Book 53, Page 405; lot No. 3 deeded to Abram Gagnon June 17, 1898, containing twenty-seven (27) acres, recorded in said Registry in Book 53, Page 553; lot No. 12 deeded to George Guerette June 17, 1889, containing forty-eight and 9/10 (48.9) acres, recorded in said Registry in Book 69, Page 308.

EXCEPTING from the foregoing lot and interest any right released to the State of Maine by Release deed dated July 31, 1985, recorded in Northern Aroostook Registry of Deeds in Book 664, Page 261.

For source of title see deed from Hinch Company, Inc., to Irving Pulp & Paper, Limited. dated July 31, 1998, and recorded in Book 1126, Page 263, of the Aroostook County Registry of Deeds (Northern Division).

Excepting the following outparcels:

FIRST OUTPARCEL

EXCEPTING a certain piece of parcel of land situated in Township 17, Range 4, in the County of Aroostook and State of Maine, being a part of Original Lot 3, being more particularly bound and described as follows:

A certain Fifty (50) foot wide parcel of land whose centerline begins on the Northerly boundary line of Route #162 at a point Eight Hundred Eighty-eight (888+/-) feet, more or less, East as measured along the Northerly boundary of Route #162 from the intersection of the Northerly boundary line of Route #162 and the Easterly line of premises owned by the State of Maine described in a deed recorded in the Northern Aroostook Registry of Deeds in Book 501, Page 01; thence North Twenty Degrees Fifty-seven Minutes Fifteen Seconds West (N 20° 57' 15" W), a distance of Twenty-three and Ninety-nine Hundredths (23.99) feet, said point being North Forty-eight and Ninety-nine Hundredths (48.99) feet from the center of Route #162; thence in a curve to the West, a distance of Thirty-nine and Eighty-five Hundredths (39.85) feet (said curve having a delta of Thirteen Degrees Two Minutes Forty-five Seconds and a radius of One Hundred Seventy-five (175.00) feet; thence North Thirty-four Degrees Zero Minutes Zero Seconds West (N 33° 00' 00" W), a distance of One Hundred Sixty-five and Seventy-one Hundredths (164.71) feet; thence in a curve to the West, a distance of One Hundred Forty and Five Tenths (140.5) feet (said curve having a delta of Forty-six Degrees Zero Minutes Zero Seconds (46° 00' 00") and a radius of One Hundred Seventy-five (175.00) feet; thence North Eighty Degrees Zero Minutes Zero Seconds West (N 80° 00' 00" W), a distance of One Hundred Ninety-five and Thirty-seven Hundredths (195.37) feet; thence in a curve to the South, a distance of Seventy-nine and Ninety-nine Hundredths (79.99) feet (said curve having a delta of Eighteen Degrees Twenty

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Minutes Zero Seconds (18° 20' 00") and a radius of Two Hundred Fifty (250) feet; thence South Eighty-one Degrees Forty Minutes Zero Seconds West (S 81° 40' 00" W), a distance of One Hundred Eighteen and Twenty-eight Hundredths (118.28) feet; thence in a curve to the North, a distance of One Hundred Thirty-seven and Sixty-eight Hundredths (137.68) feet (said curve having a delta of Eighty-seven Degrees Thirty-eight Minutes Forty-nine Seconds (87° 38' 49") and a radius of Ninety (90) feet; thence North Ten Degrees Forty-one Minutes Eleven Seconds West (N 10° 41' 11" W), a distance of Seven and Ninety-eight Hundredths (7.98) feet to the Westerly boundary line of State of Maine property.

Said parcel was conveyed to Sinclair Sanitary District by Irving Pulp & Paper, Limited by deed recorded in Book 943, Page 127 of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighteenth (T17 R5):

a) A 7/10ths interest in common and undivided of the so-called "Dickey Tract", lying in the southeast corner of Township 17 Range 5 bounded and described as:

Beginning at the southeast corner of said Township, thence north seventy-two degrees thirty minutes west (N 72 degrees 30' W) thirty-five (35) chains seventy-five (75) links to the east shore of Cross Lake; thence northerly by the east shore of said Cross Lake to the thoroughfare between Cross and Second Lakes; thence up said thoroughfare to the outlet of Second Lake; thence up the easterly shore of said Second Lake to the east line of said Township; thence south on the east line of said Township to the place of beginning.

Block 6970

Excepting and reserving from the above described premises the easement described in a deed from Great Northern Paper Co., to Maine Public Service, dated March 31, 1952 and recorded in the Northern Aroostook Registry of Deeds in Book 230, Page 386. Also an easement described in a deed from Great Northern Paper et als to the State of Maine, dated February 6, 1973, and recorded in the Northern Aroostook Registry of Deeds in Book 400, Page 500.

b) Beginning at a point in the westerly line of said Township, said point being one hundred sixty-five and seventy-three hundredths (165.73) chains northerly from the southwesterly corner thereof and marked by a post and stones; thence northerly in and along said westerly line to the northwesterly corner of said Township; thence easterly in and along the northerly line of said Township to a post and stones set at a point one hundred nineteen and eighty-nine hundredths (119.89) chains westerly from the northeasterly corner thereof; thence south twenty-two (22) degrees west in and along a division line, spotted and painted tangerine yellow, five hundred seven and forty-nine hundredths (507.49) chains, more or less, to a post and stones set at a point in the southerly line of said Township, said point being one hundred eighteen and sixty-nine hundredths (118.69) chains westerly from the south-easterly corner thereof; thence westerly in and along the southerly line to a point

one hundred forty-six and sixty-three hundredths (146.63) chains easterly from the southwesterly corner of said Township, said point being marked by a post and stones; thence north twenty-two (22) degrees ten (10) minutes east in and along a line spotted and painted tangerine yellow one hundred fifty-nine and ninety-four hundredths (159.94) chains to a point marked by a post and stones; thence north sixty-six (66) degrees thirty (30) minutes west in and along a line spotted and painted tangerine yellow one hundred forty-seven and eleven hundredths (147.11) chains to the point of beginning. Excepting and reserving, however, the Settlers Lots.

The whole parcel, inclusive of Public Lot, fourteen thousand seven hundred and eight (14,708) acres, more or less.

Excepting and reserving from the above described premises the following:

An easement described in a deed from Great Northern Paper to Maine Public Service Co., dated March 31, 1952, and recorded in the Northern Aroostook Registry of Deeds in Book 230, Page 386.

A right-of-way described in a deed from Great Northern Paper to James C. Madigan and James M. Pierce, dated January 25, 1961, and recorded in the Northern Aroostook Registry of Deeds in Book 293, Page 435.

An easement described in a deed from Great Northern Paper to Maine Public Service Company, dated August 13, 1962, and recorded in the Northern Aroostook Registry of Deeds in Book 307, Page 524.

A parcel described in a deed from Great Northern Paper Company to State of Maine, dated April 9, 1963 and recorded in the Northern Aroostook Registry of Deeds in Book 311, Page 345.

A parcel described in a deed from Great Northern Paper Company to State of Maine, dated May 24, 1972 and recorded in the Northern Aroostook Registry of Deeds in Book 395, Page 806.

A right-of-way described in a deed from Great Northern Paper Company to State of Maine, dated February 6, 1973 and recorded in the Northern Aroostook Registry of Deeds in Book 400, Page 500.

An easement described in a deed from Great Northern Paper Company to State of Maine, dated May 7, 1979, and recorded in the Northern Aroostook Registry of Deeds in Book 575, Page 240.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated December 16, 1988, and recorded in Book 770, Page 104, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Nineteenth (T17 R5):

A 1/60ths interest, and a 1/120ths interest, both interests in common and undivided of the Dickey tract in Township 17 Range 5 W.E.L.S., which premises contain approximately 936 acres, exclusive of any public lots. The 1/60ths interest being acquired through the estate of Sarah E. Dunn and the 1/120ths interest being acquired through the estates of Clara D. Mooers and Rachel M. Hunter and deed of Charles Hunter dated February 20, 1986. The total acreage being conveyed based on said above common and undivided interests is approximately 23.4000 acres. No interest in the public lot is involved in this conveyance.

The above described premises are conveyed subject to the following encumbrances:

Easement from Deborah D. Chapman et als, to Maine Public Service Company dated November 19, 1951 and recorded in Northern Aroostook Registry of Deeds in Book 230, Page 368.

Easement from Great Northern Nekoosa Corporation et. als. to the State of Maine dated February 6, 1973 and recorded in said Registry in Book 400, Page 500.

Easement from the estate of Sarah E. Dunn et. als. to the State of Maine dated May 2, 1979 and recorded in said Registry in Book 575, Page 239.

J. M. Huber Corporation acquired these interests by deed of Natalie M. Dagget, et als, dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56.

Subject to the right to cross and recross the premises herein conveyed for land management purposes reserved by J. M. Huber Corporation in its deed recorded in Book 866, Page 127.

Excepting and reserving from the premises herein conveyed all real estate or rights therein, if any, conveyed of record by J. M. Huber Corporation or its predecessors in interest and all real estate or rights therein, if any, acquired through the exercise of the power of eminent domain by the State of Maine or any political subdivision thereof which may be of record but not specifically referred to herein.

Also excepting and reserving from this conveyance all great ponds, and the property underlying said great ponds, falling in whole or in part within the premises herein conveyed. Hereby conveying, however, as appurtenant to the property herein conveyed any right, title or interest that J. M. Huber Corporation may ever be determined to hold in or to said great ponds, or the property underlying said great ponds.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 5, 1991, and recorded in Book 866, Page 127, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Twentieth (T17 R5):

A 1/900th fractional interest in and to the following described land which represents the equivalent of 1.040 acres out of a total acreage of 936 acres in said parcel: Part of Township 17, Range 5, W.E.L.S., known as the Dickey Tract:

That part of Township 17, Range 5, lying in the southeast corner of said township: beginning at the southeast corner of said township, thence north 72 deg. 30' west 35 chains 75 links to the east shore of Cross Lake, thence northerly by the east shore of said Cross Lake to the thoroughfare between Cross and Second Lakes, thence up said thoroughfare to the outlet of Second Lake, thence up the easterly shore of said Second Lake to the east line of said township, thence south on said east line to place of beginning, containing 955 acres, more or less.

Excepting and reserving outparcels Township 17, Range 5, being lot 286 of plan of lots by A. E. Hanson, Deputy Land Surveyor in 1893 containing 33 acres, to Octave Cyrway by deed dated August 22, 1910, and recorded Northern Aroostook Registry of Deeds, Book 61, Page 93; also lot 285 to Alphonse Ouellette by Book 61, Page 118; also lot 21 to Joseph Chassie by Book 61, Page 150; also lot 9 to Dennis DeChien by Book 61, Page 225; also lot 10 to Levite Madore by Book 61, Page 251; also lot 11 to Joseph Rossignol, Jr. by Book 73, Page 80; also lot 8 to Joseph Pelletier by Book 73, Page 84; also outparcel easement Township 17, Range 5 to Maine Public Service dated November 19, 1951, and recorded in Book 230, Page 368 Northern Division; also outparcels Township 17, Range 5 according to plan of Grover C. Hardison of 1911; Lot 102 to Bartholomeu Pelletier, et als, in Book 73, Page 64; lot 31 to Edward Pelletier by Book 73, Page 93; lot 29 to Dennis Pelletier by Book 73, Page 95; Northeast corner lot D to Charles Bouchard by Book 79, Page 142; also outparcel easement Township 17, Range 5 to State of Maine by Book 575, Page 239 (Northern District) and by Book 400, Page 500 (Northern District); also out parcel from Township 17, Range 5 to Alexis Martin of plan by A.E. Harmon a/k/a A.E. Hanson in 1893 by Book 53, Page 150 (Northern District); to Benjamin Ouellette by Book 69, Page 339 (Northern District); to Charles Bonepart by Book 44, Page 230 (Northern District); to Edward Garneau by Book 44, Page 377 (Northern District); to Magloire Martin by Book 59, Page 208 (Northern District); to Joseph Derosier by Book 30, Page 397 (Northern District); to Amable Ayotte by Book 30, Page 571 (Northern District); to Laurent Derosier by Book 44, Page 81; to Louis Tardis, Jr. by Book 44, Page 393; to Thomas Bouchard by Book 91, Page 437; to Katherine Ouellette by Book 569, Page 230; to Emile Bouchard by Book 44, Page 75.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Twenty-first (T17 R5):

A 1/20th fractional interest in and to the following described land which represents the equivalent of 47 acres out of a total acreage of 936 acres in said parcel: Part of Township 17, Range 5, W.E.L.S., known as the Dickey Tract:

That part of Township 17, Range 5, lying in the southeast corner of said township: beginning at the southeast corner of said township, thence north 72 deg. 30' west 35 chains 75 links to the East shore of Cross Lake, thence northerly by the east shore of said Cross Lake to the thoroughfare between Cross and Second Lakes, thence up said thoroughfare to the outlet of Second Lake, thence up the easterly shore of said Second Lake to the east line of said township, thence south on said east line to place of beginning, containing 955 acres, more or less.

Excepting and reserving out parcels Township 17, Range 5, being lot 286 of plan of lots by A. E. Hanson, Deputy Land Surveyor in 1893 containing 33 acres, to Octave Cyrway by deed dated August 22, 1910, and recorded in Northern Aroostook Registry of Deeds, Book 61, Page 93; also lot 285 to Alphonse Ouellette by Book 61, Page 118; also lot 21 to Joseph Chassie by Book 61, Page 150; also lot 9 to Dennis DeChien by Book 61, Page 255; also lot 10 to Levite Madore by Book 61, Page 251; also lot 11 to Joseph Rossignol, Jr. by Book 73, Page 80; also lot 8 to Joseph Pelletier by Book 73, Page 84; also outparcel easement Township 17, Range 5 to Maine Public Service dated November 19, 1951, and recorded in Book 230, Page 368 Northern Division; also outparcel Township 17, Range 5 according to plan of Grover C. Hardison of 1911; Lot 102 to Bartholomeau Pelletier, et als, in Book 73, Page 64; Lot 31 to Edward Pelletier by Book 73, Page 93; lot 29 to Dennis Pelletier by Book 73, Page 95; Northeast corner to lot D to Charles Bouchard by Book 79, Page 142; also outparcel easement Township 17, Range 5 to State of Maine by Book 575, Page 239 (Northern District) and by Book 400, Page 500 (Northern District); also outparcel from Township 17, Range 5 to Alexis Martin of plan by A. E. Harmon a/k/a A. E. Hanson in 1893 by Book 53, Page 150 (Northern District); to Benjamin Ouellette by Book 69, Page 339 (Northern District); to Charles Bonepart by Book 44, Page 230 (Northern District); to Edward Garneau by Book 44, Page 377 (Northern District); to Maglorie Martin by Book 59, Page 208 (Northern District); to Joseph Derosier by Book 30, Page 397 (Northern District); to Amable Ayotte by Book 30, Page 571 (Northern District); to Laurent Derosier by Book 44, Page 81; to Louis Tardis, Jr. by Book 44, Page 393; to Thomas Bouchard by Book 91, Page 437; to Katherine Ouellette by Book 569, Page 230; to Emile Bouchard by Book 44, Page 75.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the Caroline D. Tyler trust dated June 30, 1981, under declaration of trust

recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Twenty-second (T17 R5):

A 0.006342 decimal interest in and to the following described land which represents the equivalent of 5.93 acres out of a total parcel acreage of 935 acres, exclusive of the public lot, if any, in said parcel: Part of Township 17, Range 5, W.E.L.S., known as the Dickey Tract:

That part of Township 17, Range 5, lying in the southeast corner of said Township: Beginning at the southeast corner of said Township, thence North seventy-two degrees thirty minutes West (N 72° 30'W) 35 chains 75 links to the east shore of Cross Lake; thence Northerly by the east shore of said Cross Lake to the thoroughfare between Cross and Second Lakes; thence up said thoroughfare to the outlet of Second Lake; thence up the easterly shore of said Second Lake to the east line of said township; thence south on said east line to place of beginning, containing 955 acres.

Excepting and reserving outparcels Township 17, Range 5, being Lot 286 of plan of lots by A. E. Hanson, Deputy Land Surveyor in 1893 containing 33 acres, to Octave Cyrway by deed dated August 22, 1910, and recorded in the Northern Aroostook Registry of Deeds, Book 61, Page 93; also Lot 285 to Alphonse Ouellette by Book 61, Page 118; also Lot 21 to Joseph Chassie by Book 61, Page 150; also Lot 9 to Dennis DeChien by Book 61, Page 225; also Lot 10 to Levite Madore by Book 61, Page 251; also Lot 11 to Joseph Rossignol, Jr. by Book 73, Page 80; also Lot 8 to Joseph Pelletier by Book 73, Page 84; also outparcel easement Township 17, Range 5 to Maine Public Service dated November 19, 1951, and recorded in Book 230, Page 368 Northern Division; also outparcels Township 17, Range 5 according to plan of Grover C. Hardison of 1911; Lot 102 to Bartholomeu Pelletier, et als, in Book 73, Page 64; Lot 31 to Edward Pelletier by Book 73, Page 93; Lot 29 to Dennis Pelletier by Book 73, Page 95; Northeast corner Lot D to Charles Bouchard by Book 79, Page 142; also outparcel easement Township 17, Range 5 to State of Maine by Book 575, Page 239 (Northern District) and by Book 400, Page 500 (Northern District); also out parcel from Township 17, Range 5 to Alexis Martin of plan by A. E. Harmon a/k/a A. E. Hanson in 1893 by Book 53, Page 150 (Northern District), to Benjamin Ouellette by Book 69, Page 339 (Northern District), to Charles Bonepart by Book 44, Page 230 (Northern District) to Edward Garneau by Book 44, Page 377 (Northern District) to Magloire Martin by Book 59, Page 208 (Northern District) to Joseph Derosier by Book 30, Page 397 (Northern District) to Amable Ayotte by Book 30, Page 571 (Northern District) to Laurent Derosier by Book 44, Page 81, to Louis Tardis, Jr. by Book 44, Page 393, to Thomas Bouchard by Book 91, Page 437, to Katherine Ouellette by Book 69, Page 230, to Emile Bouchard by Book 44, Page 75.

For source title see deed from Fraser Paper Limited to Irving Pulp & Paper, Limited, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division) and a corrective deed from Fraser Papers Inc., to Irving Pulp & Paper, Limited, dated December 10, 1996, and recorded in Book 1093, Page 326, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Twenty-third (T17 R5):

A 1/90ths in common and undivided interest in and to land in Township 17, Range 5, W.E.L.S., Aroostook County, Maine described as follows:

That part of Township number 17, Range 5, W.E.L.S. lying in the southeast corner of said township; beginning at the southeast corner of said Township; thence north seventy-two degrees thirty minutes west (N 72° 30' W) thirty-five (35) chains seventy-five (75) links to the east shore of Cross Lake; thence northerly by the east shore of said Cross Lake to the thoroughfare between Cross and Second Lake; thence up said thoroughfare to the outlet of Second Lake; thence up the easterly side of said Second Lake to the east line of said Township; thence south on said east line to the place of beginning, containing nine hundred fifty-five (955) acres, more or less.

Excepting and reserving, however, from the above described parcel of land all and the same premises as described in deed from George B. Dunn, et als to Charles Bouchard dated October 3, 1912 and recorded in the Northern District of the Aroostook County Registry of Deeds in Book 79, Page 142, said reserved parcel contains eleven (11) acres, more or less.

Also excepting and reserving a certain right of way conveyed to Maine Public Service Company by deed dated November 19, 1951 and recorded in Northern Division of Aroostook Registry of Deeds in Book 230, Page 368.

Being Parcel 6 described in the deed of Peter G. Dunn to Prentiss & Carlisle Company, Inc. and McCrillis Timberland, Inc. dated April 19, 1977 and recorded in Book 451, Page 79 of the Aroostook County Registry of Deeds (Northern Division).

For source of title see deed from Prentiss & Carlisle Company, Inc. and McCrillis Timberland, Inc., to Irving Pulp & Paper, Limited, dated August 20, 1998, and recorded in Book 1127, Page 124, of the Aroostook County Registry of Deeds (Northern Division).

Also conveying all the Grantor's right, title and interest under the following leases and licenses:

FIRST

License between Van Buren-Madawaska Corp., agent for Irving Pulp and Paper, Limited recorded July 16, 1990 in Book 881, Page 170, of the Aroostook County Registry of Deeds (Northern Division), assigned to Peoples Heritage Savings Bank, for collateral purposes only, as appears in the Certificate of Consent of Van Buren Madawaska Corp., agent as aforesaid recorded in Book 913, Page 158 relating to the following land in Township 17, Range 5, W.E.L.S.:

A parcel of land on Township 17, Range 5, W.E.L.S., Aroostook County, Maine, being the same as described in the lease issued by Great Northern Paper Co. on June 1, 1987 is been identified as Lot #82 & #83 on Plan B-510.

SECOND

Lease between Van Buren-Madawaska Corp., as agent for Irving Pulp & Paper, Limited (Lessor) and Loomis A. Craig and Darla R. Craig relating to Lot 31A on Plan B-503, Township 17, Range 5, and located at St. Peter Road, Cross Lake, bearing License #2675. Lease was collaterally assigned to Katahdin Trust Company by collateral assign dated August 31, 1994 and recorded in Book 965, Page 341 of the Aroostook County Registry of Deeds (Northern Division).

THIRD

Lease between Van Buren-Madawaska Corp., as agent for Irving Pulp & Paper, Limited (Lessor) and Stephen R. Smith and Kimberly A. Smith relating to Lot #88 on Plan B-503, Township 17, Range 5. The lease was collaterally assigned by Stephen R. Smith and Kimberly A. Smith to First Citizens Bank by collateral assignment dated October 14, 1994 and recorded in Book 969, Page 006 (Northern Division).

FOURTH

Lease between Van Buren-Madawaska Corp., as agent for Irving Pulp & Paper, Limited (Lessor) and John C. Beale relating to Lot #143-A; Plan B-510 of Cross Lake. (License #3167) The lease was collaterally assigned by John C. Beale to Key Bank of Maine by collateral assignment dated July 1995 and recorded in Book 997, Page 34 (Northern Division).

FIFTH

Lease between Van Buren-Madawaska Corp., Agent for Irving Pulp & Paper Limited and Michael Rossignol and Susan Rossignol dated July 10, 1992 (License # 2320) at Township 17, Range 5, Cross Lake, being the same described in the lease issued by Great Northern Paper as Lot #2320, on Plan B-510; which lease was

collaterally assigned to the County Federal Credit Union by assignment dated May 19, 1997 and recorded in Book 1068, Page 198 (Northern Division).

SIXTH

Lease between Van Buren-Madawaska Corp., Agent for Irving Pulp & Paper Limited and Santiago E. Andrade dated August 26, 1997, being lease #3094 at the following location: a parcel of land on Township 17 Range 5, W.E.L.S., Aroostook County, Maine being the same as described in the lease issued by Great Northern Paper Co. on August 12th, 1987 identified as Lot #111-A on Plan B-510, which lease was collaterally assigned to The County Federal Credit Union assignment dated August 27, 1997 and recorded in Book 1084, Page 49 (Northern Division).

SEVENTH

Lease between Van Buren-Madawaska Corp., Agent for Irving Pulp & Paper Limited and Patrick H. Gagnon and Reta L. Gagnon dated June 1, 1989, being lease #2600 at the following location: A parcel of land on Township 17 Range 5, W.E.L.S., Aroostook County, Maine, being the same as described in the lease issued by Great Northern Paper Co. on June 1st, 1987 identified as Lot #38-A on Plan B-503, which lease was collaterally assigned to The County Federal Credit Union assignment dated September 16, 1997 recorded in Book 1086, Page 65 (Northern Division).

EIGHTH

Lease between Van Buren-Madawaska Corp., agent for Irving Pulp & Paper, Limited and Paul T. Pierson dated June 1, 1989 (License No. 1785 as to Lot #1 Plan B-503 and land adjacent to the northwest side of Lot #1 at Cross Lake, Township 17, Range 5), which lease was collaterally assigned to The County Federal Credit Union by assignment dated June 2, 1998 and recorded in Book 1113, Page 61 (Northern Division).

NINTH

Lease between Van Buren-Madawaska Corp., agent to Irving Pulp & Paper, Limited and Kevin A. Jandreau as dated September 18, 1998 recorded in Book 1131, Page 271 of the Aroostook County Registry of Deeds (Northern Division) as to the following described land:

A parcel of land on Township 17, Range 3, W.E.L.S., north half, Aroostook County, Maine, being the same as described in the lease issued by Great Northern Paper Co. on June 1, 1987 identified as Lot #20-A on Plan B-536.

Also subject to the following easement:

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Subject to a standard pole line easement relating to land in Township 17, Range 5, W.E.L.S., Aroostook County, Maine, granted by Irving Pulp & Paper, Limited to Maine Public Service Co. by instrument dated August 17, 1998 and recorded in Book 1130, Page 26 (Northern Division).

One Hundred Twenty-fourth (T17 R8):

The following described parcel of land in Township Numbered Seventeen (17) Range Eight (8), W.E.L.S. now St. John Plantation; in said County of Aroostook, State of Maine: Beginning at a cedar post in the easterly line of said Township one hundred and thirty-two (132) chains northerly of the southeast corner, said post being marked "I.P.Co." on the northerly side and "G.N.P.Co." on the southerly side; thence westerly along a line established as the division line four hundred and eighty and ten hundredths (480.10) chains to a cedar post in the westerly line of said Township, said post being marked "I.P.Co." on the north side, and "G.N.P.Co." on the south side; thence southerly along said westerly boundary one hundred and thirty-two (132) chains to an old post at the southwest corner of said Township; thence easterly along the southerly boundary of said Township four hundred and eighty and twenty hundredths (480.20) chains to the southeast corner of said Township, said corner being in Wallagrass Lake; thence northerly along the easterly boundary of said Township one hundred and thirty-two chains (132) to the cedar post at the point of beginning, containing six thousand three hundred ten (6,310) acres.

For source of title see deed from Great Northern Nekoosa Corporation to Irving Pulp & Paper, Limited, dated May 10, 1977, and recorded in Book 461, Page 297, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Twenty-fifth (T18 R10):

A 2,322acre, more or less, tract in Township 18, Range 10, W.E.L.S., Aroostook County, Maine, bounded and described as follows:

Beginning at a point on the south line of the township, said point being 75.7 chains, more or less, easterly of the southwest corner. Said point is also the southeast corner of a parcel set off to the State of Maine as part of the partition;

Thence in a northerly direction, by and along the east line of the State of Maine parcel, 106.1 chains, more or less, to a point;

Thence in an easterly direction, at all times parallel to the south line of the township 548 chains, more or less, to the thread of the St. John River, which is also the boundary line between Township 18 Range 10 and the Town of St. Francis;

Thence southwesterly, following the thread of the St. John River, which is also the township boundary, to the southeast corner of the township;

Thence in a westerly direction by and along the south line of the township, 445 chains, more or less, to the point of beginning.

Excluding that part of an island in the St. John River which is part of Township 18, Range 10.

Containing four thousand eight hundred seventy seven (4,877) acres, more or less.

Together with the right to cross and re-cross, without damaging same, for all purposes, with men and equipment, over the tracts hereby set off to the other parties to the partition of T18, R10.

Excepting and reserving from said parcel, that parcel conveyed to Consolidated Rambler Mines by deed dated December 30, 1988 and recorded on February 1, 1999 in Book 1146, Page 257 of the Aroostook County Registry of Deeds (Northern Division). Said parcel being further described as follows:

Beginning at a point on the south line of the township, said point being seventy five decimal seven (75.7) chains, more or less, easterly of the southwest corner of the township. Said point is also the southeast corner of a parcel set off to the State of Maine as part of a partition ordered by the Superior Court of the State of Maine, the judgement ordering such partition having been filed and entered by the Clerk of such court for Aroostook County on May 9, 1986;

Thence in a northerly direction, by and along the east line of the State of Maine parcel, one hundred six decimal one (106.1) chains, more or less, to a point. Said point being the northwest corner of the parcel set off to Irving Pulp & Paper, Limited in the said partition;

Thence in an easterly direction, at all times parallel to the south line of the township two hundred forty decimal eight (240.8) chains, more or less, to a point;

Thence in a southerly direction, at all times parallel to the west line of the parcel hereby being described (said west line being the east line of the parcel set off to the State of Maine as part of the said partition) one hundred six decimal one (106.1) chains, more or less, to the south line of the township; and

Thence in a westerly direction along the south line of the township two hundred forty decimal eight (240.8) chains, more or less, to the place of beginning.

Said lot contains two thousand five hundred fifty-five (2,555) acres more or less.

For source of title see a Judgment by the Superior Court dated May 26, 1986 and recorded in Book 683, Page 21 of the Aroostook County Registry of Deeds (Northern Division); deed from The Merrill Trust Company to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County Registry of Deeds (Northern Division); deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division); deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division); deed from Grover C. Bradford to Irving Pulp & Paper, Limited, dated May 13, 1960, and recorded in Book 288, Page 369, of the Aroostook County Registry of Deeds (Northern Division); deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, and recorded in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Twenty-sixth (T18 R10):

a) All the right, title and interest that J. M. Huber Corporation acquired in Township 18, Range 10 W.E.L.S. through deeds of Jane Fernald Boyd dated May 5, 1985 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 646, Page 58, and by deed of Jane Fernald Boyd in her capacity as personal representative of the estate of Marjorie Dunn Fernald dated May 5, 1985 and recorded in said Registry in Book 646, Page 73. Marjorie Dunn (Fernald) having inherited a 1/480ths interest in said township from her father, Elbridge G. Dunn, Jr., whose estate is administered in the Aroostook County Probate Court (Southern Division) Docket No. 6, Page 211. Marjorie Dunn (Fernald) acquired a 3/16th of 1/480ths interest in said township from her sister, Myrtie H. D. Rogers, by deed dated July 3, 1948 recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in the Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400.

Said Township has been subsequently partitioned and the above common and undivided interest of J. M. Huber Corporation has been set off in the Prentiss & Carlisle Ownership Block containing a minimum of 9934 acres, all by partition in the Superior Court of Aroostook County, Civil Action Docket No. CV 84-265 dated May 28, 1986, a copy of the Final Judgment being recorded in said Registry in Book 683, Page 21.

The total acreage hereby conveyed based on Grantor's common and undivided interests is approximately 64.87 acres. No interest in the public lot is involved in this conveyance.

Said Prentiss and Carlisle Ownership Block premises hereby conveyed in Township 18, Range 10 W.E.L.S. being more particularly described as follows:

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Beginning at a point on the west line of the township, located 160 chains, more or less, northerly of the southwest corner, said point being the northwest corner of parcel set off to the State of Maine as part of the partition; thence in a northerly direction, by and along the west line of the township, 120.3 chains, more or less, to a point; thence in an easterly direction, at all times parallel to the south line of the township, 577 chains, more or less, to a point on the thread of the St. Francis River, which is the boundary between the State of Maine and the Province of New Brunswick, Canada; thence southeasterly following the thread of the St. Francis River and the international boundary to the generally northerly boundary of the Harvey farm so-called, said farm believed to be now or formerly owned by Hermal Martin; thence in a generally westerly direction by and along the northerly boundary of said Harvey farm 43 chains, more or less, to the northwest corner thereof; thence in a southerly direction by and along the westerly line of said Harvey farm 62 chains, more or less, to the southwesterly corner thereof, which is the thread of the St. John River and the boundary between Township 18, Range 10 and the town of St. Francis; thence in a southwesterly direction by and along the thread of the St. John River and the township boundary to the northeast corner of land set off to Irving Pulp and Paper Ltd. as Part of the partition; thence in westerly direction by and along the north line of the Irving parcel 548 chains, more or less, to a point on the west line of parcel set off to the State of Maine as part of the partition, said point being 106.1 chains, more or less, northerly of the south line of the township; thence in a northerly direction, by and along the east line of the State of Maine parcel, 53.9 chains, more or less, to the northeast corner thereof; thence in a westerly direction, by and along the north line of the State of Maine parcel 75.7 chains, more or less, to the northwest corner thereof and the point of beginning. Containing nine thousand nine hundred thirty four (9,934) acres, more or less.

Together with and subject to easements for all parties involved in said above-referred Final Judgment of partition for the right to cross and recross, without damaging same; for all purposes, with men and equipment over all property set off in the above-referred Final Judgment of partition as described therein.

b) All the right, title and interest that J. M. Huber Corporation acquired by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56, in common and undivided in certain premises described below of Township 18, Range 10, W.E.L.S., (The Prentiss and Carlisle Ownership Block), which premises contain a minimum of 9,934 acres. Natalie M. Daggett, et als interest in said below-described Prentiss and Carlisle Ownership Block premises having been set off by partition in the Superior Court of Aroostook County, Civil Action Docket No. CV-84-265 dated May 28, 1986, a copy of the Final Judgment being recorded in said Registry in Book 683, Page 21. The total acreage hereby conveyed based on Grantor's common and undivided interest is approximately 81.85 acres. No interest in the public lot is involved in this conveyance.

Said Prentiss and Carlisle Ownership Block premises hereby conveyed in Township 18, Range 10 W.E.L.S. being more particularly described as follows:

Beginning at a point on the west line of the township, located 160 chains, more or less, northerly of the southwest corner, said point being the northwest corner of parcel set off to the State of Maine as part of the partition; thence in a northerly direction, by and along the west line of the township, 120.3 chains, more or less, to a point; thence in an easterly direction, at all times parallel to the south line of the township, 577 chains, more or less, to a point on the thread of the St. Francis River, which is the boundary between the State of Maine and the Province of New Brunswick, Canada; thence southeasterly following the thread of the St. Francis River and the international boundary to the generally northerly boundary of the Harvey farm so-called, said farm believed to be now or formerly owned by Hermal Martin; thence in a generally westerly direction by and along the northerly boundary of said Harvey farm 43 chains, more or less, to the northwest corner thereof; thence in a southerly direction by and along the westerly line of said Harvey farm 62 chains, more or less, to the southwesterly corner thereof, which is the thread of the St. John River and the boundary between Township 18, Range 10 and the town of St. Francis; thence in a southwesterly direction by and along the thread of the St. John River and the township boundary to the northeast corner of land set off to Irving Pulp and Paper Ltd. as part of the partition; thence in westerly direction by and along the north line of the Irving parcel 548 chains, more or less, to a point on the west line of parcel set off to the State of Maine as part of the partition, said point being 106.1 chains, more or less, northerly of the south line of the township; thence in a northerly direction, by and along the east line of the State of Maine parcel, 53.9 chains, more or less, to the northeast corner thereof; thence in a westerly direction, by and along the north line of the State of Maine parcel 75.7 chains, more or less, to the northwest corner thereof and the point of beginning. Containing nine thousand nine hundred thirty four (9,934) acres, more or less.

Together with and subject to easements for all parties involved in said above-referred Final Judgment of partition for the right to cross and recross, without damaging same; for all purposes, with men and equipment over all property set off in the above-referred Final Judgment of partition as described therein.

c) All the mineral interest in Township 18, Range 10 W.E.L.S. excepted and reserved by J. M. Huber Corporation in a certain deed to Irving Pulp & Paper, Limited, recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 578, Page 258.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Twenty-seventh (T18 R10):

79,520/4,337,816 in common and undivided of a 9,934 acre (more or less) tract in Township 18, Range 10, W.E.L.S., as set forth in a Judgment of Partition dated May 28, 1986 and recorded in Book 683, Page 21 of the Aroostook County Registry of Deeds, Northern Division, as further described as follows:

Tract in Township 18, Range 10, W.E.L.S., Aroostook County, Maine, bounded and described as follows:

Beginning at a point on the west line of the township, located 160 chains, more or less, northerly of the southwest corner, said point being the northwest corner of parcel set off to the State of Maine as part of the partition;

Thence in a northerly direction, by and along the west line of the township, 120.3 chains, more or less, to a point;

Thence in a easterly direction, at all times parallel to the south line of the township, 577 chains, more or less, to a point on the thread of the St. Francis River, which is the boundary between the State of Maine and the Province of New Brunswick, Canada;

Thence southeasterly following the thread of the St. Francis River and the international boundary to the generally northerly boundary of the Harvey farm so-called, said farm believed to be now or formerly owned by Hermal Martin;

Thence in a generally westerly direction by and along the northerly boundary of said Harvey farm 43 chains, more or less, to the northwest corner thereof;

Thence in a southerly direction by and along the westerly line of said Harvey farm 62 chains, more or less, to the southwesterly corner thereof, which is the thread of the St. John River and the boundary between Township 18, Range 10 and the Town of St. Francis;

Thence in a southwesterly direction by and along the thread of the St. John River and the township boundary to the northeast corner of land set off to Irving Pulp and Paper Ltd. as part of the partition;

Thence in a westerly direction by and along the north line of the Irving parcel 548 chains, more or less, to a point on the west line of parcel set off to the State of Maine as part of the partition, said point being 106.1 chains, more or less, northerly of the south line of the township;

Thence in a northerly direction, by and along the east line of the State of Maine parcel, 53.9 chains, more or less, to the northeast corner thereof;

Thence in a westerly direction, by and along the north line of the State of Maine parcel 75.7 chains more or less, to the northwest corner thereof and the point of beginning.

Containing nine thousand nine hundred thirty four (9,934) acres more or less.

For source of title see deed from Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated September 8, 1990, and recorded in Book 816, Page 349, of the Aroostook County Registry of Deeds (Northern Division).

Excepting the following outconveyance:

FIRST OUTCONVEYANCE:

EXCEPTING any interest in Township 18, Range 10, W.E.L.S., public lot, other than, a .0026042 interest totaling 3 acres, which was transferred by the State to J. M. Huber Corporation, by deed dated November 15, 1976, and recorded in the Aroostook County Registry of Deeds (Northern Division), Book 445, Page 230; which is hereby conveyed to the Grantee.

One Hundred Twenty-eighth (T18 R10):

A 0.0003666 decimal interest in and to the following described land which represents the equivalent of 3.64 acres out of a total acreage of 9,934 acres in said parcel: Part of Township 18, Range 10, W.E.L.S.:

Beginning at a point on the west line of township, located 160 chains, more or less, northerly of the southwest corner, said point being the northwest corner of parcel set off to the State of Maine as part of the partition:

Thence in a northerly direction, by and along the west line of the township, 120.3 chains, more or less, to a point;

Thence in an easterly direction, at all times parallel to the south line of the township, 577 chains, more or less, to a point on the thread of the St. Francis River, which is the boundary between the State of Maine and the Province of New Brunswick, Canada;

Thence southeasterly following the thread of the St. Francis River and the international boundary to the generally northerly boundary of the Harvey farm so-called, said farm believed to be now or formerly owned by Hermel Martin;

Thence in a generally westerly direction by and along the northerly boundary of said Harvey farm 43 chains, more or less, to the northwest corner thereof;

Thence in a southerly direction by and along the westerly line of said Harvey farm 62 chains, more or less, to the southwesterly corner thereof, which is the thread of

the St. John River and the boundary between Township 18, Range 10 and the Town of St. Francis;

Thence in a southwesterly direction by and along the thread of the St. John River and the township boundary to the northeast corner of land set off to Irving Pulp and Paper Ltd. as part of partition;

Thence in a westerly direction by and along the north line of the Irving parcel 548 chains, more or less, to a point on the west line of parcel set off to the State of Maine as part of the partition, said point being 106.1 chains, more or less, northerly of the south line of the township; Thence in a northerly direction by and along the east line of the State of Maine parcel, 53.9 chains, more or less, to the northeast corner thereof; Thence in a westerly direction, by and along the east line of the State of Maine parcel, 75.7 chains, more or less, to the northwest corner thereof and the point of beginning. Containing nine thousand nine hundred thirty four (9,934) acres more or less.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Twenty-ninth (T18 R11):

A .0034722 in common and undivided interest, being 3 unlocated acres, more or less, in the 1,000 acre Public Lot in said T.18, R.11, W.E.L.S., which Public Lot is located on the ground. Being a portion of the premises conveyed to J. M. Huber Corporation by the State of Maine by deed dated November 15, 1976 and recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 445, Page 230.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, and recorded in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirtieth (T18 R11):

A 590933/726711th interest in the following described tract of land in Township 18, Range 11, W.E.L.S., the entire parcel totalling 7,713 acres, more or less:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line

to the southwesterly corner of the township; thence easterly, by and along the south town line to the point of beginning, excepting from this description the Public Lot.

Also granting the right to cross and recross, for all purposes, with men and equipment, over the tracts set off to the other parties in a Judgment recorded in Book 622, Page 133 of the Aroostook County Registry of Deeds (Northern Division).

For source of title see a Judgment on a Complaint to partition land recorded in Book 607, Page 337 of the Aroostook County Registry of Deeds, Northern Division. Said Judgment is recorded in Book 622, Page 133 of the Aroostook County Registry of Deeds (Northern Division).

See also a deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, and recorded in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division); deed from Grover C. Bradford to Irving Pulp & Paper, Limited, dated May 13, 1960, and recorded in Book 288, Page 369, of the Aroostook County Registry of Deeds (Northern Division); deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division); deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division); deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division); deed from The Merrill Trust Company to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-first (T18 R11):

a) a 8,318/726,077 in common and undivided interest in the Irving block so called, described as follows:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line to the southwesterly corner of the township; thence easterly, by and along the south town line to the point of beginning, excepting from this description the Public Lot.

b) a 7,688/726,077 common and undivided interest in the Irving block, so called, described as follows:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less to a point; thence westerly through the

tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line to the southwesterly corner of the township; thence easterly by and along the south town line to the point of beginning, excepting from this description the Public Lot.

c) a 1,400/726,077 common and undivided interest and LOUIS CABOT for 325/726,077 common and undivided interest in the Irving block, so called, described as follows:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line to the southwesterly corner of the township; thence easterly by and along the south town line to the point of beginning, excepting from this description the Public Lot.

For source of title see deed of Prentiss & Carlisle Co., Inc., et al., to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-second (T18 R11):

a) All of the interest of J. M. Huber Corporation, in common and undivided, in certain premises described below in Township 18, Range 11 W.E.L.S., which premises contain a minimum of 7,713 acres. Marjorie Dunn (Fernald) having inherited a 1/360ths interest in said premises from her father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division), Docket No. 6, Page 211. Marjorie Dunn (Fernald) acquired a 3/16ths of 1/360ths interest in said township from her sister, Myrtie H. D. Rogers by deed dated July 3, 1948 recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400. Jane Fernald Boyd, et als interest in said below-described premises having been set off by partition in the Superior Court of Aroostook County, Maine, Civil Action Docket No. 83-182 dated May 11, 1984, a copy of the Final Judgment being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 622, Page 133. The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 75.23 acres. No interest in the public lot is involved in this conveyance.

Said premises hereby conveyed in Township 18, Range 11 W.E.L.S. being more particularly described as follows:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line to the southwesterly corner of the township; thence easterly, by and along the south town line to the point of beginning, excepting from this description the Public Lot.

b) All of the right, title and interest of J. M. Huber Corporation acquired by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56, in common and undivided, in certain premises described below in Township 18, Range 11 W.E.L.S., which premises contain approximately 7,713 acres. Natalie M. Daggett, et als. interest in said below-described premises having been set off by partition in the Superior Court of Aroostook County, Maine, Civil Action Docket No. 83-182 dated May 11, 1984, a copy of the Final Judgment being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 622, Page 133. The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 95.03 acres. No interest in the public lot is involved in this conveyance.

Said premises hereby conveyed in Township 18, Range 11 W.E.L.S. being more particularly described as follows:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less, to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line to the southwesterly corner of the township; thence easterly, by and along the south town line to the point of beginning, excepting from this description the Public Lot.

Together with and subject to easements for all parties involved in said above-referred Final Judgment of partition for the right to cross and recross, for all purposes, with men and equipment over all property set off in the above-referred Final Judgment of Partition as described therein.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-third (T18 R11):

Nine hundred and ninety seven (997) acres, more or less, in common and undivided in the 1,000 acre public lot in Township 18, Range 11 WELS, said public lot bounded and described as follows:

Commencing at the southwest corner of township and runs north on the west line one mile to a cedar stake, thence due east at right angles with said west line five hundred rods to a black ash stake, thence south one mile to a cedar stake on the south line of the township, thence west on said south line five hundred rods to the first named bounds. Reference is made to Aroostook County Registry of Deeds, Southern District, Book 9, Page 523.

Hereby conveying all of the State's right, title and interest in this public lot after conveyance of three (3) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, dated October 19, 1990, and recorded in Book 821, Page 202, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-fourth (T18 R11):

43,200/1,262,304 in common and undivided of a 7,713 acre tract (more or less) in Township 18, Range 11, W.E.L.S., as set forth in a Judgment of Partition dated May 11, 1984, and recorded in Book 621, Page 133 of the Aroostook County Registry of Deeds (Northern Division).

For source of title see deed from Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated September 8, 1990, and recorded in Book 816, Page 349, and corrected by a deed from Nancy Patricia Coe and Winnifred Coe Verbica, dated July 17, 1991, and recorded in Book 844, Page 69, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-fifth (T18 R11):

A 0.0005476 decimal interest in and to the following described land which represents the equivalent of 4.22 acres out of a total acreage of 7,713 acres in said parcel: Part of Township 18, Range 11, W.E.L.S.:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less, to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line

to the southwesterly corner of the township; thence easterly by and along the south town line to the point of beginning.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-sixth (T18 R11):

A 7,452/302,427th fractional interest in and to the following described land which represents the equivalent of 190 acres out of a total acreage of 7,713 acres in said parcel: Part of Township 18, Range 11, W.E.L.S.:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less, to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line the southwesterly corner of the township; thence easterly by and along the south town line to the point of beginning.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the Caroline D. Tyler trust dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-seventh (T18 R11):

A 0.003393 decimal interest in and to the following described land which represents the equivalent of 22.78 acres out of a total parcel acreage of 7,713 acres, exclusive of the public lot, if any, in said parcel: Part of Township 18, Range 11, W.E.L.S.:

Beginning at the southeast corner of the township; thence northerly by and along the east town line, 184 chains, more or less, to a point; thence westerly through the tract and parallel to the south town line to a point on the easterly shore of Little Black River; thence northwesterly by and along the northeasterly shore of said river to a point on the west town line; thence southerly, by and along the west town line to the southwesterly corner of the township; thence easterly, by and along the south town line to the point of beginning.

For source of title see deed from Fraser Paper Limited to Irving Pulp & Paper, Limited, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division) .

See also the corrective deed of Fraser's Paper, Inc. (formerly Fraser Paper Limited) to Irving Pulp & Paper, Limited dated December 10, 1997 and recorded in Book 1093, Page 326 of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-eighth (T18 R12):

Five eighths (5/8) in common and undivided of a specified tract in Township 18, Range 12, heretofore set off by Commissioners to the trustees of T. U. Coe et als in 1936, heretofore set off by Commissioners of the trustees of T. U. Coe et als. in 1936 and further described as follows:

Beginning at a cedar post surrounded with stones, at the intersection of the center line with the north line of this township, said post being marked "N. E. ¼ 18 R. 12" "N. W. ¼ 18 R. 12" "S. E. ¼ 19 R. 12" "S. W. ¼ 19 R. 12 1907", and witnessed "___1907" "___"; thence southerly along said center line one hundred and twenty-one and fourteen hundredths chains (121.14) more or less to a cedar post and stones marked on the southwest "Coe"; on the northeast "Coe"; on the northwest "Wheatland"; on the southeast "___1936"; and witnessed "___1936" on a white birch to the southeast, on a yellow birch to the south "___"; on a yellow birch to the southwest "___"; on a fir to the northwest and on one to the northeast "___"; thence north 68° west thirty and twenty-five hundredths chains (30.25) more or less to a cedar post and stones, marked on the southeast "Coe"; on the northeast "Wheatland"; on the southwest "Wheatland"; on the northwest "___1936"; and witnessed on a hard maple to the east "___"; on a yellow birch to the southeast "___"; on a hard maple to the west "___"; and on a spruce to the northwest "___"; thence south 20° 45' west one hundred and twenty-nine chains and fifty-seven links (129.57) more or less to the east and west center line of this township, and a cedar post and stones, being the southwest corner of this ownership; said post marked on the northeast "Coe"; on the southeast and northwest sides "Garfield L. Co."; on the southwest "___1936"; and witnessed on a spruce to the east "___", on a fir to the northeast, a white birch to the north and on a spruce to the south "___"; thence easterly along said east and west center line two hundred and thirty-eight chains and thirty-five links (238.35) more or less to the west bank of the Little Black River; thence up the thread of the Little Black River to a cedar post and stones on the north bank of same, being the southwest corner of the "Gray Dunn et als" ownership, said post being marked on the west side "Coe"; on the east "Gray Dunn et als"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence north 22° 15' east one hundred and ninety-five chains and twenty-two links (195.22) more or less, to the north line of said township, being the northeast corner of this ownership, and a cedar post surrounded with stones marked on the southwest "Coe"; on the southeast "Gray Dunn et als,"; on the north "19 R. 12" "___" 1936", and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south and on a fir to the southeast; thence westerly along the north line of said township one hundred and twenty-three chains and twenty-six links (123.26) more or less to

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the point of beginning, containing 3,825 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call.

For source of title see deed from The Merrill Trust Company, Trustee, to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Thirty-ninth (T18 R12):

One eighth (1/8) in common and undivided of a specified tract in Township 18, Range 12, heretofore set off by Commissioners to the trustee of T. U. Coe et als in 1936, further described as follows:

Beginning at a cedar post surrounded with stones, at the intersection of the center line with the north line of this township, said post being marked "N. E. ¼ 18 R. 12" "N. W. ¼ 18 R. 12" "S. E. ¼ 19 R. 12" "S. W. ¼ 19 R. 12 1907", and witnessed "___1907" "___"; thence southerly along said center line one hundred and twenty-one and fourteen hundredths chains (121.14) more or less to a cedar post and stones marked on the southwest "Coe"; on the northeast "Coe"; on the northwest "Wheatland"; on the southeast "___1936"; and witnessed "___1936" on a white birch to the southeast, on a yellow birch to the south "___"; on a yellow birch to the southwest "___"; on a fir to the northwest and on one to the northeast "___"; thence north 68° west thirty and twenty-five hundredths chains (30.25) more or less to a cedar post and stones, marked on the southeast "Coe"; on the northeast "Wheatland"; on the southwest "Wheatland"; on the northwest "___1936"; and witnessed on a hard maple to the east "___"; on a yellow birch to the southeast "___"; on a hard maple to the west "___"; and on a spruce to the northwest "___"; thence south 20° 45' west one hundred and twenty-nine chains and fifty-seven links (129.57) more or less to the east and west center line of this township, and a cedar post and stones, being the southwest corner of this ownership; said post marked on the northeast "Coe"; on the southeast and northwest sides "Garfield L. Co."; on the southwest "___1936"; and witnessed on a spruce to the east "___", on a fir to the northeast, a white birch to the north and on a spruce to the south "___"; thence easterly along said east and west center line two hundred and thirty-eight chains and thirty-five links (238.35) more or less to the west bank of the Little Black River; thence up the thread of the Little Black River to a cedar post and stones on the north bank of same, being the southwest corner of the "Gray Dunn et als" ownership, said post being marked on the west side "Coe"; on the east "Gray Dunn et als"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence north 22° 15' east one hundred and ninety-five chains and twenty-two links (195.22) more or less, to the north line of said township, being the northeast corner of this ownership, and a cedar post surrounded with stones marked on the southwest "Coe"; on the southeast "Gray Dunn et als"; on the north "19 R. 12" "___" "1936", and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south and on a fir to the southeast; thence westerly along the north line of said township

one hundred and twenty-three chains and twenty-six links (123.26) more or less to the point of beginning, containing 3,825 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call, said fractional part of said specified tract containing, exclusive of the Public Lot, two thousand three hundred ninety and six tenths (2390.6) acres, more or less, and thirty five two hundred eighty-eighths (35/288) in common and undivided of the right to cut and carry away the timber and grass from the Public Lot, said fractional part containing eighty-six and five tenths (86.5) acres, more or less, said fractional part of said specified tract containing (478.1) acres, more or less, and seven two hundred and eighty-eighths (7/288) in common and undivided of the right to cut and carry away timber and grass from the Public Lot, said fractional part containing seventeen and three-tenths (17.3) acres, more or less.

For source of title see deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fortieth (T18 R12):

Twenty five two hundred sevenths (25/207) in common and undivided of that part of Township Numbered Eighteen (18) Range Twelve (12) set off to George B. Dunn. et als to partition proceedings entered at September term of the Superior Court held at Caribou on the second Tuesday of September, 1936, and recorded in Aroostook Registry of Deeds, Northern District, Book 158, Page 50. Said part so set off being described as follows: Beginning at a cedar post and stones marking the northeast corner of said Township being marked on the southwest "N. E. ¼ 18 R 12 1907" on the northwest "S. E. ¼ 19 R 12 ___"; on the northeast "S. W. ¼ 19 R 11, 1907"; on the southeast "N. W. ¼ T. 18 R 11 ___"; and witnessed "___1907" "___1917" "___1901". Also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less, to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west "Coe" on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00) more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R 12 ___1936", on the northeast, "N.W. 1/4 18 R 11"; on the southeast "N. W. ¼ 18 R 11"; on the southwest "S. E. ¼ 18 R 12"; on the southeast "S. W. ¼ 18 R 11" and witnessed on a spruce to the west "___1936" "1900 ___" on a spruce to the

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southwest “___1936” “___1907”; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, said fractional part containing two hundred ninety-four and eighty-one hundredths (294.81) acres more or less, and five two hundred eighty-eighths (5/288) in common and undivided of the right to cut and carry away the timber and grass from the Public Lot in southwesterly part of said Township, said fractional part containing twelve and thirty-six hundredths (12.36) acres more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-first (T18 R12):

8/207ths in that part of Township eighteen (18), Range twelve (12) W.E.L.S. set off to George B. Dunn et als by judgment for partition at the November Term 1936, of the Superior Court for Aroostook County, further described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, “N. E. $\frac{1}{4}$ 18 R. 12 1907”; on the northwest, “S. E. $\frac{1}{4}$ 19 R. 12 ___”; on the northeast “S. W. $\frac{1}{4}$ 19 R. 11, 1907”, on the southeast “N. W. $\frac{1}{4}$ T. 18 R. 11 ___”, and witnessed “___1907” “___1917” “___1901”, also a post at this point marked “Pingree at als” “Pc 1929”; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast “Gray Dunn et al”; on the southwest “Coe”; on the north “19 R. 12 ___1936”; and witnessed “___” on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15’ west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east “Gray Dunn et al” on the west, “Coe”; on the south “___1936”; and witnessed “___” on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00) more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest “N. E. $\frac{1}{4}$ 18 R. 12 ___1936”, on the northeast “N. W. $\frac{1}{4}$ 18 R. 11”; on the southwest “S.E. $\frac{1}{4}$ 18 R 12”; on the southeast “N. W. $\frac{1}{4}$ 18 R. 11”; on the southwest “S.E. $\frac{1}{4}$ 18 R. 12”; on the southeast “S. W. $\frac{1}{4}$ 18 R. 11”, and witnessed on a spruce to the west “___1936” “1900___” on a spruce to the southwest “___1936 ___1907”; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call, said fractional part of said

specified tract containing, exclusive of the Public Lot, two thousand three hundred ninety and six tenths (2390.6) acres, more or less, and thirty-five two hundred eighty eighths (35/288) in common and undivided of the right to cut and carry away timber and grass from the Public Lot, said fractional part containing eighty-six and five tenths (86.5) acres, more or less, said fractional part containing ninety-four and thirty-three hundredths (94.33) acres more or less, and 1/180ths of the right to cut and carry away timber and grass from the Public Lot in the west half of northeast quarter of said Township eighteen (18), Range twelve (12), said fractional part containing three and ninety-five hundredths (3.95) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated April 25, 1955, and recorded in Book 253, Page 363, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-second (T18 R12):

The following described premises owned undivided and in common with others situated in Township Eighteen (18) and Range numbered Twelve (12) west from the east line of the State of Maine (T18, R 12, W.E.L.S.) in the County of Aroostook:

a) one third (1/3) of twenty sixty-ninths (20/69) in common and undivided of the parcel of real estate situate in the northeast corner of said T. 18, R. 12, W.E.L.S. and being the Block set off to George B. Dunn and others by the Commissioners appointed under a Warrant Partition issued by the Superior Court in and for the County of Aroostook at the September Term, 1936, in an action brought by Garfield Land Company and others for Partition of the west half and northeast quarter of said Township, and referred to therein as the "Gray Dunn et als" Block and described as follows: Beginning at a cedar post marking the northeast corner of said T.18, R.12; thence westerly by and along the north line of said township one hundred thirteen chains and ninety-four links (113.94) more or less, to a cedar post; thence south twenty-two degrees and fifteen minutes west (S 22° 15'W) one hundred ninety-five and twenty-two one hundredths (195.22) chains, more or less to a cedar post and stone on the north bank of the Little Black River down the thread of the Little Black River to where the east and west centerline of said Township crosses said River; thence easterly along said center line twenty-seven (27) chains, more or less to a cedar post on the east line of said township; thence northerly by and along said east line of said township two hundred forty-eight (248) chains and eleven (11) links, more or less, to the point of beginning, containing in said Block two thousand four hundred and forty-one (2,441) acres, more or less, all of the above described posts being marked and witnessed as set forth in said report of said Commissioners. Said premises hereby conveyed containing 235.84 acres, more or less and being a portion of the same premises conveyed to J. M. Huber Corporation by deed of James W. Sewall dated July 1, 1942 and recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 188, Page 447.

b) Fifteen (15) two hundred sevenths (207) in common and undivided of that portion of T.18, R.12, set off to George B. Dunn et als, containing 2,441 acres, more or less. Further described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, "N. E. $\frac{1}{4}$ 18 R. 12 1907"; on the northwest, "S. E. $\frac{1}{4}$ 19 R. 12 ___"; on the northeast "S. W. $\frac{1}{4}$ 19 R. 11, 1907", on the southeast "N. W. $\frac{1}{4}$ T. 18 R. 11 ___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree at als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00) more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. $\frac{1}{4}$ 18 R. 12 ___1936", on the northeast "N. W. $\frac{1}{4}$ 18 R. 11"; on the southwest "S.E. $\frac{1}{4}$ 18 R 12"; on the southeast "N. W. $\frac{1}{4}$ 18 R. 11"; on the southwest "S.E. $\frac{1}{4}$ 18 R. 12"; on the southeast "S. W. $\frac{1}{4}$ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call, said fractional part of said specified tract containing, exclusive of the Public Lot, two thousand three hundred ninety and six tenths (2390.6) acres, more or less, and thirty-five two hundred eighty eighths (35/288) in common and undivided of the right to cut and carry away timber and grass from the Public Lot, said fractional part containing eighty-six and five tenths (86.5) acres, more or less. Said premises hereby conveyed containing 176.88 acres, more or less and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated June 25, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 1.

c) Five (5) two hundred sevenths (207) in common and undivided of that portion or T.18, R.12, set off to George B. Dunn, et als, containing 2,441 acres, more or less. Further described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, "N. E. $\frac{1}{4}$ 18 R. 12 1907"; on the northwest, "S. E. $\frac{1}{4}$

19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11 ___", and witnessed "___1907" "___1917" "___ 1901", also a post at this point marked "Pingree at als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00) more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast "N. W. ¼ 18 R. 11"; on the southwest "S.E. ¼ 18 R 12"; on the southeast "N. W. ¼ 18 R. 11"; on the southwest "S.E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call, said fractional part of said specified tract containing, exclusive of the Public Lot, two thousand three hundred ninety and six tenths (2390.6) acres, more or less, and thirty-five two hundred eighty eighths (35/288) in common and undivided of the right to cut and carry away timber and grass from the Public Lot, said fractional part containing eighty-six and five tenths (86.5) acres, more or less. Said premises hereby conveyed and containing 58.96 acres, more or less and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated July 21, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 55.

d) A .0277778 common and undivided interest, being 20 unlocated acres, more or less, in the 712 located acres of the 1,000 Public Lot, further described as follows: Commencing on the southwest corner of the township and running east on the south line of the township 121.21 chains to a point marked by a cedar post marked on the northwest "Public Lot 3," on the south "17 R. 12 ^", and the northeast "18 R. 12 3," and witnessed on the spruce to the northeast "3," on a yellow birch to the southwest "3," on a yellow birch to the south "3," o a spruce to the south "3," and on a spruce to the southeast "3"; Thence north 20° east 60 chains to a point marked by a cedar post marked on the southwest "Public Lot," on southeast "1936," on the north "18 R. 12" and also "G. L. Co., " and witnessed on a white birch to the north "3 1936," and "3" on firs to the west, south and east; Thence north 68° 30' west a distance of 119.69 chains to a point on the western boundary of Township 18, Range

12 marked by a cedar post marked "Town Line ^ 3 T 18, R12, 1936, Public Lot" and witnessed "3 1936" thence south along the western line of said township a distance of 58.27 chains. Reference is made to Maine State Archives, Plan Book 24, Page 18 ½, which 712 acres are located on the ground. Being a portion of the same premises conveyed to J. M. Huber Corporation by the State of Maine by deed dated November 15, 1976 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 445, Page 230.

e) A 1/3 of ¼ in common and undivided of a specified tract in T.18, R.12, W.E.L.S. containing 3825 acres, more or less, heretofore set off by Commissioners to the Trustees of T. U. Coe, et als in 1936, the Commissioners' report being recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 158, Page 50, further described as follows:

Beginning at a cedar post surrounded with stones, at the intersection of the center line with the north line of this township, said post being marked "N. E. ¼ 18 R. 12" "N. W. ¼ 18 R. 12" "S. E. ¼ 19 R. 12" "S. W. ¼ 19 R. 12 1907", and witnessed "___1907" "___"; thence southerly along said center line one hundred and twenty-one and fourteen hundredths chains (121.14) more or less to a cedar post and stones marked on the southwest "Coe"; on the northeast "Coe"; on the northwest "Wheatland"; on the southeast "___1936"; and witnessed "___1936" on a white birch to the southeast, on a yellow birch to the south "___"; on a yellow birch to the southwest "___"; on a fir to the northwest and on one to the northeast "___"; thence north 68° west thirty and twenty-five hundredths chains (30.25) more or less to a cedar post and stones, marked on the southeast "Coe"; on the northeast "Wheatland"; on the southwest "Wheatland"; on the northwest "___1936"; and witnessed on a hard maple to the east "___"; on a yellow birch to the southeast "___"; on a hard maple to the west "___"; and on a spruce to the northwest "___"; thence south 20° 45' west one hundred and twenty-nine chains and fifty-seven links (129.57) more or less to the east and west center line of this township, and a cedar post and stones, being the southwest corner of this ownership; said post marked on the northeast "Coe"; on the southeast and northwest sides "Garfield L. Co."; on the southwest "___1936"; and witnessed on a spruce to the east "___", on a fir to the northeast, a white birch to the north and on a spruce to the south "___"; thence easterly along said east and west center line two hundred and thirty-eight chains and thirty-five links (238.35) more or less to the west bank of the Little Black River; thence up the thread of the Little Black River to a cedar post and stones on the north bank of same, being the southwest corner of the "Gray Dunn et als" ownership, said post being marked on the west side "Coe"; on the east "Gray Dunn et als"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence north 22° 15' east one hundred and ninety-five chains and twenty-two links (195.22) more or less, to the north line of said township, being the northeast corner of this ownership, and a cedar post surrounded with stones marked on the southwest "Coe"; on the southeast "Gray Dunn et als,"; on the north "19 R. 12 "___" 1936", and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south and on a fir to the southeast; thence westerly along the north line of said township

one hundred and twenty-three chains and twenty-six links (123.26) more or less to the point of beginning, containing 3,825 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call, said fractional part of said specified tract containing, exclusive of the Public Lot, three hundred eighteen and seventy-five hundredths (318.75) acres, more or less. Being a portion of the premises conveyed to J. M. Huber Corporation by Dorothy Watt, Executrix of the Will of Sada Coe Robinson, dated June 30, 1980 and recorded in said Aroostook County Registry of Deeds, Northern Division, Book 527, Page 333.

f) A $\frac{1}{3}$ of $\frac{1}{4}$ in common and undivided of a specified tract in T.18, R.12, W.E.L.S. containing 3825 acres more or less, heretofore set off by Commissioners to the Trustees of T. U. Coe, et als, in 1936, the Commissioners' report being recorded in Aroostook County Registry of Deeds, Northern Division, in Book 158, Page 50, further described as follows:

Beginning at a cedar post surrounded with stones, at the intersection of the center line with the north line of this township, said post being marked "N. E. $\frac{1}{4}$ 18 R. 12" "N. W. $\frac{1}{4}$ 18 R. 12" "S. E. $\frac{1}{4}$ 19 R. 12" "S. W. $\frac{1}{4}$ 19 R. 12 1907", and witnessed "___1907" "___"; thence southerly along said center line one hundred and twenty-one and fourteen hundredths chains (121.14) more or less to a cedar post and stones marked on the southwest "Coe"; on the northeast "Coe"; on the northwest "Wheatland"; on the southeast "___1936"; and witnessed "___1936" on a white birch to the southeast, on a yellow birch to the south "___"; on a yellow birch to the southwest "___"; on a fir to the northwest and on one to the northeast "___"; thence north 68° west thirty and twenty-five hundredths chains (30.25) more or less to a cedar post and stones, marked on the southeast "Coe"; on the northeast "Wheatland"; on the southwest "Wheatland"; on the northwest "___1936"; and witnessed on a hard maple to the east "___"; on a yellow birch to the southeast "___"; on a hard maple to the west "___"; and on a spruce to the northwest "___"; thence south $20^{\circ} 45'$ west one hundred and twenty-nine chains and fifty-seven links (129.57) more or less to the east and west center line of this township, and a cedar post and stones, being the southwest corner of this ownership; said post marked on the northeast "Coe"; on the southeast and northwest sides "Garfield L. Co."; on the southwest "___1936"; and witnessed on a spruce to the east "___", on a fir to the northeast, a white birch to the north and on a spruce to the south "___"; thence easterly along said east and west center line two hundred and thirty-eight chains and thirty-five links (238.35) more or less to the west bank of the Little Black River; thence up the thread of the Little Black River to a cedar post and stones on the north bank of same, being the southwest corner of the "Gray Dunn et als" ownership, said post being marked on the west side "Coe"; on the east "Gray Dunn et als"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence north $22^{\circ} 15'$ east one hundred and ninety-five chains and twenty-two links (195.22) more or less, to the north line of said township, being the northeast corner of this ownership, and a cedar post surrounded with stones marked on the southwest "Coe"; on the southeast "Gray Dunn et als"; on the north "19 R. 12 "___" 1936", and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south

and on a fir to the southeast; thence westerly along the north line of said township one hundred and twenty-three chains and twenty-six links (123.26) more or less to the point of beginning, containing 3,825 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call, said fractional part of said specified tract containing, exclusive of the Public Lot, three hundred eighteen and seventy-five hundredths (318.75) acres, more or less. Being a portion of the premises conveyed to J. M. Huber Corporation by the President and Trustees of Bowdoin College by deed dated June 30, 1980 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 527, Page 346.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, and recorded in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-third (T18 R12):

The following described premises situated in Township Number Eighteen (18) in Range (12) West from the east line of the State of Maine (T.18 R.12) W.E.L.S. in the County of Aroostook:

The southeast quarter of Township numbered eighteen (18) in the twelfth (12th) Range of Townships west from the East line of the State, in the County of Aroostook and State of Maine, as surveyed by Small & Barker, in 1845, containing five thousand seven hundred eighty-two and seventy-five hundredths (5,782.75) acres, more or less. Subject to the reservation of the public lots as reserved in the deed of same from the State of Maine, being the same premises which were conveyed to Eben S. Coe by said State of Maine, by deed of Hiram Chapman, Land Agent, dated September 2, 1863 and recorded in Aroostook Registry of Deeds, Northern District, Book 5, Page 244.

For source of title see deed from Produits Forestiers D' Auteuil Limitee to Irving Pulp & Paper, Limited, dated January 30, 1989, and recorded in Book 767, Page 63, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-fourth (T18 R12):

(a) A 191,314/7,098,651 common and undivided interest in the Dunn block, so called, described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, "N. E. ¼ 18 R. 12 1907"; on the northwest, "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11 ___", and witnessed "___ 1907" "___ 1917" "___ 1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north

line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00) more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast, "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres.

(b) A 7,688/308,637 common and undivided interest in the Dunn block, so called, described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, "N. E. ¼ 18 R. 12 1907"; on the northwest "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11 ___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00), more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast, "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and

forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres.

(c) a 480/102,879 common and undivided interest in the Dunn block, so called, described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, "N. E. ¼ 18 R. 12 1907"; on the northwest, "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11 ___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00), more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast, "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres.

(d) 125/102,879 common and undivided interest the Dunn block, so called, described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, "N. E. ¼ 18 R. 12 1907"; on the northwest, "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11 ___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being

marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00), more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast, "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres.

For source of title see deed from Prentiss & Carlisle Company, Inc. et al, to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-fifth (T18 R12):

a) All of the interest conveyed by J. M. Huber Corporation to Irving Pulp & Paper, Limited, in common and undivided, in certain premises described below in Township 18, Range 12 W.E.L.S. (Dunn Block), which premises contain a minimum of 2,441 acres. Marjorie Dunn (Fernald) and Mytie H. D. Rogers each having inherited an interest in part of said Township from their father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division) Docket No. 6, Page 211. Said premises hereby conveyed in Township 18, Range 12 W.E.L.S. being more particularly described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest "N. E. ¼ 18 R. 12 1907"; on the northwest "S. E. ¼ 19 R. 12___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 1936" ; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, being a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence

easterly along said center line twenty-seven chains (27.00), more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast, "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres, being the same more or less, as surveyed and the spots painted orange paint during 1936, by Frank M. Call.

Marjorie Dunn (Fernald) acquired a 3/16ths interest of the interest of her sister, Myrtie H. D. Rogers in said above-described premises by deed from Myrtie H. D. Rogers dated July 3, 1948 recorded in said Aroostook County Registry of Deeds (Southern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400. The total acreage hereby conveyed based on said common and undivided interests and partition is approximately 56.04 acres. No interest in the public lot is involved in this conveyance.

b) All of the right, title and interest of J. M. Huber Corporation acquired by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 697, Page 56, in common and undivided, in certain premises described below in Township 18, Range 12 W.E.L.S. (Dunn Block), which premises contain approximately 2,441 acres. Said premises hereby conveyed in Township 18, Range 12 W.E.L.S. being more particularly described as follows:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest "N. E. ¼ 18 R. 12 1907"; on the northwest "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, being a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22° 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a spruce to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00), more or less, to a cedar

post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast, "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11) more or less, to the point of beginning, containing 2,441 acres, being the same more or less, as surveyed and the spots painted orange paint during 1936, by Frank M. Call.

Natalie M. Dagget, et als. interest in said above-described premises having been set off by partition in the Superior Court Aroostook County, Maine, Final Judgment being dated November 25, 1936, and a copy of said partition including a certificate of the Clerk of Courts for the Superior Court being recorded in said Registry in Book 158, Page 50.

The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 70.75 acres. No interest in the public lot is involved in this conveyance.

c) All the mineral interest in Township 18, Range 12 W.E.L.S. excepted and reserved by J. M. Huber Corporation in a certain deed to Irving Pulp and Paper, Limited, recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 578, Page 258.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-sixth (T18 R12):

1/3 of 1/4 in common and undivided of a specified tract in Township 18, Range 12, W.E.L.S., heretofore set off by Commissioners to the trustee of T. U. Coe et als in 1936, the Commissioners' report having being recorded in the Aroostook County Registry of Deeds, Northern Division, in Book 158 beginning at Page 50, further described as follows:

a) Beginning at a cedar post surrounded with stones, at the intersection of the center line with the north line of this township, said post being marked "N. E. ¼ 18 R. 12" "N. W. ¼ 18 R. 12___" "S. E. ¼ 19 R. 12___" "S. W. ¼ 19 R. 12 1907", and witnessed "___1907" "___"; thence southerly along said center line one hundred and twenty-one and fourteen hundredths chains (121.14) more or less to a cedar post and stones marked on the southwest "Coe"; on the northeast "Coe"; on the northwest "Wheatland"; on the southeast "___1936"; and witnessed "___1936" on a white birch to the southeast, on a yellow birch to the south "___"; on a yellow birch to the southwest "___"; on a fir to the northwest and on one to the northeast "___";

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thence north 68° west thirty and twenty-five hundredths chains (30.25) more or less to a cedar post and stones, marked on the southeast "Coe"; on the northeast "Wheatland"; on the southwest "Wheatland"; on the northwest "___1936"; and witnessed on a hard maple to the east "___"; on a yellow birch to the southeast "___"; on a hard maple to the west "___"; and on a spruce to the northwest "___"; thence south 20° 45' west one hundred and twenty-nine chains and fifty-seven links (129.57) more or less to the east and west center line of this township, and a cedar post and stones, being the southwest corner of this ownership; said post marked on the northeast "Coe"; on the southeast and northwest sides "Garfield L. Co."; on the southwest "___1936"; and witnessed on a spruce to the east "___", on a fir to the northeast, a white birch to the north and on a spruce to the south "___"; thence easterly along said east and west center line two hundred and thirty-eight chains and thirty-five links (238.35) more or less to the west bank of the Little Black River; thence up the thread of the Little Black River to a cedar post and stones on the north bank of same, being the southwest corner of the "Gray Dunn et als" ownership, said post being marked on the west side "Coe"; on the east "Gray Dunn et als"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence north 22° 15' east one hundred and ninety-five chains and twenty-two links (195.22) more or less, to the north line of said township, being the northeast corner of this ownership, and a cedar post surrounded with stones marked on the southwest "Coe"; on the southeast "Gray Dunn et als,"; on the north "19 R. 12 "___" 1936", and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south and on a fir to the southeast; thence westerly along the north line of said township one hundred and twenty-three chains and twenty-six links (123.26) more or less to the point of beginning, containing 3,825 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call, said fractional part of said specified tract containing, exclusive of the Public Lot, three hundred eighteen and seventy-five hundredths (318.75) acres, more or less.

For source of title see deed from Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated September 8, 1990, and recorded in Book 816, Page 349, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-seventh (T18 R12):

Six hundred and ninety-two (692) acres, more or less, in common and undivided in the 712 acre public lot in the southwesterly one-quarter of Township 18, Range 12 WELS, said public lot bounded and described as follows:

Commencing on the southwest corner of the township and running east on the south line of the township 121.21 chains to a point marked by a cedar post marked on the northwest "Public Lot ___," on the south "17 R. 12 ___", and the northeast "18 R. 12 ___," and witnessed on the spruce to the northeast "___" on a yellow birch to the southwest "___," on a yellow birch to the south "___" on a spruce to the south "___," and on a spruce to the southeast "___"; Thence north 20° east 60 chains to a

point marked by a cedar post marked on the southwest "Public Lot," on southeast "1936," on the north "18 R. 12" and also "G. L. Co., " and witnessed on a white birch to the north "___1936," and "___" on firs to the west, south and east; Thence north 68° 30' west a distance of 119.69 chains to a point on the western boundary of Township 18, Range 12 marked by a cedar post marked "Town Line ___ T 18, R12, 1936, Public Lot" and witnessed "___1936" thence south along the western line of said township a distance of 58.27 chains. Reference is made to Maine State Archives, Plan Book 24, Page 18 ½.

The said public lot being and intending to be the public lot in the southwesterly one-quarter of Township 18, Range 12 WELS, originally reserved in a deed from Commonwealth of Massachusetts and State of Maine to John Glazier which deed is dated February 10, 1849 and recorded in the State of Maine Archives Office in Book 2, Page 81, which public lot was located on the ground in 1849, the resulting parcel of land being described as follows:

Commencing at the southwest corner of the township and runs east on the south line of the township five hundred rods to a cedar stake, thence north two hundred and forty rods to a cedar stake, thence west five hundred rods to a cedar stake on the west line of the township. Thence south on said west line two hundred and forty rods to the first named bounds. Reference is made to the Aroostook County Registry of Deeds, Southern District, Book 9, Page 523.

Hereby conveying all of the State's right, title and interest in this public lot after conveyance of twenty (20) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

Also, two hundred and fifty (250) acres, more or less, in common and undivided, in and to the southeasterly one-quarter of said Township 18, Range 12 WELS, hereby conveying all of the unlocated public lot in said southeasterly quarter of said township.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, dated October 19, 1990, and recorded in Book 821, Page 202, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-eighth (T18 R12):

A 168/130,410ths fractional interest in and to the following described land set off to George B. Dunn et als, which represents the equivalent of 3.14 acres out of a total acreage of 2,441 acres in said parcel: Part of Township 18, Range 12, W.E.L.S.:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest, "N. E. ¼ 18 R. 12 1907"; on the northwest "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼

t. 18 R. 11 ___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22 deg. 15' west one hundred and ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00) more or less, to a cedar post to the west town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18R. 12 ___1936", on the northeast "N. W. ¼ 18 R. 11"; on the southwest "S.E. 1/4 18 R. 12"; on the southeast "S.W. 1/4 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight (248) chains and eleven (11) links more or less, to the point of beginning, containing 2,441 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Forty-ninth (T18 R12):

A 84/1,449ths fractional interest in and to the following described land set off to George B. Dunn et als, which represents the equivalent of 142 acres out of a total acreage of 2,441 acres in said parcel: Part of Township 18, Range 12, W.E.L.S.:

Beginning at a cedar post and stones marking the northeast corner of said township being marked on the southwest "N. E. ¼ 18 R.12 1907"; on the northwest "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11 ___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94) more or less to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence south 22 deg. 15' west one hundred ninety-five and twenty-two hundredths chains (195.22) more or less to a cedar post and stones on the north bank of the Little Black River, being

marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west, and on a cedar to the north; thence down the thread of the Little Black River where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven chains (27.00) more or less, to a cedar post to the west town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12"; on the southeast "S. W. ¼ 18 R. 11"; and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936 ___1907"; said point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight (248) chains and eleven (11) links more or less, to the point of beginning, containing 2,441 acres, be the same more or less, as surveyed and the spots painted with orange paint during 1936, by Frank M. Call.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the Caroline D. Tyler trust dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fiftieth (T18 R12):

A 0.058517 decimal interest in and to the following described land set off to George B. Dunn et als, which represents the equivalent of 142.84 acres out of a total parcel acreage of 2,441 acres, exclusive of the public lot, if any, in said parcel: Part of Township 18, Range 12, W.E.L.S.:

Beginning at a cedar post and stones marked the northeast corner of said township being marked on the southwest, "N. E. ¼ 18 R. 12 1907"; on the northwest, "S. E. ¼ 19 R. 12 ___"; on the northeast "S. W. ¼ 19 R. 11, 1907", on the southeast "N. W. ¼ T. 18 R. 11 ___", and witnessed "___1907" "___1917" "___1901", also a post at this point marked "Pingree et als" "Pc 1929"; thence westerly by and along said north line one hundred and thirteen chains and ninety-four links (113.94), more or less, to a cedar post and stones marked on the southeast "Gray Dunn et al"; on the southwest "Coe"; on the north "19 R. 12 ___1936"; and witnessed "___" on a fir to the west, on a yellow birch to the southwest, on a fir to the south, and on a fir to the southeast, being the northwest corner of this ownership; thence South twenty-two degrees fifteen minutes West (S 22° 15' W) one hundred ninety-five and twenty-two hundredths (195.22) chains, more or less, to a cedar post and stones on the north bank of the Little Black River, being marked on the east "Gray Dunn et al" on the west, "Coe"; on the south "___1936"; and witnessed "___" on a fir to the east, on a fir to the northwest, on a spruce to the west and on a cedar to the north; thence down the thread of the Little Black River to where the east and west center line of this township crosses said river; thence easterly along said center line twenty-seven

(27.00) chains, more or less, to a cedar post on the east town line of said town, being the southeast corner of this ownership, and being marked on the northwest "N. E. ¼ 18 R. 12 ___1936", on the northeast "N. W. ¼ 18 R. 11"; on the southwest "S. E. ¼ 18 R. 12" on the southeast "S. W. ¼ 18 R. 11", and witnessed on a spruce to the west "___1936" "1900___" on a spruce to the southwest "___1936" "___1907"; and point being the southeast corner of said ownership; thence northerly by and along said east town line, two hundred and forty-eight chains and eleven links (248.11), more or less, to the point of beginning, containing 2,441 acres, be the same more or less, as surveyed and spots painted with orange paint during 1936, by Frank M. Call.

For source of title see deed from Fraser Paper Limited to Irving Pulp & Paper, Limited, dated March 14, 1996, and recorded in Book 1089, Page 138, and recorded in the Aroostook County Registry of Deeds (Northern Division).

See also the corrective deed of Fraser's Paper, Inc. (formerly Fraser Paper Limited) to Irving Pulp & Paper, Limited dated December 10, 1997 and recorded in Book 1093, Page 326, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-first (T18 R13):

(a) a Twenty-four hundred and fifty-nine eleven thousand three hundred and fortieths (2459/11340) undivided interest in the Dunn Block in Township 18 Range 13 W.E.L.S., Aroostook County, further described as follows:

Starting on the southerly line of township Eighteen (18) Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred and thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and part of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4644) acres, more or less.

(b) a ½ undivided interest in the St. John Company Block in said township further described as follows:

Starting on the northerly line of said township number eighteen (18) Range thirteen (13) at a point twenty-seven and thirty-six hundredths (27.36) chains easterly from the north west corner of said town and at a post marked "St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred seventy-one and ninety hundredths (171.90) chains to a post marked "St. J. L. Co., Pingree et al, P. L., Pc 1929"; thence north sixty-eight (68) degrees west for forty (40) chains to post marked "St. J. L. Co., P. L. Pc 1929"; thence south twenty-two (22) degrees west for one hundred and twenty-five (125) chains to post marked "St. J. L. Co., P. L. Pc 1929"; thence south sixty-eight (68) degrees east for eighty (80) chains to post marked "St. J. L. Pingree et al Pc 1929"; thence south twenty-two (22) degrees west for ninety-two and fifty hundredths (92.50) chains to post marked "St. J. L. Co., Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees west for one hundred fifty seven and eighty hundredths (157.80) chains to post marked "St. J. L. Co., Dunn et al, Pc 1929"; thence north twenty-two (22) degrees east for fifty and eighty hundredths (50.80) chains to post marked "St. J. L. Co., Dunn et al, Pc 1929"; thence north sixty-eight (68) degrees west for one hundred thirty-eight and fifty hundredths (138.50) chains to the International Boundary and post marked "St. J. L. Co., Dunn et al, Pc 1929"; thence north-easterly along said International Boundary for four hundred seven and eighty hundredths (407.80) chains to the north west corner of said town; thence south sixty-eight (68) degrees east along the northerly line of said town for twenty-seven and thirty-six hundredths (27.36) chains to point of beginning. This tract contains all of sections one (1) and four (4) and part of sections five (5), eight (8), nine (9), ten (10), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains five thousand two hundred and sixty-six (5266) acres, more or less.

(c) All of the Pierce Block of Said Township.

For source of title see deed from Madawaska Company to Saint John Sulphite, Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-second (T18 R13):

One hundred fifty-five fifteen hundred twelfths (155/1512) in common and undivided of that part of Township Numbered Eighteen (18) Range Thirteen (13) that was set off to Dunn et als in partition proceedings commenced September 29, 1928, recorded in Aroostook Registry of Deeds, Northern District, Book 123, Page 333. Said part so set off is described as follows:

Beginning on the southerly line of said Township at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said township at a post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of

said town; thence northeasterly along said International Boundary one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc1929"; thence south sixty-eight degrees east one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al. St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east one hundred fifty-two and eighty hundredths (152.80) chains to post marked "dunn et al, St. J. L. Co., Pingree et al, P. C. 1929"; thence south Twenty-two (22) degrees west one hundred four and forty hundredths (104.40) chains to the southerly line of said Township and point of beginning. Said fractional part containing four hundred seventy-six and seven hundredths (476.07) acres more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-third (T18 R13):

161/630ths in part of Township eighteen (18), Range Thirteen (13) W.E.L.S. County of Aroostook which was set off to George B. Dunn et al by Decree of the Supreme Judicial Court, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional part containing eleven hundred eighty six and seventy seven hundredths (1,186.77) acres, more or less.

For source of title see deed from Eustis Pennock et al, to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and deed from Granite Trust Company, Executor of Will of Eustis Pennock, to Irving Pulp & Paper, Limited,

dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-fourth (T18 R13):

31/945ths of that part of Township eighteen (18), Range thirteen (13) W.E.L.S. set off to George B. Dunn et als by judgment for partition rendered at the April Term 1929, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, of said Court, said fractional part containing, exclusive of the Public Lot, one hundred fifty-two and thirty-four hundredths (152.34) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated September 28, 1956, and recorded in Book 268, Page 28, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-fifth (T18 R13):

a) Grantor's one-half (1/2) interest in common and undivided in 19/48 of the Public Lot in Township 18, Range 13, said Public Lot being bounded and described as follows:

Starting at a point on the north and south center line of Township Eighteen (18), Range Thirteen (13), said line being easterly line of Section five (5) and the westerly line of section six (6) according to Prentiss and Carlisle Company 1929 Survey, one hundred seventy-one and ninety hundredths (171.90) chains south twenty-two (22) degrees west along said center line from the northerly line of said town and at a post marked "P. L. St. J. L. Co., Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east forty (40) chains to post marked "P. L. Pingree et al, Pc 1929";

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thence south twenty-two (22) degrees west for one hundred and twenty-five (125) chains to post marked "P. L. Pingree et al, St. J. L. Co. Pc 1929"; thence north sixty-eight (68) degrees west eighty (80) chains to a post "P. L. St. J. L. Co., Pc 1929"; thence north twenty-two (22) degrees east for one hundred twenty-five (125) chains to post marked "P. L., St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east forty (40) chains to point of beginning. This tract contains parts of sections five (5), six (6), nine (9) and ten (10) according to Prentiss & Carlisle Company 1929 survey.

b) A one-half (1/2) interest in common and undivided in and to the following parcel of land set off to the St. John Land Co. by order of Court in Township 18, Range 13:

Starting on the northerly line of said township number eighteen (18) Range thirteen (13) at a point twenty-seven and thirty-six hundredths (27.36) chains easterly from the north west corner of said town and at a post marked "St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred seventy-one and ninety hundredths (171.90) chains to a post marked "St. J. L. Co., Pingree et al, P. L., Pc 1929"; thence north sixty-eight (68) degrees west for forty (40) chains to post marked "St. J. L. Co., P. L. Pc 1929"; thence south twenty-two (22) degrees west for one hundred and twenty-five (125) chains to post marked "St. J. L. Co., P. L. Pc 1929"; thence south sixty-eight (68) degrees east for eighty (80) chains to post marked "St. J. L. Pingree et al Pc 1929"; thence south twenty-two (22) degrees west for ninety-two and fifty hundredths (92.50) chains to post marked "St. J. L. Co., Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees west for one hundred fifty seven and eighty hundredths (157.80) chains to post marked "St. J. L. Co., Dunn et al, Pc 1929"; thence north twenty-two (22) degrees east for fifty and eighty hundredths (50.80) chains to post marked "St. J. L. Co., Dunn et al, Pc 1929"; thence north sixty-eight (68) degrees west for one hundred thirty-eight and fifty hundredths (138.50) chains to the International Boundary and post marked "St. J. L. Co., Dunn et al, Pc 1929"; thence north-easterly along said International Boundary for four hundred seven and eighty hundredths (407.80) chains to the north west corner of said town; thence south sixty-eight (68) degrees east along the northerly line of said town for twenty-seven and thirty-six hundredths (27.36) chains to point of beginning. This tract contains all of sections one (1) and four (4) and part of sections five (5), eight (8), nine (9), ten (10), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains five thousand two hundred and sixty-six (5266) acres, more or less.

For source of title see deed from Blin W. Page to Irving Pulp & Paper, Limited, dated December 7, 1963, and recorded in Book 319, Page 5, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-sixth (T18 R13):

a) a 31/5670 common and undivided interest in the Dunn block so called, described as follows:

Starting on the southerly line of township Eighteen (18) Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said northerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred and thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12), thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4644) acres, more or less.

b) a 31/5670 common and undivided interest in the Dunn block, so called, described as follows:

Starting on the southerly line of township Eighteen (18) Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4644) acres, more or less.

For source of title see deed from Prentiss & Carlisle Company, Inc., et al, to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-seventh (T18 R13):

a) A five-twelfths of thirty one eighteen hundred ninetieths (5/12 of 31/1890) interest in common and undivided of the Dunn Block so-called in Township Eighteen, Range Thirteen W.E.L.S. (T18, R13) as set off to J. Hopkins Smith and others by Judgment for Partition of the Supreme Judicial Court for Aroostook County in the April Term 1929 and therein described as follows:

Commencing on the southerly line of township Eighteen, Range Thirteen (T18 R13) at a point two hundred nine and thirty hundredths (209.30) chains west from the southeast corner of said town at a post; thence north sixty-eight degrees west (N 68° W) along said southerly line four hundred and sixty-hundredths (400.60) chains to the International Boundary and the southwest corner of said town; thence northeasterly along said International Boundary one hundred ninety-two and fifty hundredths (192.50) chains to a post; thence south sixty-eight degrees east (S 68° E) one hundred thirty-eight and fifty hundredths (138.50) chains to a post; thence south twenty-two degrees west (S 22° W) fifty and eighty hundredths (50.80) chains to a post; thence south sixty-eight degrees east (S 68° E) one hundred fifty-two and eighty hundredths (152.80) chains to a post; thence south twenty-two degrees west (S 22° W) one hundred four and forty hundredths (104.40) chains to the southerly line of said town and place of beginning, said parcel containing four thousand six hundred forty-four (4,644) acres more or less. The total acreage hereby conveyed based on said above common and undivided interests is approximately 31.74 acres. No interest in the public lot is involved in this conveyance.

b) Thirty-one (31) Five hundred fourths (504) in common and undivided of that portion of Township Eighteen (18), Range Thirteen (13) W.E.L.S. set off to Geo. B. Dunn, et als., further described as follows:

Starting on the southerly line of township Eighteen (18), Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle

Company's 1929 survey and contains four thousand six hundred and forty-four (4644) acres, more or less.

c) Thirty-one (31) One thousand five hundred twelfths (1512) in common and undivided of that portion of Township Eighteen (18), Range Thirteen (13) W.E.L.S. set off to Geo. B. Dunn, et als., further described as follows:

Starting on the southerly line of township Eighteen (18), Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4644) acres, more or less.

d) A .0201824 common and undivided interest, being 20.18 unlocated acres, more or less, in the 1,000 acre public lot in Township 18, Range 13 W.E.L.S.

e) All of the interest of J. M. Huber Corporation, in common and undivided in certain premises described below in Township 18, Range 13 W.E.L.S. (Dunn Block), which premises contains minimum of 4,644 acres. Marjorie Dunn (Fernald) and Myrtie H. D. Rogers each having inherited 1/15ths of 93/1664ths interest in said township from their father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division), Docket 6, Page 211. Said premises hereby conveyed in Township 18, Range 13 W.E.L.S., being more particularly described as follows:

Starting on the southerly line of township Eighteen (18), Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees

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east for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4644) acres, more or less.

Marjorie Dunn Fernald, Myrtie H. D. Rogers, et als. interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated April 18, 1929, and a copy of the partition including Final Judgment being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 123, Page 333.

Marjorie Dunn (Fernald) acquired a 3/16ths of the interests of her sister, Myrtie H. D. Rogers, in said premises by deed dated July 13, 1948 and recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald, who died October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division), Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 90.45 acres. No interest in the public lot is involved in this conveyance.

f) All of the right, title and interest of J. M. Huber Corporation acquired by deed of Natalie M. Daggett, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56, all as referred to below, in common and undivided in certain premises described below in Township 18, Range 13 W.E.L.S. (Dunn Block), which premises contains a minimum of 4,644 acres. Said premises hereby conveyed in Township 18, Range 13 W.E.L.S. being more particularly described as follows:

Starting on the southerly line of Township Eighteen (18), Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west

fifty and eighty hundredths' (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4644) acres, more or less.

Natalie M. Daggett's, et als. interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated April 18, 1929, and a copy of the partition including Final Judgment being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 123, Page 333.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-eighth (T18 R13):

Nine hundred and eighty (980) acres, more or less, in common and undivided, in the public lots in Township 18, Range 13 WELS, said public lot bounded and described as follows:

Starting at a point on the North and South center line of T 18, R 13, said line being the Easterly line of Section 5 and the Westerly line of Section 6 according to the Prentiss & Carlisle Co. 1929 survey, 171.90 chains S 22° W along said center line from the Northerly line of said Town, and at post marked "P. L., St. J. L. Co., Pingree et al, Pc 1929"; Thence: S 68° E for 40.00 chains to post marked "P. L. Pingree et al, Pc 1929"; Thence: S 22° W for 125.00 chains to post marked "P. L., Pingree et al, St. J. L. Co., Pc 1929"; Thence N 68° W for 80.00 chains to post marked "P. L., St. J. L. Co., Pc 1929"; Thence: N 22° E for 125.00 chains to post marked "P. L., St. J. L. Co., Pc 1929"; Thence: S 68° E for 40.00 chains to the point of beginning. This tract contains parts of Sections 5, 6, 9 & 10 according to the Prentiss & Carlisle Co.'s 1929 survey. Reference is made to the Land Office Records, Vol. VIII, Page 75.

Hereby conveying all of the State's right, title and interest in this public lot after conveyance of twenty (20) acres, more or less, in common and undivided, to J. M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, dated October 19, 1990, and recorded in Book 821, Page 202, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Fifty-ninth (T18 R13):

A 31/28,350ths fractional interest in and to the following described land (Dunn Block) which represents the equivalent of 5.08 acres out of a total acreage of 4,644 acres in said parcel: part of Township 18, Range 13, W.E.L.S.:

Starting on the southerly line of township Eighteen (18) Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly land of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4,644) acres, more or less.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixtieth (T18 R13):

A 31/630ths fractional interest in and to the following described land (Dunn Block) which represents the equivalent of 229 acres out of a total acreage of 4,644 acres in said parcel: Part of Township 18, Range 13, W.E.L.S.:

Starting on the southerly line of Township Eighteen (18) Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence north sixty-eight (68) degrees west along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and

southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al., St. J. L. Co., Pc 1929"; thence south twenty-two degrees west fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south sixty-eight (68) degrees east for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence south twenty-two (22) degrees west for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4,644) acres, more or less.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the Caroline D. Tyler trust dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-first (T18 R13):

A 0.006027 decimal interest in and to the following described land (Dunn Block) which represents the equivalent of 27.39 acres out of a total parcel acreage of 4,544 acres, exclusive of the public lot, if any, in said parcel: Part of Township 18, Range 13, W.E.L.S.:

Starting on the southerly line of Township Eighteen (18), Range Thirteen (13) at a point two hundred nine and thirty hundredths (209.30) chains westerly from the southeast corner of said town and at post marked "Dunn et al, Pingree et al, Pc 1929"; thence North sixty-eight degrees West (N 68° W) along said southerly line for four hundred and sixty hundredths (400.60) chains to the International Boundary and southwest corner of said town; thence northeasterly along said International Boundary for one hundred ninety-two and fifty hundredths (192.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence South sixty-eight degrees East (S 68° E) for one hundred thirty-eight and fifty hundredths (138.50) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence South twenty-two degrees West (S 22° W) fifty and eighty hundredths (50.80) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence South sixty-eight degrees East (S 68° E) for one hundred fifty-two and eighty hundredths (152.80) chains to post marked "Dunn et al, St. J. L. Co., Pingree et al, Pc 1929"; thence South twenty-two degrees West (S 22° W) for one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according

one hundred four and forty hundredths (104.40) chains to the southerly line of said town and point of beginning. This tract contains all of sections twelve (12) and thirteen (13) and parts of sections eight (8), fourteen (14) and fifteen (15) according to Prentiss & Carlisle Company's 1929 survey and contains four thousand six hundred and forty-four (4,644) acres, more or less.

For source title see deed from Fraser Paper Limited to Irving Pulp & Paper, Limited, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

See also the corrective deed of Fraser's Paper, Inc. (formerly Fraser Paper Limited) to Irving Pulp & Paper, Limited dated December 10, 1997 and recorded in Book 1093, Page 326 of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-second (Grand Isle):

A certain piece or parcel of land, situated in Grand Isle, in the County of Aroostook and State of Maine, being more particularly bound and described as follows:

All of Lot Number Two Hundred Twenty-three (#223) and Lot Number Two Hundred Twenty-four (#224) in Township 18, Range 3, W.E.L.S., now Grand Isle, except a twenty-one (21) rod strip owned by Aldrie Fortin and Marietta Fortin as described in a Warranty Deed recorded in the Northern Aroostook Registry of Deeds in Book 273, Page 145, located southwest of the southwesterly boundary line of premises conveyed to James R. Dionne and Sharon M. Dionne by Warranty Deed of Aldrie Fortin, Mariette Fortin, Alcide Fortin and Jacqueline Fortin dated March 26, 1996, recorded in the Northern Aroostook Registry of Deeds in Book 1020, Page 139.

MEANING to convey and hereby conveying all of the remaining portion of Lot Number Two Hundred Twenty-three (#223) and Lot Number Two Hundred Twenty-four (#224) owned by Alcide Fortin and Jacqueline Fortin, southwest of U. S. Route #1 not previously conveyed to James R. Dionne and Sharon M. Dionne by Warranty Deed recorded in the Northern Aroostook Registry of Deeds in Book 1020, Page 139.

ALSO CONVEYING, the right of way reserved by Alcid Fortin and Jacqueline Fortin in the Warranty Deed recorded in the Northern Aroostook Registry of Deeds in Book 1020, Page 139.

Being a part of the same premises conveyed to Alcide Fortin and Jacqueline Fortin by Warranty Deed of George Fortin and Agnes C. Fortin dated June 13, 1958, recorded in the Northern Aroostook Registry of Deeds in Book 273, Page 143.

For source of title see deed from Serge Lemieux and Sonya Lemieux to Irving Pulp & Paper, Limited, dated January 13, 1998, and recorded in Book 1096, Page 350, of the Aroostook County Registry of Deeds (Northern Division).

Seven hundred and thirteen fifteen thousand, seven hundred and sixtieths (713/15,760) undivided interest in the following described plot of land commonly known as the Dunn Block in Township 19, Range 11, W.E.L.S., Aroostook County:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less.

Together with undivided $\frac{1}{2}$ interest in the Saint John Land Company block of said township.

For source of title see deed from Madawaska Company to Saint John Sulphite Limited, dated November 30, 1946, and recorded in Book 202, Page 432, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-fourth (T19 R11):

Sixty-five one hundred ninety-sevenths (65/197) in common and undivided of a specified tract in Township 19, Range 11, heretofore set off by Commissioners to Dunn et als in 1929, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river

and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional part of said specified tract, containing, exclusive of the Public Lot, three thousand and fifty-eight (3058) acres, more or less.

For source of title see deed from the Merrill Trust Company, Trustee, to Saint John Sulphite Limited, dated February 25, 1949, and recorded in Book 216, Page 407, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-fifth (T19 R11):

Thirteen one hundred ninety-sevenths (13/197) in common and undivided of a specified tract in Township 19, Range 11, heretofore set off by Commissioners to Dunn et als in 1929, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional part of said specified tract, containing, exclusive of the Public Lot, six hundred and eleven and six-tenths (611.6) acres, more or less.

For source of title see deed from Eben Coe to Saint John Sulphite Limited, dated August 1, 1950, and recorded in Book 223, Page 70, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-sixth (T19 R11):

Four hundred sixty five six thousand three hundred fourths (465/6304) in common and undivided of that part of Township Numbered Nineteen (19) Range Eleven (11), that was set off to George B. Dunn et als in a partition proceeding commenced

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September 29, 1928, and recorded in Aroostook Registry of Deeds, Northern District, Book 123, Page 333. Said part so set off is described as follows: Beginning at the northeast corner of said Twp. No'd. 19, Range 11, on the westerly shore of Beau Lake; thence north 68° west along the northerly line of said township 128 chains to post marked "Dunn et. al. St. J. L. Co. Pc. 1929"; thence south 22° west 160 chains to post marked "Dunn et. al. St. J. L. Co. Pc 1929"; thence north 68° west 216 chains to post marked "Dunn et al. Pingree et al. P. L. Pc 1929"; thence south 22° west 199.40 chains to post marked "Dunn et al. Pingree et al. Pc. 1929"; thence south 68° east 385.46 chains to the westerly bank of the St. Francis River and post marked "Dunn et al. Pierce et al. Pc. 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all Sections 4, 8, 11 and 12, and part of Sections 6, 7, and 10, according to Prentiss & Carlisle Co. 1929 survey. Said fractional part containing six hundred eighty three and sixty three hundredths (683.63) acres, more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-seventh (T19 R11):

279/7880ths in that part of Township nineteen (19) Range eleven (11), W.E.L.S. County of Aroostook which was set off to George B. Dunn et al by Decree of the Supreme Judicial Court further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional part containing three hundred twenty eight (328) acres, more or less.

For source of title see deed from Eustis Pennock et al, to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division) and a deed from The Granite Trust

Company to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-eighth (T19 R11):

93/3940ths of that part of Township nineteen (19), Range eleven (11), W.E.L.S., which was set off to George B. Dunn et als by judgment for partition rendered at the April Term 1929, of the Supreme Judicial Court of Aroostook County, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional part containing, exclusive of the Public Lot, two hundred eighteen and seventy-six hundredths (218.76) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated September 28, 1956, and recorded in Book 268, Page 28, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Sixty-ninth (T19 R11):

A one-half (1/2) interest in common and undivided in and to the following parcel of land set off to the St. John Land Co, in Township 19, Range 11:

Starting on the northerly line of Township Nineteen (19), Range Eleven (11) at a point one hundred twenty-eight (128) chains westerly along said northerly line from the northeast corner of said town and post marked "St. J. L. Co., Dunn et al, Pc. 1929"; thence south twenty-two (22) degrees west for one hundred sixty (160) chains to post marked "St. J. L. Co., Dunn et al. Pc 1929"; thence north sixty-eight (68) degrees west for one hundred seventy-three and fifty hundredths (173.50) chains to post marked "St. J. L. Co., Dunn et al, P. L. Pc 1929"; thence north twenty-two (22)

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degrees east for one hundred fifty-nine (159) chains to northerly line of said town and post marked "St. J. L. Co., P. L., Pc 1929"; thence easterly along said northerly line for one hundred seventy-three and seventy hundredths (173.70) chains to point of beginning. This tract contains all of section three (3), and parts of sections two (2), six (6) and seven (7) according to Prentiss & Carlisle Co. 1929 survey and contains two thousand seven hundred sixty-six (2766) acres, more or less.

For source of title see deed from Blin W. Page to Irving Pulp & Paper, Limited, dated December 7, 1963, and recorded in Book 319, Page 5, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventieth (T19 R11):

A 93/3152 in common and undivided in and to that portion of Township 19, Range 11, being the easterly portion of said township, as set off to George B. Dunn, et als, by the Commissioner's report, Book 123, Page 333 as recorded in the Aroostook County Registry of Deeds, Northern District.

For source of title see deed from Alice N. Wellman to Irving Pulp & Paper, Limited, dated April 27, 1981, and recorded in Book 550, Page 324, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-first (T19 R11):

A 31/1970 common and undivided interest in the Dunn Block, so called, described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, ST. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc, 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L. Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc. 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less.

For source of title see deed from Prentiss & Carlisle Co., Inc., et al, to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-second (T19 R11):

a) A five-twelfths of ninety-three seven thousand eight hundred eightieths ($5/12$ of 93/7880) interest in common and undivided of the Dunn Block so called in Township numbered Nineteen Range Eleven (T. 19 R11) as set off to J. Hopkins Smith and others by Judgment for Partition of the Supreme Judicial Court for Aroostook County at the April Term, 1929 and therein described as follows:

Commencing at the northeast corner of said Township numbered Nineteen Range Eleven (T19 R11) on the westerly shore of Beau Lake; thence north sixty-eight degrees west ($N 68^\circ W$) along the northerly line of said town one hundred twenty-eight chains (128) to a post; thence south twenty-two degrees west ($S 22^\circ W$) one hundred sixty chains (160) to a post; thence north sixty-eight degrees west ($N 68^\circ W$) two hundred sixteen chains (216) to post; thence south twenty-two degrees west ($S 22^\circ W$) one hundred ninety-nine and forty hundredths chains (199.40) to post; thence south sixty-eight degrees east ($S 68^\circ E$) three hundred eighty-five and forty-six hundredths chains (385.46) to the westerly bank of the St. Francis River and post; thence northerly by said River and said Lake to place of beginning, containing nine thousand two hundred sixty-eight (9,268) acres more or less.

b) Two hundred seventy-nine (279) six thousand three hundred fourths (6304) in common and undivided of that portion of Township Nineteen (19) Range Eleven (11) W. E. L. S. set off to Geo. B. Dunn, et als. further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Perice et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less. The total acreage hereby conveyed based on said above common and undivided interest is

approximately 410.18 acres. No interest in the Public Lot is involved in this conveyance.

c) Ninety-three (93) six thousand three hundred fourths (6304) in common and undivided of that portion of Township Nineteen (19) Range Eleven (11) W. E. L. S. set off to Geo. B. Dunn, et als. further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Perice et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less. The total acreage hereby conveyed based on said above common and undivided interests is approximately 136.73 acres. No interest in the public lot is involved in this conveyance.

d) 1/3 of 26/197 in common and undivided of a specified tract in Township 19, Range 11 W.E.L.S., heretofore set off by Commissioners to Dunn et als. in 1929, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Perice et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional

part of said specified tract, containing, exclusive of the Public Lot, four hundred seven and seventy-three hundredths (407.73) acres, more or less. No interest in the public lot is involved in this conveyance.

e) 1/3 of 26/197 common and undivided of a specified tract in Township 19, Range 11 W.E.L.S. heretofore set off by Commissioners to Dunn et als in 1929, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional part of said specified tract, containing, exclusive of the Public Lot, four hundred seven and seventy-three hundredths (407.73) acres, more or less. No interest in the public lot is involved in this conveyance.

f) All of the interest of J. M. Huber Corporation, in common and undivided, in certain premises described below in Township 19, Range 11 W.E.L.S. (Dunn Block), which premises contains a minimum of 9,268 acres. Marjorie Dunn (Fernald) and Myrtie H. D. Rogers each having inherited a 1/15ths of 93/1664ths interest in said Township from their father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division), Docket 6, Page 211. Said premises hereby conveyed in Township 19, Range 11 W.E.L.S. being more particularly described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L. Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and

forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less.

Marjorie Dunn (Fernald), Myrtie H. D. Rogers, et als interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated April 18, 1929, and a copy of the partition including the Final Judgment being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 123, Page 333.

Marjorie Dunn (Fernald) acquired a 3/16ths interest of the interest of her sister, Myrtie H. D. Rogers in said above-described premises by deed from Myrtie H. D. Rogers dated July 3, 1948 and recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald, who died October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division), Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 129.89 acres. No interest in the public lot is involved in this conveyance.

g) All of the right, title and interest that J. M. Huber Corporation acquired by deed of Natalie M. Dagget, et als. dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 697, Page 56, in common and undivided, in certain premises described below in Township 19, Range 11 W.E.L.S. (Dunn Block), which premises contains approximately 9,268 acres. Said premises hereby conveyed in Township 19, Range 11 W.E.L.S. being more particularly described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten

(10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less.

Natalie M. Daggett, et als. interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated April 18, 1929, and a copy of the partition including the Final Judgment being recorded in said Registry in Book 123, Page 333.

The total acres hereby conveyed based on said common and undivided interest and partition is approximately 177.53 acres. No interest in the Public lot is involved in this conveyance.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-third (T19 R11):

1/3 of 26/197 in common and undivided of a specified tract in Township 19, Range 11, W.E.L.S., heretofore set off by Commissioners to Dunn et als in 1929, further described as follows:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc. 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc. 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9268) acres, more or less, said fractional part of said specified tract, containing, exclusive of the Public Lot, four hundred seven and seventy-three hundredths (407.73) acres, more or less.

For source of title see deed from Nancy Patricia Coe and Winnifred Coe Verbica to Irving Pulp & Paper, Limited, dated September 8, 1990, and recorded in Book 816, Page 349 of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-fourth (T19 R11):

One thousand one hundred and twenty-five (1,125) acres, more or less, in common and undivided, in Township 19, Range 11, WELS, hereby conveying all of the public lot in said township, bounded and described as follows:

Starting at a point of the Northerly line of T 19, R 11, 189.30 chains Easterly along said line from the N.W. corner of said Town, and at post marked "P.L., Pingree et al, Pc 1929"; Thence: S 22° W for 158.00 chains to post marked "P.L., Pingree et al, Pc 1929"; Thence: S 68° E for 71.00 chains to post marked "P. L., St. J. L. Co., Dunn et al, Pc 1929"; Thence N 22° E for 159.00 chains to said Northerly line and post marked "P.L., St. J. L. Co., Pc 1929"; Thence: Westerly along said Northerly line for 71.00 chains to point of beginning. This tract contains parts of Section 2 and 6 according to the Prentiss & Carlisle Co. 1929 survey. Reference is made to Land Office Records, Vol. VIII, Page 74.

For Source of title see a deed from the State of Maine to Irving Pulp & Paper, Limited Recorded in Book 821, Page 202 of the Aroostook County Registry of Deeds (Northern Division).

See also a deed from Blin W. Page to Irving Pulp & Paper, Limited, dated December 7, 1963, and recorded in Book 319, Page 5, of Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-fifth (T19 R11):

A 1,953/2,482,200ths fractional interest in and to the following described land (Dunn Block) which represents the equivalent of 7.29 acres out of a total acreage of 9,268 acres in said parcel: Part of Township 19, Range 11, W.E.L.S.:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to a post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L. Pc 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11), and twelve (12) and part of sections six (6), seven (7), and ten (10) according to Prentiss & Carlisle Company 1929 survey and contain nine thousand two hundred and sixty-eight (9,268) acres, more or less.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-sixth (T19 R11):

A 195/5516ths fractional interest in and to the following described land (Dunn Block) which represents the equivalent of 328 acres out a total acreage of 9,268 acres in said parcel: Part of Township 19, Range 11, W.E.L.S.:

Starting at the northeast corner of said Township number Nineteen (19) Range Eleven (11) on the westerly shore of Beau Lake; thence north sixty-eight (68) degrees west along the northerly line of said town for one hundred and twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence south twenty-two (22) degrees west for one hundred and sixty (160) chains to a post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence north sixty-eight (68) degrees west for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L. Pc 1929"; thence south twenty-two (22) degrees west for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence south sixty-eight (68) degrees east for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11), and twelve (12) and part of sections six (6), seven (7), and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9,268) acres, more or less.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the Caroline D. Tyler trust dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-seventh (T19 R11):

A 0.004243 decimal interest in and to the following described land (Dunn Block) which represents the equivalent of 39.33 acres out of a total parcel acreage of 9,268 acres, exclusive of the public lot, if any, in said parcel: Part of Township 19, Range 11, W.E.L.S.:

Starting at the northeast corner of said Township number Nineteen (19), Range Eleven (11) on the westerly shore of Beau Lake; thence North sixty-eight (68) degrees West (N 68° W) along the northerly line of said town for one hundred and

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twenty-eight (128) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence South twenty-two degrees West (S 22° W) for one hundred and sixty (160) chains to post marked "Dunn et al, St. J. L. Co., Pc 1929"; thence North sixty-eight degrees West (N 68° W) for two hundred sixteen (216) chains to a post marked "Dunn et al, Pingree et al, P. L., Pc 1929"; thence South twenty-two degrees West (S 22° W) for one hundred ninety-nine and forty hundredths (199.40) chains to post marked "Dunn et al, Pingree et al, Pc 1929"; thence South sixty-eight degrees East (S 68° E) for three hundred eighty-five and forty-six hundredths (385.46) chains to the westerly bank of the St. Francis River and post marked "Dunn et al, Peirce et al, Pc 1929"; thence northerly by said river and said lake to the point of beginning. This tract contains all of sections four (4), eight (8), eleven (11) and twelve (12) and part of sections six (6), seven (7) and ten (10) according to Prentiss & Carlisle Company 1929 survey and contains nine thousand two hundred and sixty-eight (9,268) acres, more or less.

For source of title see deed from Fraser Paper Limited to Irving Pulp & Paper, Limited, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

See also the corrective deed of Fraser's Paper, Inc. (formerly Fraser Paper Limited) to Irving Pulp & Paper, Limited dated December 10, 1997 and recorded in Book 1093, Page 326 of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-eighth (T20 R11/R12):

Forty-six four hundred and eightieths (46/480) undivided interest in the Dunn Block in Township 20 Ranges 11 and 12 W.E.L.S., Aroostook County.

For source of title see a deed from the Madawaska Company to Saint John Sulphite, Limited, recorded in Book 202, Page 432 of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Seventy-ninth (T20 R11/R12):

a) One hundred fifty-five six thousand six hundred fifty-sixths (155/6656) in common and undivided of a tract in the northwesterly part of Township Numbered Twenty (20) Range Eleven and Twelve (11 & 12), bounded northwesterly by International Boundary; southeasterly by Wild Cat Stream, so-called; and northeasterly by land now or formerly of J. P Bouchard. Said fractional part containing one and two hundredths (1.02) acres more or less.

b) Five thirty seconds (5/32) in common and undivided of that part of Township Numbered Twenty (20) Range Eleven and Twelve (11 & 12) that was set off to George B. Dunn et als in partition proceedings commenced September 29, 1928, and

recorded in Aroostook Registry of Deeds, Book 114, Page 262. Said part so set off is described as follows:

Beginning at a point 30 chains west of the southeast corner of Section 39; thence north 23° 30' east to the north line of Section 39; thence south 68° 15' east to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23, and 15 to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said Township; thence westerly by and along the south line of said Township to the point of beginning, said fractional part containing seven hundred thirty-nine and sixty-nine hundredths (739.69) acres more or less.

For source of title see deed from Great Northern Paper Company to Irving Pulp & Paper, Limited, dated December 27, 1954, and recorded in Book 250, Page 502, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eightieth (T20 R11/R12):

3/40ths in that part of Township number Twenty (20), Range Eleven and Twelve (11 & 12), W.E.L.S. County of Aroostook which was set off to George B. Dunn et al by Decree of the Supreme Judicial Court, said fractional part containing three hundred fifty five (355) acres, more or less; also all our right, title and interest in common and undivided in that part of said Township which lies north of Wildcat Brook.

For source of title see deed from Eustis Pennock, et al., to Irving Pulp & Paper, Limited, dated July 17, 1951, and recorded in Book 253, Page 558, of the Aroostook County Registry of Deeds (Northern Division).

Also see deed from Granite Trust Company, executor of the will of Eustis Pennock, to Irving Pulp & Paper, Limited, dated October 29, 1951, and recorded in Book 253, Page 562, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-first (T20 R11/R12):

1/20th of that part of Township twenty (20), Ranges eleven and twelve (11 & 12) W.E.L.S., set off to George B. Dunn et als by judgment for partition rendered at the September Term 1927, of said Court, said fractional part containing, exclusive of the Public Lot two hundred thirty-six and seventy hundredths (236.70) acres more or less.

Also 31/4160th of that part of Township twenty (20), Ranges eleven and twelve (11 & 12) W.E.L.S., lying North of Wildcat Brook, said fractional part containing, exclusive of the Public Lot, thirty-three hundredths (.33) acres, more or less.

For source of title see deed from Margaret Dunn Ross to Irving Pulp & Paper, Limited, dated September 28, 1956, and recorded in Book 268, Page 28, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-second (T20 R11/R12):

One forty-eighth (1/48) in common and undivided of a certain portion of Township numbered Twenty (20) in the Eleventh (11th) and Twelfth (12th) Ranges, West from the East Line of the State, in Aroostook County, State of Maine, being the easterly portion of said Township as set off to the George B. Dunn et al by Commissioners appointed by the Court, the report of said Commissioners having been filed with and accepted by the Court at its September Term in 1927; said Commissioners' report being recorded in the Aroostook County Registry of Deeds, Northern District, in Book 114, Page 262, to which record reference is made.

For source of title see deed from Alice W. I. Lorenz to Irving Pulp & Paper, Limited, dated May 18, 1981, and recorded in Book 550, Page 327, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-third (T20 R11/R12):

One forty-eighth (1/48) in common and undivided of a certain portion of Township numbered Twenty (20) in the Eleventh (11th) and Twelfth (12th) Ranges, West from the East Line of the State, in Aroostook County, State of Maine, being the easterly portion of said Township as set off to George B. Dunn et al by Commissioners appointed by the Court, the report of said Commissioners having been filed with and accepted by the Court at its September Term in 1927; said Commissioners' report being recorded in the Aroostook County Registry of Deeds, Northern District, in Book 114, Page 262, to which record reference is made.

For source of title see deed from Timothy A. Ingraham to Irving Pulp & Paper, Limited, dated April 20, 1981, and recorded in Book 550, Page 329, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-fourth (T20 R11/R12):

One forty-eighth (1/48) in common and undivided of a certain portion of Township numbered Twenty (20) in the Eleventh (11th) and Twelfth (12th) Ranges, West from the East Line of the State, in Aroostook County, State of Maine, being the easterly portion of said Township as set off to George B. Dunn et al by Commissioners appointed by the Court, the report of said Commissioners having been filed with and accepted by the Court at its September Term in 1927; said Commissioners' report being recorded in the Aroostook County Registry of Deeds, Northern District, in Book 114, Page 262, to which record reference is made.

For source of title see deed from Susan B. Wheatland to Irving Pulp & Paper, Limited, dated May 11, 1981, and recorded in Book 550, Page 331, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-fifth (T20 R11/R12):

The following described premises owned and undivided and in common with others situated in Township Twenty (20) and Ranges numbered Eleven (11) and Twelve (12) west from the east line of the State of Maine (T.20, R.11, and 12, W.E.L.S.) in the County of Aroostook:

- a) A five-twelfths of one-fortieth ($5/12$ of $1/40$) interest in common and undivided of the Dunn Block, so-called, in said T.20, R.11 and 12, W.E.L.S. as set off to J. Hopkins Smith and others by Judgment for Partition of the Supreme Judicial Court for Aroostook County at the September Term, 1927, and therein described as follows: Beginning at a point thirty (30) chains west of the southeast corner of Section Thirty-Nine (39); thence north twenty-three degrees, thirty minutes east ($N.23^{\circ} 30' E$) to the north line of Section Thirty-Nine (39); thence south sixty-eight degrees fifteen minutes east ($S.68^{\circ} 15' E$) to the northeast corner of Section Thirty-Nine (39); thence northerly by and along the east line of Sections Thirty-one (31) Twenty-three (23) and Fifteen (15) to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said T.20, Rs. 11 and 12, W.E.L.S.; thence westerly by and along the south line of said township to the place of beginning. Said Dunn Block is believe to contain four thousand seven hundred thirty-four (4,734) acres, more or less. The premises hereby conveyed containing 49.13 acres, more or less and being a portion of the premises conveyed to J. M. Huber Corporation by Herbert E. Locke by deed dated July 1, 1942 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 188, Page 465.
- b) Ninety-three (93) six thousand six hundred fifty-sixths (6656) in common and undivided of a two hundred eighty-six acre tract in said T.20, Rs. 11 and 12, W.E.L.S. Said premises hereby conveyed containing 3.99 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by deed of Grover C. Bradford dated June 25, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 1.
- c) Three (3) thirty-seconds (32) in common and undivided of that portion of said T.20, Rs. 11 and 12, W.E.L.S. set off to George G. Dunn, et als, containing 4,734 acres, more or less. Said premises hereby conveyed containing 443.81 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by deed of Grover C. Bradford dated June 25, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 1.

d) Thirty-one (31) six thousand six hundred fifty-sixths (6,656) in common and undivided of a two hundred eighty-six acre tract in said T.20, Rs. 11 and 12, W.E.L.S. Said premises hereby conveyed containing 1.33 acres, more or less, and being a portion of the same premises conveyed to J.M. Huber Corporation by Grover C. Bradford by deed dated July 21, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 55.

e) One (1) thirty-second (32) in common and undivided of that portion of said T.20, Rs. 11 and 12, W.E.L.S. set off to George B. Dunn, et als, containing 4,734 acres, more or less. Said premises hereby conveyed containing 147.93 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by Grover C. Bradford by deed dated July 21, 1943 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 55.

f) Thirty-one (31) three thousand three hundred twenty-eighths (3,328) in common and undivided of a two hundred eighty-six (286) acre tract in said T.20, Rs. 11 and 12 W.E.L.S. Said premises hereby conveyed containing 2.66 acres, more or less, and being a portion of the same premises conveyed to J. M. Huber Corporation by deed of Alice F. Dole, dated March 2, 1944 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 195, Page 566.

g) A .0294972 common and undivided interest, being 37 unlocated acres, more or less, of the 1,250 acre Public Lot in said T.20, Rs. 11 and 12, W.E.L.S., which Public Lot is located on the ground. Being a portion of the same premises conveyed to J. M. Huber Corporation by the State of Maine by deed dated November 15, 1976 and recorded in said Aroostook County Registry of Deeds, Northern Division, in Book 445, Page 230.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, recorded November 22, 1982, in Book 578, Page 258, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-sixth (T20 R11/R12):

All of a certain parcel of land set off to the Saint John Land Company by a court commission on which judgment was rendered September 17, 1927, further described as follows:

Beginning at a point thirty chains west of the southeast corner of Section thirty-nine; thence north twenty-three degrees thirty minutes east of the north line of Section thirty-nine; thence south sixty-eight degrees fifteen minutes east to the northeast corner of Section thirty-nine; thence northerly by and along the east line of Sections thirty-one, twenty-three and fifteen to the St. Francis River; thence northwesterly by and along said river to the northwest corner of Section two; thence southerly by and along to west lines of Sections two and six to the southwest corner of Section six; thence easterly by and along the south line of Sections six, seven and

eight to the northeast corner of Section thirteen : thence southerly by and along the east line of Sections thirteen, twenty-one and twenty-nine to the southeast corner of Section twenty-nine; thence easterly by and along the south line of Section thirty, twenty and four one hundredths chains (20.04) to a point; thence south twenty-one degrees forty-five minutes west to the south line of said township numbered twenty in ranges eleven and twelve; thence easterly by and along the south line of said township to the point of beginning.

For source of title see deed from Produits Forestiers D'Auteuil Limitee to Irving Pulp & Paper, Limited, dated December 30, 1988, and recorded in Book 767, Page 6, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-seventh (T20 R11/R12):

a) a 1/30 common and undivided interest in the Dunn block, so called, described as follows:

Beginning at a point 30 chains west of the southeast corner of Section 39; thence N 23° 30' E to the north line of Section 39; thence S 68° 15' E to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23 and 15 to the St. Francis River; thence easterly and southerly by and along said S. Francis River and Beau Lake to the southeast corner of said Township number Twenty Ranges Eleven and Twelve; thence westerly by and along south line of said Township to the point of beginning; being one hundred eighty-six twelve hundred and forty-eighths (186/1248) parts of said Township Number Twenty Ranges Eleven and Twelve as their true and just proportion thereof.

b) a 1/120 common and undivided interest in the Dunn block, so called, described as follows:

Beginning at a point 30 chains west of the southeast corner of Section 39; thence N 23° 30' E to the north line of Section 39; thence S 68° 15' E to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23 and 15 to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said Township number Twenty Ranges Eleven and Twelve; thence westerly by and along south line of said Township to the point of beginning; being one hundred eighty-six twelve hundred and forty-eighths (186/1248) parts of said Township Number Twenty Ranges Eleven and Twelve as their true and just proportion thereof.

For source of title see deed from Prentiss & Carlisle Co., Inc., and others, to Irving Pulp & Paper, Limited, dated January 11, 1989, and recorded in Book 769, Page 157, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-eighth (T20 R11/R12):

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a) All of the interest of J. M. Huber Corporation, in common and undivided, in certain premises described below in Township 20, Range 11 and 12 W.E.L.S. (Dunn Block), which premises contain a minimum of 4734 acres. Marjorie Dunn (Fernald) and Myrtie H. D. Rogers each having inherited 1/15th of 93/1664ths interest in said premises from their father, Elbridge G. Dunn, Jr., whose estate is administered in said Aroostook County Probate Court (Southern Division), Docket 6, Page 211. Said premises hereby conveyed in Township 20, Ranges 11 and 12 W.E.L.S., except for premises lying north and west of Wild Cat Stream, being more particularly described as follows:

Beginning at a point 30 chains west of the southeast corner of Section 39; thence N 23° 30' E to the north line of Section 39; thence S 68° 15' E to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23 and 15 to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said Township number Twenty Ranges Eleven and Twelve; thence westerly by and along south line of said Township to the point of beginning.

Marjorie Dunn Fernald, Myrtie H. D. Rogers, et als, interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated September 6, 1927, and a copy of the partition including the Final Judgment being recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 114, Page 262.

Marjorie Dunn (Fernald) acquired a 3/16ths interest of the interest of her sister, Myrtie H. D. Rogers, in said above-described premises by deed of Myrtie H. D. Rogers, dated July 3, 1948 and recorded in said Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald, who died October 15, 1979, ancillary probate of which estate may be found in said Aroostook County Registry of Probate (Southern Division), Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests and partition is approximately 140.54 acres. No interest in the public lot is involved in this conveyance.

J. M. Huber Corporation having acquired these interests by deed of Jane Fernald Boyd dated May 5, 1985 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 646, Page 58, and by deed of Jane Fernald Boyd in her capacity as personal representative of the estate of Marjorie Dunn Fernald dated May 5, 1985 and recorded in said Registry in Book 646, Page 73.

b) All of the right, title and interest of J. M. Huber Corporation acquired by deed of Natalie M. Daggett, et als dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds in Book 697, Page 56, in common and undivided, in certain premises described below in Township 20, Range 11 and 12 W.E.L.S. (Dunn Block), which premises contain approximately 4,734 acres. Said premises hereby

conveyed in Township 20, Ranges 11 and 12 W.E.L.S., except for premises lying north and west of Wild Cat Stream, being more particularly described as follows:

Beginning at a point 30 chains west of the southeast corner of Section 39; thence N 23° 30' E to the north line of Section 39; thence S 68° 15' E to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23 and 15 to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said Township number Twenty, Ranges Eleven and Twelve; thence westerly by and along south line of said Township to the point of beginning.

Natalie Daggett, et als interest in said above-described premises having been set off by partition in the Supreme Judicial Court, Maine, Final Judgment being dated September 6, 1927, and a copy of the partition including the Final Judgment being recorded in said Registry in Book 114, Page 262.

The total acreage hereby conveyed based on said above common and undivided interest and partition is approximately 177.53 acres. No interest in the public lot is involved in this conveyance.

c) A 1/15th of 93/1664 interest and a 3/16th of 1/15th of 93/1664ths interest, both interests in common and undivided in certain premises described below in Township 20, Ranges 11 and 12 W.E.L.S. (Wild Cat Block), which premises contain a minimum of 44 acres. Marjorie Dunn (Fernald) having inherited a 1/15th of 93/1664ths interest in said premises from her father, Elbridge G. Dunn, Jr., whose estate is administered in the Aroostook County Probate Court (Southern Division) Docket No. 6, Page 211. Marjorie Dunn (Fernald) acquired a 3/16ths of 1/15ths of 93/1664ths interest in said township from her sister, Myrtie H. D. Rogers, by deed dated July 3, 1948 recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 216, Page 137. Jane Fernald Boyd having acquired the interest of her mother, Marjorie Dunn Fernald, under the Will of Marjorie Dunn Fernald who died on October 15, 1979, ancillary probate of which estate may be found in the Aroostook County Registry of Probate (Southern Division) Docket No. 47, Page 400. The total acreage hereby conveyed based on said above common and undivided interests is approximately .19 acres. No interest in the public is involved in this conveyance. Said Wild Cat Block premises hereby conveyed in Township 20, Ranges 11 and 12 W.E.L.S. being all the interest of Grantor and all the interest Grantor has the right to convey in certain premises located north and west of Wild Cat Stream in said Township.

J. M. Huber Corporation having acquired these interests by deed of Jane Fernald Boyd dated May 5, 1985 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book 646, Page 58, and by deed of Jane Fernald Boyd in her capacity as personal representative of the estate of Marjorie Dunn Fernald dated May 5, 1985 and recorded in said Registry in Book 646, Page 73.

d) A 31/8320ths interest, and a 31/16640ths interest, both interests in common and undivided of certain premises described below in Township 20, Ranges 11 and 12 W.E.L.S. (Wild Cat Block), which premises contain a minimum of 44 acres, said interest being acquired through the estate of Sarah E. Dunn.

The total acreage hereby conveyed based on said above common and undivided interests is approximately .28 acres. No interest in the public lot is involved in this conveyance. Said Wild Cat Block premises hereby conveyed in Township 20, Ranges 11 and 12 W.E.L.S. being all the interest of Grantor in certain premises located north and west of Wild Cat Stream in said Township.

J. M. Huber Corporation acquired these interests by deed of Natalie M. Daggett, et als. Dated December 11, 1986 and recorded in the Aroostook County Registry of Deeds (Northern Division) in Book, 697, Page 56.

For source of title see deed from J. M. Huber Corporation to Irving Pulp & Paper, Limited, dated December 11, 1989, and recorded in Book 793, Page 292, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Eighty-ninth (T20 R11/R12):

One thousand two hundred and thirteen (1,213) acres, more or less, in common and undivided, in the 1,250 acre public lot in Big Twenty Township (Township 20, Ranges 11 and 12 WELS), said public lot bounded and described as follows:

Beginning at a cedar post on the south line of Section 11, 6 chains east from the southwest corner of Section 11; thence N 21° 30' E to the north line of Section 11, 5 chains and 72 links east from the northwest corner of Section 11; thence easterly along the north line of Sections 11 and 12 to the northeast corner of Section 12; thence southerly along east line of Section 12 to the southeast corner of said Section; thence westerly along the south line of Sections 12 and 11 to the point of beginning. Reference is made to the Land Office Records, Vol. VIII, Page 24.

Hereby conveying all of the State's right, title and interest in this public lot after conveyance of thirty seven (37) acres, more or less, in common and undivided, to J.M. Huber Corporation by deed dated November 15, 1976, recorded at Aroostook County Registry of Deeds, Northern District, Book 445, Page 230.

For source of title see deed from the State of Maine to Irving Pulp & Paper, Limited, dated October 19, 1990, and recorded in Book 821, Page 202, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Ninetieth (T20 R11/R12):

a) A 1/900ths fractional interest in and to the following described land which represents the equivalent of 5.26 acres out of a total acreage of 4,733 acres in said parcel: Part of Township 20, Ranges 11 and 12, W.E.L.S., Dunn Block, so called:

A tract bounded and described as follows: Beginning at a point 30 chains west of the southeast corner of Section 39; thence N. 23 deg. 30' E. to the north line of Section 39; thence S. 68 deg. 15' E. to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23, and 15 to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said Township number Twenty Ranges Eleven and Twelve; thence westerly by and along south line of said Townships to the point of beginning.

b) A 651/2,620,800ths fractional interest in and to Wild Cat Lot, so called, which represents the equivalent of .01 acres out of a total acreage of 44 acres in said Township 20, Ranges 11 and 12, W.E.L.S.

For source of title see deed from Valerie Sawyer-Smith to Irving Pulp & Paper, Limited, dated January 23, 1996, and recorded in Book 1016, Page 117, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Ninety-first (T20 R11/R12):

A 3/40ths fractional interest in and to the following described land (Dunn Block) which represents the equivalent of 355 acres out of a total acreage of 4,733 acres in said parcel: Part of Township 20, Ranges 11 and 12, W.E.L.S., Dunn Block, so called:

A tract bounded and described as follows: Beginning at a point 30 chains west of the southeast corner of Section 39; thence N. 23 deg. 30' E. to the north line of Section 39; thence S. 68 deg. 15' E. to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23, and 15 to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said Township number Twenty Ranges Eleven and Twelve; thence westerly by and along south line of said Townships to the point of beginning.

For source of title see deed from Edward J. Joyce and Robert N. Shapiro, Trustees of the Caroline D. Tyler trust dated June 30, 1981, under declaration of trust recorded in Northern Aroostook County Registry of Deeds (Southern Division) Book 1548, Page 241, to Irving Pulp & Paper, Limited, dated May 14, 1996, and recorded in Book 1048, Page 332, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Ninety-second (T20 R11/R12):

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A 0.009002 decimal interest in and to the following described land which represents the equivalent of 42.61 acres out of a total parcel acreage of 4,733 acres, exclusive of the public lot, if any, in said parcel: Part of Township 20, Ranges 11 and 12, W.E.L.S.:

A tract bounded and described as follows: Beginning at a point thirty (30) chains west of the southeast corner of Section 39; thence North twenty-three degrees thirty minutes East (N 23° 30' E) to the north line of Section 39; thence South sixty-eight degrees fifteen minutes East (S 68° 15' E) to the northeast corner of Section 39; thence northerly by and along the east line of Sections 31, 23 and 15 to the St. Francis River; thence easterly and southerly by and along said St. Francis River and Beau Lake to the southeast corner of said Township number Twenty (20), Ranges Eleven (11) and Twelve (12); thence westerly by and along south line of said Township to the point of beginning.

For source of title see deed from Fraser Paper Limited to Irving Pulp & Paper, Limited, dated March 14, 1996, and recorded in Book 1089, Page 138, of the Aroostook County Registry of Deeds (Northern Division).

See also, a deed from Fraser Papers Inc., to Irving Pulp & Paper, Limited, dated December 10, 1996, and recorded in Book 1093, Page 326, of the Aroostook County Registry of Deeds (Northern Division).

One Hundred Ninety-third (Van Buren):

(a) All those certain lots of land and premises located in Van Buren which were granted to the Saint John Lumber Company by deed dated December 30, 1925 and recorded in Book 113, Page 268 of the Aroostook County Registry (Northern Division). For a more particular description of the above property refer to the above mentioned deed.

EXCEPTING AND RESERVING therefrom such properties as were conveyed by the Madawaska Company to Van Buren Madawaska Corporation by deed dated January 9, 1943 and recorded in Book 191, Page 205 of the Aroostook County Registry of Deeds (Northern Division).

(b) All that other lot of land and premises, rights and privileges conveyed to Madawaska Company by Van Buren Lumbering and Manufacturing Company by deed dated August 1, 1929, and recorded in Book 114, Page 527 of the Aroostook County Registry of Deeds (Northern Division).

A certain parcel of land situate in said Van Buren, bounded and described as follows:

Beginning on the northeasterly side of Maine Street at a point three hundred twenty-one (321) feet south-east of the dividing line between original lots numbered 303 and 304 and twenty-five (25) feet from the southerly line of lot of land owned and occupied by Didier Cyr; thence N. 66° 40' E. parallel with said Cyr line and twenty-five feet distant therefrom one hundred four (104) feet to an iron post; thence S. 68° 20' E. one hundred sixty-five (165) feet to an iron post standing in the north-west line of land sold heretofore by said Keegan to Fred Gagnon; thence along said last-named line ninety-one (91) feet, more or less, to an iron post standing in the thread of the brook crossing the premises hereby conveyed; thence down said brook twenty-four (24) feet to an iron post marking the south-west corner of land owned by the Van Buren Lumber Company; thence in a northerly direction and about twenty feet below the crest of the bank along the line of said Comapn's land to the dividing line between said lots 304 and 303 and an iron post standing in the said line twenty feet below the crest of the bank, as aforesaid; thence along said dividing line S. 66° 40' W. to the point where crossed by the south-easterly line of the right of way of the Bangor and Aroostook Railroad; thence along the south-easterly line of said right of way to the rear lien of said Cyr lot; Thence south-east along said Cyr line parallel with said Maine Street and six and one-half (6 ½) rods distant therefrom to the easterly corner of said Cyr lot; thence along said Cyr's south-east line six and one half (6 ½) rods to said Maine Street; thence southeasterly along said Maine Street twenty-five (25) feet to the point of beginning.

(d) A certain lot or parcel of land situate in Van Buren, and being part of Island No. 3 in the St. John River, said part being bounded as follows:

All of the upper half of said Island, bounded on the southeasterly side by the northwesterly line of the Island lot woned by Millard Reid and Duncan Reid formerly; on the north-easterly, north-westerly and southwesterly sides by thte St. John River.

(e) all of the land lying between the Bangor and Aroostook Railroad (its extention from Van Buren to Fourt Kent) and a line drawn parallel with the high water mark of the St. John River and twenty feet distant westerly therefrom in lots 287, 288, 289, 290, 291, 292, 293, and 294 in Van Buren. Also all of the land lying between the Bangor and aroostook Railroad and Maine Street ins aid Lot No. 294.

EXCEPTING from the lands hereby conveyed any and all flowage right affecting said property owned by Gatineau Power Company and particularly such flowage rights as Gatineau Power Company may have as a result of the deed dated April 8, 1937, from International Paper Company recorded in the Registry of Deeds for Aroostook County (Northern Division) in Book 158, Page 415, and by deed dated May 19, 1933, from St. John River Power Company to Gatineau Power Company recorded at said registry in Book 140, Page 3.

EXCEPTING ALSO all lands and rights of way and easements of American Realty Company.

For source of title see a deed from the Madawaska Company to Saint John Sulphite, Limited, recorded in Book 202, Page 432 of the Aroostook County Registry of Deeds (Northern Division).

EXCEPTING THE FOLLOWING LOTS CONVEYED TO the Town of Van Buren by deed dated April 20, 1960 and recorded in Book 289, Page 345 of the Aroostook County Registry of Deeds (Northern Division).

(a) A part of lots Numbered 295, 296, and 297 in Van Buren bounded as follows:

on the southwesterly side by the right of way of the Bangor and Aroostook Railroad Company, on its extension from Van Buren to Fort Kent; on the northwesterly side by land of the Van Buren Bridge Company; on the northeasterly side by a line parallel to and one hundred (100) feet southwesterly of the high water mark of the St. John River; and on the southeasterly side by land of James Franck, Jr., and land of Michael W. Michaud.

A part of lots numbered two hundred ninety-four (294) and two ninety-five (295) in Van Buren, and bounded as follows:

On the southwesterly side by the right of way of the Bangor & Aroostook Railroad Company, on its extension from Van Buren to Fort Kent; on the northwesterly side by a line at the right angles to the last mentioned bound and located One Hundred Eighty (180) feet southeasterly from the northwesterly line of said lot No. 294, measuring on the northeasterly line of said right of way; on the northeasterly side by a line parallel to and one hundred feet (100) southwesterly from the high water mark of the ST. John River; and on the southeasterly side by land of the Van Buren Bridge Company.

Also all that part of said Lot No. 294 lying between the aforesaid right of way of the Bangor & Aroostook Railroad Company and Maine Street.

FURTHER EXCEPTING an Easement granted by Irving Pulp & Paper, Limited (formerly St. John Sulphite, Limited) to the Inhabitants of the Town of Van Buren, by deed dated April 6, 1972, and recorded in Book 393, Page 84, of the Aroostook County Registry of Deeds (Northern Division), for purposes of installing, cleaning, maintaining and repairing a sanitary sewage collection system.

ALSO EXCEPTING the land conveyed by Irving Pulp & Paper, Limited (formerly St. John Sulphite, Limited) to the Inhabitants of the Town of Van Buren, by deed dated April 6, 1972, and recorded in Book 393, Page 87, in the Aroostook County Registry of Deeds (Northern Division) described as follows:

A certain piece or parcel of land being part of Lots #296 and #297 in Township M, Range 2, now Van Buren, in the County of Aroostook and State of Maine bounded

and described as follows: Beginning at the point where the extension of the southeasterly line of Pierce Street intersects the St. John River; thence northwesterly along said St. John River to the point of intersection of a line One hundred one (101) feet northwesterly from and parallel to the aforesaid extension of the southeasterly line of Pierce Street; thence southwesterly to a point located One hundred (100) feet southwesterly of the high water mark of the St. John River; thence southeasterly and on a course distant One hundred (100) feet southwesterly from the aforesaid high water mark of the St. John River, to the intersection of said course with the extension of the southeasterly line of Pierce Street; thence northeasterly along said extension of the southeasterly line of Pierce Street to the point of beginning.

Conveying however a right of passage reserved by Irving Pulp & Paper, Limited, in its aforesaid deed to the Inhabitants of the Town of Van Buren, recorded in Book 393, Page 87.

Said premises conveyed to the Inhabitants of the Town of Van Buren are a part of the premises conveyed to Van Buren Lumbering and Manufacturing Company by deed of Cyrille Michaud dated May 17, 1900 and recorded in Book 39, Page 277 of the Northern Aroostook Registry of Deeds.

ALSO EXCEPTING the following premises conveyed by Irving Pulp & Paper, Limited to Van Buren Water District, by deed dated February 21, 1992, and recorded in Book 863, Page 40 of the Aroostook County Registry of Deeds (Northern Division).

All that lot piece or parcel of land situate, lying and being in the Town of Van Buren in the County of Aroostook and the State of Maine being identified as Parcel "B" (part of 202/432) on "Survey Plan prepared for the Van Buren Water District showing location and definition of Van Buren Water District parcel bounded on the northwesterly and southwesterly by the Bangor and Aroostook railroad, southeasterly by a line 100' NW of and parallel with extension of the southeasterly bound of Pierce Street, and on the northeasterly by a line 100' from the High Water Line of the St. John River, situated within original lots 295, 296 & 297 in Township "M" Range 2 in Van Buren, Aroostook County, Maine. Also including land taken in Book 801, Page 318 which survey plan was dated November 20, 1990 and signed by Michael P. Cyr, State of Maine Registered Land Surveyor, as such plan was revised to November 27, 1990 and further revised to ,1991 such lot being approximately four thousand six hundred eleven square feet (4,611 ft²) in area.

One Hundred Ninety-fourth (Van Buren):

Land in Van Buren, Aroostook County, Maine, described as follows:

All that lot, piece or parcel of land situated in the Town of Van Buren, in the County of Aroostook and the State of Maine identified as Parcel "A" on "Survey Plan

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prepared for Van Buren Water" by Michael Cyr, surveyor, revised March 6, 1991 and recorded on April 9, 1992 in File 130A of the Northern Aroostook Registry of Deeds.

For source of title see deed from Van Buren Water District to Irving Pulp & Paper, Limited, dated May 14, 1992, and recorded in Book 868, Page 346, of the Aroostook County Registry of Deeds (Northern Division).

AS TO ALL PROPERTIES:

Subject, as applicable, and conveying all right, title, and interest of the Grantor in the following:

(a) Consent given by Van Buren-Madawaska Corp., agent for Irving Pulp & Paper, Limited to licensees Maynard R. Saucier and Rita M. Saucier under license between said agent, Maynard R. Saucier and Rita M. Saucier license No. 2061, which license was assigned to First Citizen Bank, for collateral purposes as appears only in the December 8, 1994 Certificate of Consent recorded in Book 973, Page 163 of the Aroostook County Registry of Deeds (Northern Division).

(b) Lease between Van Buren-Madawaska Corp., as agent for Irving Pulp & Paper, Limited (Lessor) and John Wyman relating to unknown. The lease was collaterally assigned by John Wyman to Aroostook County Federal Savings and Loan Association by collateral assignment dated September 27, 1995.

(c) Lease between Van Buren-Madawaska Corp., as agent for Irving Pulp & Paper, Limited (Lessor) and Gary Durepo relating to unknown. The lease was collaterally assigned by Gary Durepo to Farm Credit of Maine, ACA by collateral assignment dated June 22, 1995.

(d) Lease between Van Buren-Madawaska Corp., as agent for Irving Pulp & Paper, Limited (Lessor) and Gregory E. Pack and Susan J. Pack dated August 2, 1995, which lease was collaterally assigned to Aroostook County Federal Savings and Loan Association, as indicated in the August 2, 1995 Certificate of Consent recorded in Book 1004, Page 332 of the Aroostook County Registry of Deeds (Northern Division).

(e) Lease between Van Buren-Madawaska Corp., agent for Irving Pulp & Paper, Limited to Louise J. Roy dated June 1, 1991, which lease was collaterally assigned to Aroostook County Federal Savings and Loan Association by collateral assignment dated May 16, 1996 and recorded in Book 1028, Page 156 of the Aroostook County Registry of Deeds (Northern Division).

(f) Lease between Van Buren-Madawaska Corp., agent to Irving Pulp & Paper, Limited to David N. Felch and Brenda J. Felch, which lease was collaterally assigned to Katahdin Trust Company by collateral assignment dated July 24, 1996 and recorded in Book 1039, Page 124 of the Aroostook County Registry of Deeds (Northern Division).

(g) Lease entered into by and between Van Buren-Madawaska Corp., agent for Irving Pulp & Paper, Limited as Lessor and Gilbert J. LaJoie and Lisa M. LaJoie as lessees dated February 11, 1994, being Lease No. 2388, which lease was collaterally assigned to Carline Bellefleur by assignment dated May 7, 1996 and recorded in Book 1039, Page 208 of the Aroostook County Registry of Deeds (Northern Division).

(h) Lease entered into by and between Van Buren-Madawaska Corp., Agent for Irving Pulp & Paper Limited as Lessor and James A. West and Katherine L. West as Lessee dated September 22, 1993, being (Lease No. 2528 township or municipality location not indicated in document), which lease was collaterally assigned to The County Federal Credit Union by assignment dated February 20, 1997 and recorded in Book 1060, Page 27 of the Aroostook County Registry of Deeds (Northern Division).

(i) Lease entered into by and between Van Buren-Madawaska Corp., Agent for Irving Pulp & Paper Limited as Lessor and Louise J. Roy as Lessee dated June 1, 1996, (township or municipality location not indicated in document) which lease was collaterally assigned to Aroostook County Federal Savings and Loan Association by assignment dated February 21, 1997 recorded in Book 1060, Page 80 of the Aroostook County Registry of Deeds (Northern Division).

(j) Lease entered into by and between Van Buren-Madawaska Corp, Agent for Irving Pulp & Paper Limited as Lessor and Stephen K. Belanger and Debra L. Belanger as Lessee dated January 24, 1997, (township or municipality is not indicated in document) which lease was collaterally assigned to Aroostook County Federal Savings and Loan Association by assignment dated December 30, 1996 recorded in Book 1064, Page 103 of the Aroostook County Registry of Deeds (Northern Division).

(k) Lease between Van Buren-Madawaska Corp., Agent for Irving Pulp & Paper Limited and Paul J. Jalbert and Cynthia L. Jalbert dated July 15, 1997 (township or municipality are not indicated in document), which lease was collaterally assigned to Aroostook County Federal Savings and Loan Association assignment dated June 25, 1997 and recorded in Book 1077, Page 249 of the Aroostook County Registry of Deeds (Northern Division).

(l) Lease between Van Buren-Madawaska Corp., Agent for Irving Pulp & Paper Limited and James R. Mockler and Christine M. Mockler dated June 1, 1989

(township or municipality are not indicated in document), which lease was collaterally assigned to Aroostook County Federal Savings and Loan Association assignment dated July 16, 1997 and recorded in Book 1079, Page 41 of the Aroostook County Registry of Deeds (Northern Division).

(m) Lease between Van Buren -Madawaska Corp., Agent for Irving Pulp & Paper Limited and John Wyman dated June 1, 1989 (township or municipality is not indicated in document), which lease was collaterally assigned to the Aroostook Federal Savings and Loan Association assignment dated September 16, 1997 recorded in Book 1086, Page 210 of the Aroostook County Registry of Deeds (Northern Division).

(n) Lease between Van-Buren-Madawaska Corp., agent for Irving Pulp & Paper, Limited and Carol M. McGlinn and Sandra E. Brawders which lease is collaterally assigned to The County Federal Credit Union by assignments dated July 31, 1998 and recorded in Book 1128, Page 37 of the Aroostook County Registry of Deeds. (Northern Division)

AND ALSO CONVEYING:

Also conveying all other lands and premises and interest in lands, premises and hereditaments, and all rights, privileges, servitudes, easements, licenses, concessions, waters, water rights, water powers, water courses, mills and mill sites, dams and dam sites, boom and boom sites, sluices and sluicing sites, flowage and flowage rights, not hereinabove particularly described, now owned, held or enjoyed by the Grantor and located in the State of Maine, and whether or not the same appertains to "timberlands" or otherwise and also, all buildings, erections and improvements thereon standing and being, and all rights, privileges and appurtenances thereunto belonging or in any manner appertaining, and the reversion and reversions, remainder and remainders, rents issues, and profits thereof; and all of the estate, right, title, interest, use, possession, property, claim, and demand, both at Law and in Equity of it, of the Grantor, of, in, to, or out of the same and every part, parcel and appurtenance thereof.

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RECEIVED AROOSTOOK S.S.

99 MAR -3 AM 11:45

167

ATTEST: *Louise M. Ceron*
REGISTER OF DEEDS

Quitclaim Deed with Covenant

Consolidated Rambler Mines, Limited, an Ontario corporation, with a place of business in Saint John, New Brunswick, Canada, for consideration paid, grants to Allagash Timberlands LP, a Maine limited partnership with a mailing address of R.R.#3, Box 436, Fort Kent, Maine 04743, with Quitclaim Covenant, the property situated in Aroostook County, Maine, more particularly described in Schedule A attached hereto.

The property is conveyed together with all estates, tenements, hereditaments and appurtenances belonging thereto, except to the extent of any limitations specifically set forth herein.

It is the intent of the Grantor to convey to the Grantee and there is hereby conveyed all of Grantor's right, title and interest in the property, whether or not said interest is specifically described herein or in Schedule A, and without limitation by any fraction or decimal set forth in Schedule A, including, but not limited to all real property, improvements, buildings, flowage, estates, tenements, hereditaments, and appurtenances to the premises herein conveyed, except as expressly set forth herein.

In witness whereof, Consolidated Rambler Mines, Limited, has caused this instrument to be signed in its corporate name as an instrument under seal, by W.D. Jamieson its President and W.J. Dever its Secretary, hereunto duly authorized, as of the 1st day of March, 1999.

Witness:

Consolidated Rambler Mines, Limited

Randy Mac Millan

By: W.D. Jamieson
Name: W. D. Jamieson
Capacity: President

Randy Mac Millan

By: W.J. Dever
Name: W. J. Dever
Capacity: Secretary

MAINE
REAL ESTATE
TRANSFER TAX
PAID

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On the 1st day of March 1999, before me personally came ~~W.D. Jamieson~~ W.D. Jamieson to me known, who, being by me duly sworn, did depose and say that he resides at Rothesay, New Brunswick; that he is the President of **CONSOLIDATED RAMBLER MINES, LIMITED**, an Ontario corporation, the corporation described in and which executed the above instrument; and that he signed his name thereto as a duly authorized officer of the said corporation; and that he signed the same as the voluntary act and deed of said corporation.

Channabel Latham

Notary Public
[Notarial Seal]
CHANNABEL LATHAM
NOTARY PUBLIC, State of New York
No. 41-4889335
Qualified in Queens County
Certificate Filed in New York County
Commission Expires April 13, 1999

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On the 1st day of March 1999, before me personally came ~~W.D. Jamieson~~ W.D. Jamieson to me known, who, being by me duly sworn, did depose and say that he resides at Rothesay, New Brunswick; that he is the Secretary of **CONSOLIDATED RAMBLER MINES, LIMITED**, an Ontario corporation, the corporation described in and which executed the above instrument; and that he signed his name thereto as a duly authorized officer of the said corporation; and that he signed the same as the voluntary act and deed of said corporation.

Channabel Latham

Notary Public
[Notarial Seal]
CHANNABEL LATHAM
NOTARY PUBLIC, State of New York
No. 41-4889335
Qualified in Queens County
Certificate Filed in New York County
Commission Expires April 13, 1999

BK 1150PG160

SCHEDULE A**First (Allagash):**

A certain lot or parcel of land situated in Allagash Township (formerly Township 16, Range 10, W.E.L.S.), in the County of Aroostook and State of Maine, bounded and described as follows:

Beginning at a post and stones on the south line of Township sixteen (16), Range ten (10), at a point 92.82 chains South 68° East from the southwest corner of the town, the above mentioned post and stones being the starting point for a division line; thence on and along said division line North 22° East, a distance of 361.60 chains, more or less, to a post and stones on the south line of the William Gardner lot; thence South 64° East on and along the south line of the William Gardner lot, a distance of 31.40 chains, more or less, to a post and stones, being the southeast corner of the lot; thence northeasterly along the east bank of the Allagash River by an irregular course South 39° East a distance of 0.80 chains and South 79° 45' East a distance of 3.03 chains and North 89° East a distance of 3.03 chains and North 74° 45' East a distance of 5.12 chains and North 53° 45' East a distance of 4.95 chains, all distances, more or less, to a point on the east bank of the Allagash River, said point being the intersection of the west line of the so-called John Gardner lot with the Allagash River; thence South 28° 30' West on and along said west line a distance of 3.75 chains more or less, to a post and stones; thence, continuing on and along said west line a distance of 24.80 chains, more or less, to a post and stones, being the southwest corner of the John Gardner lot; thence South 61° 30' East on and along the south line of the said lot, a distance of 25.00 chains, more or less, to a post and stones, being the southeast corner of the John Gardner lot; thence North 29° East a distance of 11.50 chains, more or less, to a post and stones, being the southwest corner of Reserved Lot No. 3; thence North 87° East on and along the south line of said lot and Lot 2 a distance of 110.67 chains, more or less, to a post and stones, being the southeast corner of Lot No. 2; thence South 8° East a distance of 1.60 chains, more or less, to the southwest corner of Lot No. 1, formerly Sarah Gardner lot; thence North 87° East on and along the south line of said lot a distance of 15.00 chains, more or less, to the southeast corner of said lot; thence North 8° West on and along the east line of said lot a distance of 38.55 chains, more or less, to a point on the south bank of the St. John River; thence easterly along the south bank of the St. John River, the south bank being bounded by an irregular course South 73° East, a distance of 6.09 chains and South 84° East, a distance of 9.12 chains, and South 82° East, a distance of 4.53 chains, and South 83° East, a distance of 9.40 chains, all distances, more or less, to a post and stones on the bank of the St. John River, said post and stones being the northwest corner of the Public Lot as surveyed out in 1947; thence South 18° East on and along the west line of Public Lot, a distance of 19.83 chains, more or less, to a post and stones on said line set on the south side of Public Highway No. 161; thence continuing along said line a distance of 60.93 chains, more or less, to a post and stones, being the southwest corner of said Public Lot; thence North 72° East on and along the south line of Public Lot a distance of 123.00 chains, more or less, to a post and stones, being the southeast corner of Public Lot; thence North 18° West on and along the east line of Public Lot, a distance of 63.00 chains, more or less, to a post and stones, being the southwest corner of Settlers' Lots; thence

North 84° East on and along the south line of Settlers' Lots, a distance of 13.81 chains, more or less, to a post on the south line of Settlers' Lots; thence South 70° East on and along the south line of Settlers' Lots a distance of 67.46 chains, more or less, to a post and stones on the east line of Township 16, Range 10; thence South 22° West on and along the east line of town, a distance of 507.51 chains, more or less, to a post and stones, being the southeast corner of Township 16, Range 10, thence North 68° West on and along the south line of Township 16, Range 10, a distance of 385.90 chains, more or less, to a post and stones, being the starting point of a division line and the point of beginning.

Excepting and reserving from the above described premises the following:

(a) That part of Lot 15 conveyed by Alex Moir to Frank Hinckley, et als as set forth in a deed from Alex Moir to Isabelle Hinckley, et als dated August 12, 1911, recorded in said Registry of Deeds in Book 69, Page 108.

(b) A lot of 5.10 acres for State Highway "771" as described in a deed from International Paper Company to the State of Maine dated April 24, 1964, recorded in said Registry of Deeds in Book 322, Page 1.

Subject to Flowage rights on the Saint John River granted Saint John Realty Company by American Realty Company in an instrument dated November 26, 1929 and recorded with said Registry of Deeds in Book 128, Page 14.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

For source of title see a deed from Rollande Lynch to Consolidated Rambler Mines, Limited, dated October 23, 1990 and recorded in Book 819, Page 175 of the Aroostook County Registry of Deeds (Northern Division).

Further subject as applicable to the terms of an Amended Judgment of Maine Superior Court, Aroostook County, in the Civil Action entitled Elmer Roy Hafford, et al v. Consolidated Rambler Mines, Ltd., Docket No. CV-93-219, a copy of which is recorded in Book 1108, Page 323, of the Aroostook County Registry of Deeds.

Second (Allagash):

A certain lot or parcel of land situated in Allagash, formerly Township 16, Range 11, W.E.L.S., in the County of Aroostook and State of Maine:

Beginning at a post and stones at the southwest corner of Township 16, Range 11; thence North 21° 30' East along the west line of Township 16, Range 11, a distance of 390.40 chains to a post and stones on the crest of the south bank of the St. John River, and being the northwest corner of said Township 16, Range 11; thence easterly along a traverse of the south shore of the St. John River, said traverse following along average high water mark, as determined by the demarcation line of gravel beach and grassy bank.

BK 1150PG162

STATION 0. Being post and stones at crest of the bank to Station 1, North 21° and 30' East 0.77 chains.

STA. 1 to STA. 2A		South 86° 37' East	5.58 chains	
" 2A	" 1C	South 85° 57' East	10.35	"
" 1C	" 2	North 69° 56' East	14.72	"
" 2	" 2B	North 59° 03' East	22.58	"
" 2B	" 3	North 40° 55' East	6.76	"
" 3	" 4	North 40° 53' East	17.42	"
" 4	" 5	North 61° 58' East	6.64	"
" 5	" 6	North 80° 28' East	3.58	"
" 6	" 7	North 85° 41' East	3.18	"
" 7	" 8	South 86° 03' East	3.42	"
" 8	" 9	South 83° 40' East	27.58	"
" 9	" 10	South 64° 30' East	15.15	"
" 10	" 11	South 56° 53' East	12.17	"
" 11	" 12	South 53° 51' East	6.70	"
" 12	" 13	South 43° 35' East	15.23	"
" 13	" 14	South 35° 19' East	18.32	"
" 14	" 15	South 35° 18' East	25.30	"
" 15	" 16	South 18° 48' East	14.80	"
" 16	" 17	South 14° 04' East	6.79	"
" 17	" 18	South 8° 18' East	16.21	"
" 18	" 18A	South 4° 00' East	3.18	"
" 18A	" 18B	South 7° 55' East	5.81	"
" 18B	" 18C	South 29° 41' East	10.36	"
" 18C	" 20B	South 12° 01' East	9.47	"
" 20B	" 20	South 75° 33' East	23.27	"
" 20"	" 20D	South 9° 04' West	0.95	"

Station 20D being a post and stones at north end of Division line on crest of south bank of St. John River; thence South 21° 30' West on and along said Division line; this line being newly run out and spotted and painted tangerine yellow by Surveyors Sinclair and Holman, June 1949, a distance of 375.92 chains to post and stones; being the south end of Division line and located on the south line of Township 16, Range 11, a distance of 88.31 chains west of Base Line Number 1; thence North 68° 50' West on and along south line of Township 16, Range 11, a distance of 232.98 chains to a post and stones; being the southwest corner of Township 16, Range 11, and the point of beginning.

Excepting and reserving from the above described premises the following:

(a) A 90-rod strip of land running from the St. John River near Carter Brook and extending southerly one mile described in a deed from David Jackson, et als, to Charles Jackson dated July 16, 1946, recorded in said Registry of Deeds in Book 210, Page 249, and also described in a deed from David Jackson, et als, to Charles Jackson dated July 16, 1946, recorded in said Registry of Deeds in Book 213, Page 113.

(b) A small lot of land on the main highway road in Allagash Plantation described in a deed from Charles L. Jackson to Marie Anne Jackson dated January 18, 1947, recorded in said Registry of Deeds in Book 209, Page 559.

(c) The "Harris Farm" as described in a deed from Hamp Jackson to Charles Jackson dated April 18, 1942, recorded in said Registry of Deeds in Book 208, Page 348.

(d) A lot on the St. John River containing 94 acres, more or less, adjacent to the west line of Treaty Lot number (1) as described in a deed from Charles R. Jackson to Great Northern Paper Company dated December 15, 1948, recorded in said Registry of Deeds in Book 215, Page 190.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Third (Allagash):

All of the lands in Allagash formerly known as Township 17, Range 10, W.E.L.S., in the County of Aroostook and State of Maine.

Excepting and reserving from the above described premises the Public Lots located in said Township 17, Range 10, W.E.L.S.

Subject to Flowage rights on the Saint John River granted Saint John Realty Company by American Realty Company in an instrument dated November 26, 1929 and recorded with said Registry of Deeds in Book 128, Page 14.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Fourth (Allagash):

A 16/27 (.5925926) interest in and to a 1,567 acre parcel of land situated in Allagash, formerly Township 17, Range 11, W.E.L.S., in the County of Aroostook and State of Maine:

Beginning at a cedar post surrounded with stones on the north bank of the St. John River on the west line of Township numbered 17, Range 11, W.E.L.S. marked on the west "T 16 R. 12", on the east "17 R. 11", and "1936", and witnessed "1936"; thence north 22° east two hundred and seventy-one chains (271.00) to a cedar post and stones, marked on the northeast "Coe", on the southeast "A.R. Co. et als", on the west "1936", and witnessed "1936", being the northwest corner thereof; thence south 68° east sixty-six (66) chains and fifty (50) links, more or less, to a cedar post surrounded with stones being marked on the northwest "Coe", on the southeast "Coe", on the southwest "A.R. Co. et als", on the northeast "1936", and witnessed "1936", being the

northeast corner thereof; thence South 22° west two hundred and four chains (204) and eighty (80) links to a cedar post surrounded with stones on the north bank of the St. John River being marked on the west "A.R. Co. et als", on the east "Coe", on the south "1936", and witnessed "1936", being the southeast corner thereof; thence westerly by and along the St. John River to the point of beginning, containing 1576 acres, be the same more or less, as surveyed and the spots painted with red paint during 1936 by Frank M. Call.

Reference is also made to plan recorded in said Registry of Deeds captioned "TOWNSHIP 17, RANGE 11, W.E.L.S. AROOSTOOK COUNTY, MAINE, TO ACCOMPANY REPORT OF COMMISSIONERS FOR PARTITION SCALE: 1"=40 chains September, 1936."

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Fifth (Caswell Plantation):

Certain lots or parcels of land situated in Caswell Plantation, County of Aroostook, State of Maine, bounded and described as follows:

(A) The following lots of land situated in Caswell Plantation, in the County of Aroostook and State of Maine: Lots numbered one (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), twenty-five (25), twenty-six (26), twenty-seven (27), twenty-eight (28), twenty-nine (29), thirty (30), thirty-one (31), thirty-two (32), forty-five (45), forty-six (46), forty-seven (47), forty-eight (48), forty-nine (49), fifty (50), fifty-one (51), fifty-two (52), fifty-five (55), fifty-six (56), fifty-seven (57), fifty-eight (58), fifty-nine (59), sixty (60), sixty-one (61), sixty-two (62), seventy-one (71), seventy-two (72), seventy-three (73), seventy-four (74), seventy-five (75), seventy-six (76), seventy-seven (77), seventy-eight (78), seventy-nine (79), eighty (80), eighty-five (85), eighty-six (86), eighty-seven (87), eighty-eight (88), eighty-nine (89), ninety (90), ninety-one (91), ninety-two (92), ninety-three (93), ninety-four (94), one hundred two (102), one hundred three (103), one hundred four (104), one hundred five (105), one hundred six (106), one hundred seven (107), one hundred eight (108), one hundred seventeen (117), one hundred twenty (120), one hundred twenty-one (121), one hundred twenty-two (122), one hundred thirty-five (135), and one hundred thirty-six (136), said lots being wild land.

Excepting and reserving, however, the south half of lot numbered one hundred eight (108), and the north half of lot numbered one hundred twenty-two (122).

Also excepting and reserving that parts of lots numbered one hundred two (102), one hundred three (103), and one hundred seventeen (117), covered by the United States Government taking dated July 2, 1948, and recorded in Book 220, Page 630 of the Aroostook County Registry of Deeds (Northern Division), containing one hundred eleven and seven tenths (111.7) acres, more or less.

Subject to an easement granted by Macwahoc Company to Maine Public Service Company dated October 15, 1963, and recorded in Book 318, Page 524.

(B) Also a right of way for all purposes in common with others across farm premises now or formerly owned or occupied by Randolph Turcotte situated in said Caswell Plantation, over a farm road beginning at a point on the westerly limit of the so-called Limestone—Van Buren Road and extending in a westerly direction to a point on the easterly limits of the south half of lot numbered one hundred eight (108), and the north half of lot numbered one hundred twenty-two (122) lot lines in said Caswell Plantation as more particularly described in quitclaim deed from Randolph Turcotte to Wallace E. Woodman dated July 6, 1946, and recorded in the Northern District of the Aroostook Registry of Deeds in Book 208, Page 135, reference thereto being made and had.

(C) Certain lot or parcel of land situated in Caswell Plantation, County of Aroostook, State of Maine, bounded and described as follows:

One hundred fifty (150) acres of lot numbered one hundred eighteen (118), situated in the Plantation of Caswell, in the County of Aroostook and State of Maine, bounded on the north by land now or formerly owned or occupied by Wallace Woodman; on the east by land now or formerly owned or occupied by Elwood and Omer O'Neal; on the south by land now or formerly owned or occupied by Griffin and Rushmore; and on the west by the land now or formerly owned or occupied by Wallace Woodman.(D) A certain lot or parcel of land situated in Caswell Plantation, County of Aroostook, State of Maine:

Lot numbered Ninety-nine (99) according to the survey and plan of Township Letter "F", Range One, W.E.L.S., now said Caswell Plantation in said County of Aroostook, as made and returned to the State Land Office in 1861, by Benjamin F. Cutter, Surveyor.

The Grantor also conveys to the Grantee, its successors and assigns, access from the so-called Woodman Road in said Caswell Plantation to the southeast corner of Lot 113 for purposes of ingress, egress and regress, which right to way shall extend from that portion of said Woodman Road located on the northwesterly corner of Lot 128 in said Plantation, to said southeasterly corner of Lot 113, consisting of 160 acres, more or less.

(E) A certain lot or parcel of land situated in Caswell Plantation, County of Aroostook, State of Maine:

Lot Numbered One Hundred Thirteen (113) according to the survey and plan of Township Letter "F", Range One, W.E.L.S., now said Caswell Plantation in said County of Aroostook, as made and returned to the State Land Office in 1861, by Benjamin F. Cutter, Surveyor.

As to parcels D & E, Subject to the following rights and reservations:

1. Motion to Amend Petition for Condemnation by the United States of America, dated March 3, 1948, recorded in Book 213, Page 571.

2. Judgment on the Declaration of Taking No. 3 by the United State of America, dated March 24, 1948, and recorded in Book 220, Page 1.
3. Judgment on the Declaration of Taking No. 4 by the United States of America, dated July 2, 1948, and recorded in Book 220, Page 23.
4. Judgment on the Declaration of Taking No. 5 by the United States of America, recorded July 9, 1948, and recorded in Book 220, Page 30.
5. Motion to Amend Petition for Condemnation by the United States of America, recorded May 9, 1951, in Book 223, Page 539.
6. Judgment on the Declaration of Taking by the United States of America, recorded April 21, 1955, in Book 253, Page 203.

Easement granted by George White and Mildred White to New England Telephone and Telegraph Company, dated June 30, 1965, and recorded in Book 333, Page 191.

The Grantor also conveys to the Grantee, its successors and assigns, access from the so-called Woodman Road in said Caswell Plantation to the southeast corner of Lot 113 for purposes of ingress, egress and regress, which right to way shall extend from that portion of said Woodman Road located on the northwesterly corner of Lot 128 in said Plantation, to said southeasterly corner of Lot 113, consisting of 160 acres, more or less.

For source of title see deed from Macwahoc Company to Consolidated Rambler Mines, Limited dated July 13, 1993 and recorded in Book 913, Page 213, of the Aroostook County Registry of Deeds (Northern Division).

Sixth (Connor):

The following described land in Connor, Aroostook County, Maine: A parcel of land situate in the Northeast corner of said Town of Connor, described as follows: Bounded on the north by the north line of the Town; on the east by the east line of the Town; on the south by land formerly owned by John B. Roberts and Orman L. Keyes, and by Lot numbered Fifty (50), now or formerly owned by one Fisher and known as the Fisher Lot; on the west by the center line of said Town and said Fisher Lot, containing four thousand six hundred (4,600) acres, more or less.

Being the same premises described in a deed from the Town of Connor dated August 2, 1943 and recorded in the Northern Aroostook Registry of Deeds in Book 195, Page 64.

For source of title see deed from Great Northern Nekoosa Corporation to Consolidated Rambler Mines Limited, dated December 16, 1988, and recorded in Book 770, Page 75, of the Aroostook County Registry of Deeds (Northern Division).

BK 1150 PG 167**Seventh (Connor):**

A certain parcel of land situated in the east half of the Town of Connor, in said County of Aroostook, bounded and described as follows:

Commencing on the west Caswell line at the northeast corner of lot numbered twenty-eight (28); thence north on said Caswell line three hundred fifty-four (354) rods to a white birch post marked "1921" "Town line Connor"; thence westerly parallel to the north line of said lot numbered twenty-eight (28), five hundred eighty-five (585) rods, more or less, to the center of the West Branch of Black Brook; thence southerly along the center of said Black Brook to the northwest corner of lot numbered thirty-one (31); thence along the north and east lines of lot numbered thirty-one (31) to the northwest corner of lot numbered nineteen (19); thence easterly along the north lines of lot numbered nineteen (19), twenty-one (21), twenty-two (22), twenty-four (24), twenty-six (26) and twenty-eight (28) to the place of beginning.

Excepting and reserving, however, the following described parcels of land: Fifty (50) acres on the north side of lot numbered thirty-one (31), bounded on the south by the north line of said lot numbered thirty-one (31), on the east by the east line of lot numbered thirty-one (31) extending northerly, on the west by the West Branch of Black Brook, and on the north by a line parallel with the north line of lot numbered thirty-one (31); also the gore of lot numbered nineteen (19), bounded by the north line of said lot, the east and west sides of said lot extended north and the east branch of Black Brook on the north, containing twenty-nine and two tenths (29.2) acres; also the gore of lot numbered twenty-one (21), bounded on the north by said Brook; also the gore of lot numbered twenty-two (22) and extended north far enough to contain fifty-one (51) acres; also the gore of lot numbered twenty-four (24) extended far enough north to contain fifty (50) acres.

Lots 19 through 28 referred to above are depicted on the plan recorded at Book 17, Page 666 of the Aroostook County Registry of Deeds (Northern Division).

For source of title see deed from Macwahoc Company to Consolidated Rambler Mines, Limited dated July 13, 1993 and recorded in Book 913, Page 213, of the Aroostook County Registry of Deeds (Northern Division).

Eighth (Grand Isle):

A certain tract of land situated in the Town of Grand Isle, County of Aroostook and State of Maine, described as follows:

All of Lots 22 through 26 inclusive; 56 through 66 inclusive; 69 through 83 inclusive; and 85 through 97 inclusive, containing seven thousand six hundred twenty-three (7,623) acres, more or less.

SUBJECT TO the reservations and restrictions contained in said deed.

For source of title see a deed from Great Northern Nekoosa, dated December 16, 1988 and recorded in Book 770, Page 75 of the Aroostook County Registry of Deeds (Northern Division).

Ninth (New Canada Plantation):

PARCEL ONE: A certain lot or parcel of land situated in New Canada Plantation (Township 17, Range 6, W.E.L.S.), in the County of Aroostook and State of Maine, being all of Lot numbered forty-six (46) in the south half of Township 17, Range 6, New Canada Plantation, containing two hundred twenty-three (223) acres, more or less.

PARCEL TWO: The south one-half of said New Canada Plantation (Township 17, Range 6, W.E.L.S.), excepting however, the Public Lot and Lots numbered one, two, three, seven, eight, twelve, thirteen and that part of lot numbered fourteen which lies westerly of Sly Brook, and lots numbered fifteen, sixteen, seventeen, twenty-three, twenty-four, thirty-five and thirty-six. The premises hereby described contains nine thousand four hundred forty-nine and forty-two hundredths (9,449.42) acres, more or less.

Subject to an easement granted to the State of Maine by deed dated October 19, 1990 and recorded in Book 821, Page 179 of the Aroostook County Registry of Deeds (Northern Division)..

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Tenth (St. Francis):

The following described lots in the southeast portion of St. Francis, being Township 17, Range 9, W.E.L.S., in the County of Aroostook and State of Maine, as shown on plan captioned Map of St. Francis Plantation, Aroostook County, Maine, by E. McCourt Macy, Engineer, dated June, 1921, recorded in the Aroostook County Registry of Deeds, Northern District, Plan Book 1, Page 13:

Lots 18, 19, 32 through 43, 45, 47, 48, 49, 51, 55 through 65, 68 through 71, the south half of Lot 73, 74 through 76, 78 through 81, 83 through 90, 92 through 95, 97 through 101, 111, 122, 127, and the block shown in the southeast corner of said town on said plan captioned: "1,625 Acs. A.R. Co. 3/4 1,218.75";

Lot 17 except for premises described in a deed from Ansel L. Lumbert, William Engel, Jennie Wilson and Elaine Wilson to Charles Nadeau dated October 22, 1904, recorded in said Registry of Deeds in Book 51, Page 251;

That portion of Lot 30 described in a deed from Saint John Realty Company to International Paper Company dated September 22, 1967, recorded in said Registry of Deeds in Book 355, Page 75;

Lot 119 except for those premises described in (i) a deed from Ansel L. Lumbert, William Engel, Jennie Wilson and Elaine Wilson to Daniel Thibodeau dated October 22, 1904, recorded in said Registry of Deeds in Book 49, Page 474; and in (ii) a deed from Ansel L. Lumbert, William Engel, Jennie Wilson and Elaine Wilson to Fred Thibodeau dated October 22, 1904, recorded in said Registry of Deeds in Book 51, Page 61;

Lot 123 except for premises described in a deed from Ansel L. Lumbert, William Engel, Jennie Wilson and Elaine Wilson to Rosanna Sturgeon dated October 22, 1904, recorded in said Registry of Deeds in Book 49, Page 438.

Excepting and reserving from Lots 34 and 35 a seven acre parcel of land described in a deed from Inhabitants of St. Francis to Maynard Thibodeau and Josie Thibodeau dated February 23, 1978, recorded in said Registry of Deeds in Book 472, Page 273.

Also excepting and reserving from said Lot 30 the premises described in a tax lien to the Town of St. Francis dated May 28, 1970, recorded in said Registry of Deeds in Book 378, Page 586.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

SUBJECT TO an easement granted by Consolidated Rambler Mines, Limited to Maine Public Service ecesed in Book 744, Page 67 of the Aroostook County Registry of Deeds (Northern Division) to erect, maintain, repair, rebuild, operate and patrol electric transmission, distribution, and communication lines.

Eleventh (St. John Plantation):

The following described real estate situated in St. John Plantation, being Township 17, Range 8, W.E.L.S., in the County of Aroostook and State of Maine:

PARCEL ONE: A certain lot or parcel of land in said St. John Plantation, bounded and described as follows: Beginning at a cedar post in the easterly line of said Township, said post being one hundred and thirty-two chains (132) northerly of the southeast corner, said post being marked "I.P. Co." on the northerly side and "G.N.P. Co." on the southerly side; thence northerly along said easterly line to an old post at the southeast corner of the Public Lot; thence westerly along southerly boundary of the Public Lot to its southwest corner; thence northerly along the westerly boundary of Public Lot to its northwest corner in the old center line of said township; thence westerly along said center line to its intersection with the westerly boundary of said township; thence southerly along said westerly boundary, a distance of one hundred and ninety-two and thirty-five hundredths (192.35) chains to a new cedar post marked "I.P. Co." on the northerly side and "G.N.P. Co." on the southerly side; thence

easterly along new line established as the division line a distance of four hundred and eighty and ten hundredths (480.10) chains to the cedar post at the point of beginning.

PARCEL TWO: Certain lot or parcels of land situated in the north part of said St. John Plantation, being all the unlotted land lying north of the "Four Mile Strip" so-called, and portions of Lot 21 and Lot 22, as shown on a plan captioned "Plan of North Part, Twp. 17, R. 8, W.E.L.S.", recorded in said Registry of Deeds in Plan Book 32, Page 602. Said premises are described in a deed from The E. E. Ring Land Company to American Realty Company dated May 26, 1917, recorded in said Registry of Deeds in Book 77, Page 351.

Subject to the exceptions and reservations set forth in a deed from E. E. Ring Land Company to American Realty Company dated May 26, 1917 and recorded with the Aroostook County Registry of Deeds (Northern Division) in Book 77, Page 351.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Twelfth (T15 R10):

A certain lot or parcel of land situated in Township 15, Range 10, W.E.L.S. in the County of Aroostook and State of Maine, bounded and described as follows:

Beginning at the northwest corner of said Township; thence about S 22° W by and along the west line of said Township to the thread of Big Brook; thence up the thread of said Brook to where same is intersected by the westerly line of the tract allocated to Great Northern Paper Company by Partition Deed dated September 13, 1943, recorded in Aroostook County Registry of Deeds, Northern District, in Book 198, Page 137; thence N 22° E by and along said westerly line of said Great Northern Paper Company tract and passing through a cedar post, set with stones, on the northerly side of said Brook marked "G.N.P. Co. 1942, I.P. Co." about 226.75 chains to a cedar post, set with stones, marked "I.P. Co. G.N.P. Co. 1942", witnessed "1942"; thence S 68° E by and along the northerly line of a part of said Great Northern Paper Company tract 234.68 chains to an interior base-line surveyed in 1937, and a cedar post, set with stones, marked "G.N.P. Co. I.P. Co. 1942", witnessed "1942"; thence about N 22° E by and along said base line being the westerly line of a part of said Great Northern Paper Company tract 176.00 chains to the north line of said Township at the northwest corner of said part tract; thence about N 68° W by and along said north line to the point of beginning.

Containing 7,656 acres, more or less.

Excepting and reserving from the above described premises that portion of said premises along the Allagash River conveyed by International Paper Company to the State of Maine by deed dated January 14, 1969, recorded in said Registry of Deeds in Book 367, Page 74.

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Subject to Flowage rights on the Saint John River granted Saint John Realty Company by American Realty Company in an instrument dated November 26, 1929 and recorded with said Registry of Deeds in Book 128, Page 14.
For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Thirteenth (T15 R5):

All of Township 15, Range 5, W.E.L.S., in the County of Aroostook and State of Maine.

Subject to Flowage rights on the Saint John River granted Saint John Realty Company by American Realty Company in an instrument dated November 26, 1929 and recorded with said Registry of Deeds in Book 128, Page 14.
For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Fourteenth (T15 R6):

PARCEL ONE: A one-half (1/2) interest in common and undivided in and to the East half of Township 15, Range 6, W.E.L.S., described in the following deeds to American Realty Company:

1. From Louise J. Sawyer dated May 15, 1917, recorded in Aroostook Registry of Deeds, Northern District, in Book 77, Page 365; and
2. From Joseph P. Bass dated June 30, 1917, recorded in said Registry of Deeds in Book 79, Page 549.

PARCEL TWO: A one-half (1/2) interest in common and undivided, being 250 unlocated acres, in the 500 acre unlocated public lot within the east half of said Township 15, Range 6, W.E.L.S., as described in a deed from the State of Maine to International Paper Company dated November 21, 1977, recorded in said Registry of Deeds in Book 470, Page 169.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Fifteenth (T16 R12):

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A certain lot or parcel of land situated in Township 16, Range 12, W.E.L.S., in the County of Aroostook and State of Maine, bounded and described as follows:

Beginning at the southeast corner of said Township, thence about N 68° W, by and along the southerly line of said Township, 152.00 chains to the southeast corner of the tracts allocated to Great Northern Paper Company by Partition Deed dated September 13, 1943, recorded in said Registry of Deeds in Book 198, Page 117, and at a cedar post, set with stones, marked "G.N.P. Co. I.P. Co. 1942, T. 15 R. 12, T. 16, R.12", witnessed "1942"; thence N 22° E, by and along the easterly line of said Great Northern Paper Company tract, 246.69 chains to a cedar post, set with stones, on the south bank of the St. John River, marked "I.P. Co. G.N.P. Co. 1942", witnessed "1942"; thence on the same course across said river to the thread thereof; thence down said thread to where it is intersected by the thread of Fox Brook; thence up said thread of Fox Brook to where it is intersected by the easterly line of said Great Northern Paper Company tract as the same is drawn S 22° W from a point on the north line of said Township, and 152.00 chains westerly of the northeast corner thereof; thence N 22° E, by and along said Great Northern Paper Company east line, passing through a cedar post, set with stones, on the northeasterly bank of said Fox Brook, marked "G.N.P. Co. 1942, T. 16, R. 12 I.P. Co.", about 179.73 chains to the northeast corner of said Great Northern Paper Company tract on the north line of said Township, and a cedar post, set with stones, marked "G.N.P. Co., 1942, T. 16, R. 12, I.P. Co. T. 17, R. 12", witnessed "1942"; thence about S 68° E, by and along the north line of said Township, 152 chains to the northeast corner thereof; thence about S 22° W by and along the east line of said Township about 6 miles 6.03 chains to the point of beginning.

Containing 7,236 acres, more or less.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

✓ **Sixteenth (T16 R4):**

All of Township 16, Range 4, W.E.L.S., in the County of Aroostook and State of Maine.

Excepting and reserving, however, from the above described premises, the following:

- (a) Premises on the Caribou Road, so-called, described in a deed from Anna H. Pierce to John Carlstrom dated May 27, 1908, recorded in said Registry of Deeds in Book 53, Page 236 and in a deed from Mary L. Johnson, et als to John Carlstrom dated January 29, 1908, recorded in said Registry of Deeds in Book 53, Page 237.
- (b) Six rod strip of land in the southeast corner of said township conveyed by Adelaide Mansur, et als to Bangor and Aroostook Railroad Company dated June 15, 1909, recorded in said Registry of Deeds in Book 53, Page 440.

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(c) Premises on the north line of said township described in a deed from Mellen C. Peirce, et als to George Lagasse dated May 1, 1928, recorded in said Registry of Deeds in Book 117, Page 117 and in a deed from The American Realty Company to George Lagasse dated May 1, 1928, recorded in said Registry of Deeds in Book 128, Page 586.

(d) Premises in the northwest corner of said township described in a deed from Mellen C. Peirce, et als to Israel Dubey dated May 1, 1928, recorded in said Registry of Deeds in Book 117, Page 121 and in a deed from The American Realty Company to Israel Dubey dated May 1, 1928, recorded in said Registry of Deeds in Book 129, Page 21.

(e) Two parcels of land in the northwest corner of said township described in a deed from Mellen C. Peirce, et als, to Frank Hebert dated May 1, 1928, recorded in said Registry of Deeds in Book 117, Page 122 and in a deed from The American Realty Company to Frank Hebert dated May 1, 1928, recorded in said Registry of Deeds in Book 129, Page 24.

(f) Premises in the northwest corner of said township described in a deed from Mellen C. Peirce, et als to Charles Dionne dated May 1, 1928, recorded in said Registry of Deeds in Book 117, Page 126 and in a deed from The American Realty Company to Charles Dionne dated May 1, 1928, recorded in said Registry of Deeds in Book 129, Page 32.

(g) Two parcels of land in the northwest corner of said township described in a deed from Mellen C. Peirce to Baptist Dionne dated May 1, 1928, recorded in said Registry of Deeds in Book 117, Page 150 and in a deed from The American Realty Company to Baptist Dionne dated May 1, 1928, recorded in said Registry of Deeds in Book 129, Page 106.

(h) The premises conveyed by International Paper Company to International Paper Realty Corporation by deed dated August 31, 1981, recorded in said Registry of Deeds in Book 554, Page 254.

Subject to the following restrictions and easments:

FIRST: Terms and conditions of an Agreement between International Paper Company and Kerramerican, Inc. dated March 1, 1973 and recorded with said Registry of Deeds in Book 402, Page 839, including, without limitation, the rights of Kerramerican, Inc. set forth or referred to in said Agreement.

SECOND: Rights of Fish River Power and Storage Company in and to the bed and shores of Fish River described in deed from American Realty Company to Fish River Power and Storage Company dated June 30, 1931 and recorded with said Registry of Deeds in Book 129, Page 457.

THIRD: Pole line easement granted Maine Public Service Company by International Paper Company in an instrument dated July 30, 1968 and recorded with said Registry of Deeds in Book 363, Page 444.

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For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

✓ **Seventeenth (T16 R5):**

A certain lot or parcel of land situated in Township 16, Range 5, W.E.L.S., in the County of Aroostook and State of Maine, bounded and described as follows:

on the North by the North line of said township;
on the East by Dimock Brook and Square Lake;
on the South by Thoroughfare Brook; and
on the West by the West line of said township.

Excepting the premises conveyed by Consolidated Rambler Mines, Limited to the State of Maine recorded November 7, 1990, in Book 821, Page 179, of the Aroostook County Registry of Deeds (Northern Division) and further subject to the easements and other rights conveyed therein.

Subject to Rights to construct, reconstruct and maintain all public roads excepted and reserved by the State of Maine in deed to International Paper Company dated November 21, 1977 and recorded with the said Registry of Deeds in Book 470, Page 169.

Subject to Flowage rights granted others in and Madawaska Lake.

Subject to Drainage rights of the State of Maine for highway purposes described in deeds from International Paper Company to the State of Maine dated April 6, 1962 and July 17, 1963 and recorded with the Aroostook County Northern District Registry of Deeds in Book 302, Page 578 and Book 316, Page 186, respectively.

Subject to an Easement for underground telephone lines in the "Madawaska Lake Camp Road" described in deed from International Paper Company to New England Telephone and Telegraph Company dated September 8, 1967 and recorded with said Registry of Deeds in Book 354, Page 549.

Subject to an Easement for transmission line over strip of land 100 feet in width described in deed from International Paper Company to Maine Public Service Company dated May 30, 1951 and recorded with said Registry of Deeds in Book 230, Page 273.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

BK 1150PG 175**Eighteenth (T16 R5):**

A certain lot or parcel of land situated in Township 16, Range 5, W.E.L.S., in the County of Aroostook and State of Maine, bounded and described as follows:

On the North by the North line of said township and Thoroughfare Brook; on the East by the East line of said township; on the South by the South line of said township; on the West by the West line of said township, the West shore of Square Lake and Dimock Brook.

Excepting and reserving, however, those premises set off to John Scott Donworth, et als in a Partition Deed by and between International Paper Company and said John Scott Donworth, et als dated April 23, 1957, recorded in Aroostook County Registry of Deeds, Northern District, in Book 271, Page 45.

Excepting and reserving, however, from the above described premises the following:

(a) The premises conveyed by International Paper Company to International Paper Realty Corporation by deed dated August 31, 1981, recorded in said Registry of Deeds in Book 554, Page 254.

(b) The premises reserved in said Partition Deed dated April 23, 1957, and described therein as the Settlers' Lots.

(c) That portion of the above described premises included in Square Lake.

(d) The premises conveyed by Consolidated Rambler Mines, Limited to the State of Maine recorded November 7, 1990, in Book 821, Page 179, of the Aroostook County Registry of Deeds (Northern Division).

Subject to Rights to construct, reconstruct and maintain all public roads excepted and reserved by the State of Maine in deed to International Paper Company dated November 21, 1977 and recorded with the said Registry of Deeds in Book 470, Page 169.

Subject to Flowage rights granted others in and Madawaska Lake.

Subject to Drainage rights of the State of Maine for highway purposes described in deeds from International Paper Company to the State of Maine dated April 6, 1962 and July 17, 1963 and recorded with the Aroostook County Northern District Registry of Deeds in Book 302, Page 578 and Book 316, Page 186, respectively.

Subject to an Easement for underground telephone lines in the "Madawaska Lake Camp Road" described in deed from International Paper Company to New England Telephone and Telegraph Company dated September 8, 1967 and recorded with said Registry of Deeds in Book 354, Page 549.

Subject to terms and conditions of an Agreement between International Paper Company and Kerramerian, Inc. dated March 1, 1973 and recorded in Book 402< Page 839 of the Aroostook County Registry of Deeds (Northern Division), including

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without limitation, the rights of Kerramerican, Inc. set forth referred to in said Agreement.

Subject to the rights of Fish River Power and Storage Company in and to the bed and shores of Fish River described in a deed from American Realty Company to Fish River Power and Storage Company dated June 30, 1931 and recorded in Book 129, Page 457 of the Aroostook County Registry of Deeds (Northern Division).

Further subject to a Pole Line easement granted Maine Public Service Company by International Paper Company in an instrument dated July 30, 1968 and recorded in Book 363, Page 444 of the Aroostook County Registry of Deeds (Northern Division).

Subject to an Easement for transmission line over strip of land 100 feet in width described in deed from International Paper Company to Maine Public Service Company dated May 30, 1951 and recorded with said Registry of Deeds in Book 230, Page 273.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Nineteenth (T16 R5):

Parcel I - Minnow Brook Block

A certain piece or parcel of land situated in Township 16, Range 5, W.E.L.S. in the County of Aroostook and State of Maine, and being more particularly bounded and described as follows:

Commencing at the intersection of the high water mark of Cross Lake with the centerline of Minnow Brook as shown on plan entitled "Land Title Survey of International Paper Company 'Minnow Brook' Block on Cross Lake, Township 16, Range 5, W.E.L.S., Maine, Scale 1" = 100', May, 1981, Surveyed by John B. Cahoon" and recorded in Aroostook County Registry of Deeds, Northern District, in Plan Book 9, Page 50, Maine:

Thence in a southeasterly direction along the centerline of Minnow Brook a distance of 391.92 feet to a point; thence S 39° 40' 15" W a distance of 30 feet to a 4" steel post with a brass plug set in concrete; thence continuing S 39° 40' 15" W a distance of 338.48 feet to a 4" steel post with a brass plug set in concrete; thence S 59° 44' 30" W a distance of 695.86 feet to a 1" iron pin; thence S 46° 21' 20" W a distance of 302.39 feet to a 1" iron pin; thence S 64° 22' 45" W a distance of 401.73 feet to a 1" iron pin; thence S 72° 11' 14" W a distance of 368.40 feet to a 1" iron pin; thence S 57° 30' 20" W a distance of 945.90 feet to a 1" iron pin; thence S 30° 47' 10" W a distance of 327.49 feet to a 1" iron pin; thence S 32° 29' 50" W a distance of 601.64 feet to a 1" iron pin; thence S 21° 56' 15" W a distance of 384.41 feet to a 1" iron pin; thence S 41° 18' 00" W a distance of 398.18 feet to a 1" iron pin; thence S 21° 29' 25" W a

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distance of 341.67 feet to a 1" iron pin; thence S 45° 00' 45" W a distance of 388.30 feet to a 1" iron pin; thence S 78° 07' 45" W a distance of 396.42 feet to a 4" steel post with a brass plug set in concrete; thence N 81° 38' 15" W a distance of 346.17 feet to a 4" steel post with a brass plug set in concrete; thence continuing N 81° 38' 15" W a distance of 30 feet to the centerline of an unnamed brook; thence in a northeasterly and northwesterly direction along the centerline of said unnamed brook to the high water mark of Cross Lake; thence in a southeasterly and northeasterly direction along the high water mark of Cross Lake a distance of 6,114.82 feet to the point of beginning.

Said parcel of land containing 49.12 acres.

Also meaning and intending to convey that parcel of land between the high water mark as located on the above referred to plan and normal low water mark.

Parcel II - Fraser Camp Block

A certain piece or parcel of land situated in Township 16, Range 5, W.E.L.S. in the County of Aroostook and State of Maine, and being more particularly bounded and described as follows:

Commencing at the intersection of the high water mark of Square Lake with the southerly line of Fraser Camp Lot as shown on plan entitled "Land Title Survey of International Paper Company 'Fraser Camp' Block on Square Lake, Township 16, Range 5, W.E.L.S., Maine, Scale 1" = 100', May, 1981, Surveyed by John B. Cahoon" and recorded in Aroostook County Registry of Deeds, Northern District, in Plan Book 9, Page 51, 52, and 53, Maine:

Thence N 56° 03' 15" E a distance of 23.84 feet more or less to a 4" steel post with a brass plug set in concrete; thence continuing N 56° 03' 15" E a distance of 326.16 feet to a 4" steel post with a brass plug set in concrete; thence S 32° 29' 15" E a distance of 1,040.36 feet to a 1" iron pin; thence S 23° 03' 30" E a distance of 302.90 feet to a 1" iron pin; thence S 17° 15' 04" E a distance of 829.61 feet to a 1" iron pin; thence S 23° 13' 40" E a distance of 852.48 feet to a 1" iron pin; thence S 11° 46' 10" E a distance of 301.20 feet to a 1" iron pin; thence S 07° 06' 45" E a distance of 1,422.97 feet to a 1" iron pin; thence S 08° 41' 30" E a distance of 1,066.56 feet to a 1" iron pin; thence S 18° 14' 20" E a distance of 566.07 feet to a 1" iron pin; thence S 13° 13' 35" E a distance of 352.63 feet to a 1" iron pin; thence S 06° 36' 55" E a distance of 275.63 feet to a 1" iron pin; thence S 02° 37' 05" W a distance of 940.41 feet to a 1" iron pin; thence S 07° 02' 45" E a distance of 987.96 feet to a 1" iron pin; thence S 12° 01' 35" E a distance of 246.35 feet to a 1" iron pin; thence S 03° 54' 40" W a distance of 206.96 feet to a 1" iron pin; thence S 04° 33' 20" E a distance of 575.66 feet to a 1" iron pin; thence S 31° 25' 00" E a distance of 485.00 feet to a 1" iron pin; thence S 05° 26' 50" E a distance of 410.47 feet to a 4" steel post with a brass plug set in concrete; thence S 32° 57' 40" W a distance of 518.70 feet to a 4" steel post with a brass plug set in concrete, said post forming an angle point in the Yerxa Camp Lot; thence N 87° 30' 00" W a distance of 456.5 feet along the Yerxa Camp Lot to a 4" steel post; thence continuing N 87° 30' 00" W a distance of 17.8 feet more or less to the high water mark of Square Lake; thence in a northeasterly and northwesterly direction along the high

water mark of Square Lake a distance of 11,257.31 feet more or less to the point of beginning.

Said parcel of land containing 91.61 acres.

Also meaning and intending to convey that parcel of land between the high water mark as located on the above referred to plan and normal low water mark.

Parcel III - Butler Brook Block

A certain piece or parcel of land situated in Township 16, Range 5, W.E.L.S. in the County of Aroostook and State of Maine, and being more particularly bounded and described as follows:

Commencing at the intersection of the high water mark of Square Lake with the westerly line of the Yerxa Camps as shown on plan entitled "Land Title Survey of International Paper Company 'Butler Brook' Block on Square Lake, Township 16, Range 5, W.E.L.S., Maine, Scale 1" = 100', May, 1981, Surveyed by John B. Cahoon" and recorded in Aroostook County Registry of Deeds, Northern District, in Plan Book 9, Page 54, Maine:

Thence S 31° 36' 40" E a distance of 25 feet more or less to an existing cedar post; thence continuing S 31° 36' 40" E a distance of 332.04 feet to a 4" steel post with a brass plug set in concrete; thence S 69° 41' 50" W a distance of 383.07 feet to a 4" steel post with a brass plug set in concrete; thence S 76° 22' 25" W a distance of 407.84 feet to a 1" iron pin; thence S 72° 18' 15" W a distance of 468.42 feet to a 1" iron pin; thence S 61° 06' 00" W a distance of 813.15 feet to a 1" iron pin; thence S 51° 06' 40" W a distance of 265.96 feet to a 1" iron pin; thence S 40° 01' 25" W a distance of 708.55 feet to a 1" iron pin; thence S 30° 21' 00" W a distance of 617.48 feet to a 1" iron pin; thence S 41° 48' 25" W a distance of 629.42 feet to a 1" iron pin; thence S 51° 44' 35" W a distance of 390.44 feet to a 4" steel post with a brass plug set in concrete; thence S 58° 10' 35" W a distance of 482.58 feet to a 4" steel post with a brass plug set in concrete; thence continuing S 58° 10' 35" W a distance of 30 feet more or less to the centerline of Butler Brook; thence along the centerline of Butler Brook in a northwesterly and northeasterly direction a distance of 405.94 feet more or less to its intersection with the high water mark of Square Lake; thence in a northeasterly direction along the high water mark of Square Lake a distance of 5,055.48 feet more or less to the point of beginning.

Said parcel of land containing 40.96 acres.

Also meaning and intending to convey that parcel of land between the high water mark as located on the above-mentioned plan and normal low water mark.

Also conveying all easements appurtenant to the above described properties more specifically described in Exhibit B of the deed from International Paper Realty Corporation to Consolidated Rambler Mines Limited dated October 19, 1984 and recorded in Book 636, Page 44, of the Aroostook County Registry of Deeds.

For source of title see deed from International Paper Realty Corporation to Consolidated Rambler Mines Limited dated October 19, 1984 and recorded in Book 636, Page 44, of the Aroostook County Registry of Deeds (Northern Division).

EXCEPTING the following lands conveyed to the State of Maine by deed dated October 19, 1990 and recorded in Book 821, Page 179 of the Aroostook County Registry of Deeds (Northern Division).

Two parcels of land, containing five thousand six hundred and four (5,604) acres, more or less, bounded and described as follows:

Beginning at the southwest corner of T.16, R5 W.E.L.S. , thence northerly by the west line of said township 18,480 feet, more or less, to a point on said west line of said township being approximately 300 feet southerly from the south shore of a thoroughfare between Eagle Lake and Square Lake; thence easterly, keeping a distance of 300 feet southerly from the south shore of said thoroughfare of 6,864 feet, more or less, to a point; thence South 21° 30' West 1,700 feet, more or less, to the centerline of a woods road; thence northeasterly, southeasterly and southerly by the centerline of said road, 15,600 feet, more or less, to an intersection with a second woods road; thence southeasterly continuing along the centerline of said road, 2,950 feet, more or less, to another intersection ; thence southeasterly along said woods road centerline 1,952 feet more or less, to a point; thence South 54° 15' West, 9,700 feet, more or less, to a point on the South line of said township; thence westerly by the south line of said township, 12,408 feet, more or less, to the point of beginning.

Also a parcel described as follows:

Commencing at the northwest corner of the previously described parcel in T16, R5 W.E.L.S.; thence easterly along the north line of said parcel, extending on a parallel course with the south shore of said thoroughfare to the west shore of said Square Lake; thence northerly following said west shore of said Square Lake to a point 300 feet, more or less, northerly from the north shore of said thoroughfare; thence westerly, along a course parallel to and 300 feet, more or less, north of the north shore of said thoroughfare to the west line of said township to the point of beginning.

SUBJECT TO all easements and other restrictions contained in the above mentioned deed.

FURTHER SUBJECT TO a right of way conveyed to the Heed Family, Inc. by deed dated October 27, 1982 and recorded in Book 586, Page 56 of the Aroostook County Registry of Deeds (Northern Division) and by deed to Elizabeth A. Manship, et al., dated October 27, 1982 and recorded in Book 586, Page 304 of said Registry.

FURTHER EXCEPTING the repmises conveyed by American Realty Company to Fish River Power and Storage Company by deed dated June 30, 1031 and recorded in Book 129, Page 457 of the Aroostook County Registry of Deeds (Northern Division).

Twentieth(T16 R9):

Township 16, Range 9, W.E.L.S., situated in the County of Aroostook and State of Maine, except the public lots in the said township reserved by the State of Maine.

For source of title see deeds from International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division) and Irving Pulp & Paper Limited, to Consolidated Rambler Mines Limited dated December 30, 1988 and recorded on February 1, 1999 in Book 1146, Page 257 of the Aroostook County Registry of Deeds (Northern Division).

Subject to the following easements and restrictions (T16 R9 WELS):

Subject to Rights to construct, reconstruct and maintain all public roads excepted and reserved by the State of Maine in deed to International Paper Company dated November 21, 1977 and recorded with the Aroostook County Northern District Registry of Deeds in Book 470, Page 169.

Twenty-first (T17 R5):

✓ PARCEL ONE: A certain lot or parcel of land situated in Township 17, Range 5, W.E.L.S. in the County of Aroostook and State of Maine, bounded and described as follows: Beginning at a post and stones at the southwest corner of said township; thence North 22° East in and along the westerly line thereof one hundred sixty-five and seventy-three hundredths (165.73) chains to a point marked by a post and stones; thence South 66° 30' East in and along a line spotted and painted tangerine yellow one hundred forty-seven and eleven hundredths (147.11) chains to a point marked by a post and stones; thence South 22° 10' West in and along a line spotted and painted tangerine yellow one hundred fifty-nine and ninety-four hundredths (159.94) chains to a point in the southerly line of said township, said point being marked by a post and stones; thence North 68° 45' West in and along said southerly line one hundred forty-six and sixty-three hundredths (146.63) chains to the southwesterly corner of said township, the point of beginning. The entire tract containing two thousand three hundred and ninety-two (2,392) acres, more or less.

PARCEL TWO: A certain lot or parcel of land situated in Township 17, Range 5, W.E.L.S., in the County of Aroostook and State of Maine, bounded and described as follows: Beginning at a post and stones at the northeasterly corner of said township; thence South 22° 10' West in and along the easterly line of said township two hundred ninety-nine and ninety hundredths (299.90) chains to the southerly shore line of Mud Lake; thence westerly as the course may be along said shore to the thoroughfare between said Mud Lake and Cross Lake; thence southerly on said thoroughfare to the easterly shore of said Cross Lake; thence southerly as the course may be along said easterly shore to the southerly line of said township; thence westerly in and along said southerly line to a point marked by a post and stones, said point being one hundred eighteen and sixty-nine hundredths (118.69) chains westerly from the southeasterly corner of said township; thence North 22° East in and along a line spotted and painted tangerine yellow five hundred seven and forty-nine

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hundredths (507.49) chains to a point in the northerly line of said township, said point being marked by a post and stones; thence easterly in and along said northerly line one hundred nineteen and eighty-nine hundredths (119.89) chains to the northeasterly corner of said township, the point of beginning.

The whole parcel containing four thousand nine hundred and ninety-six (4,996) acres, more or less.

Excepting and reserving, however, from the above described Parcel One and Parcel Two the premises conveyed by International Paper Company to International Paper Realty Corporation by deed dated August 3, 1981, recorded in said Registry of Deeds in Book 554, Page 254.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Twenty-second (T18 R10):

The following described premises situated in Township Number Eighteen (18) in Range Number Ten (10) West from the east lin of the State of Maine (T.18 R.10 W.E.L.S.) in the County of Aroostook, to wit:

Beginning at a point on the south line of the township, said point being seventy five decimal seven (75.7) chains, more or less, easterly of the southwest corner of the township. Said point is also the southeast corner of a parcel set off to the State of Maine as part of a partition ordered by the Superior Court of the State of Maine, the judgement ordering such partition having been filed and entered by the Clerk of such court for Aroostook County on May 9, 1986;

Thence in a northerly direction, by and along the east line of the State of Maine parcel, one hundred six decimal one (106.1) chains, more or less, to a point. Said point being the northwest corner of the parcel set off to Irving Pulp & Paper, Limited in the said partition;

Thence in an easterly direction, at all times parallel to the south line of the township two hundred forty decimal eight (240.8) chains, more or less, to a point;

Thence in a southerly direction, at all times parallel to the west line of the parcel hereby being described (said west line being the east line of the parcel set off to the State of Maine as part of the said partition) one hundred six decimal one (106.1) chains, more or less, to the south line of the township; and

Thence in a westerly direction along the south line of the township two hundred forty decimal eight (240.8) chains, more or less, to the place of beginning.

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Said lot contains two thousand five hundred fifty-five (2,555) acres more or less.

For source of title see a deed from Irving Pulp & Paper Limited, to Consolidated Rambler Mines Limited dated December 30, 1988 and recorded on February 1, 1999 in Book 1146, Page 257 of the Aroostook County Registry of Deeds (Northern Division).

Twenty-third (Wallagrass Plantation):

The following described premises situated in Wallagrass Plantation, being Township 17, Range 7, W.E.L.S., in the County of Aroostook and State of Maine:

Blocks 1, 2, the west half of Block 6 and that portion of the east half of Block 6 lying west of Spaulding Brook, Blocks 7, 8, 9, 10, 11, 12 and that portion of Block 14 lying westerly of Wallagrass Stream, Blocks 15, 16, 17, 18, 19, 21, 22, 23 and 24.

Excepting and reserving from the above described premises the following:

(a) Those portions of said Block 12 described in the following deeds:

(i) American Realty Company to John Williamson Mack Michaud dated March 4, 1905, recorded in said Registry of Deeds in Book 54, Page 452 (Lot AA).

(ii) American Realty Company to William B. Michaud dated May 24, 1911, recorded in said Registry of Deeds in Book 69, Page 168 (Southerly of Lot AA).

(iii) American Realty Company to Lawrence Michaud dated July 24, 1912, recorded in said Registry of Deeds in Book 69, Page 428 (Lot 124).

(iv) that portion of Block 12 set off to Myra L. O'Donnell by court appointed commissioners as described in an abstract of an action of partition, by Myra L. O'Donnell against Louis J. Sawyer et als., recorded with the Aroostook County Northern District Registry of Deeds in Book 27, Page 12.

(b) Those portions of Block 14, 19 and 21 excepted from said deed from Myra L. Donnell to American Realty Company dated May 2, 1919, recorded in said Registry of Deeds in Book 77, Page 570.

(c) The parcels described in two deeds from American Realty Company, one to Joseph Belanger dated March 4, 1905, recorded in said Registry of Deeds in Book 54, Page 479, and the second to Maxine Michaud dated March 4, 1905, recorded in said Registry of Deeds in Book 54, Page 481.

The Blocks referred to above are depicted on the Plan recorded in Book 27, Pages 660 and 661 of the Aroostook County Registry of Deeds (Northern Division).

Subject to an easement granted to the State of Maine by deed dated October 19, 1990 and recorded in Book 821, Page 179 of the Aroostook County Registry of Deeds (Northern Division).

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Twenty-fourth (Wallagrass Plantation):

The following described premises situated in Wallagrass Plantation, Township 17, Range 7, W.E.L.S., in the County of Aroostook and State of Maine:

Blocks K and L, that portion of Lot N lying west of the New Canada Road, so-called, Block P, and those portions of Blocks R, S, T and U lying east of the said New Canada Road.

Excepting and reserving from the above described premises the following:

(a) That portion of Lot T excepted in a deed from Myra L. Donnell to Great Northern Paper Company dated April 30, 1921, recorded in said Registry of Deeds in Book 96, Page 231.

(b) That portion of Blocks K and L conveyed to Wilmer L. Saucier and Bernice B. Saucier, lying on the southerly town line of said Wallagrass Plantation and on the easterly shore of Eagle Lake, by deed dated January 31, 1972, recorded in said Registry of Deeds in Book 391, Page 495.

Subject to an easement granted to the State of Maine by deed dated October 19, 1990 and recorded in Book 821, Page 179 of the Aroostook County Registry of Deeds (Northern Division).

Subject to a right of way over two strips of land fifty (50) feet in width described in deed from the International Paper Company to the Inhabitants of Wallagrass Plantation dated May 21, 1964 and recorded in Book 322, Page 552 of the Aroostook County Registry of Deeds (Northern Division).

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

Twenty-fifth (Westmanland):

Township 15, Range 4, W.E.L.S., known as Westmanland Plantation, now the Town of Westmanland, in the County of Aroostook and State of Maine.

Excepting and reserving, however, from the above described premises, the following:

A. The following lots located in the east half of said Township 15, Range 4, W.E.L.S.:

1. Lot 14, as described in two deeds to Carl F. Peterson dated June 16, 1895 and June 13, 1895, recorded in said Registry of Deeds in Book 24, Page 601 and in Book 32, Page 399, respectively;
2. Lots 28 and 29, as described in two deeds to Victor Lindberg both dated October 24, 1894, recorded in said Registry of Deeds in Book 27, Page 95 and in Book 27, Page 96, respectively;
3. Lot 6, as described in two deeds to John E. Peterson dated February 25, 1897 and February 26, 1897 and recorded in said Registry of Deeds in Book 27, Page 177 and in Book 36, Page 83, respectively;
4. South half of lot 19, as described in two deeds to Peter Nilson dated April 14, 1897 and April 17, 1897, recorded in said Registry of Deeds in Book 27, Page 315 and in Book 27, Page 317, respectively;
5. Lot 5, as described in two deeds to Nils Nelson, both dated June 15, 1899, recorded in said Registry of Deeds in Book 14, Page 39 and Book 27, Page 473, respectively;
6. North half of lot 19, as described in two deeds to Olof Nilson, both dated December 20, 1899, recorded in said Registry of Deeds in Book 27, Page 595 and in Book 27, Page 596, respectively;
7. Lot 27, as described in two deeds to Jacob Jansen, both dated August 20, 1900, recorded in said Registry of Deeds in Book 39, Page 395 and in Book 40, Page 82, respectively;
8. Lot 11, as described in two deeds to P. Emil Johnson dated July 14, 1900 and July 15, 1900, recorded in said Registry of Deeds in Book 39, Page 461 and in Book 40, Page 116, respectively;
9. Lot 15, as described in two deeds to Linus G. Anderson, both dated June 19, 1901, recorded in said Registry of Deeds in Book 40, Page 398 and in Book 43, Page 306, respectively;
10. Lot 13, as described in two deeds to August Carlson, both dated July 8, 1902, recorded in said Registry of Deeds in Book 40, Page 500 and in Book 45, Page 37, respectively;
11. Lot 25, as described in two deeds to Freeland Jones, both dated October 27, 1902, recorded in said Registry of Deeds in Book 40, Page 568 and Book 45, Page 167, respectively;
12. Lot 23, as described in two deeds to Victor Lettenowor, both dated September 9, 1903, recorded in said Registry of Deeds in Book 47, Page 241 and in Book 49, Page 8, respectively;

13. Part of lot 16, as described in two deeds to Hulda Bourkman, both dated December 23, 1903, recorded in said Registry of Deeds in Book 49, Page 12 and in Book 47, Page 249, respectively;
 14. Lot 24, as described in two deeds to Carl A. Larson, both dated December 23, 1903, recorded in said Registry of Deeds in Book 49, Page 15 and in Book 47, Page 256, respectively;
 15. Lot 4, as described in two deeds to Mons Jepson, both dated May 11, 1897, recorded in said Registry of Deeds in Book 54, Page 88 and in Book 51, Page 357, respectively;
 16. Lot 10, as described in a deed to Axel Ledburg dated March 28, 1907, recorded in said Registry of Deeds in Book 55, Page 529;
 17. Lot 17, as described in a deed to Nils B. Osland dated June 30, 1908, as described in said Registry of Deeds in Book 57, Page 100;
 18. Lot 20, as described in a deed to Oscar Anderson dated June 30, 1908, recorded in said Registry of Deeds in Book 57, Page 111.
 19. Lot 2, as described in two deeds to Carl Wilhelm Linsten, both dated May 11, 1897, recorded in said Registry of Deeds in Book 57, Page 162 and in Book 57, Page 164, respectively;
 20. Part of lot 16, as described in a deed to Axel Hedstrom dated November 13, 1908, recorded in said Registry of Deeds in Book 63, Page 10;
 21. Lot North of lot 10, as described in a deed to Erick Wedburg dated November 13, 1908, recorded in said Registry of Deeds in Book 59, Page 597;
 22. Lot 12, as described in a deed to Algot Anderson dated July 13, 1909, recorded in said Registry of Deeds in Book 63, Page 326;
 23. Lot 26, as described in two deeds to Sophia M. & Walfred Jacobson, both dated March 25, 1903, recorded in said Registry of Deeds in Book 67, Page 32 and in Book 61, Page 160, respectively.
- B. Premises described in the following deeds to the Bangor and Aroostook Railroad Company:
1. Stockholm Lumber Company to Bangor and Aroostook Railroad Company dated October 29, 1909, recorded in said Registry of Deeds in Book 53, Page 451 (150 foot by 200 foot strip on the Railroad right of way).
 2. Stockholm Lumber Company to Bangor and Aroostook Railroad Company dated September 4, 1909, recorded in said Registry of Deeds in Book 63, Page 576 (parcel of land adjacent to lot 6, being 49.48 acres, more or less).

BK 1150 PG 186

3. Stockholm Lumber Company to Bangor and Aroostook Railroad Company dated August 27, 1910, recorded in said Registry of Deeds in Book 70, Page 124 and re-recorded in Book 61, Page 39 (100 foot strip, being 3-1/2 acres on the easterly line of said Railroad right of way).
4. Albert W. Madigan, et als to Bangor and Aroostook Railroad Company dated July 21, 1910, recorded in said Registry of Deeds in Book 61, Page 17 (six rod strip of land in the westerly half of said Township).
5. Stockholm Lumber Company to Bangor and Aroostook Railroad Company dated November 6, 1909, recorded in said Registry of Deeds in Book 53, Page 453 (99 foot wide strip in the westerly half of said Township).
- C. The premises conveyed by International Paper Company to International Paper Realty Corporation by deed dated August 31, 1981, recorded in said Registry of Deeds in Book 554, Page 254.
- D. The Public Lots located in said Township 15, Range 4, W.E.L.S.
- E. The Milliken Farm, so-called, being a 300 acre parcel of land in the East half of Westmanland Plantation, located on the south line of said Township, as excepted and reserved in a deed from Northern Realty Company to American Realty Company dated May 24, 1904, recorded in said Registry of Deeds in Book 102, Page 584.
- F. A Parcel of .13 acres in Lot 15-1/2 conveyed by International Paper Company to State of Maine by deed dated January 25, 1972, recorded in said Registry of Deeds in Book 391, Page 566.
- G. A parcel of .04 acres conveyed by Harold W. Holmquist to State of Maine dated November 10, 1966, recorded in said Registry of Deeds in Book 346, Page 270.

For source of title see deed of International Paper Company to Consolidated Rambler Mines Limited dated January 9, 1984 and recorded in Book 613, Page 01, of the Aroostook County Registry of Deeds (Northern Division).

ALSO CONVEYING THE FOLLOWING EASEMENTS

- a) An easement fifty (50) feet wide, the centreline of which is perpendicular to and intersects the former Bangor and Aroostook Railroad centreline at Mile Post W21.75.
- b) An easement fifty (50) feet wide, the centreline of which is perpendicular to and intersects the former Bangor and Aroostook Railroad centreline at Mile Post W25.18.

For source of title see easement deed from Bangor and Aroostook Railroad Company to Consolidated Rambler Mines Limited dated December 14, 1994 and recorded in Book 973, Page 262, of the Aroostook County Registry of Deeds (Northern Division).

SUBJECT TO THE FOLLOWING EASEMENT:

An easement over an existing roadway located in the Town of Westmanland, Aroostook County, Maine, known as Little Madawaska Lake Road, and more particularly described in Schedule A of the easement deed from Consolidated Rambler Mines Limited to Town of Westmanland, dated September 26, 1997 and recorded in Book 1098, Page 226, of the Aroostook County Registry of Deeds (Northern Division).

AND ALSO CONVEYING:

Also conveying all other lands and premises and interest in land, including flowed or submerged lands, premises and hereditaments, and all rights, privileges, servitudes, easements, licenses, concessions, waters, water rights, water powers, water courses, mills and mill sites, dams and dam sites, boom and boom sites, sluices and sluicing sites, flowage and flowage rights, not hereinabove particularly described, now owned, held or enjoyed by the Grantor and located in the State of Maine, and whether or not the same appertains to "timberlands" or otherwise and also, all buildings, erections and improvements thereon standing and being, and all rights, privileges and appurtenances thereunto belonging or in any manner appertaining, and the reversion and reversions, remainder and remainders, rents issues, and profits thereof; and all of the estate, right, title, interest, use, possession, property, claim, and demand, both at Law and in Equity, of the Grantor.

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RECEIVED AROOSTOOK S.S.

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ATTEST: *Louise M. Caron*
REGISTER OF DEEDS

WARRANTY DEED

ROBERT LeBLANC and JOAN SCHULER LeBLANC, both of Orlando, in the County of Orange and State of Florida, with a mailing address of: 7 Broadway court, Orlando, Florida, 32803; and **DAVID HENRY FOOTE and CONNIE MAE FOOTE**, both of Orlando, in the County of Orange and State of Florida, with a mailing address of: 5214 Alleman Drive, Orlando, Florida, 32809, for consideration paid, grant to **MAINE WOODLANDS REALTY COMPANY**, a Maine corporation duly organized and existing by law in the State of Maine with a place of business in Bangor, in the County of Penobscot and State of Maine, with a mailing address of: 300 Union Street, Saint John, New Brunswick E2L 4Z2, WITH **WARRANTY COVENANTS**, the following described land in T16R5 WELS, also known as Square Lake Township, in the County of Aroostook and State of Maine:

A certain piece or parcel of land situated on the easterly side of Square Lake, so-called, located in Township 16, Range 5, W.E.L.S., in the County of Aroostook and State of Maine, and being more particularly bounded and described as follows, to wit: Commencing at the intersection of the high water mark of Square Lake with the southerly boundary line of the "Fraser Camp" Block as shown on plan entitled "Land Title Survey of Township 16, Range 5, W.E.L.S., Maine, May, 1981, Surveyed by John B. Cahoon" and recorded on September 22, 1981, in Aroostook County Registry of Deeds, Northern District, in Plan Book 9, Page 54; thence S 87° 30' 00" E a distance of 16 feet, more or less, to a 4" steel post; thence continuing S 87° 30' 00" E for a distance of 456.5 feet to a 4" steel post with a brass plug set in concrete; thence S 57° 30' 00" E a distance of 296.0 feet to a 4" steel post; thence S 58° 00' 00" W a distance of 1,566.0 feet to an existing cedar post; thence N 31° 36' 40" W a distance of 539.25 feet to an existing cedar post; thence continuing N 31° 36' 40" W a distance of 25 feet, more or less, to the high water mark of Square Lake; thence in a northeasterly direction along the high water mark of Square Lake a distance of 1,087.56 feet, more or less, to the point of beginning. Said parcel containing 16.22 acres, more or less.

Also meaning and intending to convey that parcel of land between the high water mark as located on the Yerxa Camp Lot and as shown on said plan and normal low water mark.

*RL
Joan AS*

(W:723677.1)

MAINE
REAL ESTATE
TRANSFER TAX
PAID

There is also included in this conveyance a right-of-way from State of Maine Route 161 in Township 16, Range 4, W.E.L.S. and in Township 16, Range 5, W.E.L.S., also known as Square Lake Township, in the County of Aroostook and State of Maine, in common with International Paper Realty Corporation, its successors and assigns, and others for all purposes, including without limitation, for ingress and egress by foot or by any and all vehicles, together with the rights, after obtaining prior written consent of International Paper Realty Corporation, or its successors and assigns, to construct, alter, maintain and replace a roadway on, over and along strips of land approximately fifty (50) feet in width, the center lines of which are described as follows: Beginning at the intersection of Route 161 with an existing gravel road, being the Access Road, so-called, shown at Point A on plan entitled "Index Map of Land Title Surveys for International Paper Company located in T17, R5; T16, R5; and T16, R4, W.E.L.S., Aroostook County Maine", and recorded on September 22, 1981, in said Registry of Deeds in Plan Book 9, Page 45; thence in a westerly, northwesterly and southwesterly direction along an existing gravel road a distance of 5.6 miles, more or less, to Point B, said Point B being at the intersection of Minnow Brook Road, so-called, and the Yerxa Camp Road, so-called; thence in a southerly direction, a distance of 400 feet, more or less, to the intersection with Yerxa Camps Access Road, so-called, shown as Point E on said Plan; thence N 47° 50' W a distance of 198 feet, more or less, to a point; thence N 60° W 58 feet, more or less, to a point on the rear line of the Yerxa Camps.

In accepting this conveyance the within Grantee, for its successors and assigns, covenants and agrees that International Paper Realty Corporation, its successors and assigns, shall have no obligation, financial or otherwise, for the maintenance, repair or replacement of said rights-of-way, and the within Grantee, its successors and assigns, agrees to and does hereby indemnify and hold harmless the said International Paper Realty Corporation, its successors and assigns, from and against any and all actions or causes of action, claims, demands, liabilities, damages or expenses of whatsoever kind of nature, including attorneys fees, which International Paper Realty Corporation, or its successors and assigns, shall or may at any time sustain or incur by reason or in consequence of the exercise of any of the rights herein granted to the Grantee. The foregoing covenants shall attach to and run with the land hereby conveyed and be binding upon the Grantee, its successors and assigns.

No representations are hereby made as to the suitability of said lot for building or development purposes or as to the suitability of said roadways as rights-of-way. Further development of the lot herein described is subject to the requirements of all governmental land use regulations and ordinances.

The language herein, where appropriate in its context, shall be construed in the masculine, feminine or neuter gender and in the singular and plural number.

GRANTORS: grant, sell, convey, transfer, assign and deliver to Grantee and Grantee purchase from Grantors all of the land and improvements ("Premises") described herein, subject to the following: (a) to all reservations, covenants, restrictions and easements of record; (b) to governmental rules, regulations, statutes and ordinances,

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December 2014

including zoning regulations; (c) to all property taxes assessed against the buildings and improvements located on the premises for the current year; (d) to any state of facts an accurate survey may show and further subject to the following: (e) all mineral substances presently owned by Grantors are hereby conveyed to Grantee herein, together with the full and exclusive executor rights to lease such substances; SUBJECT, HOWEVER, and there is hereby reserved to International Paper Realty Corporation, its successors and assigns, and excepted from this conveyance, the following: 1. An undivided one-eighth (1/8) non-participating royalty interest in oil, gas and associated hydrocarbons. 2. An undivided one-half (1/2) of any and all bonus consideration, rentals, royalties and other payments provided for in any mineral lease or leases executed by Grantee, its successors and assigns, covering lead, zinc, copper, coal, lignite, zircon, monzonite, uranium, thorium, molybdenum, vanadium and other fissionable materials, gold silver, bauxite, limestone, geothermal energy and all other mineral substances and ore deposits of any kind or character, whether solid, liquid or gaseous, and without limitation by enumeration of the minerals expressly mentioned above (but not including sand, clay and gravel). In the event Grantee, its successors and assigns, elect to develop and produce any mineral substances described in this paragraph, there is further hereby reserved to International Paper Realty Corporation, its successors and assigns, an undivided one-half (1/2) of the proceeds of said development, exclusive of all expenses incurred by Grantees, their heirs and assigns in said development. This conveyance is subject to all outstanding oil, gas and other mineral and/or royalty rights and interest shown on record on any of said lands.

Being the same premises conveyed to Robert LeBlanc and Joan Schuler LeBlanc by the Estate of Richard I. C. Hede by Deed of Sale by Personal Representative dated February 14, 2002, and recorded in the Northern District of the Aroostook Registry of Deeds in Book 1292, Page 263.

ALSO, meaning and intending to convey the one-fourth (1/4th) interest conveyed to David Henry Foote and Connie Mae Foote by Robert LeBlanc and Joan Schuler LeBlanc by Quitclaim Deed dated November 21, 2005 and recorded in the Northern Aroostook Registry of Deeds in Volume 1476, Page 172.

WITNESSED this 21st day of June 2013.

Vicki B...
WITNESS

Robert LeBlanc
ROBERT LeBLANC

Juliet Burned
WITNESS

Joan Schuler LeBlanc
JOAN SCHULER LeBLANC

{W3723677.1}

RL
[Handwritten initials]

Debra Weisberger
WITNESS
Jack S
WITNESS

David Henry Foote
DAVID HENRY FOOTE
Connie Mae Foote
CONNIE MAE FOOTE

STATE OF FLORIDA
ORANGE, ss:

June 21, 2013

Personally appeared the above-named ROBERT LeBLANC and JOAN SCHULER LeBLANC and acknowledged the above instrument, by them signed, to be their free act and deed.

Before me,

Donna Isaacson
NOTARY PUBLIC



STATE OF FLORIDA
ORANGE, ss:

June 20, 2013

Personally appeared the above-named DAVID HENRY FOOTE and CONNIE MAE FOOTE and acknowledged the above instrument, by them signed, to be their free act and deed.

Before me,

Tangela C. Eddy
NOTARY PUBLIC



{W3723677.1}

Price Awood LLP
Merrill's Wood, 254 Commercial Blvd
P.O. Box 0410
Att
CM

QUITCLAIM DEED WITH COVENANT

GARDNER N. MOULTON and PAUL R. MOULTON, Trustees of the Gardner N. Moulton and Bonnie R. Moulton Realty Trust under Declaration of Trust dated December 20, 1983, as amended by a First Amendment and Restatement dated February 18, 2003;

RMM LAND COMPANY, a Maine corporation;

MARGARET A. M. BROWN, of Orrington, Penobscot County, Maine;

McKEE TIMBERLANDS, LLC, a Maine limited liability company;

ROBERT M. McKEE, of Lincolnville, Waldo County, Maine;

MMM TIMBERLANDS LIMITED LIABILITY COMPANY, a Maine limited liability company;

MICHELLE E. DUSTIN of Saco, York County, Maine;

~~**MARK REAGAN McKEE** of Brighton, Suffolk County, Massachusetts;~~

~~**MICHAEL MERROW McKEE** of Bar Harbor, Hancock County, Maine; and~~

MOULTON-EMERY TIMBERLANDS, INC. a Maine corporation;

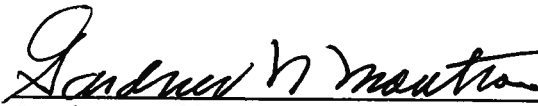
all having a mailing address of P. O. Box 637, Bangor, Maine 04402-0637, (collectively referred to herein as "Grantors"), for consideration paid, grant to

AROOSTOOK TIMBERLANDS LLC, a Maine limited liability company with a mailing address of 1798 St. John Road, St. John Plantation, Fort Kent, Maine 04743, with Quitclaim Covenant, all of the Grantors' right title and interest (including but not limited to all in common and undivided interests) in and to the land, together with any improvements thereon, in Township 17, Range 3 W.E.L.S. and Township 17, Range 4 W.E.L.S., Aroostook County (Northern Division), Maine, described in **Exhibit A** attached.

This conveyance includes any and all rights, easements, privileges, and appurtenances belonging to the granted estate.

The Grantors intend to convey and do hereby convey to the Grantee all of the Grantors' right, title and interest in the real estate described in Exhibit A, without limitation.

IN WITNESS WHEREOF, the individual Grantors and the aforesaid Trustees have hereunto set their hands and seals, and the aforesaid corporate Grantors have caused this instrument to be signed in their names as an instrument under seal by their duly authorized officers, as of the 14 day of July 2005.


Gardner N. Moulton, in his capacity as
Trustee as aforesaid

Paul R. Moulton, in his capacity as
Trustee as aforesaid

The Grantors intend to convey and do hereby convey to the Grantee all of the Grantors' right, title and interest in the real estate described in Exhibit A, without limitation.

IN WITNESS WHEREOF, the individual Grantors and the aforesaid Trustees have hereunto set their hands and seals, and the aforesaid corporate Grantors have caused this instrument to be signed in their names as an instrument under seal by their duly authorized officers, as of the 14 day of July 2005.

Gardner N. Moulton, in his capacity as
Trustee as aforesaid

Paul R. Moulton

Paul R. Moulton, in his capacity as
Trustee as aforesaid

RMM LAND COMPANY

By: _____



William R. Moulton

Its President

Hereunto duly authorized





Margaret A.M. Brown

Withdrawn

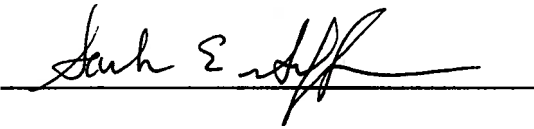
MCKEE TIMBERLANDS, LLC

By:

A. James McKee, Jr.

Its *President*

Hereunto duly authorized



A handwritten signature in black ink, appearing to read "Sarah E. Hoff", written over a horizontal line.




A handwritten signature in blue ink, appearing to read "Robert M. McKee", written over a horizontal line. Below the signature, the name "Robert M. McKee" is printed in black text.

With H. M. M.

MMM TIMBERLANDS LIMITED
LIABILITY COMPANY

By: Virginia M. Deering
Virginia M. Deering
Its Manager
Hereunto duly authorized

_____ 
MICHELLE E. DUSTIN

Boa A. Silva

MOULTON-EMERY TIMBERLANDS, INC.

By: [Signature]
Name: Stephen T. Emery
Its President
Hereunto duly authorized

STATE OF MAINE
PENOBSCOT COUNTY

July 14, 2005

Then personally appeared the above-named Stephen T. Emery in his capacity as President of Moulton-Emery Timberlands, Inc. and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of said corporation.

Before me,

[Signature]
Name:

Notary Public
Maine Attorney-at-Law

DEBRA MCKEEN KELLEHER
Notary Public • State of Maine
My Commission Expires October 14, 2006

Exhibit A

Parcel 1: The North half of T17, R3 W.E.L.S.;

Parcel 2: The South half of T17, R3, W.E.L.S.;

Parcel 3: The South half of T17, R4 W.E.L.S.

Sources of Title:

Deed from Gardner N. Moulton and Bonnie R. Moulton to the the Gardner N. Moulton and Bonnie R. Moulton Realty Trust, dated December 21, 1983 recorded in Book 1438, Page 196.

Deed from Virginia M. Emery to Moulton-Emery Timberlands, Inc. dated December 30, 1982, recorded in Book 583, Page 332

Deed from Virginia M. Deering to MMM Timberlands Limited Liability Company, dated February 20, 1997 recorded in Book 1064, Page 173.

Deed from Gardner N. Moulton, Trustee under a Trust Agreement with Ina N. Moulton, dated December 22, 1976, for the benefit of Margaret M. McKee to Robert M. McKee, dated December 22, 1995, recorded in Book 1013, Page 330.

Deed from Gardner N. Moulton, Trustee under a Trust Agreement with Ina N. Moulton, dated December 22, 1976, for the benefit of Margaret M. McKee to Margaret M. Brown, dated December 22, 1995, recorded in Book 1013, Page 342.

Deed from Robert M. McKee, Personal Representative of the Estate of Richard M. McKee to Michelle E. Dustin, Mark Reagan McKee and Michael Merrow McKee dated June 25, 2001, recorded in 1437, Page 222.

Deed from Robert M. Moulton, joined by spouse Virginia K. Moulton, to RMM Land Company, dated October 11, 1983, recorded in Book 608, Page 43.

Deed from A. James McKee, Jr., to McKee Timberlands, LLC, dated December 20, 1996, recorded in Book 1055, Page 152.

ATTEST 
Register of Deeds
(M) Arcostook County

RECEIVED
JUL 28 2005

BY:

QUITCLAIM DEED WITH COVENANT

MARK REAGAN McKEE of Brighton, Suffolk County, Massachusetts; and

MICHAEL MERROW McKEE of Bar Harbor, Hancock County, Maine;

both having a mailing address of P. O. Box 637, Bangor, Maine 04402-0637, (collectively referred to herein as "Grantors"), for consideration paid, grant to


AROOSTOOK TIMBERLANDS LLC, a Maine limited liability company with a mailing address of 1798 St. John Road, St. John Plantation, Fort Kent, Maine 04743, with Quitclaim Covenant, all of the Grantors' right title and interest (including but not limited to all in common and undivided interests) in and to the land, together with any improvements thereon, in Township 17, Range 3 W.E.L.S. and Township 17, Range 4 W.E.L.S., Aroostook County (Northern Division), Maine, described in **Exhibit A** attached.

This conveyance includes any and all rights, easements, privileges, and appurtenances belonging to the granted estate.

The Grantors intend to convey and do hereby convey to the Grantee all of the Grantors' right, title and interest in the real estate described in Exhibit A, without limitation.

IN WITNESS WHEREOF, the individual Grantors have hereunto set their hands and seals, as of the 26 day of July 2005.

WITNESS:



JANICE DIANE PERRY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
November 24 2006



MARK REAGAN McKEE

MAINE
REAL ESTATE
TRANSFER TAX
PAID

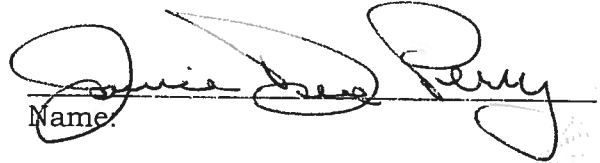
COMMONWEALTH OF MASSACHUSETTS

Suffolk COUNTY

July 26, 2005

Then personally appeared the above-named Mark Reagan McKee and acknowledged the foregoing instrument to be his free act and deed.

Before me,


Name: _____

Notary Public/Attorney-at-Law

JANICE DIANE PERRY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
November 24 2006

Walter A McKee

Michael Merrow McKee
MICHAEL MERROW McKEE

Exhibit A

Parcel 1: The North half of T17, R3 W.E.L.S.;

Parcel 2: The South half of T17, R3, W.E.L.S.;

Parcel 3: The South half of T17, R4 W.E.L.S.

Sources of Title:

Deed from Robert M. McKee, Personal Representative of the Estate of Richard M. McKee to Michelle E. Dustin, Mark Reagan McKee and Michael Merrow McKee dated June 25, 2001, recorded in 1437, Page 222.

29464/47111/48605 RE

ATTEST 
Register of Deeds
Of Aroostook County

Exhibit C – Location Map

Location Map
Fish River Chain of Lakes Concept Plan

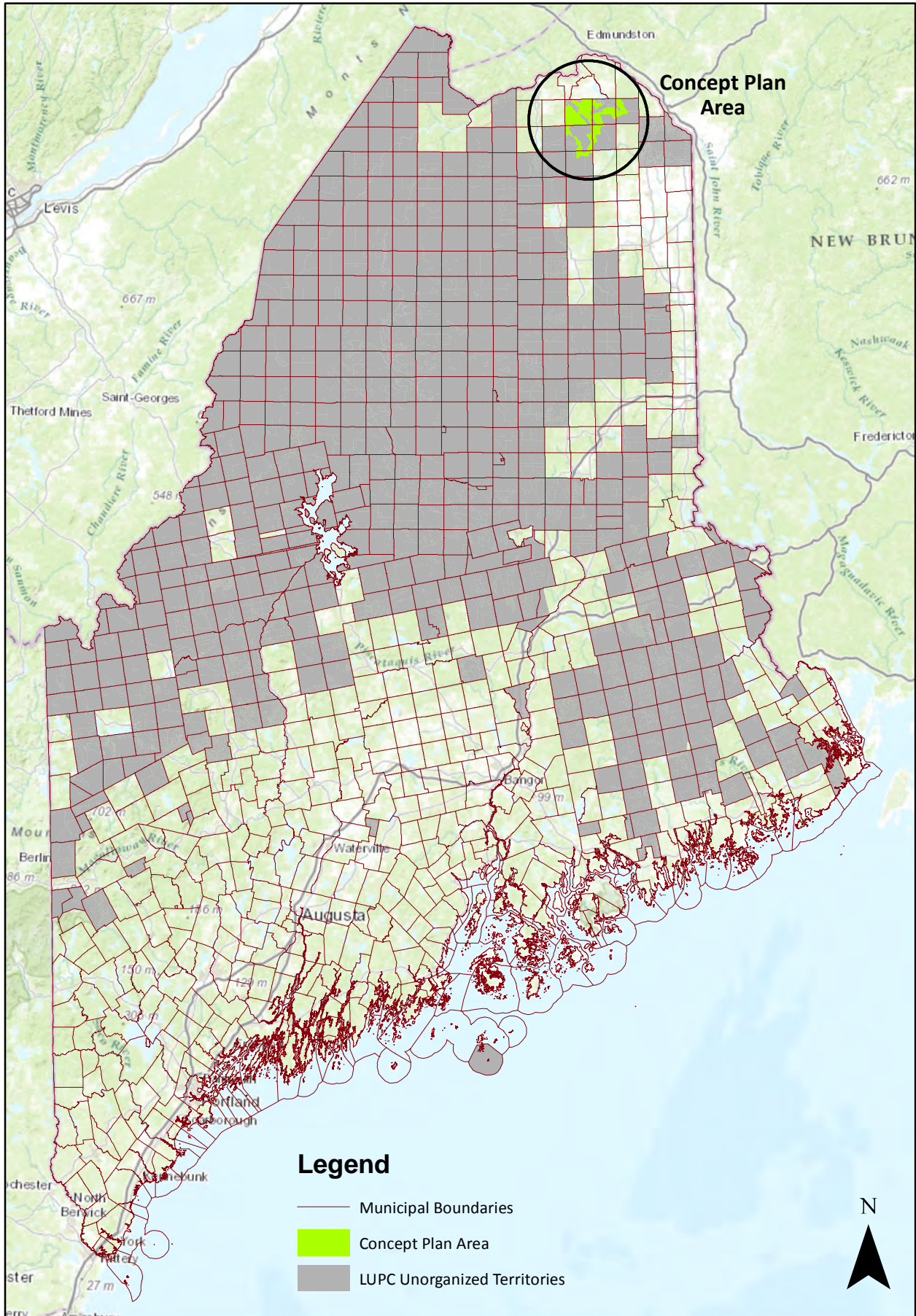


Exhibit D – On-site Soils Mapping



Engineers ♦ Environmental Scientists ♦ Surveyors

November 25, 2014

Noel Musson
The Musson Group
P.O. Box 286
Southwest Harbor, ME 04679

Re: Irving Woodlands Fish River Chain of Lakes Concept Plan Soil Review

Dear Noel:

CES, Inc. (CES) is pleased to present the attached soil reports for the Irving Woodlands Fish River Chain of Lakes Concept Plan in Aroostook County. As requested, we are providing these reports to support the Concept Plan Application to the Maine Land Use Planning Commission (LUPC). CES has completed two reports for the proposed Plan; a *Soil Suitability Assessment Report* and the *Class D/C Soil Survey of the Square Lake East-Yexas Camps*. The Soil Suitability Report provides a general review of the potential suitability of the existing NRCS Soils mapped within the Development Zones of the Concept Plan Area. The Class D/C Soil Survey of the Square Lake East-Yexas Camps Development Zone was the only site specific soil survey completed by CES and was completed as requested by the LUPC to provide additional soils information to support the potential increased density of proposed development. Each of these reports and the findings should be reviewed and considered in the context of the proposed plan as a tool to assist in the review of the Concept Plan; the information is for the most part not detailed enough to provide site specific information about the soils found within the Concept Plan and is not suitable for subdivision level planning or actual development of individual lots.

The reports find in general that the soils mapped within the Concept Plan contain adequate suitable areas to support the currently proposed level of development outlined in the Concept Plan. Please contact us with any comments or questions about the reports.

Sincerely,
CES, Inc.

A handwritten signature in blue ink, appearing to read 'R. St. Amand', is written over the typed name.

Roger St.Amand, CSS 471, LSE S360


RSA/gdr
Enc.

Noel Musson | 11.25.2014 | 6570

 Six Locations in Maine | www.ces-maine.com

465 South Main Street
PO Box 639
Brewer, Maine 04412
T 207.989.4824
F 207.989.4881

SENSIBLE SOLUTIONS



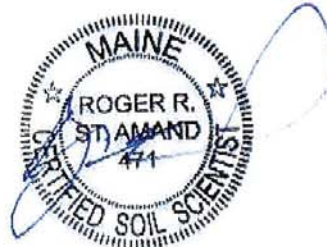
Corporate Office
465 South Main Street
PO Box 639
Brewer, Maine 04412
207.989.4824

www.ces-maine.com



SOIL SUITABILITY EVALUATION
FOR
FISH RIVER CHAIN OF LAKES CONCEPT PLAN

Prepared for: Irving Woodlands, LLC
300 Union Street
P.O. Box 5777
Saint John, NB E2L4M3



NOVEMBER 2014
JN: 6570

REPORT PREPARED BY:
CES, Inc.
465 South Main Street
P.O. Box 639
Brewer, ME 04412
207.989.4824

Engineers ♦ Environmental Scientists ♦ Surveyors



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SECTION 1

INTRODUCTION

Irving Woodlands, LLC (Irving Woodlands) is developing a concept plan (Concept Plan or Plan) as agent for Aroostook Timberlands LP, Allagash Timberlands LLC, and Maine Woodlands Realty Company, the owners of a portion of the land holdings around the Fish River chain of lakes in Northern Aroostook County. One of the components of the Plan is to identify where development could occur over the next 30 years. Out of the approximately 51,000 acre plan area (Plan Area), new Development Zones have been identified. These areas occupy approximately 1,900 acres or approximately 3.8% of the total Plan Area. The remaining land area will be dedicated to forest management activities and recreational access through a combination of a conservation easement and long term land use regulations.

As part of the process for developing the Concept Plan, CES has been retained to assist by providing a preliminary soil assessment of the proposed new Development Zones. The primary purpose of this assessment is to determine, with a reasonable level of confidence, that the size and location of the Development Zones can support the proposed allowable development based on the existing soils conditions and current regulations.

The soil assessment focused on the Development Zones that have been identified in the Concept Plan as the location for future development opportunities. There are ten areas that have been identified for future residential development opportunities. There are three areas that have been identified for future commercial/industrial developments, and one area that that has been identified for recreational lodging and associated residential development. The Concept Plan proposes a maximum of 330 development units (DUs) over the 30-year life of the plan in those Development Zones that allow for residential development. Development density in commercial/industrial areas (CD) is proposed at five lots per CD.

The soil assessments provided in this report were completed solely to determine if there is a reasonable likelihood that the area soils could support the allowable level of development and is not intended to be a detailed comprehensive review of the soil conditions in the Development Zones. Future development will likely require additional soil investigations for the intended use.

The Development Zones reviewed include the following:

DEVELOPMENT ZONES		
Zone	Location (township)	Size (acres +/-)
Long Lake A	T17 R3	136
Long Lake B	T17 R3	75
Long Lake C	T17 R4	114
Cross Lake A	Cross Lake	119
Cross Lake B	Cross Lake	79
Cross Lake C	Cross Lake	64
Cross Lake D	T16 R5	183



DEVELOPMENT ZONES		
Zone	Location (township)	Size (acres +/-)
Cross Lake E	T16 R5	156
Square Lake E	T16 R5	278
Square Lake W	T16 R5	121
CD-1	Cross Lake Twp	279
CD-2	T17 R4	167
CD-3	Cross Lake Twp	101
Square Lake Yexas	T16 R5	51

The soil assessment relied on existing Natural Resource Conservation Service (NRCS) soil surveys for Aroostook County. The published soil surveys were supported by limited field investigations to spot check soil map units. The review process identified and rated the NRCS soil map units within the proposed Development Zones for low density residential development (LDD). This includes such things as access roads, driveways and building sites, dwellings and foundations, and on-site wastewater disposal (septic systems). Using the NRCS Soil Potential Ratings, criteria established by LUPC, and other available data, the soils were rated as “*Generally Suitable*,” “*Limited Suitability*,” or “*Generally Unsuitable*” for development potential. See Section 2 for additional details. The suitability ratings are a general assessment of the *potential* of the soil map unit to have soil conditions suited to the intended use. Soil areas shown as “*Generally Suitable*” have a higher likelihood of containing suitable soil conditions for the intended use. Areas shown as “*Limited Suitability*” may have smaller areas of better soil conditions within larger areas of less suitable soils. “*Generally Unsuitable*” areas have the least likelihood of finding soil conditions suitable for development. The two primary factors are depth to a limiting factor and slope.



SECTION 2

METHODOLOGY

2.1 General Methodology

The primary purpose of this assessment is to determine whether there is a reasonable expectation that proposed Development Zones identified in the Concept Plan have the soil conditions to support the proposed allowable development. The assessment was generally guided by the LUPC standards under *LUPC Chapter 10.25.G "Soil Suitability."* These standards are not necessarily required by LUPC for a Concept Plan review, but they do provide a reasonable baseline for determining and understanding the soil suitability for development within the Development Zones. In general we have used a conservative approach to assess suitability. The analysis of the soils within the Development Zones consisted of two parts - a desktop evaluation of published soil survey maps and limited on-site spot checks to verify the published soil survey. Where current lidar data was available, steep slope areas were identified and considered within the analysis to provide a more accurate picture of soils development conditions.

2.2 Desktop Evaluation of NRCS Soil Mapping

The LUPC regulations require that soils within a development area be rated for suitability using the NRCS publication "*Soil Potential Ratings for Low Density Development in The Unorganized Area of Maine*" (SPR Publication), included in Appendix B. The SPR Publication was developed to assist with the planning and development in the unorganized areas of Maine. The publication used a soil potential rating system that rates a soil map unit and/or soil series on the potential for development. The SPR Publication defines "Low Density Development" (LDD) as residential development including single family and multi-family homes and associated driveway and access road. The model unit is a 1,500 square foot, three-bedroom, single-family residence with basement, on-site water well and on-site wastewater disposal. The LUPC regulations state that development should occur on soils with a High or Medium soil potential rating, or show how the soil limitations will be overcome on low and very low soil rated areas.

In general, soils most suitable for development:

- ◆ Have moderate to gentle slopes;
- ◆ Are not shallow to bedrock;
- ◆ Do not have a high groundwater table;
- ◆ Are not subject to flooding;
- ◆ Are not prone to erosion;
- ◆ Are not excessively stony; and
- ◆ Have suitable textures (loam or coarser).

The soil potential ratings take these factors into account and use them to establish a numerical rating. A soil with a high soil potential rating for development would reflect these factors and has the best combination of soil characteristics to support low density residential development. The ratings are established regionally for the type of soils found in that area and reflect local conditions and regulations. The rating numbers given are based on a reference soil that has high potential. This soil would have a "100" rating. For soil conditions that negatively affect the development potential, points are subtracted numerically based on formulas in the publication.



A soil with a “45” rating, for example, would be rated “Low” for development. Soils with a “Low” or “Very Low” rating are those that are most costly to develop and have relatively higher long term maintenance costs. Soils with a “High” or “Medium” rating have the least costs and are most suitable. The SPR Publication uses the following ratings to assess the potential for development:

- ◆ Very High (100);
- ◆ High (83-99);
- ◆ Medium (60-82);
- ◆ Low (40-59); and
- ◆ Very Low (0-39).

The NRCS soil potential ratings are useful for general review and broad landscape-level site planning activities, but it should be noted that detailed site-specific mapping is often needed prior to actual development. Often, soils with a Low or Very Low potential may still be able to be developed. This can occur in a few different ways. First, smaller inclusions of suitable soils are often present within larger map units. A typical residential building envelope may only require development of 10,000 square feet of soil or less in a map unit of 40 acres. These smaller inclusions are often present and can be identified with detailed on-site surveys. Alternatively the limiting soil factors can be overcome through construction practices and engineering methods. These may be common practices. The additional measures needed to overcome soil limitations would increase cost and long term maintenance, and are reflected in the lower soil rating. However, these practices may be warranted and cost effective on certain high value land areas. It should be noted that for on-site wastewater disposal, the SPR Publication (published in 2004) uses outdated criteria from the *Maine Subsurface Wastewater Rules (MSWR)-CMR 241* to establish the ratings for septic suitability. These rules have been recently updated and have revised soil depth to a seasonal high water table for placement of disposal field from 12-inches to 9-inches outside shoreland areas. This will improve ratings on soil map units containing somewhat poorly drained soils, such as the Howland and Telos Series.

This assessment was based on existing soil survey information from the USDA-NRCS “*Soil Survey of Northeastern Aroostook County*.” The published soil maps and Web-Soil Survey and the USDA NRCS on-line soil mapping application, were used to rate the soils within the proposed Development Zones. The NRCS soil survey maps were generally mapped at a “Class D” level, are suitable for broad planning, and often contain two or more soil types within a map unit. NRCS Soil maps in this area were mapped at a scale of 1:20,000 and map units are commonly 16 to 40 acres in size. The soil potential ratings were used along with other factors, such as drainage class, slope, and depth to bedrock, to develop a soil suitability rating for the mapped soils. The assessment is an indication of the *potential* for a given soil map unit to have soil conditions or areas that would be amenable for the intended use. In general we have used a conservative approach to assess suitability. For example, in assessing suitable slopes, we have used a 15% slope maximum, whereas current State of Maine rules for locating on-site wastewater treatment systems allow slopes up to 20%. We have also relied on 2012 lidar topographical contour information provided by Irving Woodlands for most of the Development Zones to more closely assess slope conditions.



Soil Suitability Classes:

- ◆ *Generally Suitable:*
 - High and medium soil potential rating soils.
 - Slopes less than or equal to 15%.
- ◆ *Limited Suitability:*
 - Contains medium, low, or very low soil potential rating soils.
 - Slopes less than or equal to 15%.
- ◆ *Generally Unsuitable:*
 - Low or very low soil potential rating soils.
 - Shallow soil limiting factors present.
- ◆ *Generally Unsuitable – Wetlands:*
 - Contains hydric soils.
- ◆ *Generally Unsuitable Steepness:*
 - Slopes greater than 15%.

Soils rated as “*Generally Suitable*” have a good likelihood, greater than 75% probability, of finding soils suitable for development. These areas are generally dominated by soils with a High or Medium soil potential rating, are on moderate slopes, and are suitable for wastewater disposal. Soil series rated as “*Limited Suitability*” have some limiting factor, such as depth to a seasonal high water table that reduces the potential to 50-75% probability of finding suitable soils within a given areas. For wastewater, this could be soils that include somewhat poorly and moderately well-drained soils in the same map unit, or shallow bedrock conditions. The moderately well drained soils have a water table greater than 16-inches and would be “*Generally Suitable*.” The somewhat poorly drained soils with a water table within 7 to 16 inches may have areas that are less than 9-inches and would not meet current Maine Subsurface Wastewater Rules for new wastewater disposal systems.

2.3 Field Review of NRCS Soil Mapping

The desktop review was supplemented with a field review to check the NRCS soil map unit accuracy. CES soil scientists visited most of the Development Zones and spot checked existing soil map units using soil augers and hand shovels to confirm NRCS mapping. A detailed soil survey or remapping of existing data was not completed for this report.



SECTION 3

RESULTS – DISCUSSION

3.1 NRCS Soil Survey Overview

The Concept Plan includes approximately 51,000 acres of land managed by Irving Woodlands. The Plan Area includes a mixture of developed lakefronts (over 400 licensed lots) and actively managed forest land. The Plan Area includes four of the five lakes that comprise the eastern branch of the Fish River (Long, Mud, Cross and Square), as well as several smaller water bodies and streams (named and unnamed).

As part of the Concept Plan, areas have been identified where residential, commercial, and recreational growth will be focused over the 30-year term of the Plan. These Development Zones are primarily located in areas that are adjacent to and upland of existing lake front development; however, there are a few Development Zones that have direct lake frontage.

The topography throughout the Development Zones is variable, containing gentle, moderate and steep slopes. The lower areas adjacent to the lakes are generally moderately well to poorly drained glacial till soils with inclusions of water-worked and poorly drained glacio-lacustrine material. The upper slopes are dominated by well drained deep to moderately deep glacial till soils over bedrock controlled landforms. Soil textures are generally loams and silt loams.

The NRCS soil survey identified the soils in the Development Zones as being dominated by the “Plaisted-Howland-Monarda-Burnham” soil catena. A soil catena consists of soils with similar soil parent materials and soil forming factors that occur over a repeatable pattern on the landscape. The soil map units are differentiated by slope, soil texture, stoniness, and depth to bedrock and a seasonal high water table.

The Soil Potential Ratings do not include a published rating for Plaisted or Howland soils. However, similar soils in the region, and the formulas in the SPR publication, were used to establish soil potential ratings.

COMMON NRCS MAPPED SOIL SERIES IN THE DEVELOPMENT ZONES

SOIL SERIES	SOIL POTENTIAL RATING	SUITABILITY
Plaisted (*Chesuncook/Elliotsville)	High	<i>Generally Suitable</i>
Howland (*Chesuncook/Telos)	Low/Medium	<i>Limited Suitability</i>
Monarda	Very Low	<i>Generally Unsuitable</i>
Burnham	Very Low	<i>Generally Unsuitable</i>
Thorndike (*Monson/ Ragmuff)	Low	<i>Limited Unsuitable</i>

* Series that would be mapped under current NRCS classification

3.2 Field Review

In December of 2012, and November-December of 2013, CES completed a limited field review on the Development Zones. The conditions at the time of the survey were winter conditions with sparse snow cover and little to no frost in the ground. Soil scientists performed transects generally perpendicular to the topography and reviewed the major soil map units within the Development Zones. Preliminary soil auger borings and limited hand dug test pits were used to



assess the soil conditions and compare against the NRCS soil maps. The soil types were generally consistent with NRCS mapping in terms of soil texture, slope, and drainage class. The main differences identified were the common presence of bedrock controlled soils in the well-drained Plaisted map units, which are classed as very deep to bedrock. The Howland soil series that covers two drainage classes is mapped over a large amount of the land within the Plan Area. Because the mapping is very broad, the Howland units, which have a “Low” rating, tend to dominate the landscape and include larger areas of better rated “Medium” soils that have a higher development potential. The moderately well drained phase would be mapped today as a Chesuncook soil with “Medium” development potential and the somewhat poorly drained Telos with a “Low” potential. Recent NRCS mapping to the west of the Concept Plan Area does break out these different soil series. The field review did identify larger areas of moderately deep to shallow bedrock controlled soils than indicated on the NRCS soil maps. The Plaisted/Howland soils map units would be mapped today as by moderately well drained Chesuncook and somewhat poorly drained Telos soils on mid and lower slope positions, and by Elliottsville, Monson, and Ragmuff bedrock controlled soils on upper slopes and ridge tops.

3.3 Development Zone Review

Each of the proposed Development Zones are discussed below and include a general overview, the NRCS soil survey information mapped, and an assessment of the development potential.

Using these assumptions, we have estimated the approximate development unit capacity for each Development Zone based only on existing published NRCS data and updated slope information from lidar data, where available. We expect areas shown as “*Generally Suitable*” on the attached maps have a 75 to 100% probability to support at least one DU per acre. On areas dominated by “*Limited Suitability*” areas, we have estimated approximately 50% of the area would have soil conditions that have the potential to support the intended use, or a 50-75% chance of finding a suitable condition within a given area. For example, a 10 acre soil map unit of the Howland Series, classified as “*Limited Suitability*,” would have the potential to support five DUs. This is a conservative approach since a typical residential development of a driveway, house, foundation, and wastewater disposal system can be often located on 10,000 square feet or less of suitable soils.

In keeping with this conservative approach, we have not assumed any development potential in areas shown as “*Generally Unsuitable*”; however, there are likely suitable areas within these areas that could be identified with more detailed surveys. It is important to note that soil rated as Low or Very Low soil potential still have potential for development. Additional initial development costs and increased long term maintenance costs may be present.

Long Lake A:

- ◆ **General Overview:** This approximately 136 acre Development Zone is located on the southeast side of Long Lake near Van Buren Cove. The immediate shoreline is largely developed with a mix of seasonal camps and some year round residences. The soils south of the existing camp lots and access road and upslope were reviewed. The topography is dominated by north-facing moderate slopes in the 8-15% range. Lidar data showed smaller areas of steeper slopes in the 15-25% range. Access to the site could be either off the East Side Road or an existing logging road. These roads are all-season gravel roads or harvesting roads providing access to the center and southern edge of the site.

- ◆ **Soil Conditions:** The NRCS soil survey identified Plaisted and Howland very stony loams on moderate slopes throughout the majority of the area. Monarda silt loams dominate along the northern section on gentle slopes near the lake. The Plaisted and Howland soil map unit (PvC, approximately 70 acres, located on the southern upper slope positions, are rated as “*Generally Suitable*” for development. However, approximately 51 acres of this includes steep slopes identified by lidar data. The Monarda soil map units would be “*Generally Unsuitable*” for development due to a seasonal high water table within 7 inches and the potential presence of jurisdictional wetlands. The Howland soils within the mid and lower slope positions have “*Limited Suitability*.” Areas of the better drained Howland soil on convex positions would be more suitable for development.

The on-site field review showed moderately well drained Chesuncook soils and somewhat poorly drained Telos soil in the Plaisted and Howland soil map units, respectively. The Chesuncook soils here have a “Medium” soil potential rating and the Telos would have a Low rating due to the presence of a seasonal high water table at 7-16 inches.

- ◆ **Development Potential:** The NRCS soil survey shows 37 acres of the Plaisted-Howland (PvC) map unit, which is 70% “*Generally Suitable*” Plaisted and 20% Howland “*Limited Suitability*” soil and 73 acres of “*Limited Suitability*” Howland dominated map units. Using the conservative estimates outlined above (one DU per acre on “*Generally Suitable*” areas, two acres per DU on sites identified as “*Limited Suitability*”) and taking out the steep slopes identified in the lidar data, results in the potential for approximately 51 DUs. The proposed Development Zone lies outside the existing developed shoreland area.

Long Lake B:

- ◆ **General Overview:** This approximately 75 acre Development Zone is located on the west side of Long Lake near Van Buren Cove. Access to the site could be off the West Van Buren Cove Road, which is an existing all-season gravel road. The immediate shoreline is similar to the previous area with a mix of seasonal camps. The area upland of the West Van Buren Cove Road is dominated by steep and very steep east facing slopes.
- ◆ **Soil Conditions:** The NRCS soil survey identified Howland gravelly loams, HoB & HoC units on moderate and gentle slopes adjacent to the shore and camp road throughout the majority of the area. These areas would have a “Low” soil potential rating and are mapped as “*Limited Suitability*.” The upper slopes contain Thorndike silt loams on steep slopes. Thorndike soils are shallow to bedrock and would have a “Low” soil potential rating. This area is “*Generally Unsuitable*” due to the steepness of the slopes.

On-site field review showed somewhat poorly drained Telos soils and poorly drained Monarda soils series present on the lower slopes, and moderately deep to bedrock Elliottsville series on the steeper upper slopes. The Telos soils would have a “Low” rating due to the presence of a seasonal high water table. Monarda soils have a “Very



Low” rating. Elliotsville soils would be rated as “Medium” potential in a better landscape position, but are “Very Low” here due to the steep slopes.

- ◆ **Development Potential:** The site is dominated by limited suitability soil map units. Approximately 57 acres of “*Limited Suitability*” area with Howland series *HoC* and *HoB* soil map units occurs. These “*Limited Suitability*” soils could potentially support 28 DUs. These areas are generally outside the immediate shoreland area. Based on the field review the soils may be wetter than mapped and a more conservative DU potential of 15 to 20 is more feasible.

Long Lake C:

- ◆ **General Overview:** This approximately 114 acre Development Zone is located on the west side of Long Lake on the slopes above the Barn Brook Road approximately one mile east of the Village of Sinclair. Barn Brook Road is an existing gravel road providing access to residential development along the shore that is outside the Plan Area. The site is located outside the shoreland zone.
- ◆ **Soil Conditions:** The NRCS soil survey identified Howland gravelly loams and stony loams, (*HoB*, *HoC*, and *HvC*) map units on gentle and moderate slopes in the western and easterly sections. Thorndike shaly silt loams (*ThC*) on moderate and steep slopes dominate in the central section. The moderately sloped areas have a Low soil potential rating and are mapped as “*Limited Suitability*” and the steeper slopes contain Thorndike silt loams on steep slopes. Thorndike soils are shallow to bedrock and have a Low soil potential rating. This area is “*Generally Unsuitable*” as mapped by NRCS due to the steepness of the slopes and shallow bedrock conditions.

On-site field review showed somewhat poorly drained Telos soils, moderately deep to bedrock Elliotsville series, and Monson shallow to bedrock soil series on the steeper upper slopes. Larger areas of steeply sloping terrain were present compared to what is shown on the published soil survey. The Telos Series is similar to the mapped Howland series for use and management. The Monson soils are similar to the mapped Thorndike and Elliotsville series deeper to bedrock. The field review also showed larger areas of steep slopes greater than 15%. This site did not have lidar topography available at the time of survey. The detailed lidar information would be helpful in the future to identify areas better suited to development. The Telos would have a “Low” rating due to the presence of a seasonal high water table. Elliotsville soils would be Medium in a better landscape position, but are “Very Low” in this area due to the steep slopes.

- ◆ **Development Potential:** A large portion of the site is mapped as shallow to bedrock Thorndike soils (*ThC*) on moderate slopes (8-15%). Using the NRCS map unit and slope class, the 64 acres of the *ThC* “*Limited Suitability*” soil map unit could theoretically support 32 DUs. However, the field review showed large areas in the central section of this map unit that might be better classed as “*Generally Unsuitable*” due to the steepness of the slopes and the shallow to bedrock condition. No lidar data was available for this site. Even with large areas of steep slopes, it is likely there are smaller pockets of suitable development areas present within the Development Zone, but those areas would need additional field surveys or lidar information to identify. A conservative DU ratio here might be 1 unit per five acres, for 12 DUs in the central



section. The northern section of the Development Zone contains approximately 22 acres of “*Limited Suitability*” area with Howland (*HvC* and *HoB*) soil map units, and 12 acres of Plaisted (*PgB*, *PgC*) series that are *Generally Suitable*. The “*Limited Suitability*” soils could potentially support 10 DUs, the better Plaisted soils 12 DUs, and the 12 DUs in the central section for a total of 34 potential DUs.

Cross Lake A:

- ◆ **General Overview:** This approximately 119 acre Development Zone is located on the northwest side of Cross Lake. It is currently undeveloped and in active forest management with softwood plantations and existing gravel logging roads bisecting the area. The topography is gentle to moderately sloping terrain on east facing slopes.
- ◆ **Soil Conditions:** The NRCS soil survey identified Howland stony loams, *HvC* map units on upper slopes. These areas would have a “Low” soil potential rating and are mapped as “*Limited Suitability*.” The lower landscape position is dominated by poorly drained Monarda (*MoB*) soil map units along the lower slopes. The Monarda soils have a “Very Low” rating.

The field investigation showed somewhat poorly drained Telos soils and poorly drained Monarda soils series present at the site and is generally consistent with the NRCS soil maps. More Monarda poorly drained soils may be present than what is shown. The Telos soils would have a “Low” rating due to the presence of a seasonal high water table. Monarda soils have a “Very Low” rating due to wetness and are hydric soils.

- ◆ **Development Potential:** The eastern area of the site is mapped as the “Very Low” potential Monarda soils. These are “*Generally Unsuitable*” due to a seasonal high water table and areas of jurisdictional wetlands. The remaining area of the site is dominated by the Howland series *HvB* map unit occupying on the upper slopes. These “*Limited Suitability*” soils could potentially support 34 DUs.

Cross Lake B:

- ◆ **General Overview:** This Development Zone is approximately 79 acres located on east side of Cross Lake between Copper Road and Currier Road. The immediate shoreline is developed with seasonal camps and year round residences. The topography is gentle to moderately sloping terrain on west facing slopes. This area was added after the field review was completed.
- ◆ **Soil Conditions:** The site is dominated by Machias gravelly loams on gentle to moderate slopes with smaller areas of poorly-drained Redhook and Atherton (*RaA*) map units on gentle slopes. The Machias soils are “*Generally Suitable*.” The poorly drained *RaA* map units that make up the remainder of this area are “*Generally Unsuitable*” due to a water table within seven inches of the surface, and may contain areas of jurisdictional wetlands. These map units would be rated as Very Low potential.

No field review of this site was completed. No lidar data was available.

- ◆ **Development Potential:** Approximately 67 acres of the Development Zone is mapped “*Generally Suitable*” soil types that could support 67 DUs. The remainder is dominated by generally unsuitable soil map units.



Cross Lake C:

- ◆ **General Overview:** This approximately 64 acre Development Zone is located on the east side of Cross Lake, south of the thoroughfare. The immediate shoreline is developed with seasonal camps and year round residences. To the east of Cyr Road (an existing all season gravel road), away from the shoreline, the land is largely undeveloped and in active forest management. The topography is gentle to moderately sloping terrain on west facing slopes.
- ◆ **Soil Conditions:** The NRCS Soil Survey shows the site is dominated by Plaisted gravelly loams (*PgB*) with smaller areas of poorly-drained Monarda (*MoB*) map units on gentle slopes. The Plaisted (*PrC*) soils would be “*Generally Suitable*.” The Monarda that make up the remainder of this area are “*Generally Unsuitable*” due to a water table within seven inches of the surface, and may contain areas of jurisdictional wetlands. These map units would be rated as “Very Low” potential.

The field investigation identified areas of moderately well drained and somewhat poorly drained Telos soils in the well-drained Plaisted (*PgB*) soil map units

Development Potential: Approximately 33 acres of the Development Zone is mapped as “*Generally Suitable*” soil types. These could support 33 DUs.

Cross Lake D:

- ◆ **General Overview:** This approximately 183 acre Development Zone is located on the east side of Cross Lake, in the vicinity of the existing boat launch and to the east of Mif’s Lane. Mif’s lane is an existing all season gravel road. The shoreline is developed with mostly seasonal camps. The topography is moderately to steeply sloping on west facing slopes.
- ◆ **Soil Conditions:** The NRCS soil survey shows approximately 100 acres of Plaisted and Howland gravelly loams on steep and very steep slopes dominate the central section. The steep slopes here, greater than 15%, limit the potential for development. As the topography becomes less steep, development potential improves. Plaisted soils on moderate slopes (*PgC*) cover approximately 42 acres in the southern section with smaller areas of Howland “Limited suitability” (*HoB* and *HoC*) soil map units present. The immediate shoreland is outside the Plan Area.
- ◆ **Development Potential:** The middle band of the site contains moderately steep to steep slopes greater than 15%. Leaving out this area, the remaining area mapped as Plaisted soils on the gentle to moderate slopes is “*Generally Suitable*” and could potentially support 29 DUs, while the Howland “*Limited Suitability*” soils could potentially support an additional 10 DUs for a total of 39 DUs.

Cross Lake E:

- ◆ **General Overview:** This approximately 156 acre Development Zone is located on the southeast corner of Cross Lake. Access could be from the road leading to Square Lake, which is gravel and use for forestry operations. The immediate shoreline is largely undeveloped. The north facing terrain consists of moderate and gentle topography on the lower slope positions. A narrow band of steep slopes greater than 20% bisects the



area occurring just upslope of the access road. East of this narrow band, on the upper slopes, the terrain is more gently sloped.

- ◆ **Soil Conditions:** The NRCS soil survey identified Plaisted and Howland gravelly loams on a range of slope conditions. Along the immediate shoreland area, poorly drained Monarda silt loams (*MoB*) dominate. Moving upslope the Howland dominated *HvB* map unit is approximately 55 acres and is rated as “*Limited Suitability*” for development. Continuing upslope, Plaisted soils on steep slopes occur running in a north-south direction. The steep slopes here limit the potential for development. As the topography becomes less steep along the upper slope and ridge top positions, the NRCS soil survey shows Plaisted soils occupy approximately 35 acres.

On-site field review showed poorly drained Monarda and somewhat poorly drained Telos soils are dominant along the mid and lower slopes mapped as Howland soil. The Telos soil series would have a “Low” rating due to the presence of a seasonal high water table at 7-16 inches. The upper slope positions contained shallow till soils over bedrock of the Elliottsville and Monson soils series.

- ◆ **Development Potential:** Much of the western portion of the area along the shore is mapped as Howland (*HvB*) soils. These “*Limited Suitability*” soils could potentially support approximately 27 DUs. The middle band of the site contains moderately steep to steep slopes greater than 15%. Leaving out this area, the remaining area mapped as Plaisted soils on the upper slopes is “*Generally Suitable*” and could potentially support 35 DUs. The total potential is estimated at 62 DUs. These areas are generally outside the shoreland area. The 250 foot shoreland zone may have areas of suitable soils but would require more detailed surveys.

Square Lake E and Square Lake Yexas:

- ◆ **General Overview:** The Square Lake E (approximately 278 acres) and the Square Lake Yexas (approximately 51 acres) Development Zones make up an area of approximately 329 acres located on the east side of Square Lake, centered on the “Yerxa Camps” site. The shoreline on either side of the Yexas property is largely undeveloped with forest management access roads bisecting the site. The Yexas property itself is developed with several structures that were once part of an active sporting camp. The north facing terrain consists of moderate and gentle topography. Approximately 50 acres of steep slopes greater than 15% occur in the center of the site.
- ◆ **Soil Conditions:** The NRCS soil survey shows the area as dominated by Plaisted (*PgC*, *PgB*) soil map units, Howland gravelly loam (*HoB*, *HoC*) soil map units on gentle to moderate slopes in the north and Monarda silt loams along concave gently sloping areas lower down the slope. The Howland and Monarda map units are dominant along the lower slopes and are mapped as “*Limited Suitability*” and “*Unsuitable*” for development. CES has completed a Class D soil survey for this area with a more detailed Class C level survey around the Square Lake Yexas Development Zone. The detailed soil survey shows the area is dominated by Telos silt loam soils on lower slope positions and Monson-Elliotsville-Ragmuff bedrock controlled soils on upper slopes. Monarda silt loams occur along drainages and concave slopes areas. Please see the report entitled “Class D Medium and Class C - Medium-High Intensity Soil Survey



Report For Square Lake East (Yerxas Camps) - Fish River Chain of Lakes Concept Plan”, soil report for complete details.

- ◆ **Development Potential:** Based on the CES soil survey, the approximately area outside the Yerxas camp Zone contains approximately 134 acres of Telos and Monson-Elliotsville soil series map units rated “*Limited Suitability*” that could support approximately 67 DUs. The area also contains approximately 80 acres of soils mapped as Telos- Monarda Complex. Because of the poorly drained Monarda soils a ratio of 4 acres per DU is more appropriate. Using that ratio, these map units support approximately 20 DUs for a total of 87 DUs. Within the approximately 51 acres that make up Square Lake Yerxas Development Zone, the soil survey shows approximately 5 acres of “*Generally Suitable*” soils, and 20 acres of “*Limited Suitability*” soil map units. The Telos- Monarda Complex covers approximately 14 acres. It is likely that a 100 bed recreational lodging operation could be developed, or the area could support an additional 17 DUs under the methodology used here. The total development potential for both Zones would be approximately 104 DUs of residential development. See separate soil survey report by CES for complete details.

Square Lake W:

- ◆ **General Overview:** This approximately 121 acre Development Zone is located on the west side of Square Lake. The area includes lands around The Carry, the traditional short cross-country route that led from Square Lake to Eagle Lake. There is currently no development near The Carry, except for several logging roads at the upper elevations. To the north the shoreline is developed with seasonal camps. The topography is gentle to steeply sloping terrain on east facing slopes with steep slopes occupying the higher ground.
- ◆ **Soil Conditions:** NRCS soil map units show that Plaisted and Howland soils on moderate and gentle slopes dominate. The Plaisted soils have a Medium soil potential rating. Areas of PvC map unit would be “*Generally Suitable*” for development, where slopes allow. The “*Limited Suitability*” Howland map units, HvC and HvB occur on approximately 54 acres. Moving upslope, shallow bedrock control Thorndike soils on steep terrain dominates.

On-site field review showed somewhat poorly drained Telos soils are dominant along the mid and lower slopes mapped as Howland and Plaisted soils. The Telos soils have a Low rating due to the presence of a seasonal high water table at 7-16 inches. The upper slope positions contained shallow till soils over bedrock of the Elliotsville and Monson soils series.

- ◆ **Development Potential:** Approximately 70 acres of “*Limited Suitability*” Howland soils dominate the zone. This area could potentially support 35 DUs. The northeastern section of the zone is mapped as “*Generally Suitable*” Plaisted dominated map units. A potential for approximately 31 DUs exists. The total potential is estimated at 66 DUs. These areas are outside the shoreland area.



3.4 Community and Economic Development Areas

The Concept Plan establishes “community and economic development” (CD) Development Zones that are separate from the residential Development Zones. The purpose of these areas is to provide an opportunity for economic development and to guide commercial/industrial growth toward areas where they would be close to existing similar uses, have easy access to transportation corridors within the Plan Area and existing sewage treatment options at the Sinclair wastewater treatment facility. For this analysis the general soils conditions were evaluated to provide an overall understanding of the potential limiting factors that need to be considered for any future development. Since on-site wastewater is not a factor, the development potential here is controlled by other factors. More detailed on-site investigations are required.

CD-1:

- ◆ **General Overview:** This approximately 279 acre Development Zone is located near the Village of Sinclair. The area is characterized by east facing slopes, with steep slopes occupying the higher ground.
- ◆ **Soil Conditions:** NRCS soil map units show poorly drained Monarda and Burnham soils and Canandaigua silt loams on gentle slopes that dominate the southern areas and Plaisted-Howland soils in the north on convex slope positions. The Plaisted soils have a Medium soil potential rating. Areas of PvB map unit are a mix of Plaisted soils “*Generally Suitable*” and Howland “*Limited Suitability*” soil series. Forty-five acres of poorly drained Monarda soils are mapped in the central section. Moving upslope, shallow bedrock control Thorndike soils on steep terrain dominates.

On-site field review showed poorly drained soils Monarda and similar soils consistent with NRCS mapping. The Monarda soils are hydric and have a seasonal high water table within seven inches of the soil surface.

- ◆ **Development Potential:** CD-1 is proposed for non-residential development to support existing community areas. On-site field review showed the area overall is dominated by poorly drained hydric soil conditions and areas of jurisdictional wetlands. These areas may have access to nearby municipal wastewater treatment infrastructure. More detailed investigations and more specific plans are needed to determine if there are additional areas of suitable soils for the intended use.

CD-2:

- ◆ **General Overview:** This approximately 167 acre Development Zone is located the Village of Sinclair. The site is largely undeveloped and is currently in active forest management. Existing logging roads transect the area. The topography is gently sloping to flat.
- ◆ **Soil Conditions:** NRCS soil map units show poorly drained Monarda and Burnham soils and Canandaigua silt loams on gentle slopes dominate throughout the site.

On-site field review showed poorly drained soils Monarda and similar soils consistent with NRCS mapping. The Monarda soils are hydric and have a seasonal high water table within 7-inches of the soil surface. Areas of jurisdictional wetlands were noted.



- ◆ Development Potential: CD-2 is proposed for non-residential development to support existing community areas. On-site field review showed the area dominated by hydric soil conditions and areas of jurisdictional wetlands. More detailed investigations and more specific plans are needed to determine if there are potential areas of suitable soils for the intended use. These areas may have access to nearby municipal wastewater treatment infrastructure.

CD-3:

- ◆ General Overview: This approximately 101 acre Development Zone is at the intersection of Route 161 and Route 162. The site is largely undeveloped and forested, but does contain a recently constructed electrical substation at the road intersection. The topography is very gently sloping to flat.
- ◆ Soil Conditions: NRCS soil map units show poorly and very poorly drained Redhook, Atherton silt loams on gentle slopes dominate throughout the site.

On-site field review showed poorly drained soils consistent with NRCS mapping. The soils are hydric and have a seasonal high water table within seven inches of the soil surface. Areas of jurisdictional wetlands occur.

- ◆ Development Potential: CD-3 is proposed for non-residential development to support existing community areas. On-site field review showed the area dominated by hydric soil conditions and areas of jurisdictional wetlands. More detailed investigations and more specific plans may be useful to determine if there are additional areas of suitable soils for the intended use. This site may have access to nearby municipal wastewater treatment infrastructure.

DEVELOPMENT ZONE SOIL REVIEW SUMMARY

ZONE	LOCATION	SIZE	POTENTIAL
	(Township)	(Acres +/-)	DENSITY
Long Lake A	T17 R3	136	51
Long Lake B	T17 R3	75	28
Long Lake C	T17 R4	114	34
Cross Lake A	Cross Lake	119	34
Cross Lake B	Cross Lake	79	67
Cross Lake C	Cross Lake	64	33
Cross Lake D	T16 R5	183	39
Cross Lake E	T16 R5	156	62
Square Lake E	T16 R5	278	87
Square Lake W	T16 R5	121	66
Square Lake Yexas	T16 R5	51	17
TOTAL (Residential)		1,376	518
CD-1	Cross Lake	279	101
CD-2	T17 R4	167	1
CD-3	Cross Lake	101	0
TOTAL (CD)		431	102



SECTION 4

SUMMARY – RECOMMENDED COURSE OF ACTION

The soil assessment of the Development Zones within the proposed Concept Plan shows that there is a reasonable expectation that the soils within the proposed Development Zones that allow for residential development could support the allowable development. The Community/Economic Development Zones will require additional investigations to identify suitable areas.

Overall, the investigation found a mix of soil types and potential for development. Areas of “*Generally Suitable*” soils are present to some extent on all the Development Zones. The suitable areas are generally located on the better drained deeper soils farthest from the shore on the upper slopes. In general, the NRCS soil map units correlated with the on-site field investigations. The main differences identified were the common presence of bedrock controlled soils in the well-drained Plaisted map units, which are classed as very deep to bedrock.

The soils within the Development Zones could support the level of allowed development by maximizing use of “*Generally Suitable*” soil areas and implementing common construction and engineering methods to overcome limitations on less suitable soils. Within the watershed area of each Development Zone, development density could be focused on the most suitable soils using clustered development strategies where appropriate. It is expected this will occur as more definite plans are proposed and additional site specific information becomes available.

In the areas where “*Limited Suitability*” soils dominate, development can be focused on the smaller inclusions of better soils, and where these are not available, standard construction techniques and best management practices can be employed to overcome the limitations. For soils with water table limitations where on-site wastewater is proposed, the wastewater system could be sited outside the 250 foot shoreland zone where the wastewater rules allow new systems in soil with a seasonal high water table greater than nine inches. These would be present to some extent within map units dominated by Howland and Telos soils. Roads can overcome the water table limitations using ditching, cross drains, and rock sandwich construction techniques; and building construction can employ proper stormwater management techniques and foundation footing drains. Soil conditions generally unsuitable due to wetness should be avoided where possible. If unavoidable, development should follow the State and Federal regulations regarding activities in wetlands and protected natural resources. Where steep slopes are found, development could occur on the smaller areas of benches and slope areas of moderate to gentle slopes. These areas are often found as small inclusions within the larger map units. Where limitations due to shallow bedrock occur, development can again be sited on smaller inclusions of deeper soils. Road and building construction may require blasting or ripping. The bedrock areas can also provide a potential source for borrow material that is used locally in the region as road surfacing material and fill.

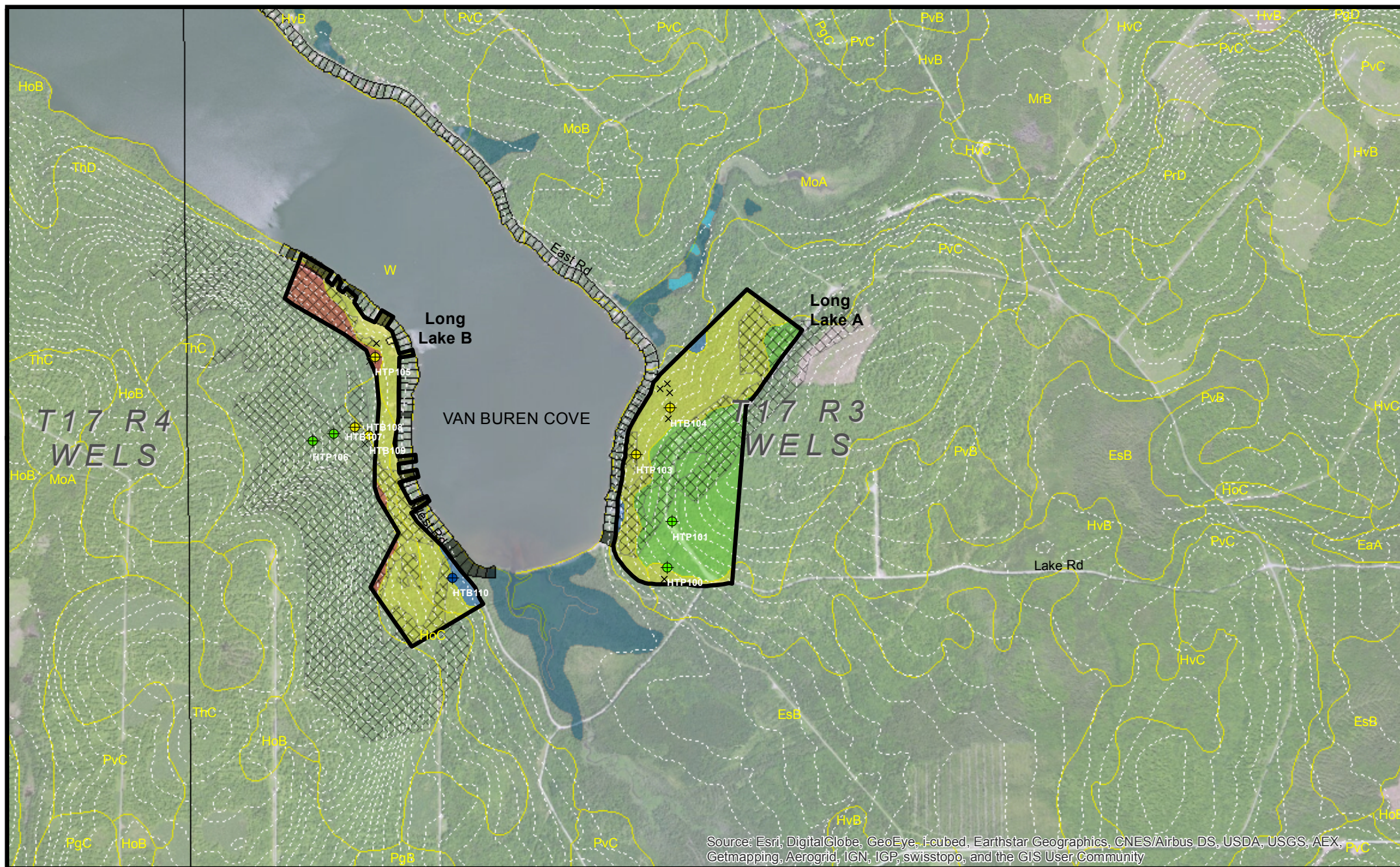


APPENDIX A

MAPS

JN: 6570

SOIL SUITABILITY REPORT



Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
CdB	Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
EsB	Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
HoB	Howland gravelly loam, 2 to 8 % slopes	Low	Limited Suitability
HoC	Howland gravelly loam, 8 to 15 % slopes	Low	Limited Suitability
HvB	Howland very stony loam, 0 to 8 % slopes	Low	Limited Suitability
HvC	Howland very stony loam, 8 to 15 % slopes	Low	Limited Suitability
MaA	Machias gravelly loam, 0 to 2 % slopes	Medium	Generally Suitable
MaB	Machias gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
Mn	Mixed alluvial land	?	
MoA	Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
MoB	Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
MrB	Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
PgB	Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
PgC	Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
PgD	Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
PgE	Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
PrC	Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
PvB	Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
RaA	Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
SgB	Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
ThB	Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
ThC	Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
ThD	Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
TsC	Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- PLAN NOTES:**
 1.) ALL LOCATIONS AND AREAS AS SHOWN ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
 2.) PROJECTION: NAD 1983, STATE PLANE, MAINE EAST, US FEET.

- PLAN SOURCES:**
 1.) JDI: JD Irving: 2011 Lidar data
 2.) LUPC- Unorganized Parcels (Lease lots)
 3.) USDA: USDA NRCS Soil Survey of NE Aroostook County
 Published 1964, original map scale=1:20,000
 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
 6.) TJDA: Terrence J. Dewan & Associates- Concept Areas

Legend		
CES TP-SOIL SERIES	JDI-LIDAR - Steep Slopes >15%	LUPC-License Lot Within Concept Plan Area
TELOS	USGS 20' Contour	USFWS-NWI WETLAND TYPE
MONSON/RAGMUFF	LUPC-Vacant License Lots	Freshwater Emergent Wetland
MONARDA/BURNHAM		Freshwater Forested/Shrub Wetland
ALLAGASH/MADAWASKA		Riverine
CHESUNCOOK		USDA NRCS Soil Survey Aroostook Cty.
ELLIOTSVILLE		CES-NRCS SOIL SUITABILITY REVIEW
		General Soil Suitability Rating
		Generally Suitable
		Limited Suitability
		Generally Unsuitable
		Unsuitable Steep-Lidar
		Unsuitable-Steepness
		Unsuitable-Wetness

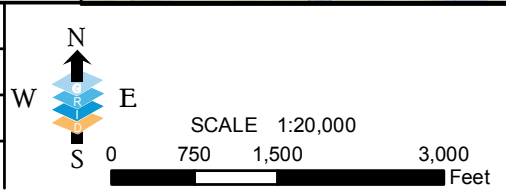


Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri (China (Hong Kong)), Esri (Thailand), TomTom, etc.

PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: Long Lake A-B

Page 1	BY: RST	REV:
JN: 6570	DATE: JANUARY 2014	REV DATE:
SCALE: 1 in = 1,667 ft	APPROVED BY: RST	ISSUE:
	CHECKED BY: RST	ISSUE DATE:





NRCS SOIL SURVEY LEGEND

Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
	CdB Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
	EsB Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
	HoB Howland gravelly loam, 2 to 8 % slopes	Low	Limited Suitability
	HoC Howland gravelly loam, 8 to 15 % slopes	Low	Limited Suitability
	HvB Howland very stony loam, 0 to 8 % slopes	Low	Limited Suitability
	HvC Howland very stony loam, 8 to 15 % slopes	Low	Limited Suitability
	MaA Machias gravelly loam, 0 to 2 % slopes	Medium	Generally Suitable
	MaB Machias gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	Mn Mixed alluvial land	?	
	MoA Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	MoB Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
	MrB Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low	Unsuitable-Wet
	PgB Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	PgC Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
	PgD Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	PgE Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
	PrC Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
	PvB Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
	RaA Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	SgB Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	ThB Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
	ThC Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
	ThD Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	TsC Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

PLAN NOTES:
 1.) ALL LOCATIONS AND AREAS AS SHOWN ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
 2.) PROJECTION: NAD 1983, STATE PLANE, MAINE EAST, US FEET.

PLAN SOURCES:
 1.) JDI: JD Irving: 2011 Lidar data
 2.) LUPC- Unorganized Parcels (Lease lots)
 3.) USDA: USDA NRCS Soil Survey of NE Aroostook County
 Published 1964, original map scale=1:20,000
 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
 6.) TJDA: Terrence J. Dewan & Associates- Concept Areas

Legend

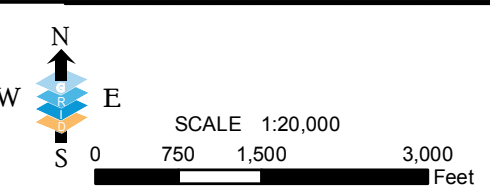
CES TP-SOIL SERIES	⊗ JDI-LIDAR - Steep Slopes >15%	□ LUPC-License Lot Within Concept Plan Area	CES-NRCS SOIL SUITABILITY REVIEW
◆ MONSON/RAGMUFF	— USGS 20' Contour	■ USFWS-NWI WETLAND TYPE	■ Generally Suitable
◆ MONARDA/BURNHAM	■ LUPC-Vacant License Lots	■ Freshwater Emergent Wetland	■ Limited Suitability
◆ ALLAGASH/MADAWASKA		■ Freshwater Forested/Shrub Wetland	■ Generally Unsuitable
◆ CHESUNCOOK		■ Riverine	■ Unsuitable Steep-Lidar
◆ ELLIOTSVILLE		■ USDA NRCS Soil Survey Aroostook Cty.	■ Unsuitable-Steepness
			■ Unsuitable-Wetness

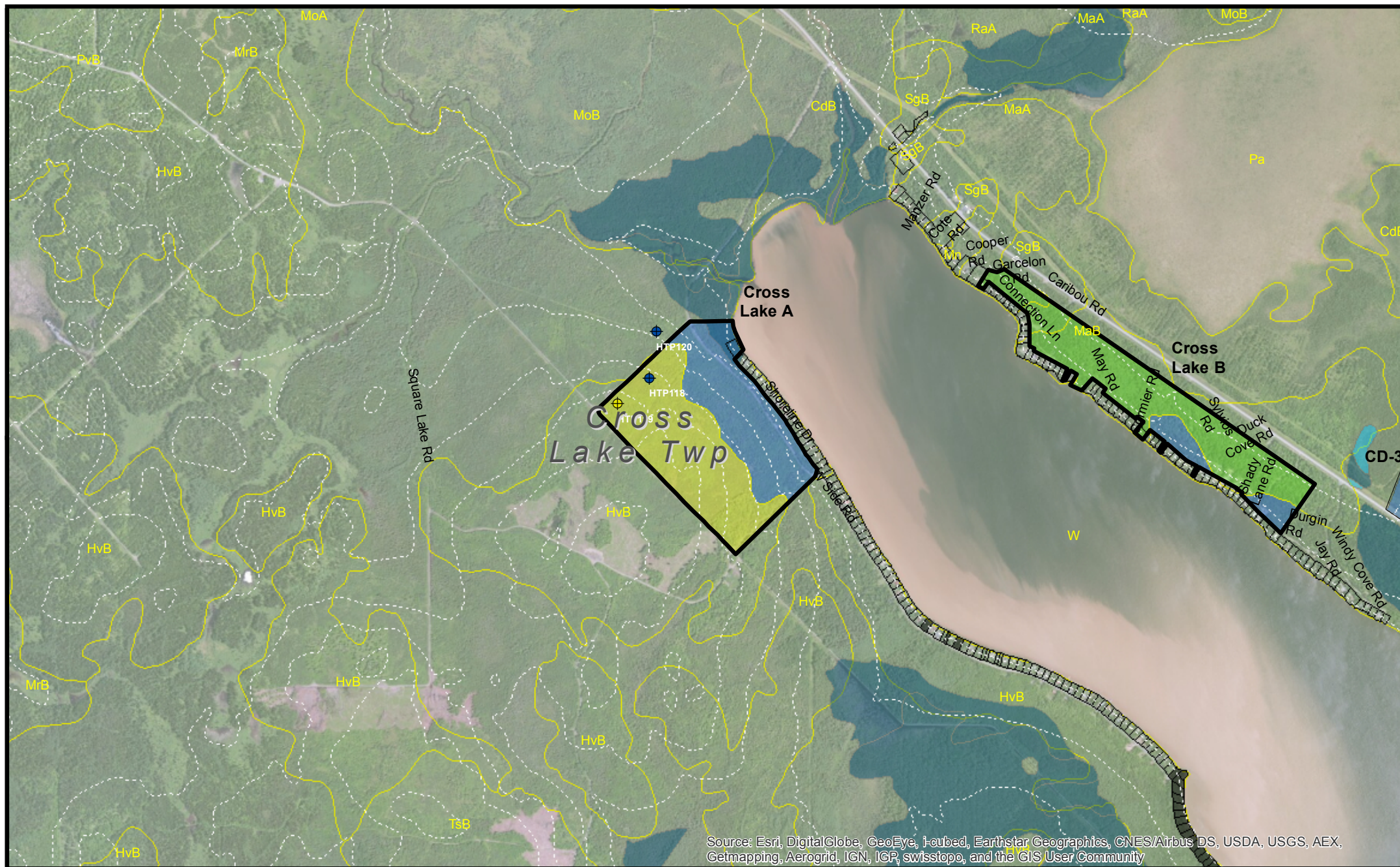


PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: Long Lake C

Page	2	BY: RST	REV:
JN: 6570	APPROVED BY: RST	DATE: JANUARY 2014	REV DATE:
SCALE: 1 in = 1,667 ft	CHECKED BY: RST	ISSUE:	ISSUE DATE:





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

NRCS SOIL SURVEY LEGEND			
Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
	CdB	Very Low	Unsuitable-Wet
	EsB	Very Low	Unsuitable-Wet
	HoB	Low	Limited Suitability
	HoC	Low	Limited Suitability
	HvB	Low	Limited Suitability
	HvC	Low	Limited Suitability
	MaA	Medium	Generally Suitable
	MaB	Medium	Generally Suitable
	Mn	?	
	MoA	Very Low	Unsuitable-Wet
	MoB	Very Low	Unsuitable-Wet
	MrB	Very Low	Unsuitable-Wet
	PgB	Medium	Generally Suitable
	PgC	Medium	Generally Suitable
	PgD	Very Low	Unsuitable-Steep
	PgE	Medium	Generally Suitable
	PrC	Medium	Generally Suitable
	PVB	Medium	Generally Suitable
	RaA	Very Low	Unsuitable-Wet
	SgB	Medium	Generally Suitable
	ThB	Low	Limited Suitability
	ThC	Low	Limited Suitability
	ThD	Very Low	Unsuitable-Steep
	TsC	Low	Limited Suitability

PLAN NOTES:
 1.) ALL LOCATIONS AND AREAS AS SHOWN ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
 2.) PROJECTION: NAD 1983, STATE PLANE, MAINE EAST, US FEET.

PLAN SOURCES:
 1.) JDI: JD Irving: 2011 Lidar data
 2.) LUPC- Unorganized Parcels (Lease lots)
 3.) USDA: USDA NRCS Soil Survey of NE Aroostook County
 Published 1964, original map scale=1:20,000
 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
 6.) TJDA: Terrence J. Dewan & Associates- Concept Areas

Legend

CES TP-SOIL SERIES	JDI-LIDAR -Steep Slopes >15%	LUPC-License Lot Within Concept Plan Area	CES-NRCS SOIL SUITABILITY REVIEW
TELOS	USGS 20' Contour	USFWS-NWI WETLAND TYPE	General Soil Suitability Rating
MONSON/RAGMUFF	LUPC-Vacant License Lots	Freshwater Emergent Wetland	Generally Suitable
MONARDA/BURNHAM		Freshwater Forested/Shrub Wetland	Limited Suitability
ALLAGASH/MADAWASKA		Riverine	Generally Unsuitable
CHESUNCOOK		USDA NRCS Soil Survey Aroostook Cty.	Unsuitable Steep-Lidar
ELLIOTSVILLE			Unsuitable-Steepness
			Unsuitable-Wetness



PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 AROOSTOOK COUNTY, MAINE

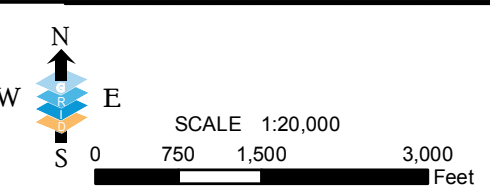
SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: **Cross Lake A**

Page **3**

BY: RST
 DATE: JANUARY 2014

APPROVED BY: RST
 CHECKED BY: RST

SCALE: 1 in = 1,667 ft





NRCS SOIL SURVEY LEGEND

Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
	CdB	Very Low	Unsuitable-Wet
	EsB	Very Low	Unsuitable-Wet
	HoB	Low	Limited Suitability
	HoC	Low	Limited Suitability
	HvB	Low	Limited Suitability
	HvC	Low	Limited Suitability
	MaA	Medium	Generally Suitable
	MaB	Medium	Generally Suitable
	Mn	?	
	MoA	Very Low	Unsuitable-Wet
	MoB	Very Low	Unsuitable-Wet
	MrB	Very Low	Unsuitable-Wet
	PgB	Medium	Generally Suitable
	PgC	Medium	Generally Suitable
	PgD	Very Low	Unsuitable-Steep
	PgE	Medium	Generally Suitable
	PrC	Medium	Generally Suitable
	PvB	Medium	Generally Suitable
	RaA	Very Low	Unsuitable-Wet
	SgB	Medium	Generally Suitable
	ThB	Low	Limited Suitability
	ThC	Low	Limited Suitability
	ThD	Very Low	Unsuitable-Steep
	TsC	Low	Limited Suitability

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

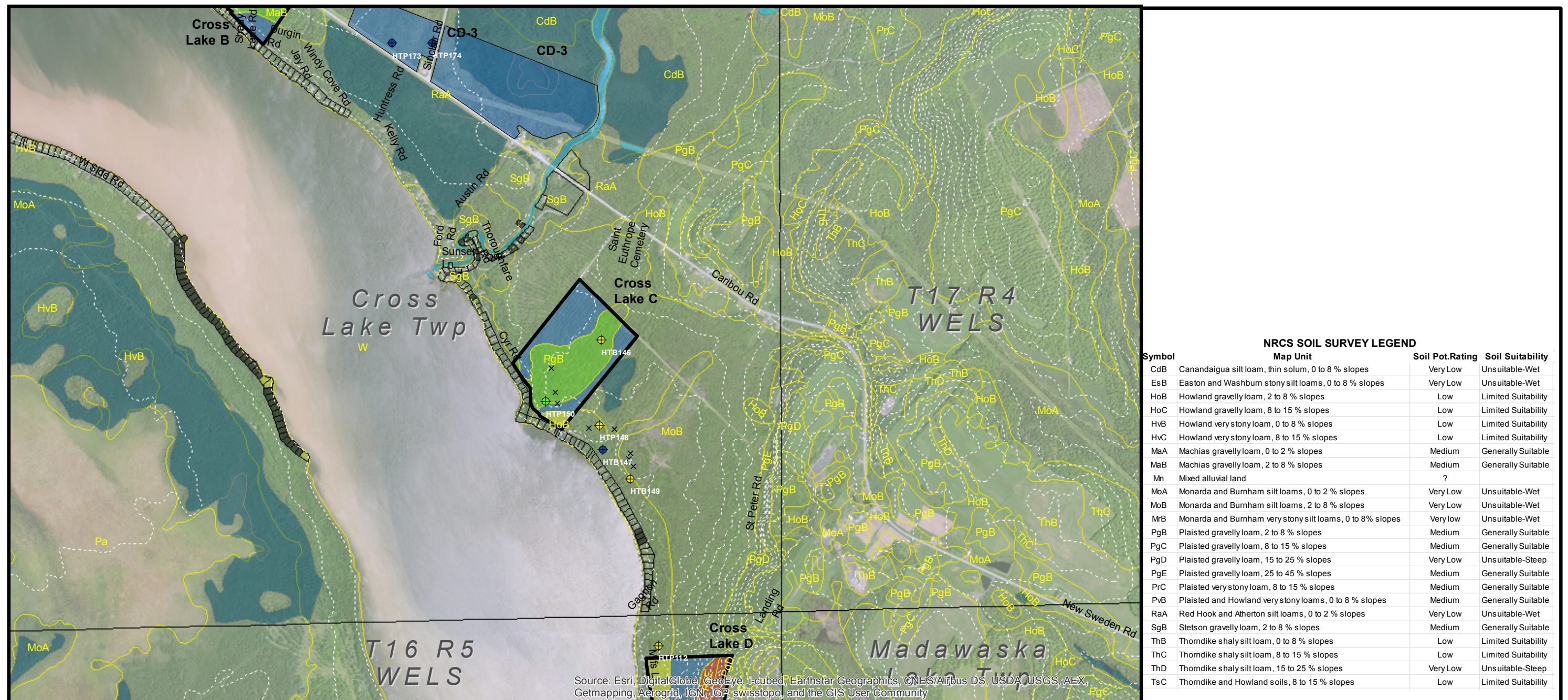
PLAN NOTES:
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PLAN SOURCES:
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 2.) LUPC: Unorganized Parcels (Lease lots)
 3.) USDA: USDA NRCS Soil Survey of NE Aroostook County
 Published 1964, original map scale=1:20,000
 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
 6.) TJDA: Terrence J. Dewan & Associates- Concept Areas

Legend	
CES TP-SOIL SERIES	CES-NRCS SOIL SUITABILITY REVIEW
<ul style="list-style-type: none"> ◆ TELOS ◆ MONSON/RAGMUFF ◆ MONARDA/BURNHAM ◆ ALLAGASH/MADAWASKA ◆ CHESUNCOOK ◆ ELLIOTSVILLE 	<ul style="list-style-type: none"> ⊗ JDI-LIDAR - Steep Slopes >15% --- USGS 20' Contour ■ LUPC-Vacant License Lots □ LUPC-License Lot Within Concept Plan Area ■ USFWS-NWI WETLAND TYPE ■ Freshwater Emergent Wetland ■ Freshwater Forested/Shrub Wetland ■ Riverine ■ USDA NRCS Soil Survey Aroostook Cty. ■ Generally Suitable ■ Limited Suitability ■ Generally Unsuitable ■ Unsuitable Steep-Lidar ■ Unsuitable-Steepness ■ Unsuitable-Wetness



PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN AROOSTOOK COUNTY, MAINE	Page 4	BY: RST DATE: JANUARY 2014	REV:		
SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: Cross Lake B	JN: 6570 SCALE: 1 in = 1,667 ft	APPROVED BY: RST CHECKED BY: RST	REV DATE: ISSUE: ISSUE DATE:		



Symbol	Map Unit	Soil Pot.Rating	Soil Suitability
CdB	Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
EsB	Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
HoB	Howland gravelly loam, 2 to 8 % slopes	Low	Limited Suitability
HoC	Howland gravelly loam, 8 to 15 % slopes	Low	Limited Suitability
HvB	Howland very stony loam, 0 to 8 % slopes	Low	Limited Suitability
HvC	Howland very stony loam, 8 to 15 % slopes	Low	Limited Suitability
MaA	Machias gravelly loam, 0 to 2 % slopes	Medium	Generally Suitable
MaB	Machias gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
Mn	Mixed alluvial land	?	
MoA	Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
MoB	Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
MrB	Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low	Unsuitable-Wet
PgB	Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
PgC	Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
PgD	Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
PgE	Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
PrC	Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
PvB	Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
RaA	Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
SgB	Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
ThB	Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
ThC	Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
ThD	Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
TsC	Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA/USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

PLAN NOTES:
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PLAN SOURCES:
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 Published 1964, original map scale=1:20,000
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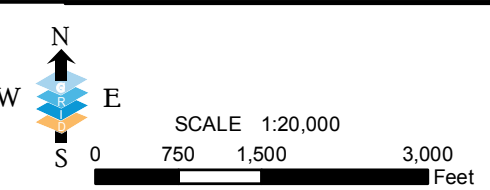
Legend		
CES TP-SOIL SERIES	JDI-LIDAR -Steep Slopes >15%	LUPC-License Lot Within Concept Plan Area
TELOS	USGS 20' Contour	USFWS-NWI WETLAND TYPE
MONSON RAGMUFF	LUPC-Vacant License Lots	Freshwater Emergent Wetland
MONARDA/BURNHAM		Freshwater Forested/Shrub Wetland
ALLAGASH/MADAWASKA		Riverine
CHESUNCOOK		USDA NRCS Soil Survey Aroostook Cty.
ELLIOTSVILLE		CES-NRCS SOIL SUITABILITY REVIEW
		General Soil Suitability Rating
		Generally Suitable
		Limited Suitability
		Generally Unsuitable
		Unsuitable Steep-Lidar
		Unsuitable Steepness
		Unsuitable-Wetness

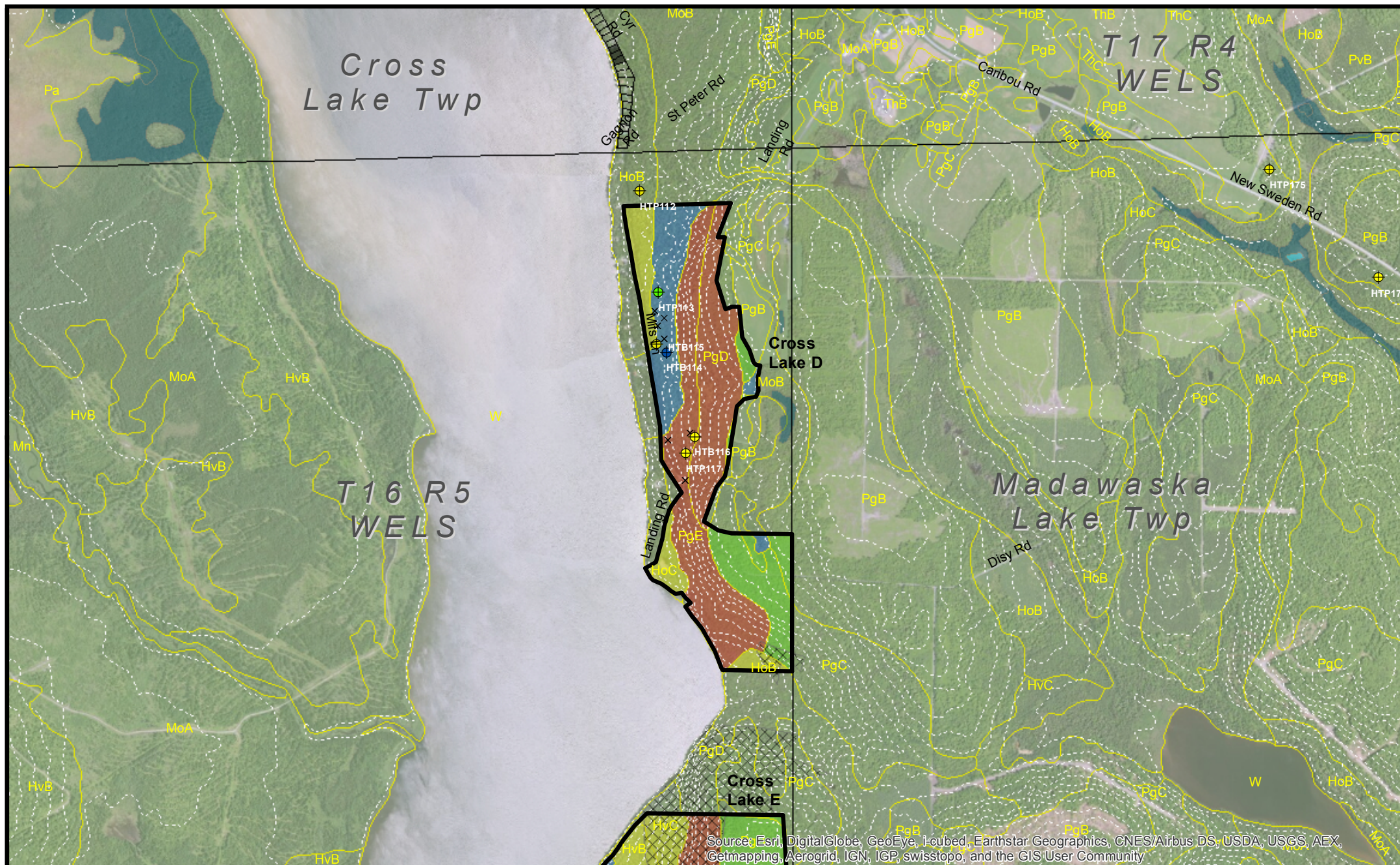


PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: **Cross Lake C**

Page	5	BY: RST	REV:
JN: 6570	APPROVED BY: RST	DATE: JANUARY 2014	REV DATE:
SCALE: 1 in = 1,667 ft	CHECKED BY: RST	ISSUE:	ISSUE DATE:





NRCS SOIL SURVEY LEGEND			
Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
CdB	Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
EsB	Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
HoB	Howland gravelly loam, 2 to 8 % slopes	Low	Limited Suitability
HoC	Howland gravelly loam, 8 to 15 % slopes	Low	Limited Suitability
HvB	Howland very stony loam, 0 to 8 % slopes	Low	Limited Suitability
HvC	Howland very stony loam, 8 to 15 % slopes	Low	Limited Suitability
MaA	Machias gravelly loam, 0 to 2 % slopes	Medium	Generally Suitable
MaB	Machias gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
Mn	Mixed alluvial land	?	
MoA	Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
MoB	Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
MrB	Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low	Unsuitable-Wet
PgB	Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
PgC	Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
PgD	Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
PgE	Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
PrC	Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
PvB	Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
RaA	Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
SgB	Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
ThB	Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
ThC	Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
ThD	Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
TsC	Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

PLAN NOTES:
 1.) ALL LOCATIONS AND AREAS AS SHOWN ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
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PLAN SOURCES:
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 Published 1964, original map scale=1:20,000
 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
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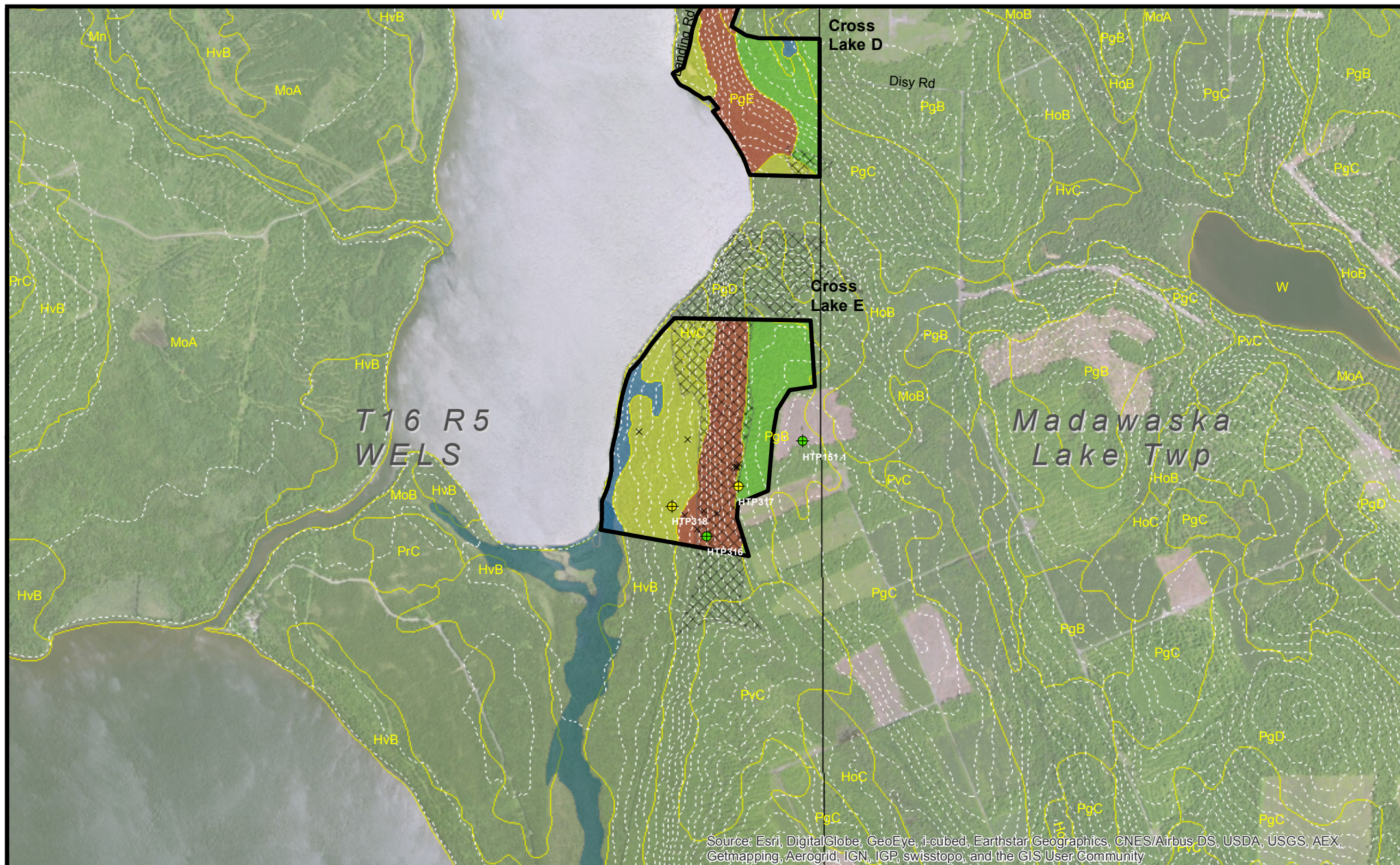
Legend		
CES TP-SOIL SERIES	JDI-LIDAR - Steep Slopes >15%	LUPC-License Lot Within Concept Plan Area
TELOS	USGS 20' Contour	LUPC-Vacant License Lots
MONSON RAGMUFF		
MONARDA/BURNHAM		
ALLAGASH/MADAWASKA		
CHESUNCOOK		
ELLIOTSVILLE		
USFWS-NWI WETLAND TYPE	Freshwater Emergent Wetland	CES-NRCS SOIL SUITABILITY REVIEW
	Freshwater Forested/Shrub Wetland	Generally Suitable
	Riverine	Limited Suitability
	USDA NRCS Soil Survey Aroostook Cty.	Generally Unsuitable
		Unsuitable-Steep-Lidar
		Unsuitable-Steepness
		Unsuitable-Wetness



PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN AROOSTOOK COUNTY, MAINE	Page 6	BY: RST	REV:
	JN: 6570	DATE: JANUARY 2014	REV DATE:
SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: Cross Lake D	SCALE: 1 in = 1,667 ft	APPROVED BY: RST	ISSUE:
		CHECKED BY: RST	ISSUE DATE:

SCALE 1:20,000

0 750 1,500 3,000 Feet



NRCS SOIL SURVEY LEGEND

Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
CdB	Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
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MoA	Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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PLAN SOURCES:
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 5.) MEGIS, USGS: contours, parcels
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Legend

CES TP-SOIL SERIES	JDI-LIDAR - Steep Slopes >15%	LUPC-License Lot Within Concept Plan Area	CES-NRCS SOIL SUITABILITY REVIEW
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ALLAGASH/MADAWASKA		Riverine	Generally Unsuitable
CHESUNCOOK		USDA NRCS Soil Survey Aroostook Cty.	Unsuitable Steep-Lidar
ELLIOTSVILLE			Unsuitable-Steepness
			Unsuitable-Wetness



PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN AROOSTOOK COUNTY, MAINE

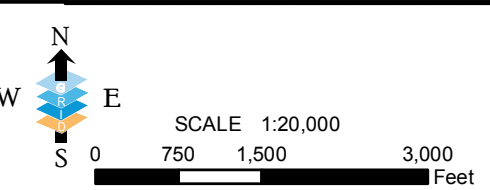
SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: **Cross Lake E**

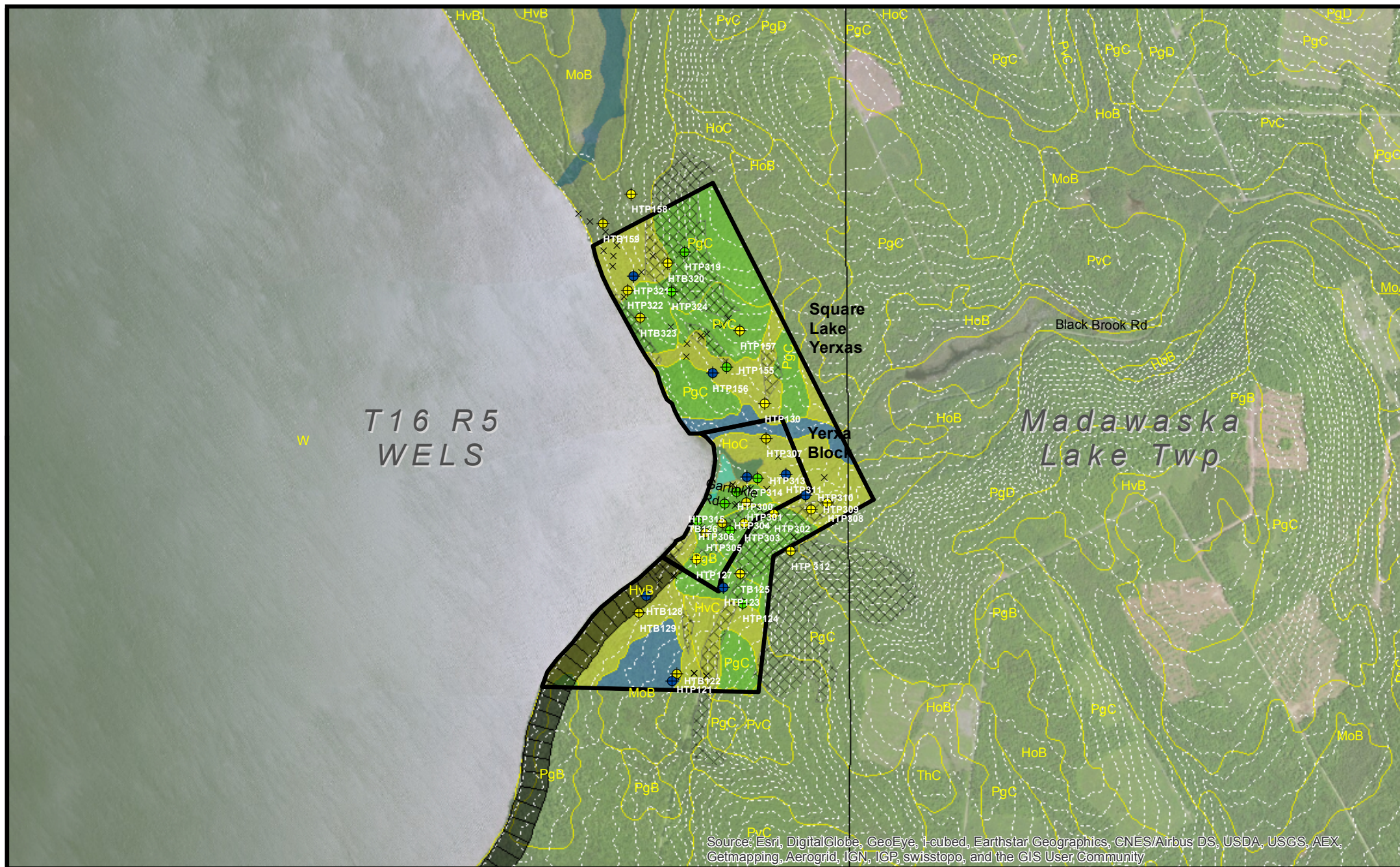
Page **7**

BY: RST
 DATE: JANUARY 2014

APPROVED BY: RST
 CHECKED BY: RST

SCALE: 1 in = 1,667 ft





NRCS SOIL SURVEY LEGEND

Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
CdB	Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
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Mn	Mixed alluvial land	?	
MoA	Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
MoB	Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
MrB	Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low	Unsuitable-Wet
PgB	Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
PgC	Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
PgD	Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
PgE	Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
PrC	Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
PvB	Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
RaA	Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
SgB	Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
ThB	Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
ThC	Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
ThD	Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
TsC	Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

PLAN NOTES:
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 2.) PROJECTION: NAD 1983, STATE PLANE, MAINE EAST, US FEET.

PLAN SOURCES:
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 2.) LUPC- Unorganized Parcels (Lease lots)
 3.) USDA: USDA NRCS Soil Survey of NE Aroostook County
 Published 1964, original map scale=1:20,000
 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
 6.) TJDA: Terrence J. Dewan & Associates- Concept Areas

Legend

CES TP-SOIL SERIES	JDI-LIDAR -Steep Slopes >15%	LUPC-License Lot Within Concept Plan Area	CES-NRCS SOIL SUITABILITY REVIEW
TELOS	USGS 20' Contour	USFWS-NWI WETLAND TYPE	General Soil Suitability Rating
MONSON/RAGMUFF	LUPC-Vacant License Lots	Freshwater Emergent Wetland	Generally Suitable
MONARDA/BURNHAM		Freshwater Forested/Shrub Wetland	Limited Suitability
ALLAGASH/MADAWASKA		Riverine	Generally Unsuitable
CHESUNCOOK		USDA NRCS Soil Survey Aroostook Cty.	Unsuitable-Steep-Lidar
ELLIOTSVILLE			Unsuitable-Steepness
			Unsuitable-Wetness



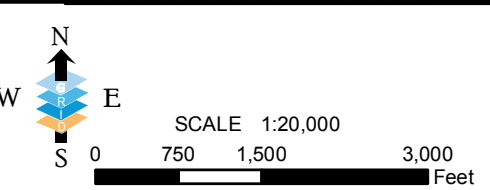
PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN AROOSTOOK COUNTY, MAINE

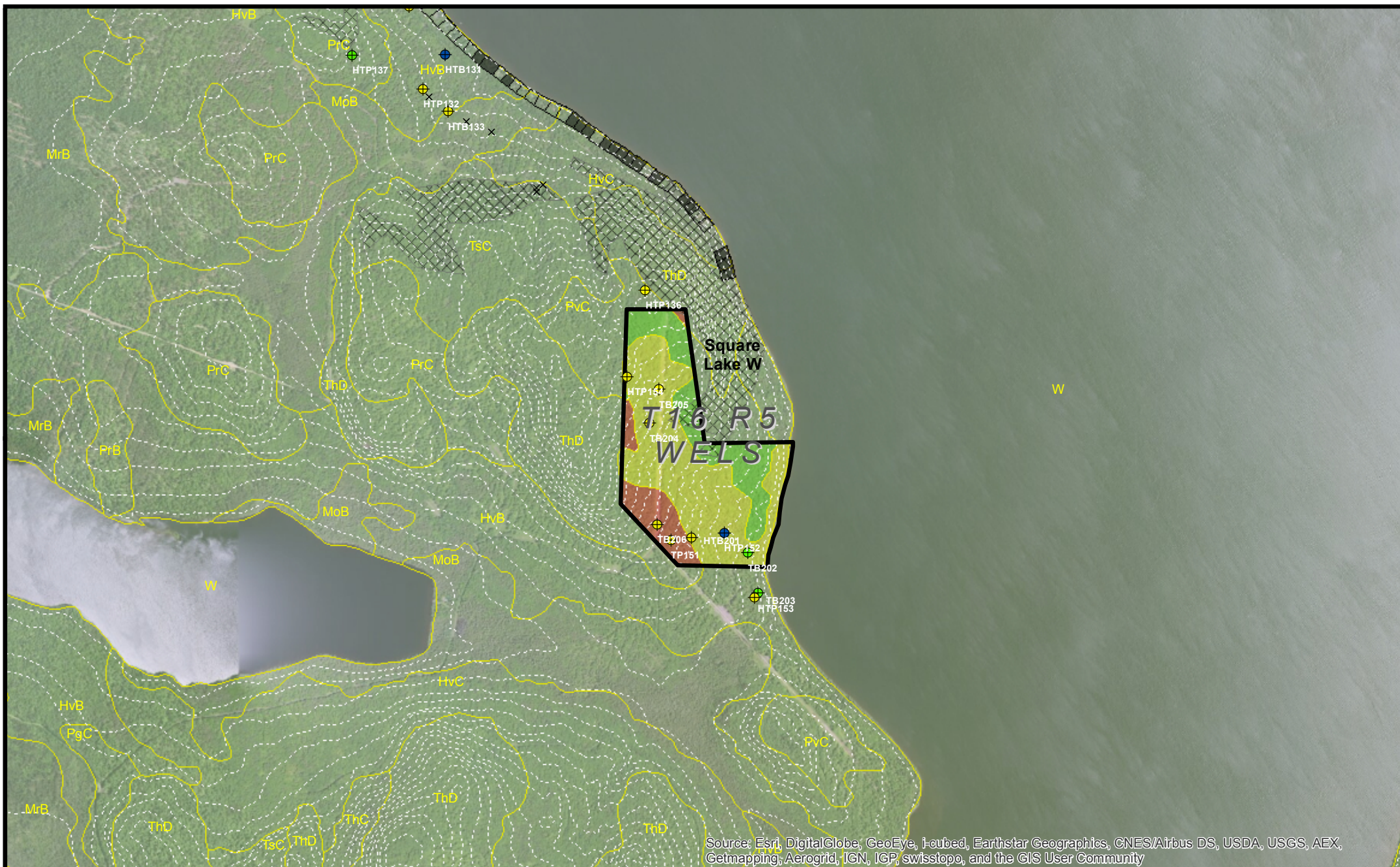
SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: **Square Lake Yexas**

Page 8

BY: RST REV: DATE: JANUARY 2014 REV DATE:

JN: 6570 APPROVED BY: RST ISSUE: SCALE: 1 in = 1,667 ft CHECKED BY: RST ISSUE DATE:





NRCS SOIL SURVEY LEGEND

Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
	CdB Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
	EsB Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
	HoB Howland gravelly loam, 2 to 8 % slopes	Low	Limited Suitability
	HoC Howland gravelly loam, 8 to 15 % slopes	Low	Limited Suitability
	HvB Howland very stony loam, 0 to 8 % slopes	Low	Limited Suitability
	HvC Howland very stony loam, 8 to 15 % slopes	Low	Limited Suitability
	MaA Machias gravelly loam, 0 to 2 % slopes	Medium	Generally Suitable
	MaB Machias gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	Mn Mixed alluvial land	?	
	MoA Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	MoB Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
	MrB Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low	Unsuitable-Wet
	PgB Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	PgC Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
	PgD Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	PgE Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
	PrC Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
	PvB Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
	RaA Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	SgB Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	ThB Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
	ThC Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
	ThD Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	TsC Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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PLAN SOURCES:
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 3.) USDA: USDA NRCS Soil Survey of NE Aroostook County
 Published 1964, original map scale=1:20,000
 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
 6.) TJDA: Terrence J. Dewan & Associates- Concept Areas

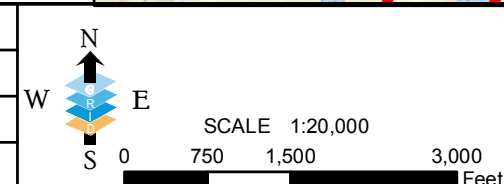
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CES TP-SOIL SERIES	CES-NRCS SOIL SUITABILITY REVIEW
<ul style="list-style-type: none"> TELOS MONSON/RAGMUFF MONARDA/BURNHAM ALLAGASH/MADAWASKA CHESUNCOOK ELLIOTSVILLE 	<ul style="list-style-type: none"> Generally Suitable Limited Suitability Generally Unsuitable Unsuitable Steep-Lidar Unsuitable-Steepness Unsuitable-Wetness
<ul style="list-style-type: none"> JDI-LIDAR - Steep Slopes >15% USGS 20' Contour LUPC-Vacant License Lots 	<ul style="list-style-type: none"> LUPC-License Lot Within Concept Plan Area USFWS-NWI WETLAND TYPE Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland Riverine USDA NRCS Soil Survey Aroostook Cty.

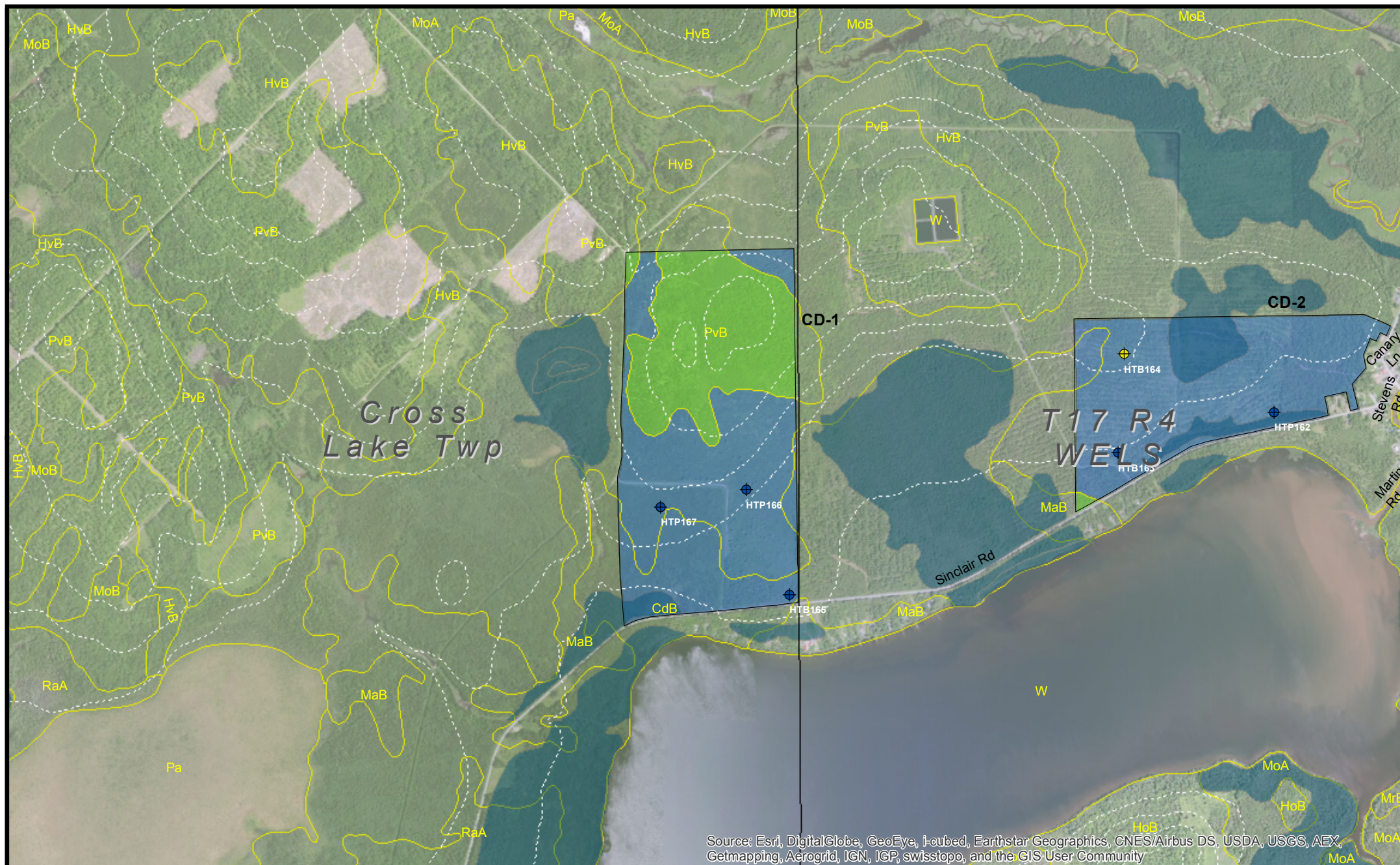


PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: **Square Lake W**

Page	9	BY: RST	REV:
JN: 6570	APPROVED BY: RST	DATE: JANUARY 2014	REV DATE:
SCALE: 1 in = 1,667 ft	CHECKED BY: RST	ISSUE:	ISSUE DATE:





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NRCS SOIL SURVEY LEGEND			
Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
	CdB Canandaigua silt loam, thin solum, 0 to 8 % slopes	Very Low	Unsuitable-Wet
	EsB Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
	HoB Howland gravelly loam, 2 to 8 % slopes	Low	Limited Suitability
	HoC Howland gravelly loam, 8 to 15 % slopes	Low	Limited Suitability
	HvB Howland very stony loam, 0 to 8 % slopes	Low	Limited Suitability
	HvC Howland very stony loam, 8 to 15 % slopes	Low	Limited Suitability
	MaA Machias gravelly loam, 0 to 2 % slopes	Medium	Generally Suitable
	MaB Machias gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	Mn Mixed alluvial land	?	
	MoA Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	MoB Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
	MrB Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low	Unsuitable-Wet
	PgB Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	PgC Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
	PgD Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	PgE Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
	PrC Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
	PvB Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
	RaA Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	SgB Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	ThB Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
	ThC Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
	ThD Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	TsC Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

PLAN NOTES:
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PLAN SOURCES:
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 4.) USFWS: NWI Wetland Data
 5.) MEGIS, USGS: contours, parcels
 6.) TJDA: Terrence J. Dewan & Associates- Concept Areas

Legend

<p>CES TP-SOIL SERIES</p> <ul style="list-style-type: none"> ◆ TELOS ◆ MONSON/RAGMUFF ◆ MONARDA/BURNHAM ◆ ALLAGASH/MADAWASKA ◆ CHESUNCOOK ◆ ELLIOTSVILLE 	<ul style="list-style-type: none"> ⊗ JDI-LIDAR - Steep Slopes >15% --- USGS 20' Contour ■ LUPC-Vacant License Lots 	<p>LUPC-License Lot Within Concept Plan Area</p> <p>USFWS-NWI WETLAND TYPE</p> <ul style="list-style-type: none"> ■ Freshwater Emergent Wetland ■ Freshwater Forested/Shrub Wetland ■ Riverine ■ USDA NRCS Soil Survey Aroostook Cty. 	<p>CES-NRCS SOIL SUITABILITY REVIEW</p> <p>General Soil Suitability Rating</p> <ul style="list-style-type: none"> ■ Generally Suitable ■ Limited Suitability ■ Generally Unsuitable ■ Unsuitable Steep-Lidar ■ Unsuitable-Steepness ■ Unsuitable-Wetness
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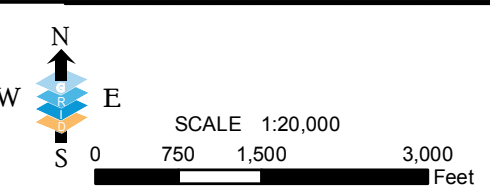
PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: CD-1

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BY: RST REV: DATE: JANUARY 2014

JN: 6570 APPROVED BY: RST ISSUE: SCALE: 1 in = 1,667 ft CHECKED BY: RST ISSUE DATE:





NRCS SOIL SURVEY LEGEND

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	EsB Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low	Unsuitable-Wet
	HoB Howland gravelly loam, 2 to 8 % slopes	Low	Limited Suitability
	HcC Howland gravelly loam, 8 to 15 % slopes	Low	Limited Suitability
	HvB Howland very stony loam, 0 to 8 % slopes	Low	Limited Suitability
	HvC Howland very stony loam, 8 to 15 % slopes	Low	Limited Suitability
	MaA Machias gravelly loam, 0 to 2 % slopes	Medium	Generally Suitable
	MaB Machias gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	Mn Mixed alluvial land	?	
	MoA Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	MoB Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low	Unsuitable-Wet
	MrB Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low	Unsuitable-Wet
	PgB Plaisted gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	PgC Plaisted gravelly loam, 8 to 15 % slopes	Medium	Generally Suitable
	PgD Plaisted gravelly loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	PgE Plaisted gravelly loam, 25 to 45 % slopes	Medium	Generally Suitable
	PrC Plaisted very stony loam, 8 to 15 % slopes	Medium	Generally Suitable
	PvB Plaisted and Howland very stony loams, 0 to 8 % slopes	Medium	Generally Suitable
	RaA Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low	Unsuitable-Wet
	SgB Stetson gravelly loam, 2 to 8 % slopes	Medium	Generally Suitable
	ThB Thorndike shaly silt loam, 0 to 8 % slopes	Low	Limited Suitability
	ThC Thorndike shaly silt loam, 8 to 15 % slopes	Low	Limited Suitability
	ThD Thorndike shaly silt loam, 15 to 25 % slopes	Very Low	Unsuitable-Steep
	TsC Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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Legend

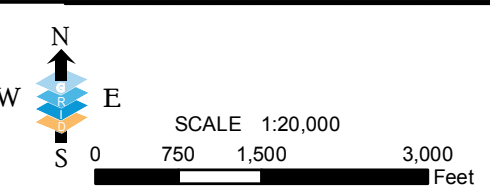
CES TP-SOIL SERIES	⊗ JDI-LIDAR - Steep Slopes >15%	□ LUPC-License Lot Within Concept Plan Area	CES-NRCS SOIL SUITABILITY REVIEW
● TELOS	--- USGS 20' Contour	■ USFWS-NWI WETLAND TYPE	■ Generally Suitable
● MONSON/ RAGMUFF	■ LUPC-Vacant License Lots	■ Freshwater Emergent Wetland	■ Limited Suitability
● MONARDA/BURNHAM		■ Freshwater Forested/Shrub Wetland	■ Generally Unsuitable
● ALLAGASH/MADAWASKA		■ Riverine	■ Unsuitable Steep-Lidar
● CHESUNCOOK		■ USDA NRCS Soil Survey Aroostook Cty.	■ Unsuitable-Steepness
● ELLIOTSVILLE			■ Unsuitable-Wetness



PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: CD-2

Page 11	BY: RST	REV:
JN: 6570	DATE: JANUARY 2014	REV DATE:
SCALE: 1 in = 1,667 ft	APPROVED BY: RST	ISSUE:
	CHECKED BY: RST	ISSUE DATE:





NRCS SOIL SURVEY LEGEND			
Symbol	Map Unit	Soil Pot. Rating	Soil Suitability
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	EsB	Easton and Washburn stony silt loams, 0 to 8 % slopes	Very Low Unsuitable-Wet
	HoB	Howland gravelly loam, 2 to 8 % slopes	Low Limited Suitability
	HoC	Howland gravelly loam, 8 to 15 % slopes	Low Limited Suitability
	HvB	Howland very stony loam, 0 to 8 % slopes	Low Limited Suitability
	HvC	Howland very stony loam, 8 to 15 % slopes	Low Limited Suitability
	MaA	Machias gravelly loam, 0 to 2 % slopes	Medium Generally Suitable
	MaB	Machias gravelly loam, 2 to 8 % slopes	Medium Generally Suitable
	Mn	Mixed alluvial land	?
	MoA	Monarda and Burnham silt loams, 0 to 2 % slopes	Very Low Unsuitable-Wet
	MoB	Monarda and Burnham silt loams, 2 to 8 % slopes	Very Low Unsuitable-Wet
	MrB	Monarda and Burnham very stony silt loams, 0 to 8 % slopes	Very low Unsuitable-Wet
	PgB	Plaisted gravelly loam, 2 to 8 % slopes	Medium Generally Suitable
	PgC	Plaisted gravelly loam, 8 to 15 % slopes	Medium Generally Suitable
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	PgE	Plaisted gravelly loam, 25 to 45 % slopes	Medium Generally Suitable
	PrC	Plaisted very stony loam, 8 to 15 % slopes	Medium Generally Suitable
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	RaA	Red Hook and Atherton silt loams, 0 to 2 % slopes	Very Low Unsuitable-Wet
	SgB	Stetson gravelly loam, 2 to 8 % slopes	Medium Generally Suitable
	ThB	Thorndike shaly silt loam, 0 to 8 % slopes	Low Limited Suitability
	ThC	Thorndike shaly silt loam, 8 to 15 % slopes	Low Limited Suitability
	ThD	Thorndike shaly silt loam, 15 to 25 % slopes	Very Low Unsuitable-Steep
	TsC	Thorndike and Howland soils, 8 to 15 % slopes	Low Limited Suitability

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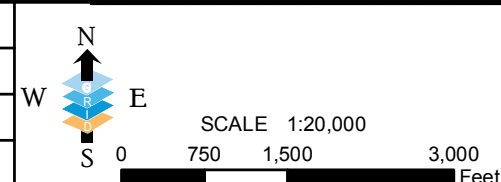
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CES TP-SOIL SERIES	CES-NRCS SOIL SUITABILITY REVIEW
<ul style="list-style-type: none"> TELOS MONSON/RAGMUFF MONARDA/BURNHAM ALLAGASH/MADAWASKA CHESUNCOOK ELLIOTSVILLE 	<ul style="list-style-type: none"> Generally Suitable Limited Suitability Generally Unsuitable Unsuitable Steep-Lidar Unsuitable-Steepness Unsuitable-Wetness
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PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: **CD-3**

Page	12	BY: RST	REV:
JN: 6570	APPROVED BY: RST	DATE: JANUARY 2014	REV DATE:
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TsC	Thorndike and Howland soils, 8 to 15 % slopes	Low	Limited Suitability

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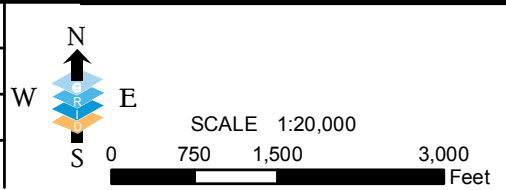
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CES TP-SOIL SERIES	CES-NRCS SOIL SUITABILITY REVIEW
<ul style="list-style-type: none"> TELOS MONSON/RAGMUFF MONARDA/BURNHAM ALLAGASH/MADAWASKA CHESUNCOOK ELLIOTSVILLE 	<ul style="list-style-type: none"> Generally Suitable Limited Suitability Generally Unsuitable Unsuitable Steep-Lidar Unsuitable Steepness Unsuitable-Wetness
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PROJECT TITLE: IRVING WOODLANDS FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 AROOSTOOK COUNTY, MAINE

SHEET TITLE: NRCS SOIL SUITABILITY REVIEW: CD-3

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JN: 6570	APPROVED BY: RST	DATE: JANUARY 2014	REV DATE:
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APPENDIX B
NRCS SOIL POTENTIAL RATING PUBLICATION

JN: 6570

APPENDIX B

Soil Potential Ratings

for Low Density Development
in The Unorganized Area Of Maine

April 2004



967 Illinois Ave, Suite #3
Bangor, ME 04401

Tel: (207) 990-9100 • Fax: (207) 990-9599

FOREWORD

The Unorganized Area of Maine is facing changes in land use which have placed enormous pressure on land and water resources. As parts of the Unorganized Area are converted from forestry to urban, large lot subdivision and summer camp uses, soil and water resources can be threatened. The construction of homes, septic tank absorption fields, wells, and roads, if not properly planned, can negatively affect the quality of life. In many cases, soil conditions such as wetness, depth to bedrock and steep slopes can be the catalyst for environmental degradation. Many potential soil related problems can be avoided by sound land use planning before development begins.

Costs for overcoming soil limitations increase as the degree of soil limitations becomes more severe. These increased costs to make an area suitable for development are passed on to the landowner. Soil Potential Ratings for Low Density Development in The Unorganized Area of Maine is a planning tool for state planners, and others, to address soil limitations by rating soils as to the costs of corrective measures and the long term maintenance costs needed to satisfactorily overcome soil problems.

The purpose of this publication is to assist landowners, state planners, developers, engineers, and others in their planning activities. Information obtained from Natural Resources Conservation Service soil maps in the Unorganized Area of Maine should only be used for general planning purposes. This is because the smallest map unit delineated in these areas is commonly 16 to 40 acres and is composed of 2 or 3 soil types due to the scale of mapping. For site specific decisions, more detailed soil information such as a High Intensity Soil Survey done by a Maine certified Soil Scientist is needed. This index has been designed to be used with a variety of scales of soil mapping. It has general ratings for broad map units and more specific ratings with individual soil series within these map units if more detailed mapping is available. State officials, land use planners, land users, and other are encouraged to contact the local Soil and Water Conservation District Office for assistance when using this information. Other information concerning land use in agricultural and forestry planning also is readily available in this office.

This publication is designed for use with soil survey maps and information available from the local Soil and Water Conservation Districts as well as more detailed certified mapping. The district office addresses are:

Androscoggin/Sagadahoc
Androscoggin Valley SWCD
P.O. Box 1938 (254 Goddard Rd.)
Lewiston, ME 04241-1938
Phone: (207) 783-9196

Aroostook-Southern
Southern Aroostook SWCD
RR3, Box 45
Houlton, ME 04730
Phone: (207) 532-2087

Aroostook-Central
Central Aroostook SWCD
744 Maine Street
Presque Isle, ME 04769
Phone: (207) 764-4770

Knox/Lincoln
Knox/Lincoln SWCD
191 Camden Road
Warren, ME 04866
Phone: (207) 273-2005

Oxford
Oxford County SWCD
1570 Main Street Suite 10
Oxford, ME 04270
Phone: (207) 743-5789

Penobscot
Penobscot County SWCD
28 Gilman Plaza, Suite 2
Bangor, ME 04401
Phone: (207) 947-6622

Aroostook
St. John Valley
St. John Valley SWCD
96 Market Street
Fort Kent, ME 04743
Phone: (207) 834-3311

Cumberland
Cumberland County SWCD
201 Main Street, Suite 6
Westbrook, ME 04092
Phone: (207) 856-2777

Franklin
Franklin County SWCD
107 Park Street
Farmington, ME 04938
Phone: (207) 778-4279

Hancock
Hancock County SWCD
190 Bangor Road
Ellsworth, ME 04605
Phone: (207) 667-8663

Kennebec
Kennebec County SWCD
9 Green Street (3rd Floor)
Augusta, ME 04330
Phone: (207) 622-8250

Piscataquis
Piscataquis County SWCD
42 Pine Crest Drive
Dover-Foxcroft, ME 04426
Phone: (207) 564-2321

Somerset
Somerset County SWCD
7 High Street
Skowhegan, ME 04976
Phone: (207) 474-8324

Waldo
Waldo County SWCD
266 Waterville Road
Belfast, ME 04915
Phone: (207) 338-3069

Washington
Washington County SWCD
Federal Bldg., & Post Office
51 Court Street
Machias, ME 04654-0121
Phone: (207) 255-3995

York
York County SWCD
P.O. Box 819 (8 Waterboro Road)
Alfred, ME 04002
Phone: (207) 324-7015

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INTRODUCTION

Soil interpretations are made by identifying the type of soil within an area by using a soils map either from a published soil survey report, an interim soil survey report, an individual soil survey field sheet or from a soil map developed by a Maine Certified Soil Scientist.

The soils in an area are identified in the field and delineated on aerial photographs by soil scientists. The aerial photograph with the delineations of soil types becomes the soil map. After the soil type has been determined, interpretations can be made by using soil interpretation sheets containing information on the characteristics of the soil, ratings based on the limitations of the soil for various uses, and expected yields of certain crops and woodland species.

SOIL LIMITATION RATINGS

Soil survey interpretations have been prepared for and provided to users of soil surveys for many years. They have been provided in the form of land capability classes for agriculture and soil limitation ratings for various other land uses. An example of these is rating a soil as having slight, moderate, severe, or very severe limitations for the installation of septic systems. They do, however, have a few shortcomings.

- They are based on the limiting soil property rather than a combination of restrictive features.
- They are based on a national system of rating soils using criteria developed nationally and do not reflect state laws, local ordinances, and criteria.
- They do not indicate corrective measures or alternatives needed to overcome restrictive soil features or the relative costs of overcoming these features.
- They do not array the soils within a specified area from highest to lowest potential for a given use.
- They tend to rate soils in a negative context.

SOIL POTENTIAL RATINGS

Soil potential ratings have been developed and adopted as a more useful form of soil interpretations. These ratings are based on local conditions, local experience and expertise, and laws, codes, and rules governing the use of soils for various purposes. They include the feasibility of a soil for a particular use relative to other soils within a given area. These ratings reflect the potential of use rather than the limitations of use and are designed to meet local needs and conditions. Factors considered in preparing soil potential ratings are the feasibility of using certain technology and practices to overcome limiting factors and the relative cost of implementing these practices and the adverse effects and costs of any continuing limitation during the projected lifetime of use.

Soil potential ratings:

- provide a common set of terms applicable to all kinds of land use for rating the quality of a soil for a particular use in an area.
- use local criteria to meet local needs.
- provide information about soils that emphasizes feasibility of use rather than avoidance of problems.
- strengthen planning and management through more feasible and effective use of the information provided in soil surveys and on-site soils evaluations by properly relating the information to modern technologies.
- approach the process of rating soils in a more positive context.

Soil potential ratings are used with other resource information to facilitate resource planning and for making land use decisions.

Soil potential ratings are only one factor to be considered in a complete evaluation of an area and are used with other resource information in determining land feasibility and use. Table 1 displays the major steps in determining soil potential ratings.

1	Determine Development Uses To Be Rated.	Septic Systems, Dwellings, Roads, etc.			
2	Determine Soil Properties Important For Rating Each Selected Use.	Texture, Permeability, Slope, Drainage, Water Table, Flooding, Depth To Bedrock			
3	Review Soils From Unorganized Area Soil Survey Data.	Site Specific Danforth Shirley Elliottsville	General Planning 34C		
4	Select Reference Soil For Selected Use.	Site Specific Danforth	General Planning Danforth Part		
5	Determine Soil Limitations and Corrective Measurers For Each Use	Depth to Water Table Slopes, etc. Site Preparation, Fill, stoniness,etc.			
6	Determine Soil Potential Index (SPI) For Each Soil, For the Selected Use.	Site Specific Soil Danforth Shirley Elliottsville	SPI 100 53 71	Map Unit 34C	SPI 83
7	Determine Rating Classes For Soil Potential Index Ranges. Determine Rating Class For Each Soil Map unit or Soil Series.	Site Specific SPI 100 60-82 40-59	Rating Class Very High (VH) Medium (M) Low(L)	General Planning Map Unit 34 C	Rating Class High (H)
		Danforth Shirley Elliottsville	Very High (VH) Low (L) Medium (M)		

Table 1 - The Major Steps in Determining Soil Potential Ratings

PURPOSE

Soil potential ratings were developed to provide soil survey users and land use planners a tool in determining the relative qualities of soils and their feasibility for use and development.

Soil potential ratings are intended to be used as a guide to planning and to help planners and users to better understand problems which may be encountered and corrective measures needed to overcome these problems.

DEVELOPMENT OF SOIL POTENTIAL RATING

Local people knowledgeable of the use and development of the land resource of the Unorganized Area were contacted to help develop soil potential ratings. They consisted of consultants, land appraisers, site evaluators, site plan evaluators, Natural Resources Conservation Service personnel, state personnel, and land developers.

They determined that the primary need for soil potentials is to rate soils for development occurring in the Unorganized Area, especially in the area of low density development. The development uses considered are septic tank absorption fields, dwellings with basements, and local roads and streets.

They also determined the uses for which the soils should be rated, the soil factors affecting development, and the methods and relative costs of corrective measures and of continuing limitations compared to the costs for the reference soil.

FACTORS FOR DETERMINING SOIL POTENTIAL RATINGS FOR DEVELOPMENT

The ratings of soils in terms of their potential for development are based on their natural properties. The important soil properties considered in development are texture, permeability, depth to seasonal high water table, depth to restricting layer, depth to bedrock, slope, flooding, stone cover, and natural drainage class.

Soil potential ratings and corrective measures designed for NRCS soil map units are not site specific. When the ratings are used in conjunction with an NRCS soil survey map, a specific site within the map unit may perform better or not as well as indicated by the map unit rating. If during an on-site investigation it is possible to identify the soil series, the potential rating of that series within the map unit should be used. If this is not possible, the rating for the map unit should be used. If a higher intensity (more detailed) soil map is available, the rating for the individual series within the map unit should be used.

SOIL PROPERTIES

The following soil properties have been considered when rating soils for development potential.

TEXTURE

Texture is an important property of the soil to consider when rating the soil. Soils are made up of particles or separates of various sizes. Soil separates which make up texture are sand, silt, and clay. Gravel, cobblestones, stones and boulders are not textures.

Sand particles are visible to the naked eye. They do not have significant interparticle attraction. The pore spaces between particles are usually large and continuous.

Clay particles are so small they cannot be seen without a microscope. The pore spaces are very small and are frequently discontinuous which slows the movement of air and water.

Silt particles are between sand and clay in size.

Most soils contain more than one separate and most often a combination of all three. The amount of each separate contained within a soil will determine its texture. For instance, the fine sandy loam textural class is a combination of sand, silt, and clay with a larger percentage of fine sand and silt. Also, particles larger than sand and smaller than 3 inches (gravel) are recognized by modifiers of the textural class name such as gravelly fine sandy loam.

IN GENERAL SOIL POTENTIAL FOR DEVELOPMENT IS HIGH FOR SOIL THAT:

- Does Not Flood
- Has Adequate Permeability
- Has Suitable Texture
- Has a Relatively Deep Water Table
- Has Adequate Depth to Bedrock
- Has a gentle Slope

IN GENERAL SOIL POTENTIAL FOR DEVELOPMENT IS LOW FOR SOIL THAT:

- Floods
- Is Not Very Permeable
- Has Unsuitable Texture
- Has High Water Table
- Has a Shallow Depth To Bedrock
- Has a Steep Slope

PERMEABILITY

Permeability is the rate at which water moves vertically through the soil. Texture and structure of the soil affect its rate of permeability. Sandy (coarse textured) soils transmit water faster than clay (fine textured) soils. Platy structure, which is the horizontal alignment of soil particles or groups of particles within the soil, impedes the vertical movement of water and therefore reduces soil permeability. Water tends to move horizontally within soils having platy structure. Soils with granular structure tend to

readily transmit water vertically. Very porous soils or gravelly soils transmit water vertically very rapidly, causing a concern of having nutrients and microbes carried into ground water. Problems can result when soil permeability is too slow or too fast.

FOR SEPTIC SYSTEMS, PERMEABILITY OF SOIL MUST BE ADEQUATE TO PREVENT:

- Seepage from septic tank systems onto road or system slopes
- Backup of sewage
- Shortened life of septic systems
- Groundwater contamination

SLOPE

Slope is defined as the inclination of the surface in relation to the horizontal and is one of the most noticeable of soil properties. The slope is usually stated as the ratio of vertical rise to horizontal distance and expressed as a percentage. For example, a 10 foot vertical rise in a 100 foot horizontal distance is a 10 percent slope.

Slope is a major component of the landscape and is one of the most significant soil properties governing land use. Most land use and development takes place on the less sloping areas. Figure 1 relates slope conditions to changes in the landscape.

Areas with slopes less than 15 percent generally do not present as many problems as areas that are steeper. Areas with slopes over 3 percent require additional costs to fit development on the slopes, more detailed designs, and more considerations of other soil properties.

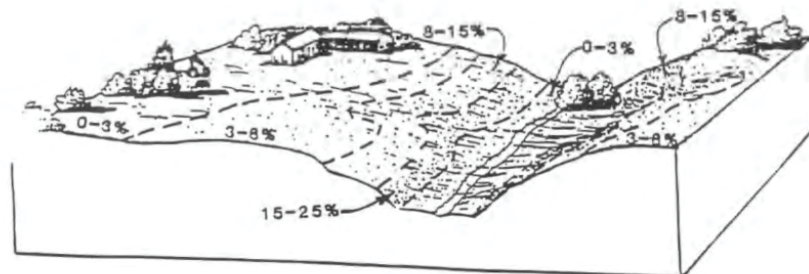


Figure 1 - Soil Slope Related to the Landscape

SURFACE STONES

Surface stones are rock fragments ten inches or larger in diameter which lie on the soil surface or which are partially imbedded in the soil. The amount of surface stoniness is referred to as the percent of area covered by stones. For example, a three percent stone

cover means that three percent of the total area is covered by stones ten inches or larger. Boulders are those rock fragments larger than 24 inches.

Surface stones affect the use of a soil by being a nuisance during operations which disturb the soil surface. In some cases, depending on the size and amount of surface stones, special equipment may be necessary for stone removal.

WATER TABLE

The water table is defined as the water surface within a soil where all voids or spaces are completely filled with water (saturated). The water table in the soil rises and falls with respect to time and the extent of saturation of the soil and varies according to its drainage characteristics and the supply of water to the soil (figure 2). The water table fluctuates by season and also can vary over a period of years. Water tables in soils fluctuate more or less in a regular pattern during the course of the year.

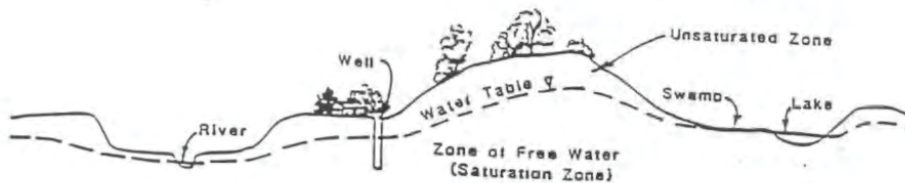


Figure 2 - Diagram Showing the Relation of the Water Table to the Earth's Surface

Maximum heights in soils with a seasonal water table can be expected in April or May, just after the snow melts and the frost comes out of the ground and again in the late fall. Water tables also fluctuate within a season depending on precipitation. Seasonal high water table can be determined by soil color or the presence of spots of varying color (mottles) within the soil. Generally yellowish and reddish colors indicate a dry, well oxygenated soil. Grayish colors indicate an absence of oxygen caused by wet conditions.

FLOODING

Some soils are flood prone. Flooding refers to the inundation by water from river or stream overflow (figure 3). This soil property indicates a very serious condition for development. Where soils are subject to flooding, it is not desirable to locate normal types of structures. Many uses, such as septic sewage waste disposal systems can be adversely affected by flooding and may be prohibited by local or state laws.

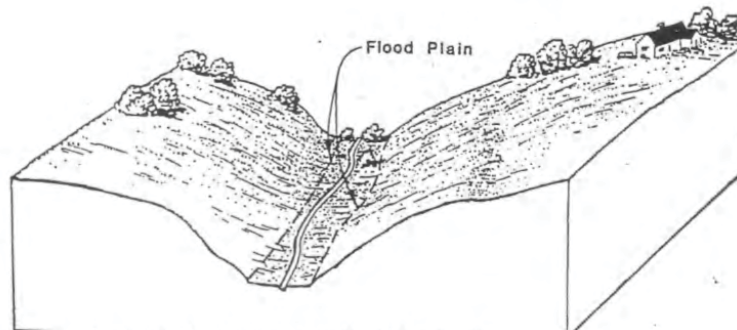


Figure 3 - Soils in the Flood Plain are Subject to Flooding

DEPTH TO BEDROCK

The depth of soil above the bedrock has a great influence on development. Generally, it is expensive to excavate and remove bedrock for house foundations or roads. Shallow depth to bedrock may prohibit or greatly increase the costs of construction of septic tank systems. Depth to bedrock varies greatly over a relatively short distance as shown in figure 4.

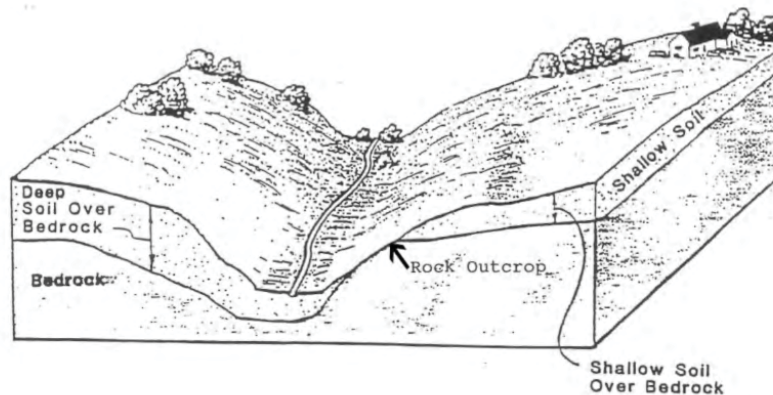


Figure 4 - Depth to Bedrock

RESTRICTIVE LAYER

Some soils have a restrictive layer that begins at a depth of 10 to 40 inches. The restrictive layer is commonly a firm substratum in glacial till soils or lake and marine sediment soils. This restrictive layer impedes the natural drainage of the soil by restricting the downward movement of water. A perched or intermittent water table is often created above the restrictive layer.

NATURAL DRAINAGE CLASS

Natural drainage refers to the rapidity and extent of the removal of water from the soil in relation to the flow of incoming water, and is closely associated to the seasonal high water table. The natural drainage class of a soil refers to the drainage class of a soil in its natural state without artificial drainage. With artificial drainage, such as underground tile lines or open surface drains, the depth of the water table can be altered. Natural drainage classes range from very poorly drained in the wettest soils to excessively drained on the driest soils. Figure 5 idealizes the changes in soil drainage as topography changes.

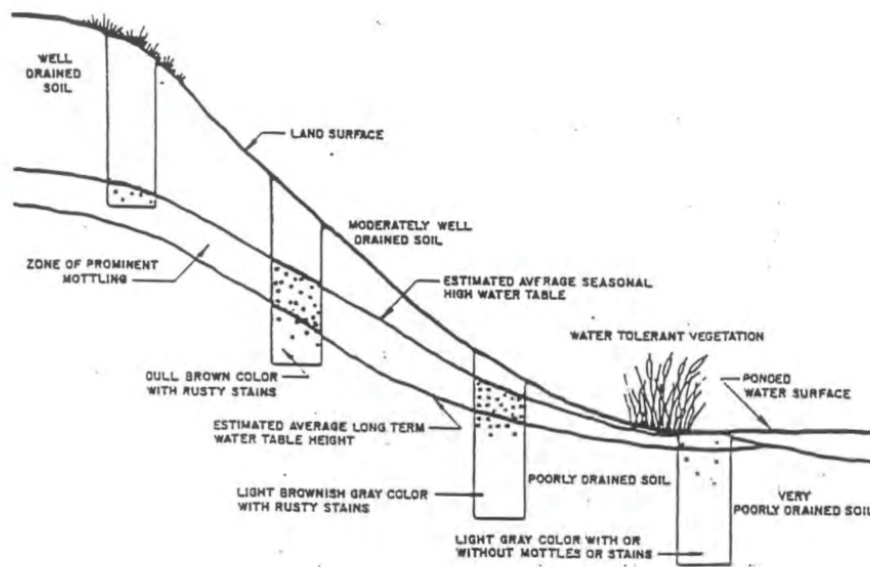


Figure 5 - Soil Drainage Class

DEFINITION OF LOW DENSITY DEVELOPMENT

For the purpose of this document, low density development includes single family unit residences with basements and comparable buildings and septic tank absorption fields, with an on-site source of water. Residences may be a single unit or a cluster of units in a development. Gravel roads in developments are also included. In developing this rating

system, a specific model of a house, septic system and road were used (as described below) with the cost of construction at the time. This was necessary to assign index points. Although costs change over time, the relative relationship of the rating system will not change, thus eliminating the need for a cost factor when using these ratings. Once established, the rating system gives a relative measure of the suitability of a site for development that is not tied to a specific model of a house, septic system or road.

SEPTIC TANK ABSORPTION FIELD SYSTEM

The model single family home sewage disposal system consists of a 1000 gallon septic tank and an absorption field that distributes effluent from the septic tank into the soil. The system is designed for 270 gallons per day of effluent from a three bedroom house. The system is expected to function year-round at the designed capacity without surfacing of effluent, backing up of the system, or pollution of the groundwater. It is assumed that septic tanks and absorption fields will be installed according to the Subsurface Wastewater Disposal Rules, Chapter 241, Department of Human Services, Division of Health Engineering, State of Maine. It is also assumed the septic tanks will be maintained properly.

DWELLINGS WITH BASEMENTS

The model dwelling with basement is a single family year-round residence less than three stories high with a full basement and garage covering 1500 square feet of land. The foundation consists of spread footings with an eight foot, poured concrete wall built on undisturbed soil. All dwellings have minimal foundation drains. There is on site sewage disposal and water supply.

LOCAL ROADS AND STREETS

The model local road or street is one that is designated for purposes of vehicular traffic designed to handle 25 to 100 vehicles per day. These roads generally have a gravel surface about 20 feet wide including shoulders. Base material is about 15 inches of gravel. Surface water drainage is minimal. Cost figures are based on 100 foot segments of road.

RATING FACTORS

DEPTH TO WATER TABLE - The depth to water table affects the natural drainage of the soil which in turn affects the soils potential for development. A soil with a shallow depth to the seasonal high water table requires construction methods such as added fill and artificial drainage to overcome this limitation. A soil with a seasonal high water table deeper than 6 feet below the soil surface would have higher potential than a soil with a seasonal high water table at 18 inches.

FLOODING - Soils are rated on the basis of whether they are subject to flooding or not. Flooding is separated into three categories: none, occasional (floods at least once in ten years), and frequent (floods at least once every two years). Soils subject to flooding have less potential for development than those that do not flood.

SLOPE - Soils are rated on the basis of slope. The less sloping areas require less corrective measures than the steeper areas and thus have a greater potential for development.

DEPTH TO BEDROCK - The presence of bedrock affects the use of soil for development. Soils with shallow depth over bedrock have less potential for development than deep soils.

SURFACE STONES - The presence of stones and boulders on the soil surface affect the use of the soil for development. In preparing a site for a dwelling or septic sewage disposal area surface stones have to be removed.

DEPTH TO RESTRICTIVE LAYER - Some soils have a restrictive layer that begins at a shallow depth. This layer can impede natural drainage and permeability. This soil factor is important when designing a septic sewage disposal system.

SOIL PROFILE AND CONDITION - The Maine State Plumbing Code provides a table by which each soil can be categorized by profile group and soil condition. The profile group is based on parent material or origin of the soil, texture of the soil, and the presence of any restricting layer within the soil profile. The soil condition refers to the depth to bedrock or drainage class.

REFERENCE SOIL

In order to establish soil potential ratings for low density development, a reference soil for the area was established. The reference soil has the most favorable characteristics for all the uses rated in this document. All of the soils are evaluated relative to the reference soil and arrayed in descending order of relative quality. The reference soil condition for development is a soil with the following properties:

- A water table level greater than 6 feet.
- The soil does not flood.
- The slope is 10 percent.
- The soil lacks a restrictive layer.
- The depth to bedrock is more than 5 feet.
- Surface stone cover is 0.1 to 15 percent.
- The soil requires a medium sized rating for a septic sewage disposal field.
- There is low potential for groundwater contamination from septic field effluent.

The Danforth soil has been established as the reference soil for the unorganized areas. It has all of the desirable properties for low density development uses. A Danforth soil on a slope of 2 to 8 percent would have a Soil Potential Index of 100. However, on soils legends for NRCS soil survey maps in the unorganized areas, there is no Danforth map unit with a 2 to 8 percent slope. The closest map units are 3IXC Danforth - Masardis - Peacham association, 1 to 16 percent slopes and 34C Danforth - Shirley - Elliottsville association, 3 to 15 percent slopes. In these map units, Danforth averages about 10 percent slopes which would rate slightly less than 100 but an area of Danforth soils identified by a more detailed soil survey on a slope of 2 to 8 percent would rate 100.

Most other soils in the Unorganized Area will have an index lower than the Danforth soils. Hermon and Monadnock soils have the same rating as Danforth, but Danforth was chosen as the reference soil because it is the most extensively mapped soil in the Unorganized Area. This was determined by communication with NRCS soil scientists that have extensive mapping experience in the Unorganized Area. Figure 6 shows an idealized profile of the Danforth soil.

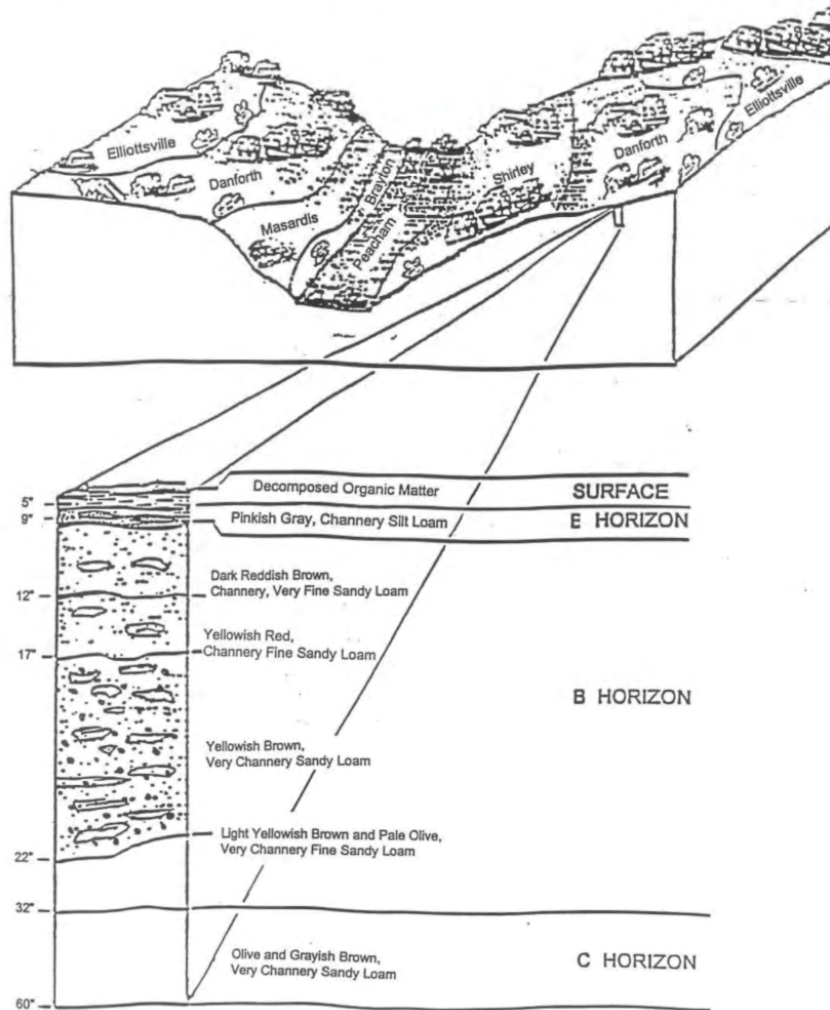


Figure 6 - Profile of Danforth Soil, Each Soil Has a Unique Profile

SOIL POTENTIAL INDEX

The Soil Potential Index is derived by calculating values for soil performance. All soils start out with values of 100 and then deductions are made for costs of corrective measures to overcome limiting soil properties, and costs established to overcome continuing limitations.

No highly detailed economic analysis of costs has been determined. Corrective measures represent indices of added costs over the basic cost of the reference soil needed to obtain the desired level of performance. No corrective measures are required for the reference soil; therefore, no deductions would be made in deriving the soil potential index. Soils with less favorable properties would have ratings less than 100 to account for deductions taken to obtain the desired performance level.

Example:

For a soil with a seasonal high water table at 2 feet below the ground surface the corrective measure for a septic sewage absorption field would be added fill to raise the level of the field. The cost of added fill is indexed and becomes part of the Soil Potential Index Equation.

Limitations existing after all corrective measures have been made are referred to as continuing limitations. These may include negative effects on social, economic, or environmental values. Continuing limitations are indices of costs resulting from unfavorable soil properties remaining after corrective measures are made. An example would be erosion control on steep slopes in order to prevent siltation of road ditches or plugging of storm drains. The cost of periodic erosion control measures would be indexed and used in the Soil Potential Index equation.

The Soil Potential Rating is based on the index value obtained after the corrective measure index and continuing limitation index have been subtracted from 100.

The Soil Potential Index is a mathematical expression of a soil's position in the overall range of potentials which goes from a high of 100 to a low of 0. Since the entire range is large, these numerical ratings are separated into Soil Potential Rating Classes. These classes are based on the expected performance of a soil if feasible measures are taken to overcome its limitations, the cost of such measures, and the magnitude of the limitations that remain after measures have been applied. The development rating (fourth column in the rating tables) is a weighted sum of the septic, dwelling and road indices. The septic system has the most restrictive site requirements and the dwelling has the least restrictive site requirements. Therefore, to get the composite development index, 45 percent of the septic index, 20 percent of the dwelling index and 35 percent of the local road index are added together.

Example: 38C2 Skerry part;

Septics Index	69 x .45(45%) =	31.05
Dwellings Index	81 x .20=	16.20+
Roads Index	66 x .35 =	23.10+
Development Index		70 rounded

Table 2 – Figuring the Development Index

Table 3 - Soil Potential Rating Class

SOIL POTENTIAL INDEX	RATING CLASS
100	VERY HIGH(VH)
83-99	HIGH (H)
60-82	MEDIUM (M)
40-59	LOW (L)
0-39	VERY LOW (VL)

VERY HIGH POTENTIAL - Site conditions and soil properties are favorable. Installation costs are lowest for that use and there are no soil limitations. Soils in the group have soil properties similar to the reference soil. The Soil Potential Index for this rating class is 100 for each soil use.

HIGH POTENTIAL - Site conditions and soil properties are not as favorable as the reference soil condition. The cost of measures for overcoming soil limitations are slight. The index for this rating class ranges from 83 to 99 for each soil use.

MEDIUM POTENTIAL - Site conditions and soil properties are below soils with high potential. Costs of the measures for overcoming soil limitations are significant. The Soil Potential Index for this class ranges from 60 to 82.

LOW POTENTIAL - Site conditions and soil properties are significantly below soils with medium potential. Costs of measures required to overcome soil limitations are very high. The Soil Potential Index for this rating class ranges from 40 to 59 for each soil use.

VERY LOW POTENTIAL - There are severe soil limitations for which economical corrective measures are prohibitive or unavailable and costs of these measures are extremely high. Also, soil limitations which detract from environmental quality may continue even after installation of corrective measures. The Soil Potential Index for this rating class is less than 40. They may also be prohibited for use by local or state laws.

CRYIC SOILS

Both the Maine Land Use Regulation Commission and the Maine Department of Environmental Protection list fragile mountain areas as “resources of state significance”. Activities in these areas may require a permit. Fragile mountain areas are defined as “areas above 2700 feet in elevation from mean sea level”.

Soils are considered cryic (cold) if their mean annual temperature is between 32 and 47 degrees Fahrenheit. The mean annual summer (June, July, August) temperature must be below 59 degrees Fahrenheit. In the unorganized areas, cryic soils are mapped above 2500 feet in elevation from mean sea level. Therefore, cryic soils can indicate fragile mountain areas

Special precautions must be taken when working in cryic soils. Because of the short growing season, projects must be timed carefully so that time is allowed for revegetation of disturbed areas. High proportions of organic materials in the upper layers make soils

slippery, unstable and difficult to compact, presenting problems for equipment and vehicle operations.

ADDITIONAL NOTES

1. The Maine Subsurface Wastewater Disposal Rules, 144A CMR 241, dated October 1, 2002 was the reference for developing the soil potential indices and ratings for the septic sewage disposal fields. These rules govern siting, design, construction, and inspection of subsurface wastewater disposal systems. Table 600.1 of the Rules recommends disposal area ratings for the soils in Maine based on parent material, texture and soil classification, depth to bedrock, and drainage. Every soil being rated has to be identified in the table based on these soil properties to determine disposal area size and depth of the separation distance between the bottom of the bed and the most limiting factor (seasonal high groundwater table, restrictive layer, or bedrock).

Assumptions made for determining the disposal area size are for a three bedroom single family home with a design flow of 270 gallons of wastewater per day with a medium rated crushed rock disposal area of 700 square feet on a soil meeting the minimum standards for a first time system. Costs include the tank, pipe, rock fill, and any other fill and materials needed to meet the standards of the plumbing code.
2. Costs of corrective measures and continuing limitations are approximated and based on 1995 prices. For soil and site conditions that have no typical corrective measures or where no actual costs could be determined, penalty points were assigned as a factor.
3. These soil potential ratings for development may need to be updated in the future to reflect new technology and new ordinances and rules. These changes may affect the soil potential of a soil for a particular use over a period of time.
4. Some soil characteristics have numerical ranges. The third paragraph on page 78 describes how values were determined that are used with the work sheets to calculate a soil potential index value.
5. Outwash soils have rapid or very rapid permeability. The Maine Subsurface Wastewater Disposal Rules lists these soils as profile numbers 5 and 6. The rapid rate of permeability creates the potential for increased groundwater contamination. Due to this condition, these soils are penalized 60 index points and have a rating class of low or very low. The footnote on the Septic Tank Absorption Field; Soil Profile and Condition Work Sheet page 84 lists some but not all the possible methods to reduce the potential for groundwater contamination. If one of these measures is used and the depth to seasonal high water table and slope are suitable, the rating class may improve to better than very low or low. The soils that may meet these criteria are Adams, Allagash, Agwam, Au Gres, Colton, Croghan, Deerfield, Duane, Duxbury, Finch, Hinckley, Machias, Madawaska, Marlow, Masardis, Masardis Variant, Merrimac, Moosilauke, Naumberg, Ninigret, Saugatuck, Scarboro, Sheepscot, Skowhegan, Stetson, Walpole and Windsor.
6. Somewhat poorly drained soils that have a seasonal high water table deeper than 12 inches from the mineral soil surface may have a higher soil potential rating if they are outside of the shore land zone.

REFERENCES

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SOIL SURVEY PROJECT AREAS

In the interest of providing a higher quality soil survey product for the public, the Natural Resources Conservation Service and the National Cooperative Soil Survey have divided the United States, including the Unorganized Area of Maine, into soil survey projects. This promotes the timely completion of mapping in smaller geographical areas. The finished maps and supporting written information are available to the public more quickly. The product will be more cohesive and consistent as it is more likely that the survey was or will be completed by a more stable, personnel wise, mapping crew. The Unorganized Area of Maine is divided into four soil survey projects (Figure 7). Area 619 includes northern parts of Somerset, Franklin and Oxford Counties. In this area, the mapping is completed so it has its own soil potential ratings. Area 622 includes parts of northern Hancock and Western Washington Counties. Mapping is completed in well over half this area. It also has its own soil potential ratings. Area 620 includes northern parts of Somerset and Piscataquis Counties. A limited amount of mapping has been completed in this area. Area 621 is western Aroostook County. Mapping has started as a soil survey project but only a limited amount of work is completed. Due to the limited amount of mapping completed in areas 620 and 621, they have been combined into one soil potential rating.

Figure 7 - Unorganized Area Soil Survey Projects

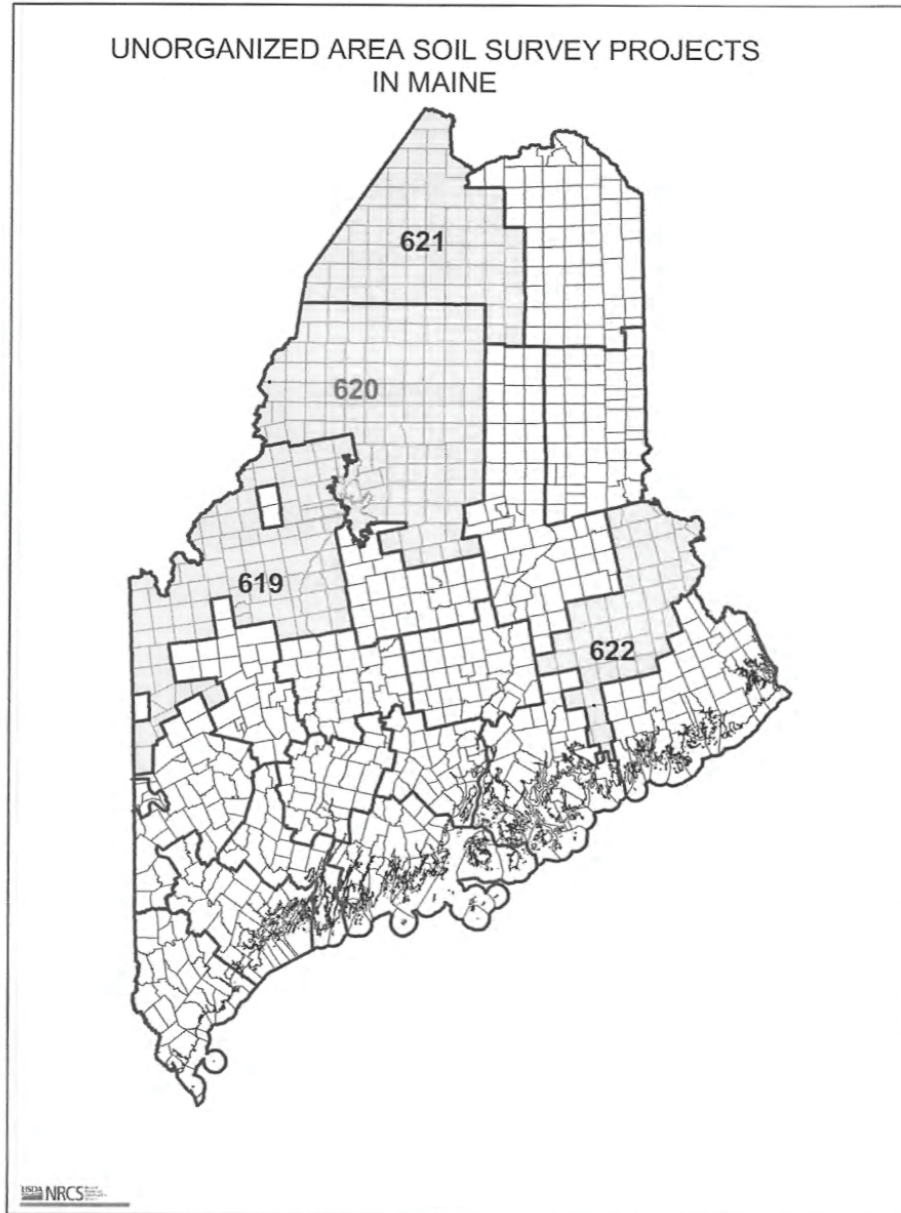


Table 4 – Soil Potential Index Values and Rating Classes for Soil Survey Project 619 (See additional note number 5 on page 18 concerning outwash soils.)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
0A	Wonsqueak and Bucksport soils, 0 to 1 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
0A1	Wonsqueak part	0	6	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
0A2	Bucksport part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A	Charles-Cornish-Wonsqueak complex, 0 to 2 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A1	Charles part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A2	Cornish part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A3	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
6XB	Roundabout-Croghan association, 0 to 8 percent slopes	0	0	51	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
6XB1	Roundabout part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
6XB2	Croghan part	27	94	95	64	Very Low (VL)	High (H)	High (H)	Medium (M)
12B	Adams-Croghan association, 1 to 8 percent slopes	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
12B1	Adams part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
12B2	Croghan part	27	94	85	61	Very Low (VL)	High (H)	High (H)	Medium (M)
13C	Colton-Adams association, 5 to 15 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
13C1	Colton part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
13C2	Adams part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
21C(17C, 18B)	Masardis-Adams association, 1 to 16 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
21C1	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
21C2	Adams part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
21E(17E)	Masardis-Adams association, 8 to 60	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	percent slopes								
21E1	Masardis part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
21E2	Adams part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
31XC	Masardis-Danforth-Peacham association, 1 to 16 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
31XC1	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
31XC2	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
31XC3	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
34C	Danforth- Elliottsville association, 3 to 15 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34C1	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
34D	Danforth-Elliottsville association, 15 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34D1	Danforth part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34D2	Elliottsville part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
37B	Colonel-Pillsbury-Skerry association, 1 to 8 percent slopes	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B1	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B2	Pillsbury part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
37B3	Skerry part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
37C	Colonel-Skerry-Pillsbury association, 3 to 15 percent slopes	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
37C1	Colonel part	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
37C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
37C3	Pillsbury part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
38C	Becket- Skerry association, 5 to 15 percent slopes	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
38C1	Becket part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
38C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
38D	Becket-Skerry association, 10 to 30 percent slopes	4	69	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
38D1	Becket part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
38D2	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
38E	Becket-Hermon-Rawsonville association, 25 to 60 percent slopes	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
38E1	Becket part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
38E2	Hermon part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
38E3	Rawsonville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
40C	Skerry-Becket-Rawsonville association, 5 to 15 percent slopes	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
40C1	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
40C2	Becket part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
40C3	Rawsonville part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
47C	Monadnock-Berkshire-Rawsonville association, 5 to 16 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
47C1	Monadnock part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
47C2	Berkshire part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
47C3	Rawsonville part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
47D	Monadnock-Berkshire-Rawsonville association, 10 to 45 percent slopes	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
47D1	Monadnock part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D2	Berkshire part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D3	Rawsonville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
48C	Dixfield-Colonel-Rawsonville association, 3 to 15 percent slopes	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48C1	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48C2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
48C3	Rawsonville part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48D	Marlow-Dixfield-Rawsonville association, 10 to 30 percent slopes	12	69	47	36	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
48D1	Marlow part	12	69	47	36	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
48D2	Dixfield part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
48D3	Rawsonville part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
49E	Marlow-Hogback-Berkshire association, 25 to 45 percent slopes	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
49E1	Marlow part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
49E2	Hogback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
49E3	Berkshire part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
53C	Dixfield-Colonel-Marlow association, 3 to 15 percent slopes	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
53C1	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
53C2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
53C3	Marlow part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
53D	Marlow-Dixfield association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
53D1	Marlow part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
53D2	Dixfield part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
54B	Colonel-Pillsbury-Dixfield association, 1 to 8 percent slopes	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
54B1	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
54B2	Pillsbury part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
54B3	Dixfield part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
54C	Colonel-Dixfield-Pillsbury association, 3 to 15 percent slopes	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
54C1	Colonel part	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
54C2	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
54C3	Pillsbury part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55B(67B)	Pillsbury-Peacham association, 1 to 8 percent slopes	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55B1	Pillsbury part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55B2	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 68C(67C)	Surplus-Bemis association, 5 to 15 percent slopes	69	74	48	63	Medium (M)	Medium (M)	Low (L)	Medium (M)
* 68C1	Surplus part	69	74	48	63	Medium (M)	Medium (M)	Low (L)	Medium (M)
* 68C2	Bemis part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
* 69D	Surplus-Sisk association, 12 to 30 percent slopes	0	54	16	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
* 69D1	Surplus part	0	54	16	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
* 69D2	Sisk part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
* 70D	Saddleback-Sisk-Rock outcrop association, 15 to 30 percent slopes	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70D1	Saddleback part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70D2	Sisk part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
* 70D3	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70E	Saddleback-Sisk-Rock outcrop association, 20 to 45 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70E1	Saddleback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70E2	Sisk part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
* 70E3	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
74B	Telos-Monarda-Monson association, 1 to 12 percent slopes	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
74B1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
74B2	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
74B3	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
76C(56C, 57C,80C)	Telos-Chesuncook-Elliottsville association, 3 to 15 percent slopes	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
76C1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
76C2	Chesuncook part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
76C3	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
76D(56D, 57D,80D)	Chesuncook-Elliottsville-Telos association, 5 to 30 percent slopes	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
76D1	Chesuncook part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
76D2	Elliottsville part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
76D3	Telos part	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
77C(81C)	Telos-Chesuncook association, 3 to 15 percent slopes	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
77C1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
77C2	Chesuncook part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
77D(81D)	Chesuncook-Telos	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	association, 8 to 30 percent slopes								
77D1	Chesuncook part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
77D2	Telos part	0	54	16	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
78B(58B, 82B)	Monarda-Telos association, 1 to 8 percent slopes	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
78B1	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
78B2	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
79B(83B)	Monarda-Burnham association, 1 to 8 percent slopes	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
79B1	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
79B2	Burnham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89C	Elliottsville-Monson complex, 5 to 15 percent slopes	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
89C1	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
89C2	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
89D	Elliottsville-Monson complex, 10 to 30 percent slopes	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
89D1	Elliottsville part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
89D2	Monson part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89E	Elliottsville-Monson complex, 25 to 60 percent slopes	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89E1	Elliottsville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89E2	Monson part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
93B(94B)	Monarda-Ricker association, 1 to 12 percent slopes	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
93B1	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
93B2	Ricker part	0	0	61	0	Very Low (VL)	Very Low (VL)	Medium (M)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
94C	Monson-Elliottsville-Ricker complex, 4 to 25 percent slopes	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94C1	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
94C3	Ricker part	0	0	30	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E	Monson-Elliottsville-Ricker complex, 16 to 65 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E1	Monson part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E2	Elliottsville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E3	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XC	Hogback-Rawsonville complex, 4 to 25 percent slopes	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94XC1	Hogback part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XC2	Rawsonville part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
94XE	Hogback-Rawsonville complex, 20 to 60 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XE1	Hogback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XE2	Rawsonville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 95D	Enchanted-Saddleback association, 15 to 30 percent slopes	0	56	47	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
* 95D1	Enchanted part	0	56	47	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
* 95D2	Saddleback part	0	35	43	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
* 95E	Enchanted-Mahoosuc association, 30 to 80 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 95E1	Enchanted part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
+ 95E2	Mahoosuc part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
+ 96C	Mahoosuc-Colonel-	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	Pillsbury association, 1 to 16 percent slopes								
+ 96C1	Mahoosuc part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
96C2	Colonel part	18	85	61	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
96C3	Pillsbury part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
100	Ricker-Rock outcrop complex	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1001	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1002	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 101	Ricker-Saddleback-Rock outcrop complex, 20 to 60 percent slopes	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 1011	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 1012	Saddleback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 1013	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102D	Saddleback-Ricker complex, 10 to 50 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102D1	Saddleback part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102D2	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102E	Saddleback-Ricker complex, 25 to 60 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102E1	Saddleback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102E2	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E	Abram-Rock outcrop-Hermon association, 20 to 60 percent slopes	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E1	Abram part	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E2	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E3	Hermon part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
104	Rock outcrop-Ricker	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	complex								
1041	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1042	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
180C	Chesuncook-Elliottsville-Telos association, 2 to 15 percent slopes	61	81	66	64	Medium (M)	Medium (M)	Medium (M)	Medium (M)
180C1	Chesuncook part	61	81	66	64	Medium (M)	Medium (M)	Medium (M)	Medium (M)
180C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
180C3	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
301C	Hermon-Skerry association, 5 to 15 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
301C1	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
301C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
301D	Hermon-Skerry association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
301D1	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
301D2	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
302C	Hermon-Rawsonville-Skerry association, 5 to 15 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
302C1	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
302C2	Rawsonville part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
302C3	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
302D	Hermon-Rawsonville-Skerry association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
302D1	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
302D2	Rawsonville part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
302D3	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
312C	Colton-Hermon association, 5 to 15	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	percent slopes								
312C1	Colton part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
312C2	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
312D	Colton-Hermon association, 15 to 30 percent slopes	0	72	49	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
312D1	Colton part	0	72	49	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
312D2	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
942C	Hogback-Abram complex, 4 to 25 percent slopes	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
942C1	Hogback part	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
942C2	Abram part	0	0	29	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E	Hogback-Abram complex, 15 to 60 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E1	Hogback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E2	Abram part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

+ Mahoosuc soil has a rubbly profile. This does not show up in the worksheets but accounts for the 0 or very low rating.

* See cryic soil description.

() Indicates a map unit number that has been combined with another map unit.

Table 5 – Soil Potential Index Values and Rating Classes for Soil Survey Projects 620 and 621 (See additional note number 5 on page 18 concerning outwash soils.)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
0A	Wonsqueak and Bucksport soils, 0 to 1 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
0A1	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
0A2	Bucksport part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A	Charles-Cornish-Wonsqueak complex, 0 to 2 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A1	Charles part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A2	Cornish part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A3	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
6XB	Roundabout-Nicholville association, 0 to 8 percent slopes	0	0	51	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
6XB1	Roundabout part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
6XB2	Nicholville part	78	94	81	82	Medium (M)	High (H)	Medium (M)	Medium (M)
+ 10F	Mahoosuc-Rock Outcrop complex, 0 to 100 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
+ 10F1	Mahoosuc part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
10F2	Rock Outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
12B	Adams-Croghan association, 1 to 8 percent slopes	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
12B1	Adams part	47	100	100	76	Low (L)	Very High	Very High	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
							(VH)	(VH)	
12B2	Croghan part	27	94	85	61	Very Low (VL)	High (H)	High (H)	Medium (M)
13C	Colton-Adams association, 5 to 15 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
13C1	Colton part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
13C2	Adams part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
16XA	Roundabout-Wonsqueak association, 0 to 3 percent slopes	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
16XA1	Roundabout part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
16XA2	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
18B	Machias-Masardis association, 0 to 8 percent slopes	19	94	95	61	Very Low (VL)	High (H)	High (H)	Medium (M)
18B1	Machias part	19	94	95	61	Very Low (VL)	High (H)	High (H)	Medium (M)
18B2	Masardis part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
19B	Madawaska-Allagash association, 0 to 8 percent slopes	23	94	85	59	Very Low (VL)	High (H)	High (H)	Low (L)
19B1	Madawaska part	23	94	85	59	Very Low (VL)	High (H)	High (H)	Low (L)
19B2	Allagash part	42	100	100	74	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
21C	Masardis-Adams association, 1 to 16 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
21C1	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
21C2	Adams part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
21E	Masardis-Adams association, 20 to 60 percent slopes	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
21E1	Masardis part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
21E2	Adams part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
31XC	Danforth-Masardis-Peacham association, 1 to 16 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
31XC1	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
31XC2	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
31XC3	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
32XC	Masardis-Danforth association, 3 to 15 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
32XC1	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
32XC2	Danforth part	85	92	80	85	High (H)	High (H)	Medium (M)	High (H)
34C	Danforth- Shirley- Elliottsville, 3 to 15 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34C1	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34C2	Shirley part	25	85	70	53	Very Low (VL)	High (H)	Medium (M)	Low (L)
34C3	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
34D	Danforth-Elliottsville association, 15 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34D1	Danforth part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34D2	Elliottsville part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
34XC	Tunbridge-Danforth association, 5 to 20 percent slopes	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
34XC1	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
34XC2	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34XD	Danforth-Tunbridge association, 10 to 30 percent slopes	12	69	47	36	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34XD1	Danforth part	12	69	47	36	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34XD2	Tunbridge part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
36B	Peacham-Shirley association, 0 to 8 percent slopes	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
36B1	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
36B2	Shirley part	25	85	69	52	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B	Colonel-Brayton-Skerry association, 1 to 8 percent slopes	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B1	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B2	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
37B3	Skerry part	84	92	88	87	High (H)	High (H)	High (H)	High (H)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
37C	Colonel-Skerry-Brayton association, 3 to 15 percent slopes	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
37C1	Colonel part	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
37C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
37C3	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
38C	Becket- Skerry association, 5 to 15 percent slopes	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
38C1	Becket part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
38C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
38D	Becket-Skerry association, 10 to 30 percent slopes	4	69	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
38D1	Becket part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
38D2	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
39D	Becket-Tunbridge association, 15 to 35 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
39D1	Becket part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
39D2	Tunbridge part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
40C	Becket-Skerry-Tunbridge association, 5 to 15 percent slopes	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
40C1	Becket part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
40C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
40C3	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
47C	Monadnock-Berkshire-Tunbridge association, 5 to 16 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
47C1	Monadnock part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
47C2	Berkshire part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
47C3	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
47D	Monadnock-Berkshire-Tunbridge association, 10 to 45 percent slopes	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D1	Monadnock part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D2	Berkshire part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D3	Tunbridge part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
48C	Dixfield-Colonel-Tunbridge association, 3 to 15 percent slopes	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48C1	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48C2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
48C3	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48D	Marlow-Tunbridge-Dixfield association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
48D1	Marlow part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
48D2	Tunbridge part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
48D3	Dixfield part	0	61	35	0	Very Low	Medium (M)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
						(VL)			
49E	Marlow-Lyman-Berkshire association, 25 to 45 percent slopes	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
49E1	Marlow part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
49E2	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
49E3	Berkshire part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
53C	Dixfield-Colonel-Marlow association, 3 to 15 percent slopes	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
53C1	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
53C2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
53C3	Marlow part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
53D	Marlow-Dixfield association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
53D1	Marlow part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
53D2	Dixfield part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
54B	Colonel-Brayton-Dixfield association, 1 to 8 percent slopes	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
54B1	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
54B2	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
54B3	Dixfield part	84	92	88	87	High (H)	High (H)	High (H)	High (H)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
54C	Colonel-Dixfield-Brayton association, 3 to 15 percent slopes	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
54C1	Colonel part	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
54C2	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
54C3	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55B	Brayton-Peacham association, 1 to 8 percent slopes	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55B1	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55B2	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 68C	Surplus-Bemis association, 5 to 15 percent slopes	69	74	48	63	Medium (M)	Medium (M)	Low (L)	Medium (M)
* 68C1	Surplus part	69	74	48	63	Medium (M)	Medium (M)	Low (L)	Medium (M)
* 68C2	Bemis part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
* 69D	Surplus-Sisk association, 12 to 30 percent slopes	0	54	16	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
* 69D1	Surplus part	0	54	16	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
* 69D2	Sisk part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
* 70D	Saddleback-Sisk-Rock outcrop association, 15 to 30 percent slopes	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70D1	Saddleback part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
* 70D2	Sisk part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
* 70D3	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70E	Saddleback-Sisk-Rock outcrop association, 20 to 45 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70E1	Saddleback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 70E2	Sisk part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
* 70E3	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
74B	Telos-Monarda-Monson association, 1 to 12 percent slopes	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
74B1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
74B2	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
74B3	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
76C	Telos-Chesuncook-Elliottsville association, 3 to 15 percent slopes	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
76C1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
76C2	Chesuncook part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
76C3	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
76D	Chesuncook-Elliottsville-Telos association, 5 to 30 percent slopes	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
76D1	Chesuncook part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
76D2	Elliottsville part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
76D3	Telos part	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
77C	Telos-Chesuncook association, 3 to 15 percent slopes	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
77C1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
77C2	Chesuncook part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
77D	Chesuncook-Telos association, 12 to 30 percent slopes	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
77D1	Chesuncook part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
77D2	Telos part	0	54	16	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
78B	Telos-Monarda association, 1 to 8 percent slopes	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
78B1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
78B2	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
79B	Monarda-Burnham association, 1 to 8 percent slopes	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
79B1	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
79B2	Burnham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
89C	Elliottsville-Monson complex, 5 to 15 percent slopes	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
89C1	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
89C2	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
89D	Elliottsville-Monson complex, 10 to 30 percent slopes	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
89D1	Elliottsville part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
89D2	Monson part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89E	Elliottsville-Monson complex, 25 to 60 percent slopes	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89E1	Elliottsville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89E2	Monson part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
93B	Monarda-Ricker association, 1 to 12 percent slopes	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
93B1	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
93B2	Ricker part	0	0	61	0	Very Low (VL)	Very Low (VL)	Medium (M)	Very Low (VL)
94C	Monson-Elliottsville-Ricker complex, 4 to 25 percent slopes	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94C1	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
94C3	Ricker part	0	0	30	0	Very Low	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
						(VL)			
94E	Monson-Elliotsville-Ricker complex, 20 to 65 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E1	Monson part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E2	Elliotsville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E3	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XC	Lyman-Tunbridge complex, 4 to 25 percent slopes	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94XC1	Lyman part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XC2	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
94XE	Lyman-Tunbridge complex, 20 to 60 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XE1	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XE2	Tunbridge part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 95D	Enchanted-Saddleback association, 15 to 30 percent slopes	0	56	47	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
* 95D1	Enchanted part	0	56	47	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
* 95D2	Saddleback part	0	35	43	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
* 95E	Enchanted-Mahoosuc association, 30 to 80 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
						Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
* 95E1	Enchanted part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 95E2	Mahoosuc part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
+ 96C	Mahoosuc-Colonel-Brayton association, 1 to 16 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
+ 96C1	Mahoosuc part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
96C2	Colonel part	18	85	61	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
96C3	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
100	Ricker-Rock outcrop complex	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1001	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1002	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 101	Ricker-Saddleback-Rock outcrop complex, 20 to 60 percent slopes	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 1011	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 1012	Saddleback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 1013	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102D	Saddleback- Ricker complex, 10 to 50 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102D1	Saddleback part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102D2	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
* 102E	Saddleback-Ricker complex, 25 to 60 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102E1	Saddleback part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
* 102E2	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E	Abram-Rock outcrop-Hermon association, 20 to 60 percent slopes	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E1	Abram part	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E2	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
103E3	Hermon part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
104	Rock outcrop-Ricker complex	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1041	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1042	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
180C	Chesuncook-Elliottsville-Telos association, 2 to 15 percent slopes	61	81	66	64	Medium (M)	Medium (M)	Medium (M)	Medium (M)
180C1	Chesuncook part	61	81	66	64	Medium (M)	Medium (M)	Medium (M)	Medium (M)
180C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
180C3	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
301C	Skerry-Hermon association, 5 to 15 percent slopes	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
301C1	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
301C2	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
301D	Hermon-Skerry association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
301D1	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
301D2	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
302C	Hermon-Tunbridge-Skerry association, 5 to 15 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
302C1	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
302C2	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
302C3	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
302D	Hermon-Tunbridge-Skerry association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
302D1	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
302D2	Tunbridge part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
302D3	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
312C	Colton-Hermon association, 5 to 15 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
312C1	Colton part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
312C2	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
312D	Colton-Hermon association, 15 to 30 percent slopes	0	72	49	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
312D1	Colton part	0	72	49	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
312D2	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
374B	Daigle-Aurelie-Elliottsville association, 0 to 8 percent slopes	9	85	69	45	Very Low (VL)	High (H)	Medium (M)	Low (L)
374B1	Daigle part	9	85	69	45	Very Low (VL)	High (H)	Medium (M)	Low (L)
374B2	Aurelie part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
374B3	Elliottsville part	72	86	96	83	Medium (M)	High (H)	High (H)	High (H)
376C	Daigle-Elliottsville-Perham association, 2 to 15 percent slopes	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
376C1	Daigle part	9	85	69	45	Very Low (VL)	High (H)	Medium (M)	Low (L)
376C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
376C3	Perham part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
377C	Daigle-Perham association, 2 to 15 percent slopes	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
377C1	Daigle part	9	85	69	45	Very Low (VL)	High (H)	Medium (M)	Low (L)
377C2	Perham part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
378B	Daigle-Aurelie association, 0 to 8 percent slopes	9	85	69	45	Very Low (VL)	High (H)	Medium (M)	Low (L)
378B1	Daigle part	9	85	69	45	Very Low (VL)	High (H)	Medium (M)	Low (L)
378B2	Aurelie part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
379A	Aurelie-Burnham association, 0 to 3 percent slopes	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
379A1	Aurelie part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
379A2	Burnham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
389C	Winnecook-Elliottsville association, 5 to 15 percent slopes	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
389C1	Winnecook part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
389C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
389D	Winnecook-Elliottsville association, 10 to 30 percent slopes	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
389D1	Winnecook part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
389D2	Elliottsville part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
394C	Monson-Winnecook-Ricker association, 5 to 30 percent slopes	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
394C1	Monson part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
394C2	Winnecook part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
394C3	Ricker part	0	0	30	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
394E	Monson-Winnecook-Ricker association, 25 to 60 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
394E1	Monson part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
394E2	Winnecook part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
394E3	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942C	Lyman-Abram complex, 4 to 25 percent slopes	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
942C1	Lyman part	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
942C2	Abram part	0	0	29	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E	Lyman-Abram complex, 20 to 60 percent slopes	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E1	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E2	Abram part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3389E	Winnecook-Thorndike complex, 25 to 45 percent slopes	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3389E1	Winnecook part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3389E2	Thorndike part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

+ Mahoosuc soil has a rubbly profile. This does not show up in the worksheets but accounts for the 0 or very low rating.

* See cryic soil description.

Table 6 - Soil Potential Index Values and Rating Classes for Soil Survey Project 622 (See additional note number 5 on page 18 concerning outwash soils.)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
0A(39P)	Wonsqueak and Bucksport soils, 0 to 1 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
0A1	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
0A2	Bucksport part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A	Charles-Cornish-Wonsqueak complex, 0 to 2 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A1	Charles part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A2	Cornish part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
3A3	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
6XB	Nicholville-Roundabout association, 0 to 8 percent slopes	78	94	81	82	Medium (M)	High (H)	Medium (M)	Medium (M)
6XB1	Nicholville part	78	94	81	82	Medium (M)	High (H)	Medium (M)	Medium (M)
6XB2	Roundabout part	0	0	42	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
7B	Boothbay-Swanville association, 0 to 8 percent slopes	0	88	68	0	Very Low (VL)	High (H)	Medium (M)	Very Low (VL)
7B1	Boothbay part	0	88	68	0	Very Low (VL)	High (H)	Medium (M)	Very Low (VL)
7B2	Swanville part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
8A	Swanville-Biddeford association, 0 to 2 percent slopes	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
8A1	Swanville part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
8A2	Biddeford part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
12B(316B)	Adams-Croghan association, 1 to 8 percent slopes	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
12B1	Adams part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
12B2	Croghan part	27	94	85	61	Very Low (VL)	High (H)	High (H)	Medium (M)
13C(320C)	Colton-Adams association, 5 to 15 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
13C1	Colton part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
13C2	Adams part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
13E(320E)	Colton-Adams association, 25 to 45 percent slopes	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
13E1	Colton part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
13E2	Adams part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
16XA	Roundabout-Wonsqueak association, 0 to 3 percent slopes	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
16XA1	Roundabout part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
16XA2	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
19B	Madawaska-Allagash association, 0 to 8 percent slopes	23	94	85	59	Very Low (VL)	High (H)	High (H)	Low (L)
19B1	Madawaska part	23	94	85	59	Very Low (VL)	High (H)	High (H)	Low (L)
19B2	Allagash part	42	100	100	74	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
21C	Masardis-Adams association, 1 to 16 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
21C1	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
21C2	Adams part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
21E	Masardis-Adams association, 20 to 60 percent slopes	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
21E1	Masardis part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
21E2	Adams part	0	55	33	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
31XC	Danforth-Masardis-Peacham association, 1 to 16 percent slopes, very stony	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
31XC1	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
31XC2	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
31XC3	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
32XC	Masardis-Danforth association, 3 to 15 percent slopes, very stony	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
32XC1	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
32XC2	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34C	Danforth-Shirley-Elliottsville, 3 to 15 percent slopes, very stony	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34C1	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
34C2	Shirley part	25	85	70	53	Very Low (VL)	High (H)	Medium (M)	Low (L)
34C3	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
34D	Danforth-Elliottsville association, 15 to 30 percent slopes, very stony	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34D1	Danforth part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
34D2	Elliottsville part	0	56	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
34XC	Tunbridge-Danforth association, 5 to 20 percent slopes, very stony	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
34XC1	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
34XC2	Danforth part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
36B	Peacham-Shirley association, 0 to 8 percent slopes, extremely stony	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
36B1	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
36B2	Shirley part	25	85	69	52	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B	Colonel-Brayton-Skerry association, 1 to 8 percent slopes, very stony	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B1	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
37B2	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
37B3	Skerry part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
37C	Colonel-Skerry-Brayton association, 3 to 15 percent slopes, very stony	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
37C1	Colonel part	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
37C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
37C3	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
38B(365B)	Skerry-Colonel association, 1 to 8 percent slopes, very stony	84	92	88	87	High (H)	High (H)	High (H)	High (H)
38B1	Skerry part	84	92	88	87	High (H)	High (H)	High (H)	High (H)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
38B2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
38C(366C)	Becket- Skerry association, 5 to 15 percent slopes, very stony	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
38C1	Becket part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
38C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
38D(366D)	Becket-Skerry association, 10 to 30 percent slopes, very stony	4	69	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
38D1	Becket part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
38D2	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
39G(WA)	Waskish and Sebago soils	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39G1	Waskish part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39G2	Sebago part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39M	Wonsqueak and Bucksport soils, frequently flooded	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39M1	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39M2	Bucksport part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39RC	Naskeag-Abram-Ricker complex, 0 to 15 percent slopes, very	0	0	48	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	stony								
39RC1	Naskeag part	0	0	48	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
39RC2	Abram part	0	0	58	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
39RC3	Ricker part	0	0	61	0	Very Low (VL)	Very Low (VL)	Medium (M)	Very Low (VL)
39RE	Abram-Rock outcrop-Ricker complex, 15 to 80 percent slopes	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39RE1	Abram part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39RE2	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
39RE3	Ricker part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
40C	Becket-Skerry-Tunbridge association, 5 to 15 percent slopes, very stony	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
40C1	Becket part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
40C2	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
40C3	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
47C	Monadnock-Berkshire-Tunbridge association, 5 to 16 percent slopes, very stony	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
47C1	Monadnock part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
47C2	Berkshire part	77	89	78	80	Medium (M)	High (H)	Medium (M)	Medium (M)
47C3	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
47D	Monadnock-Berkshire-Tunbridge association, 10 to 45 percent slopes, very stony	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D1	Monadnock part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D2	Berkshire part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
47D3	Tunbridge part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
48C(337C)	Dixfield-Colonel-Tunbridge association, 3 to 15 percent slopes, very stony	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48C1	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48C2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
48C3	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
48D(338D)	Marlow-Tunbridge-Dixfield association, 12 to 30 percent slopes, very stony	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
48D1	Marlow part	0	69	47	0	Very Low	Medium (M)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
						(VL)			
48D2	Tunbridge part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
48D3	Dixfield part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
49E	Marlow-Lyman-Berkshire association, 25 to 45 percent slopes, very stony	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
49E1	Marlow part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
49E2	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
49E3	Berkshire part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
53C(339C)	Dixfield-Colonel-Marlow association, 3 to 15 percent slopes, very stony	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
53C1	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
53C2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
53C3	Marlow part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
53D	Marlow-Dixfield association, 12 to 30 percent slopes, very stony	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
53D1	Marlow part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
53D2	Dixfield part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
54B	Colonel-Brayton-Dixfield association, 1 to 8 percent slopes, very stony	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
54B1	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
54B2	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
54B3	Dixfield part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
54C	Colonel-Dixfield-Brayton association, 3 to 15 percent slopes, very stony	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
54C1	Colonel part	2	74	47	32	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
54C2	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
54C3	Brayton part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55A	Brayton-Peacham association, 0 to 3 percent slopes, extremely stony	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
55A1	Brayton part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
55A2	Peacham	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
55B	Brayton-Peacham association, 1 to 8 percent slopes, extremely stony	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
55B1	Brayton part	0	0	50	0	Very Low	Very Low (VL)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
						(VL)			
55B2	Peacham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
74B	Telos-Monarda-Monson association, 1 to 12 percent slopes, very stony	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
74B1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
74B2	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
74B3	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
76C	Telos-Chesuncook-Elliottsville association, 3 to 15 percent slopes, very stony	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
76C1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
76C2	Chesuncook part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
76C3	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
76D	Chesuncook-Elliottsville-Telos association, 5 to 30 percent slopes, very stony	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
76D1	Chesuncook part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
76D2	Elliottsville part	0	56	43	0	Very Low	Low (L)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
						(VL)			
76D3	Telos part	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
77C	Telos-Chesuncook association, 3 to 15 percent slopes, very stony	0	74	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
77C1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
77C2	Chesuncook part	61	81	66	67	Medium (M)	Medium (M)	Medium (M)	Medium (M)
77D	Chesuncook-Telos association, 12 to 30 percent slopes, very stony	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
77D1	Chesuncook part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
77D2	Telos part	0	54	16	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
78B	Telos-Monarda association, 1 to 8 percent slopes, very stony	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
78B1	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
78B2	Monarda part	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
79B	Monarda-Burnham association, 1 to 8 percent slopes, very stony	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
79B1	Monarda part	0	0	50	0	Very Low	Very Low (VL)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
						(VL)			
79B2	Burnham part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
89C	Elliottsville-Monson complex, 5 to 15 percent slopes, very stony	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
89C1	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
89C2	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
89D	Elliottsville-Monson complex, 10 to 30 percent slopes, very stony	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
89D1	Elliottsville part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
89D2	Monson part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94C	Monson-Elliottsville-Ricker complex, 4 to 25 percent slopes, very stony	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94C1	Monson part	25	55	70	47	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
94C3	Ricker part	0	0	30	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E	Monson-Elliottsville-Ricker complex, 20 to 65 percent	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	slopes, very stony								
94E1	Monson part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E2	Elliottsville part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94E3	Ricker part	0	0	13	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XC	Lyman-Tunbridge complex, 4 to 25 percent slopes, very stony	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
94XC1	Lyman part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XC2	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
94XE	Lyman-Tunbridge complex, 20 to 60 percent slopes, very stony	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XE1	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
94XE2	Tunbridge part	0	39	26	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
100	Ricker-Rock outcrop complex	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1001	Ricker part	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
1002	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
180C	Chesuncook-Elliottsville-Telos association, 2 to 15 percent slopes, very stony	61	81	66	64	Medium (M)	Medium (M)	Medium (M)	Medium (M)
180C1	Chesuncook part	61	81	66	64	Medium (M)	Medium (M)	Medium (M)	Medium (M)
180C2	Elliottsville part	57	75	74	67	Low (L)	Medium (M)	Medium (M)	Medium (M)
180C3	Telos part	9	85	70	46	Very Low (VL)	High (H)	Medium (M)	Low (L)
301C	Skerry-Hermon association, 5 to 15 percent slopes	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
301C1	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
301C2	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
301D	Hermon-Skerry association, 12 to 30 percent slopes	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
301D1	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
301D2	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
302C	Hermon-Tunbridge-Skerry association, 5 to 15 percent slopes	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
302C1	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
302C2	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
302C3	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
302D	Hermon-Tunbridge-Skerry	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
	association, 12 to 30 percent slopes								
302D1	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
302D2	Tunbridge part	0	55	43	0	Very Low (VL)	Low (L)	Low (L)	Very Low (VL)
302D3	Skerry part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
312C(321C)	Colton-Hermon association, 5 to 15 percent slopes	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
312C1	Colton part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
312C2	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
312D	Colton-Hermon association, 15 to 30 percent slopes	0	72	49	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
312D1	Colton part	0	72	49	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
312D2	Hermon part	0	69	47	0	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
323B	Sheepscot-Croghan-Kinsman complex, 0 to 8 percent slopes	23	94	96	63	Very Low (VL)	High (H)	High (H)	Medium (M)
323B1	Sheepscot part	23	94	96	63	Very Low (VL)	High (H)	High (H)	Medium (M)
323B2	Croghan part	23	94	96	63	Very Low (VL)	High (H)	High (H)	Medium (M)
323B3	Kinsman part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
326B	Lamoine-Nicholville complex, 0 to 8 percent slopes	2	88	68	42	Very Low (VL)	High (H)	Medium (M)	Low (L)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
326B1	Lamoine part	7	88	58	41	Very Low (VL)	High (H)	Low (L)	Low (L)
326B2	Nicholville part	78	94	81	82	Medium (M)	High (H)	Medium (M)	Medium (M)
327B	Nicholville-Croghan complex, 0 to 5 percent slopes	83	94	70	81	High (H)	High (H)	Medium (M)	Medium (M)
327B1	Nicholville part	83	94	70	81	High (H)	High (H)	Medium (M)	Medium (M)
327B2	Croghan part	28	94	85	61	Very Low (VL)	High (H)	High (H)	Medium (M)
328A(KW)	Kinsman-Wonsqueak association, 0 to 3 percent slopes	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
328A1	Kinsman part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
328A2	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
330B	Lamoine-Scantic-Tunbridge complex, 0 to 8 percent slopes, very stony	0	85	66	0	Very Low (VL)	High (H)	Medium (M)	Very Low (VL)
330B1	Lamoine part	5	85	55	38	Very Low (VL)	High (H)	Low (L)	Very Low (VL)
330B2	Scantic part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
330B3	Tunbridge part	80	87	96	87	Medium (M)	High (H)	High (H)	High (H)
331B	Lamoine-Scantic-Colonel complex, 0 to 8 percent slopes, very stony	0	85	66	0	Very Low (VL)	High (H)	Medium (M)	Very Low (VL)
331B1	Lamoine part	5	85	55	38	Very Low (VL)	High (H)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
331B2	Scantic part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
331B3	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
332B	Lamoine-Buxton-Scantic complex, 0 to 15 percent slopes	2	88	68	42	Very Low (VL)	High (H)	Medium (M)	Low (L)
332B1	Lamoine part	7	88	58	41	Very Low (VL)	High (H)	Low (L)	Low (L)
332B2	Buxton part	53	83	59	61	Low (L)	High (H)	Low (L)	Medium (M)
332B3	Scantic part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
333A(SB)	Scantic-Biddeford association, 0 to 3 percent slopes	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
333A1	Scantic part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
333A2	Biddeford part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
353C	Hermon-Monadnock-Skerry complex, 3 to 15 percent slopes, very bouldery	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
353C1	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
353C2	Monadnock part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
353C3	Skerry part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
353VE	Hermon-Monadnock complex, 15 to 45 percent slopes, extremely bouldery	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
353VE1	Hermon part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
353VE2	Monadnock part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
363C	Lyman-Tunbridge-Abram complex, 3 to 15 percent slopes, very stony	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
363C1	Lyman part	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
363C2	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
363C3	Abram part	0	0	59	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
364B	Naskeag-Tunbridge-Lyman complex, 0 to 8 percent slopes, very stony	0	0	46	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
364B1	Naskeag part	0	0	35	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
364B2	Tunbridge part	80	87	96	87	Medium (M)	High (H)	High (H)	High (H)
364B3	Lyman part	49	66	92	67	Low (L)	Medium (M)	High (H)	Medium (M)
371B	Dixfield-Colonel complex, 0 to 8 percent slopes, very stony	84	92	88	87	High (H)	High (H)	High (H)	High (H)
371B1	Dixfield part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
371B2	Colonel part	23	85	59	52	Very Low (VL)	High (H)	Low (L)	Low (L)
373B	Brayton-Colonel association, 0 to 8 percent slopes, very stony	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
373B1	Brayton part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
373B2	Colonel part	18	85	69	49	Very Low (VL)	High (H)	Medium (M)	Low (L)
375B	Brayton-Colonel association, 0 to 8 percent slopes, extremely stony	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
375B1	Brayton part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
375B2	Colonel part	18	85	69	49	Very Low (VL)	High (H)	Medium (M)	Low (L)
380C	Masardis-Sheepscot complex, 0 to 15 percent slopes	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
380C1	Masardis part	31	92	80	60	Very Low (VL)	High (H)	Medium (M)	Medium (M)
380C2	Sheepscot part	23	94	96	63	Very Low (VL)	High (H)	High (H)	Medium (M)
388C	Skerry-Colonel-Tunbridge complex, 0 to 15 percent slopes, very stony	84	92	88	87	High (H)	High (H)	High (H)	High (H)
388C1	Skerry part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
388C2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
388C3	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
413C(CSC)	Colton-Adams-Sheepscot association, 0 to 15 percent slopes	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
413C1	Colton part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)
413C2	Adams part	47	100	100	76	Low (L)	Very High (VH)	Very High (VH)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
413C3	Sheepscot part	23	94	96	63	Very Low (VL)	High (H)	High (H)	Medium (M)
432B(LCB)	Lamoine-Scantic-Buxton association, 0 to 15 percent slopes	2	88	68	42	Very Low (VL)	High (H)	Medium (M)	Low (L)
432B1	Lamoine part	2	88	68	42	Very Low (VL)	High (H)	Medium (M)	Low (L)
432B2	Scantic part	0	0	41	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
432B3	Buxton part	53	83	59	61	Low (L)	High (H)	Low (L)	Medium (M)
439C(MDC)	Marlow-Dixfield association, 8 to 15 percent slopes, very stony	25	89	78	56	Very Low (VL)	High (H)	Medium (M)	Low (L)
439C1	Marlow part	25	89	78	56	Very Low (VL)	High (H)	Medium (M)	Low (L)
439C2	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
439E(MDE)	Marlow-Dixfield association, 15 to 45 percent slopes, very stony	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
439E1	Marlow part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
439E2	Dixfield part	0	61	35	0	Very Low (VL)	Medium (M)	Very Low (VL)	Very Low (VL)
439VC(MGC)	Marlow-Dixfield association, 3 to 15 percent slopes, extremely bouldery	25	89	78	56	Very Low (VL)	High (H)	Medium (M)	Low (L)
439VC1	Marlow part	25	89	78	56	Very Low (VL)	High (H)	Medium (M)	Low (L)
439VC2	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
439VE(MGE)	Marlow-Dixfield association, 8 to 45 percent slopes, extremely bouldery	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
439VE1	Marlow part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
439VE2	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
451B(DWB)	Dixfield-Colonel-Tunbridge complex, 3 to 8 percent slopes, very stony	84	92	88	87	High (H)	High (H)	High (H)	High (H)
451B1	Dixfield part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
451B2	Colonel part	18	85	70	50	Very Low (VL)	High (H)	Medium (M)	Low (L)
451B3	Tunbridge part	80	87	96	87	Medium (M)	High (H)	High (H)	High (H)
475B(BTB)	Brayton-Colonel association, 0 to 8 percent slopes, rubbly	0	0	31	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
475B1	Brayton part	0	0	31	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
475B2	Colonel part	4	65	51	33	Very Low (VL)	Medium (M)	Low (L)	Very Low (VL)
491B(SEB)	Scantic-Lamoine-Dixfield complex, 0 to 8 percent slopes, very stony	0	0	50	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
491B1	Scantic part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
491B2	Lamoine part	0	85	66	0	Very Low (VL)	High (H)	Medium (M)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
491B3	Dixfield part	84	92	88	87	High (H)	High (H)	High (H)	High (H)
530C(HVC)	Hermon-Monadnock-Dixfield complex, 3 to 15 percent slopes, very stony	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
530C1	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
530C2	Monadnock part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
530C3	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
530E(HVE)	Hermon-Monadnock-Dixfield complex, 8 to 45 percent slopes, very stony	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
530E1	Hermon part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
530E2	Monadnock part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
530E3	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
531C(MXC)	Monadnock-Hermon-Dixfield complex, 3 to 15 percent slopes, extremely bouldery	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
531C1	Monadnock part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
531C2	Hermon part	85	89	78	83	High (H)	High (H)	Medium (M)	High (H)
531C3	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
531E(MXE)	Monadnock-Hermon-Dixfield complex, 8 to 45 percent slopes, extremely bouldery	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
531E1	Monadnock part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
531E2	Hermon part	0	53	30	0	Very Low (VL)	Low (L)	Very Low (VL)	Very Low (VL)
531E3	Dixfield part	69	81	66	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
630C(LWC)	Lyman-Tunbridge-Schoodic complex, 0 to 15 percent slopes, very stony	49	66	92	67	Low (L)	Medium (M)	High (H)	Medium (M)
630C1	Lyman part	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
630C2	Tunbridge part	65	75	74	70	Medium (M)	Medium (M)	Medium (M)	Medium (M)
630C3	Schoodic part	0	0	81	0	Very Low (VL)	Very Low (VL)	Medium (M)	Very Low (VL)
630E(LTE)	Lyman-Schoodic-Rock outcrop complex, 15 to 45 percent slopes, very stony	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
630E1	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
630E2	Schoodic part	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
630E3	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
631C(LHC)	Lyman-Brayton-Schoodic complex, 0 to 15 percent slopes, very stony	49	66	92	68	Low (L)	Medium (M)	High (H)	Medium (M)
631C1	Lyman part	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
631C2	Brayton part	0	0	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
631C3	Schoodic part	0	0	59	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
634B(NBB)	Naskeag-Schoodic-Lyman complex, 0 to 8 percent slopes, very stony	0	0	46	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
634B1	Naskeag part	0	0	46	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
634B2	Schoodic part	0	0	81	0	Very Low (VL)	Very Low (VL)	Medium (M)	Very Low (VL)
634B3	Lyman part	50	66	92	68	Low (L)	Medium (M)	High (H)	Medium (M)
900C(SKC)	Schoodic-Rock outcrop-Naskeag complex, 0 to 15 percent slopes,	0	0	81	0	Very Low (VL)	Very Low (VL)	Medium (M)	Very Low (VL)
900C1	Schoodic part	0	0	81	0	Very Low (VL)	Very Low (VL)	Medium (M)	Very Low (VL)
900C2	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
900C3	Naskeag part	0	0	46	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
900E(SGE)	Schoodic-Rock outcrop-Lyman complex, 15 to 65 percent slopes	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
900E1	Schoodic part	0	0	11	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
900E2	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
900E3	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942C	Lyman-Abram complex, 4 to 25 percent slopes, very stony	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
942C1	Lyman part	34	55	70	51	Very Low (VL)	Low (L)	Medium (M)	Low (L)
942C2	Abram part	0	0	29	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E	Lyman-Abram complex, 20 to 60 percent slopes, very stony	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E1	Lyman part	0	19	22	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
942E2	Abram part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
990(WT)	Wonsqueak, Bucksport and Sebago soils	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
9901	Wonsqueak part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
9902	Bucksport part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
9903	Sebago part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
4102E	Hogback-Ricker-Rock outcrop complex, 8 to 35 percent slopes, very stony	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)
4102E1	Hogback part	0	35	39	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

Map Unit Number	Map Unit Description	Septics	Dwellings	Roads	Development	Septics	Dwellings	Roads	Development
4102E2	Ricker part	0	0	59	0	Very Low (VL)	Very Low (VL)	Low (L)	Very Low (VL)
4102E3	Rock outcrop part	0	0	0	0	Very Low (VL)	Very Low (VL)	Very Low (VL)	Very Low (VL)

() Indicates a map unit number or symbol that has been combined with another map unit.

INTRODUCTION TO ADDITIONAL TABLES AND WORKSHEETS

Table 7 is taken from the Maine State Plumbing Code of October 1, 2002. It is table 600.1 in the Plumbing Code and provides the soil profile number which is based on soil parent material and soil condition. This soil profile number is used in the worksheets to calculate the soil potential rating. The worksheets are at the end of this report.

Table 8 lists most of the soil series recognized in Maine and provides the soil profile number for each soil series. The soil profile numbers in the second column from the left were determined from the information in Table 7.

The work sheets at the end of this report are the tools that are used to calculate the numerical soil potential ratings. The map unit descriptions the Natural Resources Conservation Service uses for mapping in the Unorganized Area of Maine have ranges for soil characteristics such as slope, depth to bedrock and depth to seasonal high water table or a restrictive layer. To calculate the soil potential rating for a map unit or an individual component of a map unit, the values of the map unit or the individual component are used. For depth to bedrock, seasonal high water table or a restrictive layer, the minimum depth to each is used with a work sheet to determine if index points need to be subtracted. For slope, the midpoint of the slope range for the map unit or the component is used with the work sheets. The soil potential ratings have been calculated and are included in this report. If the soil information comes from a high intensity soil survey or an on-site investigation, map units with different slope ranges or map units consisting of a single soil series that are not listed in this document may be reported. The ratings for these map units may be found in reports of Soil Potential Ratings for the organized part of each county. These are available at the Soil and Water Conservation District offices listed at the beginning of this report. If a map unit or soil series rating still can not be found, the calculations can be done using these worksheets. Assistance in completing these calculations may be obtained by contacting the Soil and Water Conservation District offices.

Table 7 - Soil Profile and Soil Condition Design Class

DISPOSAL FIELDS

TABLE 600.1 SOIL PROFILE SOIL CONDITION DESIGN CLASS			DESIGN CLASS to be used with Table 700.2 "Minimum Permitting Conditions and Design Requirements"								Disposal Area Sizing
SOIL CONDITION			Bedrock class			Soil drainage class					Multiply the hydraulic loading rate (square feet per gallon per day) times the design flow (gallons per day). This gives the minimum square feet of bottom and side wall area below the invert needed for a standard stone filled disposal field. Proprietary devices may be used in lieu of stone filled fields. See Appendix P.
Parent Material	Soil Profile	Textural Classification and description	AI	AII	AIII	B	C	D	E		
			Inches from ground surface to the mineral soil to bedrock	Inches from the surface of the mineral soil to seasonal high ground water table or hydraulically restrictive horizon when mottling is not present							
			0-12	12-15	15-48	> 48	48-15	<15-7	<7-0		
Basal Glacial Till	1	Silt loam textured soils throughout the entire profile. The lower horizons usually have prismatic or platy structures. This profile tends to become firm dense and impervious with depth thus this profile may have a hydraulically restrictive horizon. Angular rock fragments are usually present. Occasionally cobbles and stones may be present	5	4	1	1	1	3	5	4.10 sqft/gpd Large	
Ablation Till	2	Loam to sandy loam textured soils throughout the entire profile. This profile does not have a hydraulically restrictive horizon. Angular rock fragments are present. Occasionally cobbles and stones may be present	5	4	1	1	1	3	5	3.30 sqft/gpd Medium Large	
Basal Glacial Till	3	Loam to loamy sand textured soils throughout the entire profile. The lower soil horizons usually have well defined prismatic or platy structures that are very compact and are difficult to excavate. These lower horizons are considered hydraulically restrictive. Angular rock fragments are present. Occasionally cobbles and stones are present	5	4	1	1	1	3	5	3.30 sqft/gpd Medium Large	
Ablation Till	4	Sandy loam to loamy sand textured upper horizon(s) overlying loamy sand textured lower horizon. This profile tends to be loose and easy to excavate. Lower horizons tend not to be firm and are not considered hydraulically restrictive. Angular rock fragments are present along with partially water-worn cobbles and stones	5	4	1	1	1	3	5	2.60 ft ² /gpd Medium	
Stratified Glacial Drift	5	Loam to loamy sand textured upper horizons overlying fine and medium sand parent materials. Stratified horizons of water-sorted materials may be present. Lower horizons tend to be granular or massive. Entire profile tends to be loose except that saturated horizons may be cemented and therefore firm and are considered hydraulically restrictive. Horizons with rounded rock fragments are common	5	4	2	2	2	3	5	2.60 ft ² /gpd Medium	
Stratified Glacial Drift	6	Loamy sand to sand textured upper horizons overlying stratified coarse sands or gravel parent materials. Stratified horizons of water-sorted materials may be present. Entire profile tends to be loose except that saturated horizons may be cemented and therefore firm and are considered hydraulically restrictive. Horizons with rounded rock fragments are common.	5	4	2	2	2	3	5	2.00 ft ² /gpd Small	
Mixed geologic-ol origins	7	Fifteen (15) or more inches of sandy loam to loamy sand glacial till or loamy sand to sand stratified drift parent material overlying marine or lacustrine deposited silt to silty clay or fifteen (15) or more inches of loamy sand to sand stratified drift parent material overlying firm basal till. The upper horizons tend to be granular in structure. The lower horizons tend to be firm and massive in structure and are considered to be hydraulically restrictive. Rock fragments may be present in upper horizons but are usually absent in lower horizons, except for basal till.	5	4	1	1	1	3	5	3.30 ft ² /gpd Medium Large	
Lacustrine deposits	8	Loam to fine sandy loam upper horizon(s) overlying firm silt loam to silt textured lower horizons. The upper horizons tend to be granular in structure. The lower horizons tend to be firm and massive in structure and are considered to be hydraulically restrictive. Stratified lenses of fine sand and sandy loam may be present in the lower horizons. Coarse rocks are usually absent throughout entire profile.	5	4	1	1	1	3	5	4.10 ft ² /gpd Large	
Marine deposits	9	Silt loam textured upper horizons overlying firm silt loam to silty clay textured lower horizons. The lower horizons tend to be very firm and are considered to be hydraulically restrictive. Coarse rock are usually absent throughout entire profile. Thin lenses of very fine sand to silt may be present in the lower horizons.	5	4	1	1	1	3	5	5.00 ft ² /gpd Extra Large	
Organic deposits	10	Partially decomposed organic material at least 16" in thickness.	5								
Alluvial dune beach deposits	11	These soils have no typical profile. Variable in texture and exhibit very little weathering. They are deposited in flood plains sand dunes or beach environments.	Use the Soil Profile Bedrock Class Soil drainage Class and minimum hydraulic loading rate that best describes the observed profile.								
Filled Silt (5/3/95)	12	These soils have no typical profile. Variable in texture. May contain man-made materials.	Use the Soil Profile Bedrock Class Soil drainage Class and minimum hydraulic loading rate that best describes the observed profile. For first time and non-exempt expansion systems see Section 605.3.								

10 CMR 241 (October 1, 2002)

Table 8 – Maine Soils Series Designation

MAINE SOIL SERIES DESIGNATION BY MAINE STATE PLUMBING CODE CRITERIA

Rev. 04/17/97

SOILS SERIES	SOIL PROFILE	SOIL CONDITION	LIMITING FACTOR	SUITABILITY FOR NEW SYSTEMS		
				PERMITTED	MAY BE PERMITTED	NOT PERMITTED
ABRAM	2	A/B	BEDROCK			X
ADAMS	6	B		X		
AGWAM	5	B		X		
ALLAGASH	5	B		X		
ATHERTON	1	E	WETNESS			X
AJ GRES	5	D/E	WETNESS		X	
AJRELJE	1	E/D	WETNESS			X
BANGOR	1	B		X		
BECKET	3	B	RESTRICTIVE LAYER	X		
BELGRADE	8	C	WETNESS	X		
BEMIS	3	E/D	WETNESS			X
BENSON	1	A/II OR AIII/B	BEDROCK		X	
BERKSHIRE	2	B		X		
BESEMAN	10	E	ORGANIC, WETNESS			X
BIDDEFORD	9	E	WETNESS			X
BOOTHBAY	9	C/D	WETNESS		X	
BOROHEMISTS	10	E	ORGANIC, WETNESS			X
BOROSAPRISTS	10	E	ORGANIC, WETNESS			X
BRAYTON	3	E/D	WETNESS		X	
BRAYTON VARIANT	3	AII/E OR D OR C	BEDROCK, WETNESS		X	
BUCKSPORT	10	E	ORGANIC, WETNESS			X
BURNHAM	1	E	WETNESS			X
BUXTON	9	C/D	WETNESS		X	
CABOT	1	E/D/C	WETNESS			X
CANAAN	2	A/II OR AIII/B	BEDROCK		X	
CANANDAGUA	8	E/D	WETNESS			X
CARIBOU	1	B		X		
CATHRO	10	E	ORGANIC, WETNESS			X
CHARLES	11	E/D	FLOODING, WETNESS			X
CHARLTON	2	B		X		
CHESUNCOOK	1	C	WETNESS	X		
CHESUNCOOK VARIANT	1	B		X		
CHOCORUA	10	E	ORGANIC, WETNESS			X
COLONEL	3	D/E	WETNESS		X	
COLTON	6	B		X		
CONANT	1	C/D	WETNESS		X	
CORNISH	11	D/C	FLOODING, WETNESS			X
CREASEY	1	A/II OR AIII/B	BEDROCK		X	
CROGHAN	6	C	WETNESS	X		
DAGLE	1	D/E	WETNESS		X	
DANFORTH	4	B		X		
DEERFIELD	6	C/D	WETNESS		X	
DIXFIELD	3	C	WETNESS	X		
DIXMONT	1	C/D	WETNESS		X	
DUANE	6	C	WETNESS	X		
DUXBURY	5	B		X		
EASTON	1	E/D	WETNESS			X
ELDRIDGE	7	C/D	WETNESS		X	
ELLIOTTSVILLE	1	AIII/B	BEDROCK	X		
ELMWOOD	8	C	WETNESS	X		
ENCHANTED	2	AIII/B	BEDROCK	X		
FINCH	5	D	WETNESS		X	
FREDON	5	E	WETNESS			X

MAINE SOIL SERIES DESIGNATION BY MAINE STATE PLUMBING CODE CRITERIA

Rev. 04/17/97

SOILS SERIES	SOIL PROFILE	SOIL CONDITION	LIMITING FACTOR	SUITABILITY FOR NEW SYSTEMS		
				PERMITTED	MAY BE PERMITTED	NOT PERMITTED
FRYEBURG	11	B	FLOODING (RARE TO COMMON)		X	
GREENWOOD	10	E	ORGANIC, WETNESS			X
GOULDSBORO	11	E	FLOODING			X
HADLEY	11	B	FLOODING			X
HALSEY	5	E	WETNESS			X
HARTLAND	8	B		X		
HERMON	4	B		X		
HINCKLEY	6	B		X		
HOLLIS	2	Ai,Aii OR Aiii/B	BEDROCK		X	
HOWLAND	1	C/D	WETNESS		X	
IPSWICH	10	E	FLOODING, ORGANIC			X
KINSMAN	6	E/D	WETNESS			X
LAMOINE	9	D	WETNESS		X	
LEICESTER	2	E/D	WETNESS			X
LILLE	11	B	FLOODING (RARE TO COMMON)		X	
LIMERICK	11	E/D	FLOODING, WETNESS			X
LINNEUS	1	Aiii/B	BEDROCK	X		
LOVEWELL	11	C	FLOODING (RARE TO COMMON)		X	
LOXLEY	10	E	ORGANIC, WETNESS			X
LYMAN	2	Ai,Aii OR Aiii/B	BEDROCK		X	
LYME	2	E/D	WETNESS			X
MACHIAS	5	C	WETNESS	X		
MADAWASKA	5	C	WETNESS	X		
MAHOOSUC	10	B	ORGANIC			X
MAPLETON	1	Ai,Aii OR Aiii/B	BEDROCK		X	
MARKEY	10	E	ORGANIC, WETNESS			X
MARLOW	5	B	RESTRICTIVE LAYER	X		
MASARDIS	6	B		X		
MARSARDIS VARIANT	6	Aiii/B	BEDROCK	X		
MEDOMAK	11	E	FLOODING, WETNESS			X
MELROSE	8	B	RESTRICTIVE LAYER	X		
MERRIMAC	5	B		X		
MONADNOCK	4	B		X		
MONARDA	1	E/D	WETNESS			X
MONSON	1	Ai,Aii OR Aiii/B	BEDROCK		X	
MOOSILAUKE	5	E/D	WETNESS		X	
NASKEAG	4	Aiii/E OR D OR C	BEDROCK, WETNESS		X	
NAUMBURG	5	D/E	WETNESS		X	
NICHOLVILLE	8	C	WETNESS	X		
NINIGRET	5	C	WETNESS	X		
ONDAWA	11	B	FLOODING (RARE TO COMMON)		X	
OSSIPEE	10	E	ORGANIC, WETNESS			X
PAWCATUCK	10	E	ORGANIC, WETNESS			X
PAXTON	3	B	RESTRICTIVE LAYER	X		
PEACHAM	3	E	WETNESS			X
PENQUIS	1	Aiii/B	BEDROCK	X		
PERHAM	1	C	WETNESS	X		
PERU	3	C/D	WETNESS		X	
PLAISTED	1	B	RESTRICTIVE LAYER	X		
PODUNK	11	C	FLOODING, WETNESS			X
RAYNHAM	8	E/D	WETNESS		X	
RED HOOK	8	D/C	WETNESS		X	
RICKER	10	Ai/B	BEDROCK			X
RIDGEBURY	3	E/D	WETNESS		X	
RIFLE	10	E	ORGANIC, WETNESS			X
ROUNABOUT	8	E/D	WETNESS		X	
RUMNEY	11	E/D	FLOODING, WETNESS			X

MAINE SOIL SERIES DESIGNATION BY MAINE STATE PLUMBING CODE CRITERIA

Rev. 04/17/07

SOILS SERIES	SOIL PROFILE	SOIL CONDITION	LIMITING FACTOR	SUITABILITY FOR NEW SYSTEMS		
				PERMITTED	MAY BE PERMITTED	NOT PERMITTED
SACO	11	E	FLOODING, WETNESS			X
SADDLEBACK	1	AI,AII OR AIII/B	BEDROCK		X	
SALMON	8	B		X		
SAUGATUCK	5	D/E	WETNESS		X	
SCANTIC	9	E/D	WETNESS			X
SCARBORO	5	E/D	WETNESS		X	
SCHOODIC	2	AI	BEDROCK			X
SCIO	8	C	WETNESS	X		
SEARSPORT	5	E/D	WETNESS			X
SEBAGO	10	E	ORGANIC, WETNESS			X
SHEEPSCOT	6	C	WETNESS	X		
SHIRLEY	4	D/C	WETNESS		X	
SISK	1	B		X		
SKERRY	3	C/D	WETNESS		X	
SKOWHEGAN	5	C/D	WETNESS		X	
STETSON	5	B		X		
SUFFIELD	9	B		X		
SULFAQUENTS	11	E	FLOODING, WETNESS			X
SULFIHEMISTS	10	E	ORGANIC, FLOODING			X
SUNAPEE	2	C	WETNESS	X		
SUNCOOK	11	B	FLOODING			X
SUNDAY	11	B	FLOODING			X
SURPLUS	3	C/D	WETNESS		X	
SUTTON	3	C/D	WETNESS		X	
SWANTON	8	E/D	WETNESS		X	
SWANVILLE	9	E/D	WETNESS			X
TELOS	1	D/E	WETNESS		X	
THORNDIKE	1	AI,AII OR AIII/B	BEDROCK		X	
TOGUS	10	E	ORGANIC, WETNESS			X
TUNBRIDGE	2	AIII/B	BEDROCK	X		
UPTON	10	E	ORGANIC, FLOODING			X
VASSALBORO	10	E	ORGANIC, WETNESS			X
WALPOLE	5	E/D	WETNESS		X	
WASHBURN	1	E	WETNESS			X
WASKISH	10	E	ORGANIC, WETNESS			X
WAUMBEC	4	C	WETNESS	X		
WESTBURY	3	D/E	WETNESS		X	
WHATELY	8	E	WETNESS			X
WHITMAN	3	E	WETNESS			X
WINDSOR	6	B		X		
WINNECOOK	1	AIII/B	BEDROCK	X		
WINOOSKI	11	C	FLOODING, WETNESS			X
WONSQUEAK	10	E	ORGANIC, WETNESS			X
WOODBIDGE	3	C/D	WETNESS		X	

Additional Soils:						
Hogback Soil Profile 2						
Pillsbury Soil Profile 3						
Rawsonville Soil Profile 2						

WORKSHEETS FOR PREPARING CORRECTIVE MEASURES

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Septic Tank Absorption Fields

Soil Evaluation Factor: Soil Profile and Condition (profile no.) Area: Unorganized area, Maine

Site Condition		Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
				Kind	Index
6 *	Small Field	-8	-4.5	Groundwater	60.0
5 *	Medium field	-	-	Groundwater	60.0
4	Medium field	-	-	None	-
2, 3, 7	Medium large field	14	7.3	None	-
1, 8	Large field	29	15.7	None	-
9	Extra large field	46	25.1	None	-
10	Systems not permitted	-	-	Organic soil, excess water	100
11	Not permitted in 10 year floodplain	29	15.7	Groundwater	60.0

* Possibility of Groundwater Contamination may be reduced to an index of near 0 by peat filter, ruck system, loam liners, etc...

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Septic Tank Absorption Fields

Soil Evaluation Factor: Depth to High Water Table or Area: Unorganized area, Maine

Restrictive Soil Layer (feet) Profiles 1-4; 7-9

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>4.0	None	None	-	-	None	-
2.0 - 4.0	System Performance	Fill	4	1.9	None	-
1.0 - 2.0	System Performance	Fill	15	8.3	None	-
0.5 - <1.0	System Performance	New system variance or replacement systems	Variable	-	Excess water, permeability	75
<0.5	System Performance	New systems not permitted, replacement systems only	-	-	Excess water, permeability	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Septic Tank Absorption Fields

Soil Evaluation Factor: Depth to High Water Table or

Area: Unorganized area, Maine

Restrictive Soil Layer (feet) Profiles 5, 6 & 11

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>4.0	None	None	-	-	None	-
2.0 – 4.0	System Performance	Fill	23	12.3	None	-
1.0 – 2.0	System Performance	Fill	43	23.5	None	-
0.5 -< 1.0	System Performance	New system variance or replacement systems	Variable	-	Excess water, permeability	75
< 0.5	System Performance	New systems not permitted, replacement systems only	-	-	Excess water, permeability	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Septic Tank Absorption Fields

Soil Evaluation Factor: Slope (percent)

Area: Unorganized area, Maine

Typical

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
0 – 3	Low Gradient	Less fill	-9	-4.8	None	-
3 – 8	None	None	-	-	None	-
8 – 15	Installation Difficulties	Site preparation and fill	28	15.0	Erosion control	0.4
15 – 20	Installation Difficulties	Site preparation and fill, erosion control	161	87.5	Erosion control	0.8
>20	Severe Installation Difficulties	Replacement systems only	-	-	Slope	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Septic Tank Absorption Fields

Soil Evaluation Factor: Depth to Bedrock (inches)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>48	None	None	-	-	None	-
24 - 48	System performance	Site selection, site preparation and fill	23	12.3	None	-
15* -24	System performance	Site selection, site preparation and fill, special design	44	23.5	Groundwater quality	20
<15 *	System performance difficulties	Replacement systems only	-	-	Groundwater quality	100

* <12 inches outside the shore land zone

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Septic Tank Absorption Fields

Soil Evaluation Factor: Surface stones and boulders Area: Unorganized area, Maine.
(aerial cover in percent)

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
0 - 0.1	None	None	--4	-2.2	None	-
0.1 - 15	Installation difficulties	Stone removal	-	-	None	-
>15 *	Installation difficulties	Stone removal and disposal site preparation & fill	3	1.5	None	-

* Sites that are dominated by boulders may require blasting and should be penalized an additional 12 points.

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Septic Tank Absorption Fields

Soil Evaluation Factor: Flooding (frequency)

Area: Unorganized Area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
None or Rare	None	None	-	-	None	-
Occasional	System Performance	Replacement system only	-	-	Surface water contamination/system failure	100
Frequent	System Performance	Not permitted	-	-	Surface water contamination/system failure	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Dwellings with Basements

Soil Evaluation Factor: Depth to High Water (feet)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures Initial Cost(% of Base Cost)	Index	Typical Continuing Limitations	
					Kind	Index
>6	None	None			None	
1.5 - 6	Wet basements	Footing and underslab drains, sump pump, waterproofing	73	8.1	Maintain outlets, waterproofing	0.2
0.5 - 1.5	Wet basements	Footing and underslab drains, sump pump, waterproofing, larger footings	134	14.9	Maintain outlets, waterproofing	0.3
<0.5	Wet basements, Wetland degradation	None			Excess water	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Dwellings with Basements

Soil Evaluation Factor: Slope (percent)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
0 - 8	None	None			None	
8 - 15	Installation difficulties	Site preparation fill, grading and erosion control, stepped footings	100	11.1	None	
15 - 25	Installation difficulties	Site preparation fill, grading and erosion control, stepped footings and foundations	278	31.0	None	
25 - 45	Installation difficulties	Site preparation fill, grading and erosion control, stepped footings and foundations	427	47.5	None	
>45		Not Recommended			Slope	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Dwellings with Basements

Soil Evaluation Factor: Depth to Bedrock (inches)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>60	None	None			None	
20 - 60	Installation difficulties	Site selection, blasting or site preparation and fill	122	13.5	None	
10 - 20	Installation difficulties	Site selection, blasting or site preparation and fill	305	33.9	None	
0 - 10	Severe installation difficulties	Not recommended, extensive blasting and site preparation required			Bedrock	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Dwellings with Basements

Soil Evaluation Factor: Surface stones (aerial cover percent) Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures ..% of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
0 - 0.1	None	None	24	-2.7	None	
0.1 - 15	Installation difficulties	Stone removal			None	
>15 *	Installation difficulties	Stone removal and disposal site preparation and fill	67	7.5	None	

* Sites that are dominated by boulders may require blasting and should be penalized an additional 12 points.

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use; Dwellings with Basements

Soil Evaluation Factor: Flooding (frequency)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
None or Rare	None	None	-	-	None	-
Occasional or Frequent	Flood Damage	None	-	-	Flooding	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Local Roads and Streets

Soil Evaluation Factor: Depth to High Water Table (feet)

Area: Unorganized area, Maine

Profiles 1, 2 & 3

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>3	Moderate Frost Action	None			None	
1.5 - 3.0	High Frost Action	Ditching, culverts, riprap & fill	25	11.2	Maintenance	0.8
0.5 - 1.5	High Frost Action	Ditching, culverts, riprap & fill, filter fabric	67	29.5	Maintenance	1.0
<0.5	High Frost Action	Ditching, culverts, riprap and fill, filter fabric	112	49.2	Maintenance	1.2

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Local Roads & Streets

Soil Evaluation Factor: Depth to High Water Table (feet) Area: Unorganized area, Maine Profiles 4, 5, & 6

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>3.	None				None	
- 3.0	Low- Mod Frost Action	Ditching, culverts, riprap & fill	14	6.2	Maintenance	0.8
0.5 - 1.5	Moderate Frost Action	Ditching, culverts, riprap & fill, filter fabric	67	29.5	Maintenance	1.0
<0.5	Mod - High Frost Action	Ditching, culverts, riprap & fill, filter fabric	112	49.2	Maintenance	1.2

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Local Roads & Streets

Soil Evaluation Factor: Depth to High Water Table (feet) Area: Unorganized area, Maine Profiles 7, 8, 9, 10 & 11

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>3	High Frost Action	Ditching, fill	33	14.7	None	-
1.5 - 3.0	High Frost Action	Ditching, culverts, riprap & fill	47	20.8	Maintenance	0.8
0.5 - 1.5	High Frost Action	Ditching, culverts, riprap & fill, filter fabric	75	33.2	Maintenance	1.0
<0.5	High Frost Action	Ditching, culverts, riprap and fill, filter fabric	112	49.2	Maintenance	1.2
Organic Soils (profile 10)	Wetland Degradation	None			Excess water	100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Local Roads and Streets

Soil Evaluation Factor: Slope (percent)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
0-3	Low Gradient	Drainage of swales	23	10.0	Maintenance	0.8
3-8	None	None	-	-	None	-
8-15	Equipment Limitations	Cut and fill, erosion control	47	20.8	Maintenance	1.4
15-25	Equipment Limitation	Cut and fill, erosion control, road realignment, riprap	114	50.1	Maintenance	3.1
25-45	Major Equipment Limitations	Cut and fill, erosion control, road realignment, guardrails	152	67.0	Maintenance	3.1
>45		Not recommended				100

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Local Roads and Streets

Soil Evaluation Factor: Depth to Bedrock (inches)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
>40	None	None			None	
20 - 40	Installation Difficulties	Blasting, Site preparation, Fill and grading	9	3.9	None	
10 - 20	Severe installation difficulties	Blasting or extensive site preparation and fill	18	7.7	None	
0 - 10	Severe installation difficulties	Blasting or extensive site preparation and fill	44	19.3	None	

WORKSHEET FOR PREPARING CORRECTIVE MEASURES

Soil Use: Local Roads and Streets

Soil Evaluation Factor: Surface stones
(aerial cover percent)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
0 - 0.1	None	None	-6	-2.6	None	
0.1 - 15	Construction difficulties	Stone removal			None	
>15*	Construction <i>difficulties</i>	Stone removal and burial	15	6.7	None	

*Sites that are dominated by boulders may require blasting and should be penalized an additional 12 points.

WORKSHEET FOR PREPARING CORRECTIVE MEASURES


Soil Use: Local Roads and Streets .

Soil Evaluation Factor: Flooding (frequency)

Area: Unorganized area, Maine

Site Condition	Effects on Use	Kind	Typical Corrective Measures % of initial base cost	Index	Typical Continuing Limitations	
					Kind	Index
None or Rare	None	None			None	
Occasional	Road Damage	Culverts, riprap, rockfill	105	46.3	Flooding, road damage	7.2
Frequent	Not Recommended			-	Flooding, road damage	100

SENSIBLE SOLUTIONS



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 465 South Main Street
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www.ces-maine.com

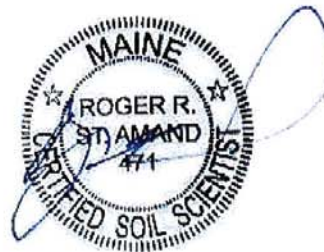


**CLASS D MEDIUM
 AND
 CLASS C MEDIUM-HIGH INTENSITY
 SOIL SURVEY REPORT**

For

**SQUARE LAKE EAST (YERXAS CAMPS)
 FISH RIVER CHAIN OF LAKES CONCEPT PLAN
 T16-R5, AROOSTOOK COUNTY MAINE**

REPORT PREPARED FOR: Irving Woodlands, LLC
 300 Union Street
 P.O. Box 5777
 Saint John, NB E2L4M3



**NOVEMBER 2014
 JN: 6570**

REPORT PREPARED BY:
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Engineers ♦ Environmental Scientists ♦ Surveyors



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SECTION 1

INTRODUCTION

As requested, CES, Inc. (CES) has completed a Class C/D Medium-High Intensity Soil Survey for the lands around the Yexas Camps on Square Lake in Aroostook County, Maine. The soil survey was completed in November and December of 2013. The purpose of the soil survey is to provide detailed soil information to support the proposed Concept Plan application to the Maine Land Use Planning Commission (LUPC). The site is part of a larger area being proposed for rezoning to allow recreational lodging and residential development. This soil survey was completed as requested by the LUPC staff due to the potential for increased density of development as a recreational area. This soil survey covers approximately 400 acres in and around the proposed Square Lake E and Square Lake Yexas Development Zones. A Class D Medium Intensity soil survey was completed for the overall area, and a Class C Medium High intensity soil survey was completed within the 30 acres around the existing camps in the Square Lake Yexas Development Zone.

The survey boundaries are shown on the attached Survey Plan. The purpose of this soil survey was to identify, describe, and map the major soil types in the area encompassed by the Square Lake E and Square Lake Yexas Development Zones. The information provided in this Soil Survey Report will assist in evaluating the suitability of the soils for potential recreational lodging and residential development, and potential corrective measures to overcome limitations related to soils. Other Concept Plan Development Zones have been reviewed based on existing available data and are covered under a separate report.



SECTION 2

METHODOLOGY

2.1 General Methodology

Prior to field work on the site, we researched existing published information about the site. This included USGS topographical maps, existing published soils surveys from the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) for Aroostook County, National Wetland Inventory (NWI) wetland maps from the U.S. Fish and Wildlife Service (USFWS), and geological information available from the Maine Geological Survey (MGS).

CES conducted field work and test pit explorations in November of 2013 to complete a detailed soil survey of the area surrounding the Yexas camps on the east side of Square Lake. Test pits were excavated throughout the site by hand using a tile spade and screw auger. Due to the remote nature of the site an excavator was not available; therefore, the test pit data and soil series observed reflect only hand dug test pits. Test pit locations were selected based upon topography, vegetation, landform, and observed changes in parent material. Soil profiles were described and documented in general accordance with the National Soil Survey Handbook. Soil characteristics, including soil texture and color, consistency, horizon thickness, depth to restrictive layer, depth to seasonal high water table, saturation, and depth of rooting were recorded. These test pits are shown on the Soil Survey and Test Pit Logs, included in **Appendix C**.

Soils were classified, when possible, to published soil series established by the NRCS in the *National Cooperative Soil Survey* in accordance with Maine Association of Professional Soil Scientists (MAPSS) guidelines and classified according to the USDA NRCS's *Keys to Soil Taxonomy (2010)*. Soils meeting the definition of hydric soils were identified using the *Field Indicators of Hydric Soils in the United States (2010)* and the *Field Indicators for Hydric Soils in New England*, version 3 (2004). The mapping was completed based on a minimum delineation size of approximately five acres for the Class C survey area, and a minimum of 20 acres in the Class D survey area. For example, within any map unit, no single area larger than the minimum delineation size (i.e., 5 acres) may be different from the named soils in terms of use and management. Soil map units were delineated as consociations and associations that contain a single named soil and soils that are similar in use and management, respectively. Some areas were mapped as complexes of two or more soil series that could not be differentiated at the mapped scale.

Test pits, boring locations, and other site features were located by CES using a sub-meter Trimble Geo XH GPS unit. The base plan was completed by CES using project boundaries and aerial lidar topography from Irving Woodlands LLC and/or their consultants, at a scale of 1 inch = 500 feet, with two-foot contour intervals provided by Irving, generated from the lidar. No boundary surveys or other surveys were completed by CES to verify property lines or ownership.



Summary of Soil Survey Methods

Approximately 30 acres of the 51 acres included in the Square Lake Yexas Development Zone was surveyed at Class C medium-high intensity. The 30 acres included the existing Yexas camp area. The Square Lake E Development Zone (approximately 370 acres) was surveyed at Class D medium intensity.

- ◆ Class C and Class D Soil Surveys were completed in accordance with Maine Association of Professional Soil Scientists (MAPSS) standards as follows.
- ◆ Class D Soil Survey:
 - Soil map units contain no more than 20 acres or 25% of dissimilar limiting individual inclusions. Inclusions may total more than 20 acres if not contiguous.
 - Map Scale of 1"=1,000' or larger.
 - Test pits located using sub-meter GPS.
 - Base map with two-foot contour lines.
- ◆ Class C Survey:
 - Soil map units contain no more than five acres or 25% of dissimilar individual inclusions. Inclusions may total more than five acres if not contiguous.
 - Map Scale of 1"=500'.
 - Test pits located using sub-meter GPS.
 - Base map with two-foot contour lines.

The accompanying soil profile descriptions, Soil Survey Map (**Appendix B**), and this soil narrative report entitled “*Class D Medium and Class C Medium-High Intensity Soil Survey for Square Lake East (Yexas Camps)*”, T16-R5 for Irving Woodlands, dated November 2014, were completed in general accordance with the standards adopted by the Maine Association of Professional Soil Scientists, March 2009, as amended and prepared by **Roger St.Amand, C.S.S. # 471**.

SECTION 3

SITE AND SOIL CONDITIONS

General Site Overview

The Square Lake E and Square Lake Yexas Development Zones are located on the east side of Square Lake. The immediate shoreline is largely undeveloped, with the exception of the existing camps at the Yexas site. All season logging roads in good condition traverse the site, roughly paralleling the shoreline of Square Lake and generally located 500-1,000 feet away from the shoreline. The north facing slopes are dominated by gentle to moderate slopes along the shoreline. Moving east, the slopes dominated by steep to very steep topography. The slopes range from gentle (0-8%) in toe slope and lower slope positions to very steep (>35%) in the mid and upper slope positions. For this survey to be consistent with the soil review completed for other Development Zones, a 15% slope was used as the break between moderate slopes suitable for development and steep slopes that are generally unsuitable. It should be noted this is conservative and often slopes up to 20% can be reasonably developed for residential use and could support on-site wastewater disposal systems. The steeper topography within the project area was not assessed in detail and potential development sites and suitable soil conditions likely occur.

Soil and Site Overview

Soils in the survey area were derived from loamy glacial till parent material and are dominated by silt loams and loams. The lower and mid slopes are very deep to deep glacial tills with a dense basal till subsoil. The upper slopes are bedrock controlled shallow and moderately deep loam and silt loam tills over bedrock.

In general the soils observed throughout the area were found to occur in complex but repeatable patterns in the landscape. In the lower slope

positions from the shoreline at elevation 580 feet up to about 660 feet elevation, silt loam soils with a dense basal till hardpan layer occur. Here, the better drained soils series occur on convex slopes and ridge positions, and the wetter soils in concave areas and where slopes are gentle. The topography along the mid and lower slopes is very complex and the ridges and swales occur

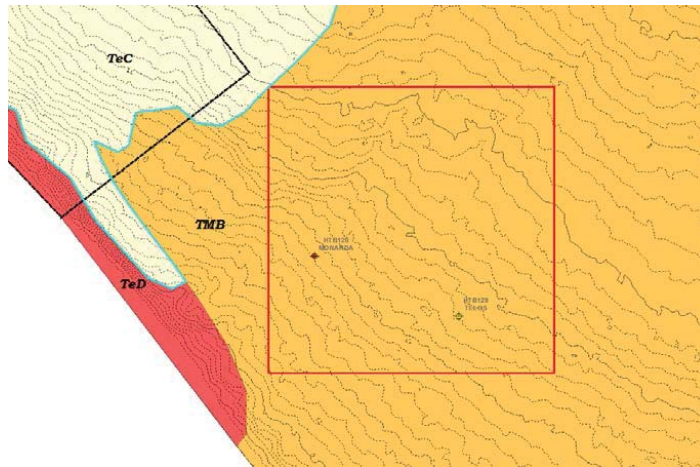


Figure 1

Example of complex soils and micro-topography south of camp area shown by 2 foot contours. Telos and Monarda soils in TP 128 and 128. The red square represents approximately five acres.

up and down the slopes in very close proximity to each other. Due to the complex patterns and micro topography, the different soil series could often not be broken out at the Class D survey level. Within this area most soils were mapped as complexes. Beginning in the north, soils observed along the mid and lower slopes included poorly drained Monarda series, somewhat poorly drained Telos, and moderately well drained Chesuncook soils. Inclusions of shallow to bedrock areas occur. The poorly drained Monarda soils are generally located in concave areas, swales and depressions. Telos and Chesuncook soils are found on convex positions and where slope gradients increase to over 8%. The Telos and Chesuncook soils are generally suitable for development. Telos soils have a water table from 7 to 16 inches below grade. In areas greater than 250 feet from the shore, these soils contain suitable sites for on-site wastewater disposal under the current rules, where a minimum of nine inches of soil above restrictive layer or a seasonal high water table is needed.

Within the upper slope areas the microtopography of ridges and valleys is less evident, and slope complexity and gradient are more consistent and dominated by steep and very steep slopes. These areas are bedrock controlled and the depth is quite variable with depths as shallow as 10 inches up to 40 inches or more. These soil conditions are also quite complex and not able to be differentiated at the current mapping scale. The soils series observed here include the shallow Monson series (10-20 inches to bedrock), the moderately deep Elliottsville (20-40 inches to bedrock), and Ragmuff soil series that have a seasonal high water table at 16 inches or greater and are also moderately deep to bedrock. In general the upper slopes and ridge top areas are dominated by Elliottsville and Monson soils with bedrock depths in the 12-24 inch range. A seasonal high water table is common on the lower elevations of the map unit and where slopes are concave.

Around the Yexas camp area where the Class C survey was completed, similar soil conditions are found. The more detailed survey in this area was conducted to provide additional soils information and determine potential wastewater disposal suitability for a potential recreational lodging facility and associated residential development. In general, the soils along the upper and mid slope positions are similar to those of the surrounding area with Telos soils on moderately steep slopes dominating the site. Some of the soil profiles showed bedrock within 48 inches. These areas are treated as inclusions within the somewhat poorly drained areas and would have similar uses and limitations. Smaller areas of Monarda soils were present in depressional areas and concave slope positions. Within the immediate vicinity of the camps a large area of well and moderately well drained soils were observed; these soils are gravelly loams with a water table greater than 24 inches below grade. Allagash

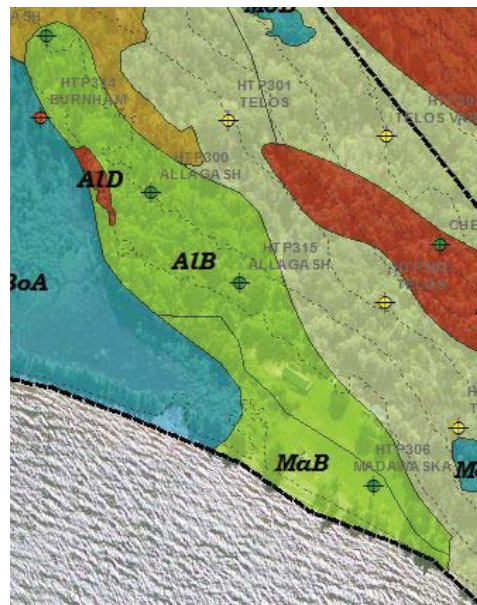


Figure 2
Example of Allagash soil area in Class C Soil Survey of Yexas Camps potentially suitable for wastewater disposal.



and Madawaska soil series were mapped here. The deep gravel soils were not able to be excavated beyond 30 inches. Deeper machine dug test pits would be useful in this area to further define the soil characteristics below this and the soil series may be modified due to the percentage of gravel and mineralogy. This would not change the suitability or the potential use. This soil map unit would be suitable for development and for potential on-site wastewater disposal areas with proper design. This area would be a suitable site for a recreational lodging facility.

The deep, well drained Allagash soil (*AIB*) map unit located greater than 100 feet from Square Lake could support on-site wastewater treatment system for design flows that would handle 100 or more users at potential recreational lodging facility. Using the current Maine Subsurface Wastewater Disposal Rules (MSWR), a typical 100 bed recreational sporting camp with two owner/operators could be expected to generate approximately 2,600 gallons of wastewater per day, requiring approximately 6,760 square feet of suitable soil. Within this *AIB* map unit, over 65,000 square feet of suitable soil that would meet the State rules for wastewater disposal is potentially available. A detailed disposal system design was not completed and additional work and development details would be required to complete a design and site evaluation.



SECTION 4

SUMMARY

The result of the soil survey and our observation indicate the moderately well and somewhat poorly drained soil map units would be generally suitable for development. The Telos, Elliottsville, and Chesuncook soils are generally suitable for the intended use of potential residential and recreational lodging development. The poorly drained Monarda and Burnham soils may include areas of jurisdictional wetlands and have very low development potential. These areas should be avoided. Areas mapped as D slopes (15-35%) have not been included as potential development lands, though it is likely there are suitable areas present.

Within the survey area, there are approximately 204 acres of soil identified as “*Generally Suitable*” or “*Limited Suitability*.” Using the methodology developed in the soil suitability assessment report of one acre for each residential development unit (DU) and two acres per DU for limited suitability soils, the Yexas site could potentially support over 100 residential DUs and a recreational lodging facility. This number does not include development within any of the approximately 98 acres of Telos-Monarda complex (TMB) map units due to a proportionally larger percentage of poorly drained Monarda soils that have very low development potential. It is likely those map units areas have suitable soils for development, especially outside the 250 foot shoreland zone; but in keeping with the conservative assessment, they have not been included in the total.

The attached Soil Map Units Descriptions in **Appendix D** contain detailed descriptions of the map units and specific use and management for each mapped soil type.



APPENDIX A
LIMITATIONS

JN: 6570

APPENDIX A



APPENDIX A

SOIL SURVEY LIMITATIONS

This soil survey and report have been prepared for the exclusive use of Irving Woodlands for the Fish River Lakes Concept Plan Application to the Maine LUPC. The purpose of the soil survey was to provide general soil information for landscape level planning review of the project. The soil survey was completed in general accordance with the publication *Maine Association of Professional Soil Scientists Guidelines for Maine Certified Soil Scientists For Soil Identification And Mapping (2009)*, and in general accordance with generally accepted soil science practices. No warranty, expressed or implied is made.

This Soil Survey Report and maps are based on data obtained from subsurface investigations and interpretation of existing published hydrological, geological, and topographical data. The complexity of the glaciated landscapes, bedrock controlled terrain, and the scale of survey may result in variations in soil properties from those identified herein.

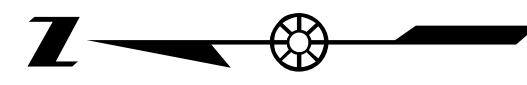
It is important to note that the soil survey interpretations and map units used are influenced in large part by the intended use of the survey. This information may not be adequate for other uses or levels of review that are different than the original intent.



APPENDIX B
CLASS C/D SOIL SURVEY MAP

JN: 6570

APPENDIX B



SYMBOL	MAP UNIT	SLOPE	DRAINAGE CLASS	SlopeClass	SOIL POTENTIAL	SOIL SUITABILITY	ACRES
AIB	Allagash gravelly loam	0-8%	wd	B	Medium	Generally Suitable	3.6
AID	Allagash gravelly silt loam	15-35%	wd	D	Very Low	Unsuitable-Steep	0.1
BoA	Burnham Mucky silt loam	0-3%	vpd	B	Very Low	Unsuitable-Wet	5.5
MaB	Madawaska gravelly loam	0-8%	mwd	B	Medium	Generally Suitable	1.3
MKB	Monson-Elliotsville complex	8-15%	wd-swed	C	Low	Limited Suitability	20.5
MKC	Monson-Elliotsville complex	8-15%	wd-swed	C	Low	Limited Suitability	9.3
MKD	Monson-Elliotsville Complex	15-35%	swed	D	Very Low	Unsuitable-Steep	39.8
MoB	Monarda Burham Association	0-8%	pd	B	Very Low	Unsuitable-Wet	0.2
TCC	Telos-Chesuncook silt loam	8-15%	mwd-spd	C	Medium-Low	Limited Suitability	10.4
TeC	Telos-silt loam	8-15%	spd	C	Low	Limited Suitability	10.7
TeD	Telos silt loam	15-35%	spd	D	Very Low	Unsuitable-Steep	2.6
TMB	Telos-Monarda Complex	0-8%	spd-pd	B	Low/very Low	Unsuitable/Limited	56.9
TRC	Telos-Ragmuff-Monson Complex	8-15%	spd-mwd	C	Low	Limited Suitability	60
TRD	Telos-Ragmuff-Monson Complex	15-35%	spd-mwd	D	Very Low	Unsuitable-Steep	1.5

LEGEND

SUITABILITY

- US
- GS
- LS
- JDI_Lidar_10_FTContours
- JDI_Lidar_10_FTContours

SURVEY AREA

- CLASS C
- CLAS D

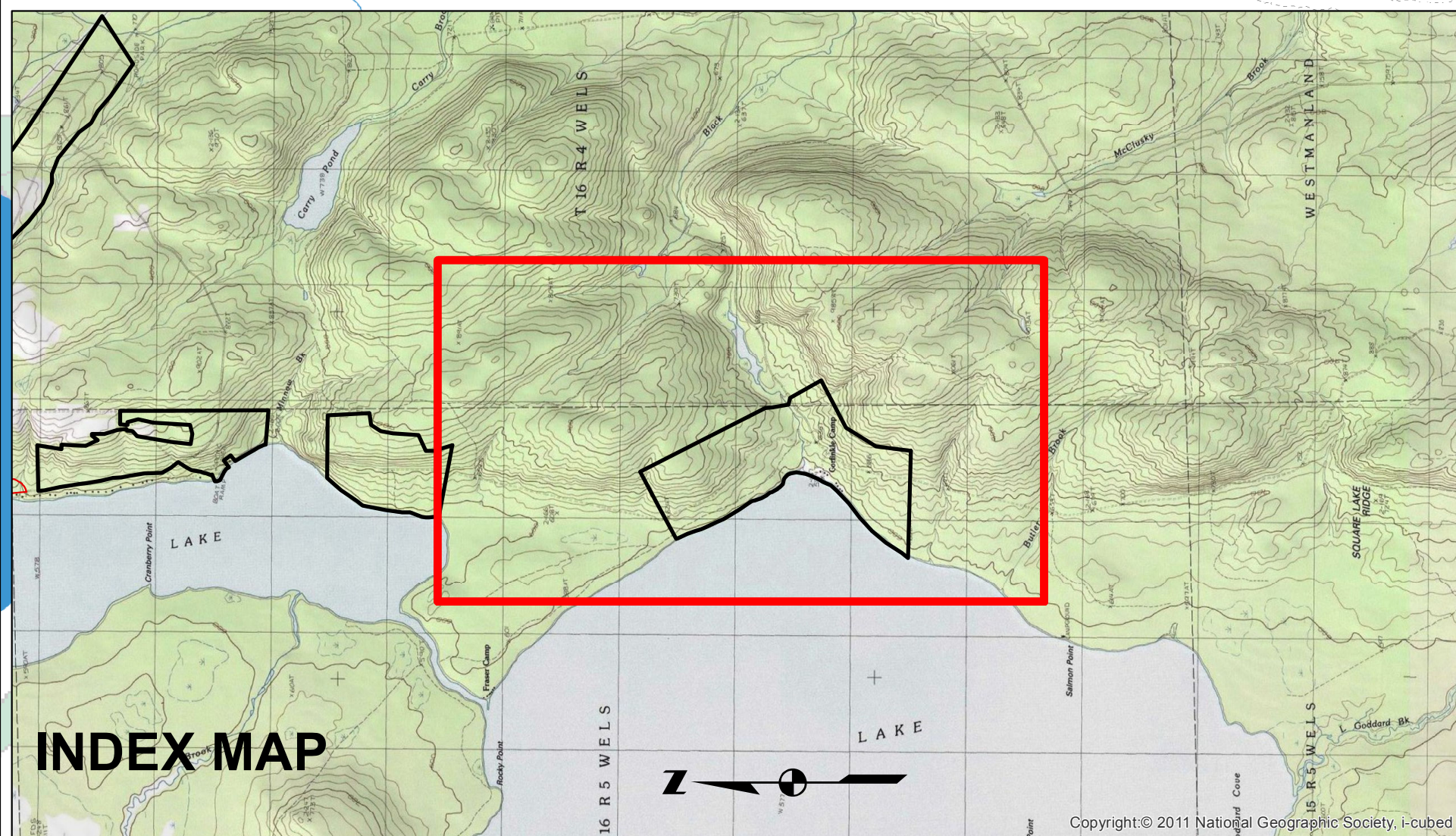
CES-Square Lake Soil Survey 2013

General Soil Suitability Rating

- Unsuitable/ Limited
- Generally Suitable
- Limited Suitability
- Unsuitable-Steepness
- Unsuitable-Wetness

WETLAND_TYPE

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

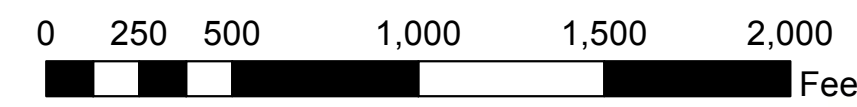


The accompanying soil profile descriptions, soil survey map, and this report entitled "Class C/D Soil Survey for Square Lake East" dated January, 2014 were completed in general accordance with the standards for a Class C Medium-High Intensity and Class D Medium Intensity Soil Survey adopted by the Maine Associations of Professional Soil Scientists (February 2004, revised March 2009), as amended, and prepared by Roger St.Amand, CSS #471

0 1 2 4 Miles
Index Map Scale: 1 inch = 4,000 feet

IRVING WOODLANDS CLASS C/D SOIL SURVEY SQUARE LAKE-AROOSTOOK COUNTY

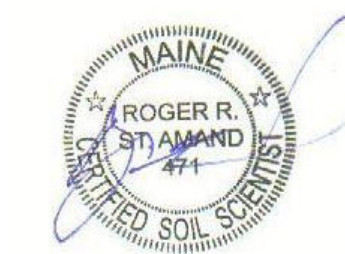
Map Scale:
 1 inch = 500 feet



DATA AND MAPS PREPARED BY:

CES INC
 ENGINEERING • SURVEYING • PLANNING • SCIENCES

- GENERAL NOTE(S):**
- 1.) THIS IS NOT A BOUNDARY SURVEY
- SOURCES:**
- 1.) ORTHOIMAGERY-ESRI
 - 2.) USGS TOPO QUADS- USA TOPO MAPS
 - 3.) IRVING - LIDAR DATA AND PROJECT LIMITS.
 - 4.) MAINE OFFICE OF GIS (MEGIS): PARCELS, ZONING, BASEMAP
 - 5.) USFWS: N.W.I. Wetland Inventory
- PROJECTION: NAD83, STATE PLANE, MAINE EAST, US SURVEY FEET



Map No.
1 OF 1

FISH RIVER LAKES CONCEPT PLAN

Drawn By: RST, CES, INC.
 Checked by:
 Date: JANUARY 2014, REV. NOV 2014



APPENDIX C
SOIL TEST PIT LOG SUMMARY
&
SOIL TEST PIT LOGS

JN: 6570

APPENDIX C

Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 3" Oa

Test Pit: HTP 121 Hydric (Y/N): N

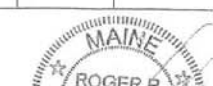
Soil Name: TELOS 7%

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 3-6" Oa

Test Pit: HTB 122 Hydric (Y/N): Y

Soil Name: MONARDA SILT LOAM 4%

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
A	1	SILT		10y ² 3/3		A	1			2.5y ⁵ / ₂	
	2	LOAM					2	SILT			NONE
	3					Bw	3			2.5y ⁵ / ₃	
	4						4	LOAM	FRIABLE		
Bw	5	LOAM	FRIABLE		NINE		5				
	6					Bw ₂	6			2.5y ⁵ / ₂	Many / FAINT & COMMON / Prominent
	7						7				
	8						8				
	9						9				
	10					Cd	10			5y ⁵ / ₂	
	12						12				
Bw ₂	14				COMMON / FAINT		14				
	16						16		FIRM		
Cd	18		FIRM		COMMON / DISTINCT & COMMON / PROMINENT		18				
	20						20				
	25						25				
	30						30			S.H.W.T. e 4" / RESTRICTIVE e 12"	
	35						35				
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				
C.S.S.		Name: <u>ROGER R STAMAND</u>			Date: <u>12/5/2012</u>	License #: <u>471</u>					

Soil Description and Classification

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 3"

Test Pit: HTP 123 Hydric (Y/N): Y

Soil Name: MONARDA GRAVELLY LOAM 7%

Job Number: 6570

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 1"

Test Pit: HTP 124 Hydric (Y/N): N

Soil Name: ELLIOTSVILLE CHANNERY LOAM 1%

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
	1						1				
A	2	SILT		2.5y ⁴ / ₃	NONE	E	2	SILT		7.5y ² / ₂	
	3						3	LOAM	FRIABLE		
	4	LOAM					4				
	5		FRIABLE	5y ⁴ / ₂	Common/ FAINT		5				NONE
	6	GRAVELLY					6				
B _w	7						7	GRAVELLY			
	8	LOAM				B _s	8	LOAM		7.5y ⁵ / ₆	
	9						9				
	10						10				
B _g	12				Common/ FAINT		12	CHANNERY			
	14			5y ⁴ / ₂	& Common/ DISTINCT	B _{s2}	14				
	16						16	LOAM		10y ² / ₄	
C _{dg}	18		FIRM				18				
	20					21 [*]	20				
	25						25	" "	" "	" "	" "
	30					R	30				
	35						35	BEDROCK @ 21"			
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

SNWT @ 4"
 RESTRICTIVE @ 14"

C.S.S. Name: ROGER R ST.AMAND Date: 12/5/2012 License #: 471



Soil Description and Classification

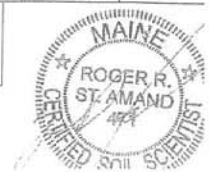
Project Name: <u>FISH RIVER LAKES CONCEPT PLAN</u>		Job Number: <u>6570</u>	
Applicant Name: <u>J.D. IRVING</u>			
Symbol:	O Horizon Thickness: <u>1"</u>	Symbol:	O Horizon Thickness: <u>1"</u>
Test Pit: <u>HTB 125</u>	Hydric (Y/N): <u>N</u>	Test Pit: <u>HTB 126</u>	Hydric (Y/N): <u>N</u>
Soil Name: <u>MONSON CHANNERY SILT LOAM 17%</u>		Soil Name: <u>CHEBUNCOOK SILT LOAM 15%</u>	

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling	
	1						1					
A	2	SILT		2.5y ³ / ₃		A	2					
	3	LOAM					3	SILT		2.5y ⁴ / ₃		
	4		FRIABLE		NONE		4	LOAM				
	5	CHANNERY					5					
BW	6					Bw/ Bs	6				NONE	
	7	SILT		2.5y ⁵ / ₄			7					
	8	LOAM					8					
	9						9	LOAM	FRIABLE		7.5y ⁶ / ₆	
R	10					Bs ₂ BC cd	10					
	12						12					
	14	"	"	"	"		14					
	16	BEDROCK @ 12"						16				10y ⁷ / ₄
	18						18					
	20						20				2.5y ⁸ / ₃	
25					25							
30					30			FIRM		5y ⁹ / ₃		
35					35	<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> REFUSAL 22" Pass BEDROCK NO SHWT NOTED </div>						
40					40							
45					45							
50					50							
55					55							
60					60							
65					65							
70					70							
75					75							
80					80							
85					85							
90					90							
95					95							

C.S.S. Name: ROGER R ST.AMAND

Date: 12/5/13

License #: 471



Soil Description and Classification

Project Name: <u>FISH RIVER LAKES CONCEPT PLAN</u>		Job Number: <u>6570</u>	
Symbol:		Applicant Name: <u>J.D. IRVING</u>	
O Horizon Thickness: <u>1"</u>		Symbol:	
Test Pit: <u>HTP 127</u>		O Horizon Thickness: <u>4"</u>	
Hydric (Y/N): <u>N</u>		Test Pit: <u>HTB 128</u>	
Soil Name: <u>RAGMUFF</u>		Hydric (Y/N): <u>X</u>	
		Soil Name: <u>MONARDA</u>	
		<u>8%</u>	

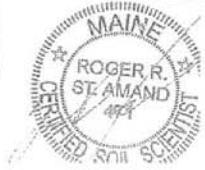
Horiz	0	Texture	Consistency	Color	Motting	Horiz	0	Texture	Consistency	Color	Mottin
	1						1				
	2						2				
	3						3	SILT		2.5y ³ / ₂	
Ap	4	SILT		10y ² / ₃		A	4	LOAM	FRIABLE		NONE
	5	LOAM					5				
	6		FRIABLE			Bw	6			2.5y ¹ / ₃	
	7				NONE		7				
	8						8				
	9						9	GRAYELLY			Commonly Prominent
	10					Bw ₂	10			5y ³ / ₂	
Bw	12			10y ² / ₄			12	LOAM			
	14						14				
	16						16				
Bc	18	CHANNERY				cd	18		FIRM	5y ³ / ₃	
	20	SILT		2.5y ⁵ / ₃	Common/ FAINT		20				
	25	LOAM					25				
	30	"	"	"	"		30				
R	35						35				
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

19"

BEDROCK
 @ 22"-24"
 SNWT @ 16"

SATURATED @ 7"
 SHWT @ 7"
 RESTRICTIVE 14"

C.S.S.	Name: <u>ROGER R STAMAND</u>	Date: <u>12/5/2012</u>	License #: <u>471</u>
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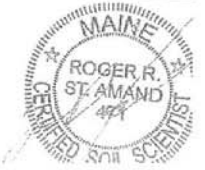


Soil Description and Classification

Project Name: <u>FISH RIVER LAKES CONCEPT PLAN</u>		Job Number: <u>6570</u>	
Applicant Name: <u>J.D. IRVING</u>			
Symbol:	O Horizon Thickness: <u>4"</u>	Symbol:	O Horizon Thickness: <u>1"</u>
Test Pit: <u>HTB 129</u>	Hydric (Y/N): <u>N</u>	Test Pit: <u>HTP 130</u>	Hydric (Y/N): <u>N</u>
Soil Name: <u>TELUS LOAM</u>	<u>8%</u>	Soil Name: <u>TRAGMUFF</u>	<u>13%</u>

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
E	1			7.5yR 6/2			1				
	2						2				
	3	SILT				A	3	SILT	FRIABLE	2.5y 3/3	
	4	LOAM					4	LOAM			
BS	5			7.5yR 4/6			5				
	6						6				
	7		FRIABLE		NONE		7				NONE
	8						8	GRAVELLY			
	9						9	LOAM		2.5y 5/6	
BS ₂	10			10yR 5/4		B _w	10				
	12	LOAM					12				
	14						14				
BC	16	GRAVELLY		2.5y 7/3	FEW/FAINT		16				
	18				&	BC	18			2.5y 5/3	COMMON FAINT
	20	LOAM			COMMON/DISTINCT		20	"	"	"	
Cd	25		FIRM			R	25				
	30			5y 5/3			30	BEDROCK			
	35						35				
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

C.S.S.	Name: <u>ROGER R ST.AMAND</u>	Date: <u>12/5/2012</u>	License #: <u>471</u>
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Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN		Applicant Name: J.D. IRVING	
Symbol:	O Horizon Thickness: 3	Symbol:	O Horizon Thickness: 6"
Test Pit: HTP155	Hydric (Y/N): N	Test Pit: HTP156	Hydric (Y/N): Y
Soil Name: ELLIOTSVILLE cobbly SILT LOAM 10%		Soil Name: MONARDA 4%	

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
	1						1				
	2					A	2	SILT		2.5y ³ / ₂	
E	3	SILT		10y ² / ₁			3	LOAM	FRIBLE		NONE
	4	LOAM			NONE	Bw	4			2.5y ⁴ / ₃	
	5		FRIBLE				5				
	6						6				
	7						7		FIRM IN		
	8			7.5y ³ / ₆		Bc	8		Place	5y ³ / ₃	Common
BAS	9						9				DISTINCT
	10						10		V. FIRM		
	12					col	12			5y ⁴ / ₂	Common /
	14						14				Prominent
	16	cobbly	FIRM				16				+ Common
	18	SILT	IN				18				FRONT
	20	LOAM	PLACE				20				
	25	//	//	//	//		25	S.H.W.T. @ 6"			
	30						30	RESTRICTIVE @ 9"			
	35						35				
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

C.S.S.	Name: ROGER R ST.AMAND	Date: 10/24/2013	License #: 471
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(S.H.W.T. = SEASONAL HIGH WATER TABLE)



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 3" oi

Symbol: _____ O Horizon Thickness: 3"

Test Pit: HTP 157 Hydric (Y/N): N

Test Pit: HTP 158 Hydric (Y/N): N

Soil Name: MONSON VARIANT 6%

Soil Name: MONSON VARIANT 8%

Horiz	0	Texture	Consistency	Color	Motting	Horiz	0	Texture	Consistency	Color	Motting
A	1					A	1				
	2	SILT	FRIABLE	2.5y ³ / ₂			2	SILT	FRIABLE	2.5y ³ / ₂	
	3	LOAM					3	LOAM			
	4				NONE		4				10y ² / ₁₁
	5						5				
	6	Channery				Bs	6				
	7	SILT	FRIABLE	2.5y ⁵ / ₆			7	CHANNERY			
	8	LOAM					8	SILT			2.5y ⁵ / ₆
	9						9	LOAM			
	10						10				
12					12						
14					14						
16	V. CHANNERY					16	CHANNERY	FIRM N	2.5y	SATURATED	
18	SILT LOAM	FIRM	2.5y ⁴ / ₃	FEW	PAINT	18	SANDY	PLACE	4/3	REDUOX	
20	//	//	//	//	//	20	LOAM				
25	BEDROCK @ 17" SATURATED @ 15" (NO REDOX EVIDENT)					25	BEDROCK @ 18" SATURATED @ 13"				
30						30					
35						35					
40						40					
45						45					
50						50					
55						55					
60						60					
65						65					
70						70					
75						75					
80						80					
85						85					
90						90					
95						95					

C.S.S. Name: ROGER R ST. AMAND

Date:

10/24/2012

License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 2" O_h

Symbol: _____ O Horizon Thickness: _____

Test Pit: HTB 159 Hydric (Y/N): N

Test Pit: _____ Hydric (Y/N): _____

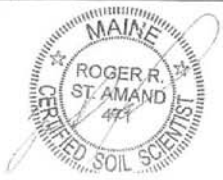
Soil Name: TELOS SILT LOAM 8%

Soil Name: _____

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
	1						1				
<u>A</u>	2	<u>SILT LOAM</u>	<u>FRABLE</u>	<u>2.5y^{3/2}</u>			2				
	3						3				
	4						4				
	5						5				
	6				<u>NONE</u>		6				
<u>Bw</u>	7						7				
	8						8				
	9						9				
	10						10				
	12						12				
<u>13"</u>	14						14				
<u>Bwz</u>	16	<u>CHANNERY</u>			<u>COMMON / FAINT</u>		16				
<u>7"</u>	18	<u>SILT LOAM</u>	<u>FIRM</u>		<u>COMMON /</u>		18				
<u>cd</u>	20				<u>DISTINCT</u>		20				
	25						25				
	30						30				
	35						35				
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

REFUSAL @ 20" HAND AUGER
POSS BEDROCK WITHIN 48"

C.S.S. Name: ROGER R ST. AMAND Date: 10/24/2013 License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN		Applicant Name: J.D. IRVING	
Symbol:	O Horizon Thickness: 2" oi	Symbol:	O Horizon Thickness: 1" oa
Test Pit: HTP 300	Hydric (Y/N): N	Test Pit: HTP 301	Hydric (Y/N): N
Soil Name: ALLAGASH VARIANT	20%	Soil Name: TELOS VAR	10%

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
A	1	GRAVELLY	FRIABLE	7.5yR ³ / ₂		Ap	1		FRIABLE	10yR ³ / ₃	NONE
	2	SILT LOAM					2				
	3						3	SILT LOAM			
	4						4				
	5						5				
E	6			10yR ⁶ / ₂		6					
	7				NONE	7					
Bs	8	VERY GRAVELLY	FIRM PLACE	7.5yR ⁴ / ₄		Bw	8		FRIABLE	2.5y ⁴ / ₄	
	9	GRAVELLY					9				
	10	LOAM					10				
	12						12				
	14	740%					14	15"			
Bsc	16	MED GRAVEL				16					COMMON FAINT
	18					18		FRIABLE	2.5y ⁵ / ₃		5y ¹ / ₁ DEPL.
	20					20					
	25					25					
	30					30	VERY FINE LOAMY SAND	FRIABLE TO LOOSE		5y ⁴ / ₂	SATURATED 23"
C	35					35					
	40		LIMIT OF OBS. (HAND DUG)			40		FIRM		5y ⁴ / ₂	
	45					45					
	50					50					
	55					55					
	60					60					
	65					65					
	70					70					
	75					75					
	80					80					

C.S.S. Name: ROGER R ST.AMAND	Date: 11/20/2013	License #: 471
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Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Applicant Name: J.D. IRVING

Symbol: O Horizon Thickness: 4" 02

Symbol: O Horizon Thickness: 1"

Test Pit: HTP 302 Hydric (Y/N):

Test Pit: HTP 303 Hydric (Y/N): N

Soil Name: MONSON SILT LOAM 24%

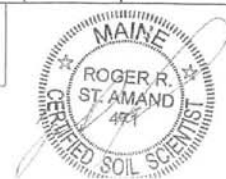
Soil Name: TELOS VARIANT 14%

Horiz	0	Texture	Consistency	Color	Mottg	Horiz	0	Texture	Consistency	Color	Mottg
E	1						1				
	2			10yR 6/2			2			2.5y 3/2	
	3	SILT LOAM	FRIABLE			AP	3				NONE
	4				NONE		4	SILT LOAM	FRIABLE		
	5						5				
Bs	6						6				
	7	10% CHAMERS		7.5yR 4/6		Bw	7			2.5y 4/3	
	8						8				
	9						9				
	10						10			5y 5/2	Common / Prom. 10yR 4/6
	12						12				
R	14	BEDROCK @ 10"					Bwz				Common / Faint 5y 4/1
	16						16				
	18					BC	18	SILT LOAM	FIRM IN PLACE	5y 4/2	Common / DISTINCT
	20						20	1% clay			
	25					24"	25				
	30						30				
	35						35				
	40					R	40	REFUSAL @ 24" (BEDROCK) POSSIBLE (ASSUMED)			
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

C.S.S. Name: ROGER R ST. AMAND

Date: 11/20/13

License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 1"

Test Pit: HTP 304 Hydric (Y/N): N

Soil Name: TELOS SILT LOAM 15%

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 1"

Test Pit: HTP 305 Hydric (Y/N): N

Soil Name: TELOS SILT LOAM 10%

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
	1						1				
	2					A	2			2.5y ^{3/3}	
	3		FRABLE				3				NONE
Ap	4	SILT		2.5y ^{3/3}			4				EVIDENT
	5	LOAM			NONE		5	SILT			(N/E)
	6					Bw	6		FRIABLE	2.5y ^{5/3}	
	7						7	LOAM			
	8						8				
	9						9				
	10						10			5y ^{5/3}	Common/
	12						12				DISTINCT
Bw	14		FRIABLE	5y ^{5/3}		Bw2	14				
	16						16				
BC	18	LOAM	FIRM IN PLACE	5y ^{5/3}	FEW/DISTINCT 10y ^{24/6}		18			5y ^{5/2}	
	20				Common/	BC	20				
cd	25	SILT	FIRM	5y ^{5/2}	FAINT		25				
	30	LOAM			FEW/DISTINCT	24"	30		FIRM	5y ^{4/3}	N/E
	35						35				
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

RESTRICTIVE C 14"
(KNOW POSITION)

SHWTE 9"
FIRM C 24"

C.S.S. Name: ROGER R ST. AMAND Date: 11/20/2013 License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 1" oi

Test Pit: HTP 306 Hydric (Y/N): N

Soil Name: MADAWASKA GRAVELLY SILT LOAM 1-2%

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: _____

Test Pit: HTP 307 Hydric (Y/N): Y

Soil Name: MONARDA SILT LOAM

Horiz	0	Texture	Consistency	Color	Motting	Horiz	0	Texture	Consistency	Color	Motting				
	1						1								
	2						2								
	3						3								
Ap	4	GRAVELLY		10 yr 3/3		A	4	SILT LOAM							
	5						5								
	6	SILT LOAM	FRIABLE		NONE	Bw	6		FRIABLE		Common FAINT				
	7						7								
	8						8								
E	9						9				Common				
	10			10 yr 6/2			10			5y 5/2	DISTINCT +				
	12						12								
	14					Bw ₂	14				Common FAINT				
Bs	16	VERY GRAVELLY		7.5 yr 4/6			16								
	18						18	GRAVELLY LOAM		5y 5/3					
	20	SILT LOAM				BC	20								
28"	25					cd	25		FIRM						
6"	30			18 yr 2/4	Common FAINT		30	" "	" "	" "	" "				
	35		FIRM IN PLACES	2.5y 4/3			35								
C	40	<div style="border: 1px solid black; border-radius: 50%; padding: 10px; width: fit-content; margin: auto;"> 30" Limit of OBS. Saturated @ 26" weak redox @ 22" MWD </div>					40								
	45										45				
	50										50				
	55										55				
	60										60				
	65										65				
	70					70									
	75					75									
	80					80									
	85					85									
	90					90									
	95					95									

C.S.S. Name: ROGER R ST. AMAND Date: 11/20/2013 License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 1"

Test Pit: HTP 308 Hydric (Y/N): N

Soil Name: MINSON VAR. 16%

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 1"

Test Pit: HTB 309 Hydric (Y/N): N

Soil Name: MINSON 18-22%

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling	
	1						1					
A	2	SILT				E	2	LOAM		10y _r ⁴ / ₂		
	3	LOAM		2.5y ³ / ₂			3		FRIABLE			
	4		FRIABLE		N/E		4					
	5						5	BHS			7.5y _r ⁴ / ₆	NONE
	6						6					
BW	8	CHANNERY				BS	8					
	9	SILT LOAM		2.5y ⁴ / ₂			9				10y _r ⁴ / ₄	
	10						10					
	12						12					
R	14					BC	14	CHANNERY				
	16						16	LOAM		2.5y ⁵ / ₃		
	18		BEDROCK e 12"					18				
	20		EVIDENCE SATURATION e 10"					20	" "	" "	" "	" "
	25		(MWD)					25				
	30							30				BEDROCK e 18"-19"
	35						35				SWED	
	40						40					
	45						45					
	50						50					
	55						55					
	60						60					
	65						65					
	70						70					
	75						75					
	80						80					
	85						85					
	90						90					
	95						95					

C.S.S. Name: ROGER R STAMAND Date: 11/21/2013 License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 2" ai

Test Pit: HTP 310 Hydric (Y/N): Y

Soil Name: MONARDA MUCKY SILT LOAM 310

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 2"

Test Pit: HTB 311 Hydric (Y/N): Y

Soil Name: MONARDA SILT LOAM 610

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling	
A	1					A	1					
	2	<u>mucky</u>	<u>FRIABLE</u>		<u>NONE</u>		2				<u>2.5y^{3/1}</u>	<u>NONE</u>
	3	<u>SILT</u>		<u>2.5y^{3/1}</u>			3	<u>SILT</u>	<u>FRIABLE</u>			
	4	<u>LOAM</u>					4					
	5						5	<u>LOAM</u>				
Cd	6				<u>Common/DISTINCT</u>	Cd	6				<u>Common/DISTINCT</u>	
	7			<u>5y^{1/2}</u>	<u>Common</u>		7			<u>2.5y^{1/2}</u>	<u>10y^{2/4}</u>	
	8				<u>Common</u>		8				<u>Common</u>	
	9	<u>LOAM</u>	<u>FIRM</u>		<u>Common</u>		9				<u>Common</u>	
	10				<u>FRONT</u>		10				<u>FRONT</u>	
	12						12				<u>5y^{1/1}</u>	
	14						14	<u>LOAM</u>	<u>FIRM</u>	<u>5y^{1/3}</u>		
	16						16					
	18	<u>1</u>	<u>1</u>	<u>1</u>			18	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
	20		<u>Sat. e 3"</u>				20				<u>Auger BORING</u>	
25		<u>FIRM/RESTRICTIVE e 5"</u>			25				<u>SAUT. e 4"</u> <u>RESTRICTIVE e 11"</u>			
30		<u>PD-4PD</u>			30							
35					35							
40					40							
45					45							
50					50							
55					55							
60					60							
65					65							
70					70							
75					75							
80					80							
85					85							
90					90							
95					95							

C.S.S. Name: ROGER R STAMAND Date: 11/21/2013 License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: _____

Test Pit: HTP 312 Hydric (Y/N): N

Soil Name: MONSON 15%

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: 4" ai

Test Pit: HTP 313 Hydric (Y/N): N

Soil Name: ALLAGASH GRAVELLY LOAM 4%

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
	1						1				
E	2			10yr ⁶ /1			2	LOAM			
	3					E	3				
	4	LOAM	FRIABLE				4		FRIABLE		
Bhs	5			7.5yr ³ /4	NONE		5		TO		
	6					Bhs	6	gravelly LOAM	LOOSE		
	7						7				
	8						8				
	9						9				
Bs	10			10yr ⁴ /6			10				NONE
	12						12				
	14					Bs	14	VERY Gravelly LOAM			
	16						16				
	18						18				
	20	"	"	"	"		20				
	25		BEDROCK			C	25	VERY Gravelly Sandy LOAM	FIRM IN PLACE		
R	30		C 18"				30				
	35						35	"	REPOSABLE FIRM		
	40						40				
	45						45	LIMIT OF OBS 30" (HAND DUG) NO RESTRICTION layer within 30"			
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

C.S.S. Name: ROGER R ST. AMAND Date: 11/21/13 License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 14"

Test Pit: HTP 314 Hydric (Y/N): Y

Soil Name: BURNHAM mucky SILT LOAM O₁₀

Applicant Name: J.D. IRVING

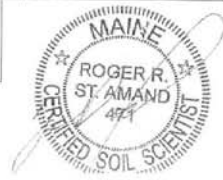
Symbol: _____ O Horizon Thickness: 21"

Test Pit: HTP 315 Hydric (Y/N): N

Soil Name: ALLAGASH GRAVELLY LOAM

Horiz	0	Texture	Consistency	Color	Motting	Horiz	0	Texture	Consistency	Color	Motting	
	1						1					
	2						2					
	3						3	Gravelly	FRIABLE			
	4	MUCK/		black			4	LOAM		10yr ^{2/3}		
	5	SAPRIC			NONE		5					
Oa	6					Ap	6				NONE	
	7						7					
	8						8					
	9						9					
	10						10					
	12						12					
	14						14	VERY	FRI →	11		
	16						16	Gravelly	LOOSE	5yr		
Cg	18	SILT	FIRM	5y/2	COMMON, DISTINCT	Bs	18	LOAM →		4/6		
	20	LOAM			COMMON/ FINE		20	GRAVEL				
	25					Bs2	25		FIRM IN PLACE	10yr ^{2/6}		
	30						30					
	35	LIMIT OF OBS						35	29" LIMIT OF OBS.			
	40	<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> SHUT @ 0" PONDING/FLOODED </div>						40	HAND-DUG			
	45							45	<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> >40% small + med. gravel in substratum </div>			
	50							50				
	55							55				
	60							60				
	65							65				
	70		70		70		70					
	75						75					
	80						80					
	85						85					
	90						90					
	95						95					

C.S.S. Name: ROGER R STAMAND Date: 11/21/13 License #: 471



Soil Description and Classification

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 1"

Test Pit: HTP 316 Hydric (Y/N): N

Soil Name: ELLIOTSVILLE CHANNERY LOAM 23%

Job Number: 6570

Applicant Name: J.D. IRVING

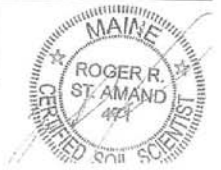
Symbol: _____ O Horizon Thickness: 2" oi

Test Pit: HTP 317 Hydric (Y/N): N

Soil Name: MONSON SILT LOAM 9%

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling
	1						1				
	2			10YR 7/3		E	2			10YR 7/2	
A	3	Loam					3				
	4						4	SILT	FRIABLE		
	5		FRIABLE				5				
	6						6	Loam		10YR 7/4	NONE
Bw	7	channery Loam		10YR 7/6	NONE	Bs	7				
	8						8				
	9						9				
	10						10				
	12						12				
	14						14				
	16						16				
Bwz	18			10YR 7/4			17"				
	20						20	"	"	"	"
	25	"	"		"		25				
R	30	2'-23" BEDROCK				R	30	BEDROCK @ 17"			
	35						35				
	40						40				
	45						45				
	50						50				
	55						55				
	60						60				
	65						65				
	70						70				
	75						75				
	80						80				
	85						85				
	90						90				
	95						95				

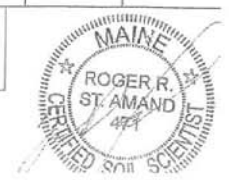
C.S.S. Name: ROGER R STAMAND Date: 11/21/13 License #: 471



Soil Description and Classification

Job Number: 6570

Project Name: <u>FISH RIVER LAKES CONCEPT PLAN</u>		Applicant Name: <u>J.D. IRVING</u>	
Symbol:	O Horizon Thickness: <u>3</u>	Symbol:	O Horizon Thickness: <u>3"</u>
Test Pit: <u>HTP 318</u>	Hydric (Y/N): <u>N</u>	Test Pit: <u>HTP 319</u>	Hydric (Y/N): <u>N</u>
Soil Name: <u>CHESUNCOOK SILT LOAM 8b</u>		Soil Name: <u>ELLIOTSVILLE 18%</u>	

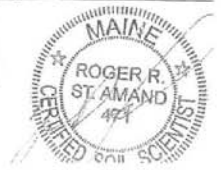
Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling	
E	1			10yR 5/2		E	1			10yR 6/2		
	2						2	SILT				
	3	SILT					3	LOAM				
B _s	4					B _{hs}	4			7.5yR 7/4	NONE	
	5		FRABLE	10yR 5/8			5		FRABLE			
	6						6					
	7						7					
	8						8	LOAM		10yR 4/6		
	9						9					
	10			10yR 5/4		B _s	10					
B _{s2}	12						12					
	14						14					
	16						16					
	18					B _{s2}	18			2.5y 5/4		
BC	20			2.5y 9/3	FEW / FAINT	23	20					
	25						25	" "	" "	" "		
	30						30					
Cd	35		FIRM	5y 5/3		R	35	BEDROCK c 23"				
	40						40					
	45						45					
	50						50					
	55						55					
	60						60					
	65						65					
	70						70					
	75						75					
	80						80					
	85						85					
	90						90					
	95						95					
C.S.S. Name: ROGER R STAMAND		Date: 11/21/13			License #: 471							

Soil Description and Classification

Project Name: <u>FISH RIVER LAKES CONCEPT PLAN</u>		Job Number: <u>6570</u>	
Applicant Name: <u>J.D. IRVING</u>			
Symbol:	O Horizon Thickness: <u>2"</u>	Symbol:	O Horizon Thickness: <u>4" 0a</u>
Test Pit: <u>HTP 320</u>	Hydric (Y/N): <u>N</u>	Test Pit: <u>HTP 321</u>	Hydric (Y/N): <u>Y</u>
Soil Name: <u>MONSON SILT LOAM 21%</u>		Soil Name: <u>MONARDA SILT LOAM 6%</u>	

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling	
E	1					A	1					
	2			10YR 6/2			2			5YR 5/1		
Bhs	4			7.5YR 3/4			3	SILT LOAM	FRIABLE			
	5	SILT	FRIABLE		NONE	Bg	5					
	6						6			10GY 3/1		
	7	LOAM					7					
Bs	9			10YR 4/6		BCg	9			5Y 5/2	Common / Prominent +	
	10						10					
	12					13"	12				Common	
	14						14				Faint	
17"	16			2.5Y 5/4		cdg	16	LOAM	FIRM	5Y 5/2		
	18						18					
	20						20				Common	
	25						25				DISTINCT	
R	30	BEDROCK @ 16-18"					30	SHAFT @ 3" RESTRICTIVE @ 13"				
	35	SAT / SATURATED @ 16"					35					
	40						40					
	45						45					
	50						50					
	55						55					
	60						60					
	65						65					
	70						70					
	75						75					
	80						80					
	85						85					
	90						90					
	95						95					

C.S.S. Name: <u>ROGER R STAMAND</u>	Date: <u>11/21/2013</u>	License #: <u>471</u>
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Soil Description and Classification

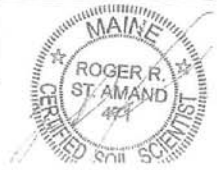
Project Name: <u>FISH RIVER LAKES CONCEPT PLAN</u>		Job Number: <u>6570</u>	
Applicant Name: <u>J.D. IRVING</u>			
Symbol:	O Horizon Thickness: <u>4" a</u>	Symbol:	O Horizon Thickness: <u>2" oi</u>
Test Pit: <u>HTP 322</u>	Hydric (Y/N): <u>N</u>	Test Pit: <u>HTB-323</u>	Hydric (Y/N): <u>N</u>
Soil Name: <u>TELOS SILT LOAM 12%</u>		Soil Name: <u>TELOS SILT LOAM 10%</u>	

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling			
	1						1							
A	2			10y ² / ₂			2							
	3	SILT				A	3	SILT		2.5y ³ / ₃				
	4	LOAM					4	LOAM						
B _s	5				NONE		5							
	6		FRIABLE	2.5y ⁵ / ₄			6		FRIABLE		NONE			
	7						7							
	8						8							
	9					B _w	9			2.5y ⁵ / ₄				
	10						10							
B _{s2}	12			2.5y ⁵ / ₃			12							
	14						14							
BC	16		FIRM	2.5y ⁵ / ₃	FEW/FAINT	15"	16							
17"	18					BC	18	LOAM		5y ⁵ / ₃	Common			
	20	LOAM	FIRM		Common	17"	20				DISTINCT			
cd	25				DISTINCT		25		FIRM		+			
	30						30				Common			
	35	S.H.W.T @ 14" RESTRICTIVE @ 17"					35				FAINT			
	40									40		SAWT @ 15"		
	45									45		SATURATED @ 20"		
	50									50		RESTRICTIVE @ 19-22"		
	55									55				
	60						60							
	65						65							
	70						70							
	75						75							
	80						80							
	85						85							
	90						90							
	95						95							

C.S.S. Name: **ROGER R STAMAND**

Date: 11/21/13

License #: **471**



Soil Description and Classification

Project Name: FISH RIVER LAKES CONCEPT PLAN

Symbol: _____ O Horizon Thickness: 2"

Test Pit: HTP 324 Hydric (Y/N): N

Soil Name: CHESUNCOOK SILT LOAM 16%

Job Number: 6570

Applicant Name: J.D. IRVING

Symbol: _____ O Horizon Thickness: _____

Test Pit: _____ Hydric (Y/N): _____

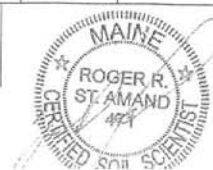
Soil Name: _____

Horiz	0	Texture	Consistency	Color	Mottling	Horiz	0	Texture	Consistency	Color	Mottling	
E	1			10yR ² /2			1					
	2						2					
	3						3					
B _{hs}	4	SILT LOAM	FRIABLE	7.5yR ² /4	NONE		4					
	5						5					
	6						6					
	7						7					
B _s	8			10yR ⁴ /6			8					
	9						9					
	10						10					
	12						12					
B _{s2}	14			2.5y ² /4			14					
	16						16					
	17"	LOAM					18					
BC	20			2.5y ² /3	Few / FAINT		20					
	23"						25					
	25						30					
	30						35					
	35		FIRM				40					
cd	40	CHANNERY LOAM		5y ² /3			45					
	45						50					
	50						55					
	55						60					
	60						65					
	65						70					
	70	60" LIMIT OF P ₂₀ BS - ROAD CUT						75				
	75	SHAPE 17" RESTRICTIVE e 23"						80				
	80							85				
	85							90				
	90							95				
	95											

C.S.S. Name: ROGER R STAMAND

Date: 12/5/2013

License #: 471



TEST PIT	TP NUMBER	SOIL SERIES	TEXTURE	SEASONAL HIGH			PIT DEPTH	HSG	SLOPE	SOIL SUITABILITY
				WATER TABLE	BEDROCK	RESTRICTIVE DEPTH				
	(#)			(INCHES)	(INCHES)	(INCHES)	(INCHES)	(%)		
HTP100	100	CHESUNCOOK	loam	18	0	18	24	C	12	GS
HTP101	101	CHESUNCOOK	fine sandy loam	24	0	24	40	C	11	GS
HTP103	103	TELOS	silt loam	14	0	18	24	C	13	LS
HTB103	103	TELOS	silt loam	14	0	18	24	C	13	LS
HTB104	104	TELOS	silt loam	13	0	19	20	C	8	LS
HTP105	105	TELOS	silt loam	9	0	16	20	C	14	LS
HTP106	106	ELLIOTSVILLE	loam	18	24	24	24	B	22	GS
HTB107	107	ELLIOTSVILLE	loam	16	20	20	20	B	21	GS
HTB108	108	TELOS	loam	11	0	14	18	C	20	LS
HTB109	109	TELOS	loam	9	0	14	16	C	10	LS
HTB110	110	MONARDA	silt loam	2	0	13	13	D	8	US
HTP112	112	TELOS	silt loam	9	0	14	18	C	3	LS
HTP113	113	CHESUNCOOK	silt loam	17	0	22	24	C	4	GS
HTB114	114	MONARDA	silt loam	4	0	36	36	D	0	US
HTB115	115	TELOS	very fine sandy loam	16	0	18	22	C	14	LS
HTB116	116	MONSON	loam	14	14	14	14	C/D	12	LS
HTP117	117	MONSON	loam		17	0	17	C/D	18	LS
HTP118	118	MONARDA	loam	6	0	13	24	D	5	US
HTP119	119	TELOS	loam	16	0	19	24	C	4	LS
HTP120	120	MONARDA	loam	6	0	14	18	D	6	US
HTP121	121	TELOS	loam	12	0	14	20	C	7	LS
HTB122	122	MONARDA	loam	4	0	8	16	D	4	US
HTP123	123	MONARDA	silt loam	4	0	14	20	D	7	US
HTP124	124	ELLIOTSVILLE	loam	0	21	0	21	B	12	GS
TB125	125	MONSON	silt loam	0	12	0	12	C/D	17	LS
TB126	126	CHESUNCOOK	loam	0	0	22	24	C	15	GS
HTP127	127	MONSON	channery loam	0	19	0	22	C/D	10	LS
HTB128	128	MONARDA	silt loam	6	0	14	14	D	8	US
HTB129	129	TELOS	silt loam	13	0	18	24	C	8	LS
HTP130	130	MONSON VARIANT	loam	16	18	0	18	C/D	13	LS
HTB131	131	MONARDA	silt loam	3	0	0	0	D	4	US
HTP132	132	TELOS VARIANT	loam	0	0	0	0	C	6	LS
HTB133	133	TELOS	loam	14	0	19	24	C	8	LS
HTB135	135	TELOS	silt loam	11	0	18	24	C	15	LS
HTP136	136	MONSON	loam	0	14	0	14	C/D	10	LS
HTP137	137	ELLIOTSVILLE	loam	18	22	23	23	B	10	GS
HTB138	138	ELLIOTSVILLE	channery loam	22	21	22	23	B	9	GS
HTB139	139	ELLIOTSVILLE	silt loam	18	32	18	34	B	15	GS
HTB140	140	TELOS	silt loam	9	0	14	18	C	5	LS
HTB141	141	MONARDA	silt loam	7	0	14	18	D	7	US
HTB142	142	BURNHAM	silt loam	1	0	0	36	D	1	US
HTB143	143	TELOS	silt loam	11	0	17	23	C	10	LS
HTB144	144	TELOS	silt loam	14	0	17	23	C	8	LS
HTB145	145	ELLIOTSVILLE	channery loam	19	35	26	36	B	3	GS
HTB146	146	TELOS	loam	9	0	17	20	C	4	LS
HTB147	147	MONARDA	silt loam	4	0	12	16	D	3	US
HTP148	148	TELOS	loam	13	0	0	23	C	3	LS
HTB149	149	TELOS	silt loam	12	0	0	21	C	3	LS
HTP150	150	CHESUNCOOK	loam	16	0	24	25	C	7	GS
TP151	151	TELOS VARIANT	loam	15	25	25	24	C	3	LS
HTP151.1	151	ELLIOTSVILLE	loam	0	24	0	24	B	3	GS
HTP152	152	MONARDA	silt loam	3	0	9	20	D	7	US
HTP153	153	CHESUNCOOK	gravelly oam	17	0	24	28	C	9	GS
HTP154	154	TELOS/RAGMUFF	silt loam	10	19	0	19	C	14	LS
HTP155	155	ELLIOTSVILLE	silt loam	0	23	0	23	B	11	GS
HTP156	156	MONARDA	silt loam	6	0	9	16	D	4	US
HTP157	157	MONSON/RAGMUFF	channery silt loam	15	17	15	17	C/D	6	LS
HTP158	158	MONSON/RAGMUFF	silt loam	13	18	0	18	C/D	8	LS
HTB159	159	TELOS	channery silt loam	1	20	17	20	C	7	LS
HTP160	160	SWANVILLE	silt loam	1	0	20	20	D	2	US
HTP160.1	160	SWANVILLE	silt loam	0	0	0	0	D	0	US

TP		SEASONAL HIGH								
TEST PIT	NUMBER	SOIL SERIES	TEXTURE	WATER TABLE	BEDROCK	RESTRICTIVE DEPTH	PIT DEPTH	HSG	SLOPE	SOIL SUITABILITY
	(#)			(INCHES)	(INCHES)	(INCHES)	(INCHES)		(%)	
HTB161	161	MONARDA	silt loam	0	0	8	16	D	2	US
HTP162	162	BURNHAM	mucky silt loam	0	0	26	26	D	0	US
HTB163	163	MONARDA	silt loam	2	0	16	20	D	1	US
HTB164	164	RAGMUFF/TELOS	silt loam	11	17	0	0	C/D	2	LS
HTB165	165	BURNHAM	silt loam	0	0	18	24	D	1	US
HTP166	166	MONARDA	silt loam	4	0	14	22	D	3	US
HTP167	167	MONARDA	silt loam	6	0	12	30	D	2	US
HTB168	168	MONSON/ELLIOTSVILLE	silt loam	0	19	0	19	C/D	35	LS
HTB169	169	ELLIOTSVILLE	silt loam	0	33	0	33	B	30	GS
HTP170	170	MONSON	channery silt loam	0	14	0	18	C/D	20	LS
HTB171	171	MONSON	channery silt loam	0	12	0	12	C/D	30	LS
HTP172	172	MONSON/RAGMUFF	channery silt loam	15	16	0	16	C/D	10	LS
HTP173	173	MONARDA	loam	2	0	16	24	D	1	US
HTP174	174	MONARDA/BURNHAM	gravelly loam	1	0	18	20	D	1	US
HTP175	175	TELOS VARIANT	channery silt loam	8	18	12	18	C	3	LS
HTP176	176	MONSON	channery silt loam	0	18	0	18	C/D	3	LS
HTP177	177	CHESUNCOOK	silt loam	0	0	0	0	C	5	GS
HTP177	177	CHESUNCOOK	channery silt loam	0	0	18	26	C	5	GS
HTB201	201	TELOS	loam	14	0	0	0	C	7	LS
TB202	202	CHESUNCOOK	loam	20	0	20	28	C	7	GS
TB203	203	TELOS	silt loam	8	0	15	15	C	3	LS
TB204	204	TELOS	silt loam	14	0	18	18	C	15	LS
TB205	205	MONSON	silt loam	0	16	0	16	C/D	15	LS
TB206	206	TELOS	silt loam	10	0	13	0	C	11	LS
HTP300	300	ALLAGASH	very gravelly loam	30	0	0	30	B	2	GS
HTP301	301	TELOS	silt loam	15	0	35	36	C	10	LS
HTP302	302	MONSON	silt loam	0	10	0	10	C/D	24	LS
HTP303	303	TELOS VARIANT	silt loam	8	20	0	24	C	14	LS
HTP304	304	TELOS	silt loam	12	0	14	36	C	15	LS
HTP305	305	TELOS	silt loam	9	0	24	30	C	10	LS
HTP306	306	MADAWASKA	v.gravelly silt loam	30	0	0	30	B	4	GS
HTP307	307	TELOS/MONARDA	silt loam/ loam	7	0	19	23	C	5	LS
HTP308	308	MONSON VARIANT	silt loam	12	12	0	12	C/D	16	LS
HTP309	309	MONSON	loam	0	18	0	18	C/D	19	LS
HTP310	310	MONARDA	loam	5	0	6	16	D	2	US
HTP311	311	MONARDA/TELOS	silt loam	4	0	11	16	C/D	6	US
HTP 312	312	MONSON/ELLIOTSVILLE	loam	0	18	0	18	C/D	15	LS
HTP313	313	ALLAGASH	very gravelly loam	0	0	0	30	B	4	GS
HTP314	314	BURNHAM	muck	1	0	20	20	D	1	US
HTP315	315	ALLAGASH	very gravelly loam	0	0	29	29	B	5	GS
HTP316	316	ELLIOTSVILLE	channery loam	0	21	0	21	B	23	GS
HTP317	317	MONSON	silt loam	0	17	0	17	C/D	9	LS
HTP318	318	TELOS/CHESUNCOOK	silt loam	16	0	0	0	C	8	LS
HTP319	319	ELLIOTSVILLE	loam	0	23	0	0	B	18	GS
HTB320	320	RAGMUFF	silt loam	16	17	0	17	C/D	21	LS
HTP321	321	MONARDA	silt loam /loam	3	0	13	18	D	6	US
HTP322	322	TELOS	silt loam	14	0	14	24	C	12	LS
HTB323	323	TELOS	loam	15	0	19	22	C	10	LS
HTP324	324	CHESUNCOOK	silt loam	17	0	23	60	C	16	GS



APPENDIX D
SOIL MAP UNIT DESCRIPTIONS

JN: 6570

APPENDIX D



**APPENDIX D
SOIL MAP UNIT DESCRIPTIONS**

1. ALLAGASH (ALB, ALD)
2. BURNHAM MUCKY LOAM (BOA)
3. MADAWASKA GRAVELLY LOAM
4. MONSON ELLIOTSVILLE COMPLEX (MKB,MKD, MKC)
5. MONARDA- BURNHAM ASSOCIATION (MOB)
6. TELOS-CHESUNCOOK COMPLEX (TCC)
7. TELOS SILT LOAM (TEC, TED)
8. TELOS-MONARDA COMPLEX (TMB)
9. TELOS-RAGMUFF-MONSON COMPLEX (TRC, TRD)

SOIL SERIES OBSERVED:

ALLAGASH
BURNHAM
CHESUNCOOK
ELLIOTSVILLE
MADAWASKA
MONARDA
RAGMUFF
TELOS



MAP UNIT NAME: Allagash Gravelly Loam Variant (AIB, AID)
(Typic Haplorthods)

SETTING

Parent Material: glaciofluvial outwash material developed from slate, shale, phyllite and smaller amounts of gneiss and limestone

Landform: level to gently sloping areas

Position in Landscape: lower slopes along outwash plains and stream terraces

Slope Gradient Ranges: (B) 0-8%, (D) 15-35%

COMPOSITION AND SOIL CHARACTERISTICS

General: Deep well drained gravelly outwash soils along shore and stream deltas. The soil found here are a variant of the series due to the very gravelly subsurface and subsoil.

Drainage Class: well drained with an apparent water table greater than 40 inches below the soil surface during the growing season.

Typical Profile Description (HTP313):

Surface Layer: light Grayish Brown loam, 0-4"

Subsurface Layer: dark reddish Brown gravelly loam, 4-10"

Subsoil Layer: yellow- brown very gravelly loam, 10-20"

Substratum: yellow- brown very gravelly sandy loam, 20-40"

Hydrologic Group: B

Surface Run Off: slow to very slow

Permeability: Moderately high to high or in upper horizons, high in the substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.28

INCLUSIONS (Within Mapping Unit)

Similar: Madawaska, Masardis

Contrasting:

USE AND MANAGEMENT

(Low density residential development)

Development limitations are few. These soils are generally suitable for onsite subsurface wastewater disposal, but may require a fine textured soil as a liner due to the rapid permeability. The deep coarse grained soils are generally suitable for construction of roads and buildings. There are severe limitations on AID units that have steep slopes. These areas should be avoided where possible.



MAP UNIT NAME: Burnham Mucky Loam (BoA)
(*Histic Humaquepts*)

SETTING

Parent Material: Derived from loamy dense glacial till with organic matter accumulation

Landform: level to areas

Position in Landscape: adjacent to water bodies and concave slope position

Slope Gradient Ranges: (B) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

General: map unit dominated by very poorly drained Burnham soil and similar soils. These are hydric soils

Drainage Class: very poorly drained with a perched water table within 0" inches of the soil surface during the growing season.

Typical Profile Description (HTP314):

Surface Layer mucky histic material, 0-14"

Subsoil Layer: Olive gray silt loam, 14-60"

"

Hydrologic Group: D

Surface Run Off: slow to very slow

Permeability: slow or in upper horizons, moderately slow or slow in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: This soil is generally located within flood hazard areas.

Erosion: K factor: 0.49

INCLUSIONS (Within Mapping Unit)

Similar: Wonsqueak, Bucksport

Contrasting: Monarda

USE AND MANAGEMENT

(Low density Residential development)

Development limitations are very severe due to wetness and a seasonal high groundwater table at or above the surface. These soils are unsuitable for residential development or onsite subsurface wastewater disposal due to the seasonal high water table. Burnham soils are classified as hydric soils, and would be classified as jurisdictional wetlands based on hydrology and vegetation.



MAP UNIT NAME: Madawaska Gravelly Loam Variant (*MaB*)
(*Typic Haplorthods*)

SETTING

Parent Material: glaciofluvial outwash material developed from slate, shale, phyllite and smaller amounts of gneiss and limestone

Landform: level to gently sloping areas

Position in Landscape: lower slopes along outwash plains and stream terraces

Slope Gradient Ranges: (B) 0-8%,

COMPOSITION AND SOIL CHARACTERISTICS

General: Deep moderately well drained gravelly outwash soils along shore and stream deltas. The soil found here are a variant of the series due to the very gravelly subsurface and subsoil.

Drainage Class: moderately well drained with an apparent water table greater than 16 inches below the soil surface during the growing season.

Typical Profile Description (HTP306):

Surface Layer: light Grayish Brown loam, 0-4"

Subsurface Layer: dark reddish Brown gravelly loam, 4-10"

Subsoil Layer: yellow- brown very gravelly loam, 10-20"

Substratum: yellow-brown very gravelly loam, 20-60"

Hydrologic Group: B

Surface Run Off: slow to very slow

Permeability: Moderately high to high or in upper horizons, high in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.28

INCLUSIONS (Within Mapping Unit)

Similar: Masardis, Allagash

Contrasting: Telos

USE AND MANAGEMENT

(Low density residential development)

Development limitations are few. These soils are generally suitable for construction of buildings and roads and onsite subsurface wastewater disposal. The coarse textured subs soil and rapid permeability may be limitation for some uses. For septic systems in these areas, a fine textured soil liner will improve the functioning and overcome the limitations due to the rapid permeability. The deep coarse grained soils are generally suitable for construction of roads and buildings.



MAP UNIT NAME: Monarda-Burnham Association (MoB)
(*Aeric Endoaquepts, Histic Humaquepts*)

SETTING

Parent Material: Derived from loamy dense glacial till.
Landform: level to gently sloping areas
Position in Landscape: lower side slopes and concave slope position
Slope Gradient Ranges: (B) 0-8%

COMPOSITION AND SOIL CHARACTERISTICS

General: map unit contains 60% poorly drained Monarda 20% very poorly drained Burnham soil and 20% other soils.

Drainage Class: poorly and very poorly drained with a perched water table within 7" inches of the soil surface during the growing season.

Typical Profile Description – Monarda part (HTP307):

Surface Layer: very dark grayish brown silt loam, 0-4"
Subsurface Layer: Light olive brown silt loam, 4-7"
Subsoil Layer: Olive gray silt loam, 7-16"
Substratum: Olive Gray gravelly loam, 14-60"

Typical Profile Description- Burnham part (HTP314):

Surface Layer mucky histic material, 0-14"
Subsoil Layer: Olive gray silt loam, 14-60"

Hydrologic Group: D

Surface Run Off: slow to very slow
Permeability: Moderately slow in upper horizons, moderately slow or slow in substratum.
Depth to Bedrock: Deep, more than 40 inches.
Hazard to Flooding: This soil is generally located in or adjacent to flood hazard areas.
Erosion: K factor: 0.49

INCLUSIONS (Within Mapping Unit)

Similar: Wonsqueak
Contrasting: Telos, Ragmuff

USE AND MANAGEMENT
(Low density Residential development)

Development limitations are severe due to wetness and a seasonal high groundwater table. These soils are generally unsuitable for onsite subsurface wastewater disposal due to the seasonal high water table. Monarda and Burnham soils are classified as hydric soils, and may be classified as jurisdictional wetlands based on hydrology and vegetation. Development should be located where possible on inclusions of better drained soils that occur on convex areas. For road construction, the wetness limitations can be overcome with common construction practices and proper ditching. In swales and concave areas, roads should employ with rock sandwich layers, use of geotextiles in the road base, and cross drain culverts to provide hydrological continuity. Building construction limitations can be overcome by providing foundations drains and preference given to slab on grade methods. These fine textured silt loam and loam soils are subject to increased potential for erosion where slopes are more than 3%. Proper erosion and sedimentation techniques will mitigate this hazard.



MAP UNIT NAME: Telos Silt Loam (*TeC*)
(*Aquic Haplorthods*)

SETTING

Parent Material: loamy glacial till
Landform: till plains and side slopes in uplands
Position in Landscape: mid and lower side slope positions
Slope Gradient Ranges: (C) 8-15%, (D) 15-35%

COMPOSITION AND SOIL CHARACTERISTICS

General: The Telos soils found onsite are dominated by silt loam to loam textures. In some map unit areas, bedrock is present within 40".

Drainage Class: somewhat poorly drained with a perched water table at 7-16 inches below the soil surface during the growing season.

Typical Profile Description (HTP305):

Surface Layer: dark olive-brown silt loam, 0-4"
Subsurface Layer: light olive brown silt loam, 4-10"
Subsoil Layer: olive silt loam, 10-25"
Substratum: firm olive gray loam, 25 -60"

Hydrologic Group: C

Surface Run Off: slow

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.32

INCLUSIONS (Within Mapping Unit)

Similar: Chesuncook, Ragmuff
Contrasting: Monson, Monarda

USE AND MANAGEMENT

(Low density residential development)

The major limitation is due to wetness and a high water table in the upper parts of the soil profile. These soils generally contain areas that are suitable for onsite subsurface wastewater disposal outside the 250 foot shoreland zone area. Where slopes are moderate to steep, proper erosion control is important to minimize soil erosion. Roads and buildings should use adequate drainage measures such as ditching, cross drain age culverts and rock sandwich construction on roads and foundation drains to maintain hydrological connectivity and gravelly fill material to overcome the limitations.



MAP UNIT NAME: Telos-Monarda Complex (TMB, TMC)
(*Aquic Haplorthods, Aeric Endoaquepts*)

SETTING

Parent Material: loamy glacial till
Landform: till plains and side slopes in uplands
Position in Landscape: mid and lower side slope positions
Slope Gradient Ranges: (B) 0-8%

COMPOSITION AND SOIL CHARACTERISTICS

General: This map unit is composed of a complex of 35% Telos and 50% Monarda soils that cannot be differentiated at the current map scale. Better drained Telos soils are found on convex positions with Monarda occurring in the concave areas and swales. Soils found onsite are dominated by silt loam to loam textures. In some map unit areas, bedrock is present within 40".

Drainage Class:

Poorly to somewhat poorly drained with a perched water table at 4-16 inches below the soil surface during the growing season.

Typical Profile Description-Telos part (HTP305):

Surface Layer: dark olive-brown silt loam, 0-4"
Subsurface Layer: light olive brown silt loam, 4-10"
Subsoil Layer: olive silt loam, 10-25"
Substratum: firm olive gray loam, 25 -60"

Typical Profile Description- Monarda part (HTP307):

Surface Layer: very dark grayish brown silt loam, 0-4"
Subsurface Layer: Light olive brown silt loam, 4-7"
Subsoil Layer: Olive gray silt loam, 7-16"
Substratum: Olive Gray gravelly loam, 14-60"

Hydrologic Group: Telos-C and Monarda-D

Surface Run Off: slow

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.32

INCLUSIONS (Within Mapping Unit)

Similar: Chesuncook, Ragmuff
Contrasting: Monson, Burnham

USE AND MANAGEMENT
(Low density residential development)

The major limitation is due to wetness and a high water table in the upper parts of the soil profile. The better drained Telos soils are potentially suitable for onsite subsurface wastewater disposal outside the shoreland zone area. Roads and buildings should use adequate drainage measures such as ditching, cross drainage culverts and rock sandwich construction on roads and foundation drains to maintain hydrological connectivity and gravelly fill material to overcome the limitations. Areas of Monarda should be avoided where possible and development sited on the better drained convex and knoll landscape positions.



MAP UNIT NAME: Telos-Chesuncook Complex (TcC, TcD)
(Aquic Haplorthods, Typic Haplorthods)

SETTING

Parent Material: loamy glacial till
Landform: till plains-level to convex sideslopes in uplands
Position in Landscape: mid and lower side slope positions
Slope Gradient Ranges: (C) 8-15%, (D) 15-35%

COMPOSITION AND SOIL CHARACTERISTICS

General: The map unit is composed of 40% Telos, 35% Chesuncook and 25% other soils. Telos soils are located on lower slope positions and concave areas. Better drained Chesuncook soils occur on the convex slope positions and on upper slope positions. Textures are dominated by silt loam to loam textures with some pedons having channery to gravelly subsoils. In some map unit areas, bedrock is present within 40".

Drainage Class: somewhat poorly drained (Telos) with a perched water table at 8-16 inches, and moderately well drained (Chesuncook) with a perched water table at 16-40" below the soil surface during the growing season.

Telos Part

Typical Profile Description-Telos (HTP305):

Surface Layer: dark olive-brown silt loam, 0-4"
Subsurface Layer: light olive brown silt loam, 4-10"
Subsoil Layer: olive silt loam, 10-25"
Substratum: firm olive gray loam, 25 -60"

Hydrologic Group: C

Surface Run Off: slow

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.32

Chesuncook Part

Typical Profile Description-Chesuncook (HTP318):

Surface Layer: grayish-brown silt loam, 0-3"
Subsurface Layer: dark yellowish brown silt loam, 3-15"
Subsoil Layer: light olive brown silt loam, 15-27"
Substratum: firm olive gray silt loam, 27 -60"

Hydrologic Group: C

Surface Run Off: slow to moderate

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.32

INCLUSIONS (Within Mapping Unit)

Similar: Chesuncook, Ragmuff
Contrasting: Monson, Monarda

USE AND MANAGEMENT

(Low density residential development)

Limitations are moderate to low. The major limitation is due to wetness and a high water table in the upper parts of the soil profile. These soils are generally suitable for onsite subsurface wastewater disposal; Chesuncook soils would be suitable for wastewater disposal the shoreland zone area. Where slopes are moderate to steep, proper erosion control is important to minimize soil erosion. Within 250 feet of the shoreline, development should occur on the better drained convex positions and adequate area within building site areas to allow disposal systems to be sited further than 250' from the shore. Roads and buildings should use adequate drainage measures such as ditching, cross drain age culverts and rock sandwich construction on roads and foundation drains to maintain hydrological connectivity and gravelly fill material to overcome the limitations.



MAP UNIT NAME: MONSON-ELLIOTSVILLE COMPLEX (MKB MKC MKB)
(Lithic Haplorthods, Typic Haplorthods)

SETTING

Parent Material: loamy glacial tills
Landform: till plains, ridges and in uplands
Position in Landscape: ridges and upper side slope positions
Slope Gradient Ranges: (B) 0-8%, (C) 8-15%, (D) 15-35%

COMPOSITION AND SOIL CHARACTERISTICS

General: The map unit is composed of 40% Monson and variants, 35% Elliotsville and 25% other soils. The shallow to bedrock Monson soils are located on convex slopes and narrow ridge tops with the moderately deep Elliotsville and similar soils in more level areas broad ridge tops. Common inclusions include imperfectly drained Ragmuff and Monson variant in toe slope and concave areas, and deep Telos soils occur on the lower slopes. Textures are dominated by silt loams with channery to gravelly subsoils. The bedrock is soft and easily fractured

Drainage Class: somewhat excessively drained and excessively drained.

Monson Part

Typical Profile Description-Monson Variant (HTP308):

Surface Layer: dark olive-brown silt loam, 0-6"
Subsurface Layer: yellowish brown silt loam, 6-12"
Substratum: fractured bedrock >12"

Hydrologic Group: D

Surface Run Off: moderate

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: shallow, 10-20 inches.

Hazard to Flooding: None.

Erosion: Kf factor: 0.32

Elliotsville Part

Typical Profile Description- (HTP316):

Surface Layer: dark brown loam, 0-4"
Subsurface Layer: dark yellowish brown channery loam, 4-21"
Substratum: bedrock, >21"

Hydrologic Group: C

Surface Run Off: high

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: moderately deep, 20- 40 inches to bedrock

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.28

INCLUSIONS (Within Mapping Unit)

Similar: Chesuncook, Ragmuff
Contrasting: rock outcrop, Telos

USE AND MANAGEMENT
(Low density residential development)

The map unit has severe limitations is due to shallow bedrock and moderate limitations from a high water table in the upper parts of the soil profile in variants and Ragmuff inclusions. These limitations are generally easily overcome using standard construction methods, but may require add to construction costs. These soils generally contain suitable sites for onsite subsurface wastewater disposal outside the shoreland zone area. Where slopes are moderate to steep, proper erosion control is important to minimize soil erosion. Roads and buildings construction may require blasting and or ripping of bedrock. The soft nature of the bedrock is easily ripped and makes good base material for roads and subgrades. Development should be focused on the deeper Elliotsville areas within the map unit. Road and development in concave positions should use adequate drainage measures such as ditching, cross drain age culverts and foundation drains to maintain hydrological connectivity.



MAP UNIT NAME: TELOS MONSON-RAGMUFF COMPLEX (TRB, TRC, TRD)
(*Aquic Haplorthods, Lithic Haplorthods*)

SETTING

Parent Material: loamy glacial tills
Landform: till plains on bedrock controlled in uplands
Position in Landscape: ridges and upper side slope positions
Slope Gradient Ranges: (B) 0-8%, (C) 8-15%, (D) 15-35%

COMPOSITION AND SOIL CHARACTERISTICS

General: The map unit is composed of 30% Telos soils, 30% Monson and variants, 25% Ragmuff and 15% other soils. The deep Telos soils occur on the lower slopes area and concave positions, interspersed with shallow to bedrock Monson soils on convex slopes and narrow ridge tops and imperfectly drained Ragmuff and Monson variants in toe-slope and concave areas, and. The soils occur in a complex pattern on the landscape that cannot be delineated separately at the current mapping scale. The bedrock is generally soft and easily fractured. Most of the area is moderate to steeply sloping.

Drainage Class: **Drainage Class:** somewhat poorly drained (Telos) with a perched water table at 7-16 inches, and moderately well drained (Ragmuff) with a perched water table at 16-40" below the soil surface during the growing season, and somewhat excessively drained and monsoon soils.

Telos Part

Typical Profile Description-Telos (HTP305):

Surface Layer: dark olive-brown silt loam, 0-4"
Subsurface Layer: light olive brown silt loam, 4-10"
Subsoil Layer: olive silt loam, 10-25"
Substratum: firm olive gray loam, 25 -60"

Hydrologic Group: C

Surface Run Off: moderate

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.32

Monson Part

Typical Profile Description-Monson Variant (HTP308):

Surface Layer: dark olive-brown silt loam, 0-6"
Subsurface Layer: yellowish brown silt loam, 6-12"
Substratum: fractured bedrock >12"

Hydrologic Group: D

Surface Run Off: moderate

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: shallow, 10-20 inches.

Hazard to Flooding: None.

Erosion: Kf factor: 0.32

Ragmuff Part

Typical Profile Description-Monson Variant (HTP157):

Surface Layer: very dark grayish-brown silt loam, 0-5"
Subsurface Layer: light brown channery silt loam, 5-15"
Subsoil Layer: olive brown very channery silt loam, 15-17"
Substratum: fractured bedrock, >17"



Hydrologic Group: C

Surface Run Off: slow

Permeability: Moderate in upper horizons, slow to very slow in substratum.

Depth to Bedrock: moderately deep, 20-40 inches.

Hazard to Flooding: None. This soil is generally located above flood hazard areas.

Erosion: K factor: 0.37

INCLUSIONS (Within Mapping Unit)

Similar: Chesuncook, Elliottsville

Contrasting: rock outcrop, Monarda

USE AND MANAGEMENT

(Low density residential development)

The map unit has severe limitations due to shallow bedrock, and steep slopes on MKD units. There are moderate limitations from a high water table in the upper parts of the soil profile in Telos, Monson Variants, and Ragmuff soils. These limitations are generally easily overcome using standard construction methods, but may require add to construction costs. These soils generally contain suitable sites for onsite subsurface wastewater disposal outside the shoreland zone area. Where slopes are moderate to steep, proper erosion control is important to minimize soil erosion. Steep slopes are severely limited and should be avoided. Roads and buildings construction may require blasting and or ripping of bedrock. The soft nature of the bedrock is easily ripped and makes good base material for roads and subgrades. Development should be focused on the deeper Elliottsville areas within the map unit. Road and development in concave positions should use adequate drainage measures such as ditching, cross drain culverts and foundation drains to maintain hydrological connectivity.



APPENDIX E
SOIL AND SITE PHOTOGRAPHS

JN: 6570

APPENDIX F

**SITE PHOTOGRAPHS
FISH RIVER LAKES CONCEPT PLAN
AROOSTOOK COUNTY, MAINE**



1. Typical Chesuncook and Telos soil catena in road cut near Square Lake.



2. Typical poorly drained Monarda soil at HTP152.



3. Close up of poorly drained Monarda soil with redox features at HTP152.



4. Typical Elliottsville silt loam at HTP124.



5. Example of Telos-Eliotsville-Monson soil map unit. Shallow to bedrock soils on left grade into glacial lodgement tills on right.



6. Roadside borrow pit in ledge in Monson- Ragmuff soil series near Square Lake.



7. Example gravel road using crushed ripped ledge material near Long Lake.



8. Monson- Elliotsville soil profile on steep slopes typical of MKD map unit.



9. Typical Telos silt loam soil at HTP 105.



10. Typical Chesuncook soil profile with spodic development at HTP177.



11. HTP 170 typical Monson shallow to bedrock soil PA250227.



APPENDIX F
SOIL GLOSSARY



GLOSSARY OF SOIL SCIENCE TERMS

The following terms relate to the practice of soil science and classification of soils. These definitions are separated into terms which are used to describe a soil or soil profile, terms which relate to the practice of soils mapping, and terms which are interpreted based on the properties of a soil.

SOIL MAPPING TERMS

These terms relate to the soils survey map and the soils and landforms that are depicted on this map.

Association and Complex – Two or more dissimilar soils that occur in a regularly repeating pattern on the landscape. At the scale of mapping shown, these dissimilar soils could not be separated. (USDA, *Soil Survey Manual*)

Consociation – a delineated polygon which is dominated by one soil type or series and similar soils. (USDA, *Soil Survey Manual*)

Dissimilar Soil - Soil inclusions within a mapped polygon which are different from the named map unit. The characteristics, properties, and use and management of a dissimilar soil are different enough that there are important differences between these soils for the purpose of the soil survey. (USDA, *Soil Survey Manual*; MAPSS, *Guidelines*)

Inclusion – components within a delineated polygon that are not identified by the polygon name. These inclusions may be similar soils or dissimilar soils. Inclusions of dissimilar soil shall not exceed 25 percent of the map unit area, based on MAPSS Standards. (USDA, *Soil Survey Manual*; MAPSS, *Guidelines*)

Map Unit – an area that is defined and named the same in terms of its soil components and is named for the dominant soil component. Each map unit differs in some way from a differently named map unit. (USDA, *Soil Survey Manual*)

Map Unit Purity – within a delineated polygon, the amount of the polygon that is made up of the named soil relative to the amount of polygon made up of inclusions, for which the polygon is not named. (USDA, *Soil Survey Manual*). MAPSS *Guidelines* indicate that 75% of a delineated map unit should be the named or similar soils; dissimilar soils shall not exceed 25% of a delineated map unit.

Phase – a subset of a soil series which can be significant for use and management. Phases may be differentiated for different classes of surface stoniness and slopes. (USDA, *Soil Survey Manual*)

Series – a group of soils that share similar defining characteristics. This is the most homogenous category of soil taxonomy: a given soil series has a relatively narrow range of properties. (USDA, *Soil Survey Manual*)

Similar Soil – Soil inclusions within a mapped polygon which are different from the named map unit; however, the properties, management, and interpretations of the similar soil are such that no



important differences exist for the purpose of the soil survey. (USDA, *Soil Survey Manual*; MAPSS, *Guidelines*)

Taxajunct/Variant - a group of soils that have properties outside the range of any established soil series. These differences are small so that major interpretations are not affected. (USDA, *Soil Survey Manual*)

SOIL PROPERTIES TERMS

Consistence - As used in soil surveys, consistence is the resistance of a soil sample to crushing or penetration and is described as loose, friable, firm, and rigid. As used generally in soils, consistence also includes the plasticity, toughness, or stickiness of a puddled soil, and the behavior of a soil under compression. This property is based on the cohesion and adhesion of soil particles. (USDA, *Soil Survey Manual*; Brady and Weil, *The Nature and Properties of Soils*)

Depth Classes – classes of soil depth to bedrock. In Maine, soils are categorized into five depth classes: (MAPSS, *Guidelines*)

1. Very shallow: Less than 10 inches of soil above bedrock.
2. Shallow: 10 to less than 20 inches of soil above bedrock.
3. Moderately deep: 20 to less than 40 inches of soil above bedrock.
4. Deep: 40 to less than 60 inches of soil above bedrock.
5. Very Deep: Greater than 60 inches of soil above bedrock.

Drainage Classes – the frequency and duration of wet periods within the soil profile. The USDA defines seven drainage classes based on the length that the soil is inundated by water during the growing season, the depth to free water, and the restriction of plant growth. Maine USDA and soil scientists have correlated these seven drainage classes into observations of the seasonal high water table in soils: (USDA, *Soil Survey Manual*; MAPSS, *Guidelines*)

1. Very poorly drained: Seasonal high water table at or near the surface.
2. Poorly drained: Seasonal high water table at or near the surface.
3. Somewhat poorly drained: Seasonal high water table (redoximorphic features) less than 16 inches below the soil surface.
4. Moderately well drained: Seasonal high water table (redoximorphic features) 16 to less than 40 inches below the surface.
5. Well drained: Seasonal high water table (redoximorphic features) 40 inches or more below the surface.
6. Somewhat excessively drained: Soil depth is 10 to 20 inches to bedrock with specific textural properties; or, soil depth is 20 inches or greater to bedrock with specific textural properties.
7. Excessively drained: Soil depth is 10 inches to bedrock; or specific textural properties.

Redoximorphic Features – changes in soil color which are attributed to soil wetness. These features may be “concentrations” of color or “depletions” of color. Redoximorphic features are evidence of the seasonal high water table. This was formerly called “mottling” or “redoximorphic mottling” (USDA, *Soil Survey Manual*).

Seasonal High Water Table – a zone of saturation which occurs within the soil profile during the wettest part of the year. The depth of this zone is described at the highest average depth (i.e., closest to the surface) in the soil profile (USDA, *Soil Survey Manual*).



Structure – The arrangement of primary soil particles (sand, silt, and clay) into secondary units. These units are characterized by size, shape, and degree of distinctiveness. Common soil structure types include: granular, angular and subangular blocky, platy, prismatic, single grain, and massive. (USDA, *Soil Survey Manual*; Brady and Weil, *The Nature and Properties of Soils*)

Texture – the relative proportion, by weight, of sand, silt, and clay in a soil. The soil textural class is a grouping of soils based on the relative proportions of sand, silt, and clay in a soil. Soils within a textural class have similar physical properties. Soil textural classes are, from coarse to fine: sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, and clay. (USDA, *Soil Survey Manual*; Brady and Weil, *The Nature and Properties of Soils*)

DESCRIPTIVE SOIL PROFILE OR SOIL CHARACTERISTIC TERMS

Erodability factor (K factor) – a relative index of the susceptibility of bare, cultivated soil to particle detachment and transport by rainfall.

Hydraulic conductivity (saturated) (Ksat) - the factor relating soil water flow rate to the hydraulic gradient. Ksat is the reciprocal of the resistance of soil to water movement. (USDA, *Soil Survey Manual*)

Hydrologic Soil Group – groups of soils that have similar runoff potential under similar climatic and land cover conditions. In Maine, soils are placed into one of four hydrologic groups: A, B, C, and D.

These groups are described as follows:

- A: Soils with low runoff potential when thoroughly wet. Water is transmitted freely throughout the soil. These soils tend to have less than 10% clay and more than 90% sand or gravel.
- B: These soils have moderately low runoff potential when thoroughly wet, with unimpeded water transmission. These soils are typically 10-20% clay or silt and 50-90% sand.
- C: Soils with a moderately high runoff potential when thoroughly wet. Water transmission is somewhat restricted in this soil. These soils are typically 20-40% clay or silt and less than 50% sand.
- D: These soils have a high runoff potential when thoroughly wet, with restricted or very restricted water transmission. These soils are 40% or greater clay or silt, and less than 50% sand. (USDA, *National Engineering Handbook*).

Permeability – the ease with which gases, liquids, or plant roots penetrate through a mass or layer of soil. (Brady and Weil, *The Nature and Properties of Soils*)

Soil Potential Ratings – classes that indicate the relative quality of a soil for a particular use as compared with other soils in a given area. The purpose of this rating system is to identify the relative suitability of soils for a given use for planning purposes. These ratings are developed at the Federal (USDA) level, and range from very high potential, high potential, medium potential, low potential, to very low potential. (USDA, *National Soil Survey Handbook*)



REFERENCES

- Brady, Nyle C. and Ray R. Weil. 1999. The Natural and Properties of Soils. 12th edition. Prentice Hall.
- Maine Association of Professional Soil Scientists. 2009. Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping.
- USDA-NRCS. 1993. Soil Survey Manual.
- USDA-NRCS. 2009. National Engineering Handbook.
- USDA-NRCS. National Soil Survey Handbook.

Exhibit E – Letters Evaluating Impacts

County of Aroostook

COMMISSIONERS' OFFICE

COUNTY ADMINISTRATOR

DOUGLAS F. BEAULIEU

February 05, 2014

Nicholas Livesay
Executive Director
Land Use Planning Commission
Department of Agriculture, Conservation & Forestry
22 State House Station
Augusta, ME 04333-0022

Dear Mr. ^{Nick}Livesay:

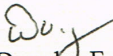
On August 21, 2013 the Aroostook Board of County Commissioners and staff received a presentation from Irving Woodlands on their "Proposed Fish River Lakes Concept Plan". This plan, entirely in the Unorganized Territory of Northern Aroostook County, encompasses a large portion of Irving land holdings in the UT around the Fish River Chain of Lakes, specifically Long Lake, Cross Lake, Square Lake, and Mud Lake. The County Commissioners expressed their excitement over the plan and pledged their support throughout the process.

This twenty-five year plan promotes a variety of land uses: residential development; community and economic development possibilities, specifically selected for their proximity to population bases and major arteries; possible conservation areas; and, land holdings remaining as productive forestland.

It is anticipated that, as development occurs, the demand for municipal services will also follow suit. Currently, the County of Aroostook secures annual service contracts from various providers and municipalities to serve the residents of the Unorganized Territory. In a period where outmigration is the norm, and the overall economy has been affected tremendously in a negative manner, it is certainly in the best interest of the County of Aroostook to be proactive and receptive of projects such as the Irving plan.

We are confident that the increased demand on services will be at a level where it will certainly be manageable, and yet still be of the same great quality that has been afforded to the residents of Aroostook County's Unorganized Territory. We are encouraged by this plan, the possibilities moving forward, and the commitment of Irving Woodlands, and we look forward to seeing this project to fruition.

Sincerely,


Douglas F. Beaulieu
County Administrator

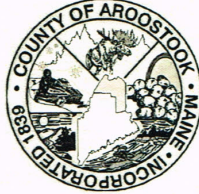
Cc: County Commissioners
Paul Bernier, Public Works Director

COUNTY COMMISSIONERS

PAUL J. ADAMS
HOULTON

NORMAN L. FOURNIER
WALLAGRASS

PAUL J. UNDERWOOD
PRESQUE ISLE



COURTHOUSE, 144 SWEDEN STREET, SUITE 1, CARIBOU, MAINE 04736
Tel: (207) 493-3318 Fax: (207) 493-3491 e-mail: doug@aroostook.me.us

County of Aroostook

COMMISSIONERS' OFFICE

COUNTY ADMINISTRATOR

DOUGLAS F. BEAULIEU



COUNTY COMMISSIONERS

PAUL J. ADAMS
HOULTON

NORMAN L. FOURNIER
WALLAGRASS

PAUL J. UNDERWOOD
PRESQUE ISLE

February 05, 2014

Nicholas Livesay
Executive Director
Land Use Planning Commission
Department of Agriculture, Conservation & Forestry
22 State House Station
Augusta, ME 04333-0022

Re: Municipal Services for 25 Year Fish River Lakes Concept Plan

Dear Mr. Livesay:

The Aroostook Board of County Commissioners and staff were presented with an overview of Irving Woodlands 25 year concept plan for their land holdings around the area of Long Lake, Cross Lake, Square Lake and Mud Lake at their August 21, 2013 Commissioners' Meeting.

As part of the requirements by LUPC, and as identified under Exhibit F, we submit the following information pertaining to the availability of municipal services:

Fire Protection

This service is primarily provided by the North Lakes Fire & Rescue Department. The department has three stations, which are located within the primary target area of the proposed concept plan; Sinclair, Cross Lake, and Madawaska Lake. Mutual Aid agreements with all neighboring departments are also in place. Budgetary responsibilities for this service are part of the annual budget process for the department.

Ambulance Service

Ambulance Service, Inc. (ASI) is the major service provider for the region. Caribou Fire & Ambulance also provide service to the Madawaska Lake region. Service contracts with these providers are secured on an annual basis.

Solid Waste Disposal

The County of Aroostook is contracted with Tri-Community Recycling & Sanitary Landfill (TCL) for solid waste services. Residents and businesses are responsible for the costs of curbside pickup by various haulers, and the County of Aroostook absorbs the per ton fee for hauling to the TCL landfill. TCL has acknowledged that they have the capacity to handle the proposed new development throughout the 25 year term of the plan.

COURTHOUSE, 144 SWEDEN STREET, SUITE 1, CARIBOU, MAINE 04736
Tel: (207) 493-3318 Fax: (207) 493-3491 e-mail: doug@aroostook.me.us

Public Safety

The entire region of the concept plan, as well as all of Aroostook County, is currently protected by the Aroostook County Sheriff's Department. The department is funded through the annual budget process for Aroostook County. The Maine State Police also provide assistance to this region.

Education

All students (elementary & high school) in the proposed concept plan area are tuitioned either to MSAD #27 in Fort Kent or MSAD #33 in St. Agatha and Frenchville. Individual school boards represent these two districts, and transportation for students is provided by buses from both school districts.

Snow Removal

The County of Aroostook contracts annually with private contractors and neighboring municipalities for snow removal services within the region of the proposed plan. Maine DOT provides both summer and winter maintenance on the two (2) major roads in the region, Route 161 and Route 162.

Road Maintenance

The County of Aroostook is under an annual contract with a contractor for an assortment of annual road maintenance issues on secondary roads and townways. Such issues include: grading, ditching, mowing, culvert repairs, signage, etc.

Based on information and data presented at the August 21, 2013 Commissioners' Meeting and at subsequent meetings, the Aroostook County Commissioners' Office is confident that all municipal services required for new growth throughout the term of the plan will be readily available.

Sincerely,



Douglas F. Beaulieu
County Administrator

cc: County Commissioners
Paul Bernier, Public Works Director

Noel Musson

From: Reed, Robin K
Sent: Thursday, July 25, 2013 2:46 PM
To: Noel Musson
Cc: MacLean, Billie J; Beaucage, Timothy; Spiess, Arthur; Mohney, Kirk; Smith, Leith
Subject: RE: Fish River Lakes Concept Plan - Preliminary Location Map - MHPC# 1092-13
Attachments: MHPC# 1092-13.pdf; Contract Archaeology Guidelines.pdf

MHPC# 1092-13 Irving Woodlands; Fish River Lakes Concept Plan; municipalities include T17R3, T17R4, Cross Lake, T16R5, Madawaska Lake, T15R5, Westmanland

Noel:

Billie MacLean and Tim Beaucage from Maine LUPC have been in contact recently with our office about this project as well. I am copying them on this email to facilitate their review.

Until your client decides where ground disturbance will occur and what permitting will be necessary, our office is only able to provide limited information and request for survey at this time. Therefore, our office declines the requests for a meeting, because we require specific details about proposed undertakings in order to fully comment.

Regarding prehistoric archaeological sites, please see the attached map that indicates known prehistoric sites within the project area. No survey work has been conducted within the project area. Our office has concluded that the project area possibly contains one or more prehistoric archaeological sites based on our predictive model of archaeological site location. Therefore, Phase I archaeological survey is necessary for the project area prior to any ground disturbance. A list of qualified prehistoric archaeologists may be found on our website: http://www.maine.gov/mhpc/project_review/consultants/prehistoric_archaeology.shtml Please find attached material explaining the Phase I/II/III approach to archaeological survey. This information can also be found on our website: www.maine.gov/mhpc/project_review. This office must approve any proposal for archaeological fieldwork.

Regarding historic archaeological sites, no historic maps exist for this area. Our office has concluded that the project area possibly contains one or more historic archaeological sites based on our predictive model of archaeological site location. Therefore, Phase I archaeological survey is necessary for the project area prior to any ground disturbance. Survey should include a search for logging camps and possible driving dams. A list of qualified historic archaeologists may be found on our website: http://www.maine.gov/mhpc/project_review/consultants/historic_archaeology.shtml Please find attached material explaining the Phase I/II/III approach to archaeological survey. This information can also be found on our website: www.maine.gov/mhpc/project_review. This office must approve any proposal for archaeological fieldwork..

Regarding architectural resources, there may be potentially eligible historic properties within the project area. Therefore, once individual projects have been identified, we request that photos (keyed to a topo map or aerial photo) be taken of any buildings or structures that are 50 years or older so we may evaluate eligibility. If no such buildings exist, we request that you confirm this in writing.

We look forward to continuing consultation with you on this project.

Robin K. Reed
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04333
phone: 207-287-2132 ext. 1
fax: 207-287-2335
robin.k.reed@maine.gov
<http://www.maine.gov/mhpc>

From: Noel Musson [mailto:noel@themussongroup.com]
Sent: Tuesday, July 16, 2013 3:11 PM
To: Reed, Robin K
Subject: RE: Fish River Lakes Concept Plan - Preliminary Location Map

Robin,

We have some project meetings scheduled in Augusts on July 30 and I was hoping to be able to schedule a meeting with you and others at MHPC to review the project on the same day. Are you available at 2:00?
Noel

Noel Musson, Principal
The Musson Group
207-944-3132

From: Reed, Robin K [mailto:robin.k.reed@maine.gov]
Sent: Friday, July 12, 2013 3:42 PM
To: Noel Musson
Cc: Terry DeWan
Subject: RE: Fish River Lakes Concept Plan - Preliminary Location Map

Noel:

Thank you for your email. I will log this in for review by our staff and we will respond soon.

Robin K. Reed
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04333
phone: 207-287-2132 ext. 1
fax: 207-287-2335
robin.k.reed@maine.gov
<http://www.maine.gov/mhpc>

From: Noel Musson [mailto:noel@themussongroup.com]
Sent: Friday, July 12, 2013 3:39 PM
To: Reed, Robin K
Cc: Terry DeWan
Subject: Fish River Lakes Concept Plan - Preliminary Location Map

Robin,

As I mentioned when we spoke on the phone, Terry DeWan and I are in early stages of developing a Concept Plan on behalf of Irving Woodlands for their holdings around the Fish River Chain of Lakes (Long Lake, Mud Lake, Cross Lake, and Square Lake). Please find the attached project area map showing the location of the proposed concept plan. The map is intended for preliminary review by MHPC and illustrates the area that would be covered by the Concept Plan. It is very preliminary at this point, and subject to change as we proceed with the planning process. Please do not circulate it or make it public. Here are a few other things to note about the plan:

- 2. 25-year Timeframe.** The Concept Plan would most likely involve a 25-year time period, in keeping with the LUPC's guidelines for Concept Plans. Past concept plans have been for 15 to 30 years in duration. This will be the 6th concept plan reviewed by LUPC.
- 3. Color Coding.** The area of the Concept Plan is indicated by a dark line that encloses areas shaded in green, pink, or purple. The warm gray areas are Irving lands not included in the Concept Plan. The yellow areas are state properties. The white areas are private lands not in Irving ownership.
- 4. The purple color** indicates areas that are being considered for future development that may occur within the 25-year time frame. Many of these areas are adjacent to existing shoreline development (e.g., on Long Lake, Cross Lake, and the west side of Square Lake). As a concept plan, we will not be doing detailed plan for individual subdivisions, but rather indicate the general location for development opportunities and possible uses, knowing that a more formal subdivision approval process would be required at some point in the future.
- 5. The pink areas** are being considered for community and economic development, and have been selected for their proximity to population bases (e.g., the town of Sinclair), existing sewage treatment facility (Sinclair), and existing roads (i.e., Routes 161 and 162). It is our intent to work with local communities and identify needs that could be addressed on Irving's land with proper zoning. No specific plans have been developed at this point.
- 6. The green area** (the bulk of the land holdings) will remain as productive forestland and prohibit residential/commercial development activities during the life of the plan. We are also considering options for protecting sensitive natural resources through various mechanisms including conservation easements.
- 7. Recreation Areas.** The map shows the location of existing recreation facilities (e.g., Long Lake beach, Cross Lake Boat Launch) as well as conceptual locations for future facilities. One of the key concepts is being termed 'Hub and Spokes,' that would involve a central activity hub and a series of outposts (campsites or low-key shelters). This concept is still being developed.

We appreciate your time in reviewing the attached map for any identified historic or archeological resources. Once you and other staff members at MHPC have had a chance to review this map, we would appreciate the opportunity to meet so that we can discuss the plan in more detail.

Sincerely,
Noel Musson

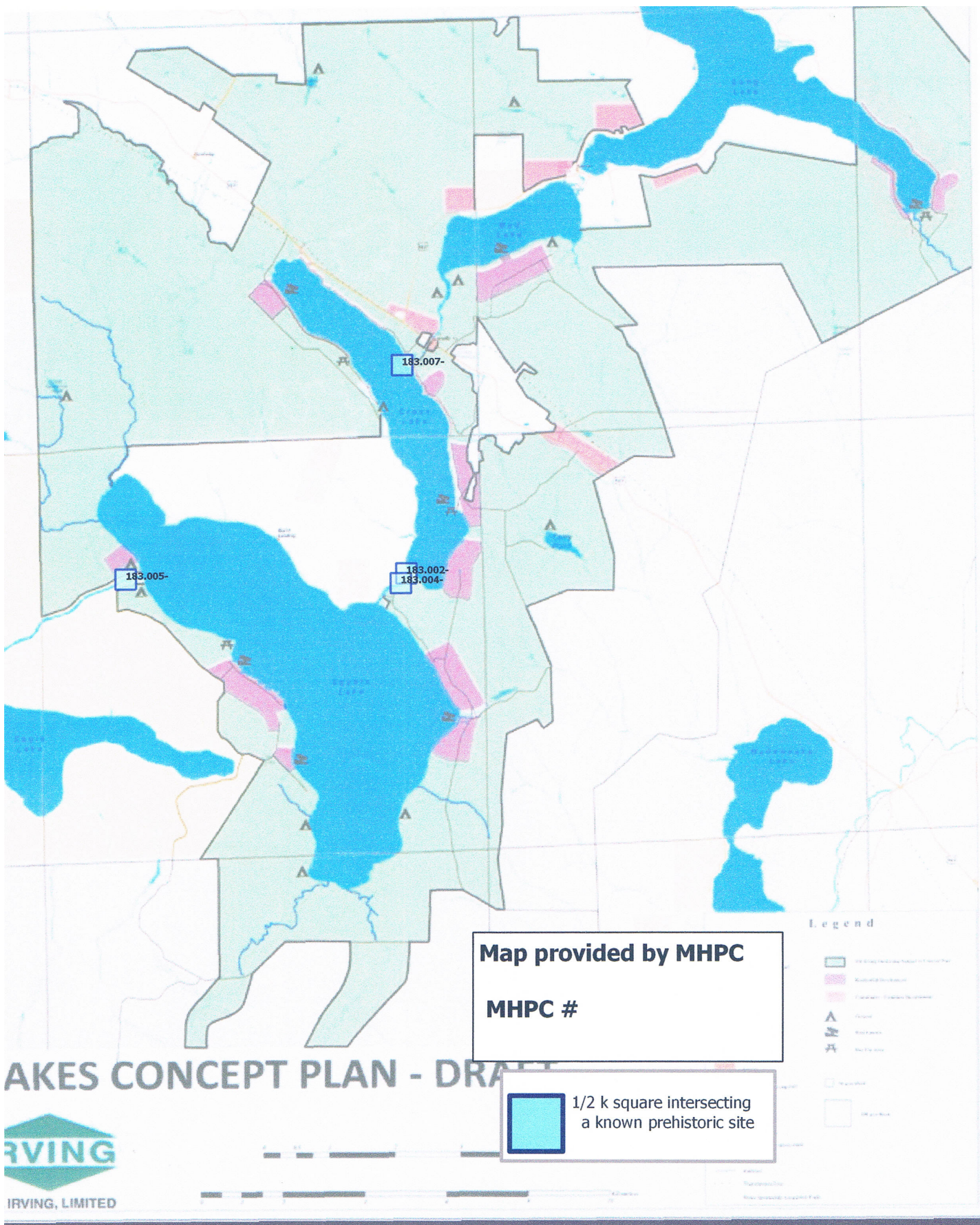


Noel Musson, Principal

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Southwest Harbor, ME 04679

Planning & Economic Development · Permitting · Project Management





MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

ANGUS S. KING, JR.
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

CONTRACT ARCHAEOLOGY GUIDELINES

June 10, 2002

This document is provided as background information to agencies, corporations, professional consultants or individuals needing contract archaeological services (also known as Cultural Resources Management archaeology) in Maine. These guidelines are based on state rules (94-089 Chapter 812).

Finding an Archaeologist

At the time that MHPC issues a letter requiring archaeological survey work, MHPC will also supply one (or more) lists of archaeologists (Levels 1 and/or 2, historic or prehistoric) appropriate to the type of work (Phase I, II, III, historic or prehistoric). **Archaeologists on the Level 2 Approved Lists can do projects of any level, including Phase I archaeological survey projects.** Level 1 archaeologists are restricted to doing Phase I surveys, and certain planning projects for municipal governments.

MHPC maintains lists of archaeologists interested in working in different geographic areas of Maine, and those who are qualified in different types of work. The archaeologists themselves indicate their availability (except for short-term absence) to MHPC on a periodic basis, so archaeologists on the list can be expected to respond to inquiries. The applicant should solicit proposals or bids for work from archaeologists whose names appear on the list supplied by MHPC.

These archaeologists' names are taken from lists of archaeologists approved for work in Maine by MHPC under a set of rules establishing minimal qualifications, such as previous supervisory experience in northern New England, and an appropriate graduate degree. *However, the inclusion of an archaeologist on one of these lists should not be interpreted as an endorsement by the MHPC beyond these limited qualification criteria. Moreover, the MHPC cannot recommend the services of an individual archaeologist.*

Project Types

The vast majority of contract archaeology survey work falls into one of three categories. **Phase I** surveys are designed to determine whether or not archaeological sites exist on a particular piece of land. Such work involves checking records of previous archaeology in the area, walking over the landscape to inspect land forms and look for surface exposures of soil and possible archaeological material, and the excavation of shovel test pits in areas of high probability.

Phase II surveys are designed to focus on one or more sites that are already known to exist, find site limits by digging test pits, and determine site content and preservation. Information from Phase II survey work is used by the Maine Historic Preservation Commission (MHPC) to determine site significance (eligibility for listing in the National Register of Historic Places). **Phase III** archaeological work, often called data recovery, is careful excavation of a significant archaeological site to recover the artifacts and information it contains in advance of construction or other disturbance.



PHONE: (207) 287-2132

PRINTED ON RECYCLED PAPER

FAX: (207) 287-2335

Archaeological sites are further divided into two broad categories of culture, **prehistoric** (or Native American), and **historic** (or European-American). Different archaeological specialists are usually needed for prehistoric or historic sites because the nature of content and preservation and site locations are quite different.

Scope of Work

In responding to a project submission, the MHPC may issue a letter specifying which type of archaeological survey is needed (prehistoric, historic or both) and at what level (Phase I, II, or III). Often the response letter contains further information, such as the suspected presence of an historic site of a certain age, or a statement that only a portion of the project parcel in question is sensitive for prehistoric sites and only that portion needs archaeological survey.

Once the project applicant has one or more scopes of work (proposals) from appropriate archaeologists (see below), the applicant should submit their preferred proposal (*without attached financial information or bid total*) to the MHPC for approval. MHPC will not comment upon cost, but will comment on the appropriateness of the scale and scope of the work. An approval from MHPC of the scope of work is the applicant's guarantee that, if the field and laboratory work are done according to the scope, and appropriately described in writing, the results will be accepted by MHPC.

The final written report on the project must also be submitted to MHPC for review and comment.

Project Final Report

Whatever the archaeological survey result, a final report on the project should be submitted by the applicant to the MHPC. The MHPC will review the report, and issue further guidance or issue a "clearance" letter for the project.

Exhibit F – Letters Confirming Availability of Services

P.O. Box 605
Caribou, Maine 04736-0605
Murphy Road
Fort Fairfield, Maine 04742



Phone: 207-473-7840
FAX: 207-472-1619
www.tricomcommunitylandfill.com
E-mail: tcl@ainop.com

January 30, 2014

Mr. Noel Musson, Principal/Project Manager
The Musson Group
P.O. Box 286
Southwest Harbor, ME 04679

RE: Proposed Fish River Lake Concept Plan
Ability of Tri-Community Landfill to Provide Services

Dear Mr. Musson:

I am writing in response to your request for confirmation that Tri-Community Recycling & Sanitary Landfill ("TCL") would be able to provide disposal services for solid waste generated from the implementation of Irving Woodlands Concept Plan.

TCL owns and operates a licensed (Maine DEP license # S-003707-WC-D-A), secure landfill located in the Town of Fort Fairfield. TCL currently receives approximately 20,000 – 25,000 tons of municipal solid waste per year; and has remaining capacity for a period of 35-50 years, depending on waste generation projections.

We are currently contracted with the County of Aroostook ("County") for disposal of solid waste generated from within the Unorganized Territories ("UT") where the proposed development would take place. Under that contract, the County pays the disposal fees for that waste. The existing contract expires on December 31, 2018; with the likely option to renew for some additional length of time.

Therefore, there currently exists adequate licensed landfill capacity; and the contractual arrangement; that would allow for disposal of municipal solid waste from the proposed development area.

Please contact me if you need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark C. Draper", is written over a light blue horizontal line.

Mark C. Draper
Solid Waste Director

We are an equal opportunity
employer and provider.

PRINTED ON RECYCLED PAPER

From: Lane, Shelley B
Sent: Tuesday, February 04, 2014 12:54 PM
To: Noel Musson
Subject: RE: Irving Woodlands Concept Plan

Good Afternoon Noel:

The options for educational services for UT students greatly depend on the specific location of the child in relation to the available educational facilities. If there is an existing school within a reasonable distance from the child the EUT will make arrangements for them to attend. If there is no reasonable options available then the EUT would work with the family to establish a program which they would administer similar to a home school plan. In few instances we support room/board, alternative programing such as computer generated educational programs, etc...

As with all Maine schools we finically support transportation to and from school via local buses for all students K-12. At times we are not able to support 9-12 grade students nor do we make special arrangements for PK students. We use personal contracts, hired bussing services, EUT buses, and on occasion four wheelers and boats! It is, after all, the unorganized territories.

I work with each family or location to make the best arrangement possible therefore, I don't have a "straight" answer for....how are UT children educated? The majority of the EUT population attend public schools around the state but there are those that require special arrangements. If this project resulted in a large population in a concentrated area I would perhaps need to consider other alternatives.

If you have any additional questions please don't hesitate to contact me.

Shelley

From: Noel Musson [mailto:noel@themussongroup.com]
Sent: Thursday, January 30, 2014 2:01 PM
To: Lane, Shelley B
Subject: RE: Irving Woodlands Concept Plan

Thanks Shelly. I had on my to do list that I should be following up with you.

Please let me know if you have any questions.

Noel

Noel Musson, Principal
The Musson Group
207-944-3132

From: Lane, Shelley B [mailto:Shelley.B.Lane@maine.gov]
Sent: Thursday, January 30, 2014 1:29 PM
To: Noel Musson
Subject: RE: Irving Woodlands Concept Plan

Hi Noel:

Just found this email in my SPAM folder.....while looking for a long lost email. I'll read it and respond soon. I wondered what happened after we spoke....

Shelley

From: Noel Musson [<mailto:noel@themussongroup.com>]
Sent: Wednesday, January 15, 2014 10:34 AM
To: Lane, Shelley B
Subject: Irving Woodlands Concept Plan

Shelly,

Thank you again for taking the time to talk with me this morning. As I mentioned, I am assisting Irving Woodlands with the preparation of a Concept Plan for 50,000 +/- acres in the Fish River region of Northern Aroostook County. I appreciate your background information on the how education services work in the Unorganized Territory. As I mentioned, I wanted to send you some additional background information on the plan including a better summary and project area map. Please review and let me know if you have any questions. Could you also confirm what options students may have for schools, and if you anticipate any favorable or unfavorable impacts as a result of this project. Are there any special circumstances or conditions that must be met prior to providing such services?

Here are some quick highlights of the concept plan.

PLAN AREA

As currently envisioned, the concept plan would encompass a land area of approximately 50,000 acres or 27.5 square miles. It includes four of the major lakes within the Fish River Chain (Long, Mud, Cross and Square Lakes) and several smaller ponds (Carry Pond, Little California Pond, Dickey Pond). Within this area Irving Woodlands owns approximately 38 miles of shoreline.

DURATION OF PLAN

The Concept Plan proposes to regulate all land uses within the plan area for 25 years.

AREA OVERVIEW

The Plan Area is located within portions of six different townships – Cross Lake Township, T17 R4 WELS, T17 R3 WELS, T16 R4 WELS, T16 R5 WELS, and T15 R5 WELS. Other adjacent communities include New Sweden, Stockholm, Sinclair, St. Agatha, Ft. Kent, and Van Buren. The plan area is accessed from Routes 161 and 162 as well as from Irving Woodlands forestry management roads.

While forestry and recreation are major activities within the plan area, there is a significant amount of existing development (both residential and commercial) around the lakes and within the small hamlets of Sinclair and Cross Lake Township. There are 408 existing leased lots on Irving lands within the plan area on Long, Cross, and Square Lake.

PROPOSED DEVELOPMENT

As part of the Concept Plan, Irving has identified areas where future development should be focused. The plan envisions two types of development:

- Residential, which may include single family homes on lots of 1-15± acres, and recreational lodging, which anticipates buildings that could accommodate multiple dwelling units.
- Community/Economic Development, which would allow a variety of residential, commercial, or industrial uses, primarily to benefit the local community.

Exhibit G – Easement Holder Eligibility Information

EASEMENT HOLDER ELIGIBILITY INFORMATION

As part of the planning process for this Concept Plan, Irving has had multiple discussions with the Forest Society of Maine (FSM), particularly with regard to the conservation aspects of the Plan. Pending the outcome of this process, FSM has agreed in principle to serve as the holder of the conservation easement that is provided in draft form at Tab 3(A) of the Concept Plan, known as the Fish River Chain of Lakes Conservation Easement (Conservation Easement). Once the Concept Plan is approved the FSM Board of Directors will make the final determination on acceptance of the Conservation Easement.

To demonstrate that FSM meets the applicable guidelines to hold the Conservation Easement, it has provided the following materials.



115 Franklin Street, 3rd Floor
Bangor, ME 04401

207-945-9200 tel
207-945-9229 fax

www.fsmaine.org
info@fsmaine.org

The Forest Society of Maine's Qualifications to Hold Easements Resulting From LUPC's Actions

The following information and enclosed documentation is provided to the Land Use Planning Commission (LUPC) by the Forest Society of Maine (FSM). Our credentials are presented herein, organized following the categories of LUPC's "Guidelines for Selecting Conservation Easement Holders". Various supporting documents are enclosed.

Legal Qualifications:

The Forest Society of Maine is a nonprofit organization incorporated in Maine for the purpose of "protecting and conserving the forests of Maine". FSM qualifies under 33 MRSA to hold conservation easements. (Articles of Incorporation, IRS Letter of Determination, and Bylaws are enclosed)

Compatible Goals and Purpose

The following is excerpted from the Forest Society of Maine's strategic plan and demonstrates the organization's focus on conserving natural values in Maine's forestlands and our compatibility, in goals and purpose, with the contemplated easement(s):

***The Mission** is to protect and conserve Maine's forestlands, including important natural areas such as lakes, rivers, and mountains. Working cooperatively with owners of working forestlands, FSM seeks to sustain the economic, ecological, cultural, and recreational values of the Maine woods.*

***The Strategy** to achieve this mission is to conserve tracts of productive forestland and promote the effective stewardship of these lands, using conservation easements and, when appropriate, strategic land acquisitions. FSM is a statewide, Maine-based, nonprofit land trust focused on working forestlands, with a special emphasis on conservation and stewardship of large tracts in the North Maine Woods.*

***The Niche** is to provide a balanced approach to conserving the special nature of Maine's working forestlands.*

***Our vision** is that the cultural, ecological, and economic character of Maine has been shaped by its more than 17 million acres of forestland, which represent the largest block of undeveloped forestland east of the Mississippi River. After centuries of remarkable stability, ownership and management of these lands are changing at an unprecedented scale and pace, however, thoughtful action can sustain not only these lands, but also their unique ecological values, the economic vitality of the surrounding communities, and traditional public recreational opportunities provided by productive working forests.*

To date, the Forest Society of Maine has helped conserve nearly 1,000,000 acres of forestlands in Maine, primarily using conservation easements. In 1984, FSM pioneered – nationally - the use of large, multi-faceted forestland conservation easements, with the 18,000-acre Attean easement. In December 2003 in



A statewide land trust working to conserve and maintain the many values of forestlands in Maine

partnership with the state, we completed the 329,000-acre West Branch project which abuts Moosehead Lake and encompasses the headwaters of the West Branch of the Penobscot and the St. John rivers. We currently hold more than 30 conservation easements throughout Maine including the easements granted as a result of the Moosehead Region Concept Plan (360,000-acres around Moosehead Lake) and the Attean Twp./Dennistown Plt. Concept Plan (3,700-acres west of Jackman). In addition over the past 5 years we have been active in Aroostook County completing 3 projects encompassing more than 3,000-acres in Van Buren and Cyr Plantation. Forest Society of Maine-led projects have conserved 100's of miles of motorized and un-motorized trails, more than 725 miles of shoreline on more than 170 lakes and ponds, more than 1,500 miles of streams, countless cultural/historic sites, recreational sites (boat launches, campsites, etc.), rare and exemplary natural communities, and more than 820,000-acres of productive forests and wildlife habitat. Having earned Accreditation from the Land Trust Accreditation Commission in 2009, FSM continues to be a national leader in the conservation and stewardship of multi-faceted working forest conservation projects.

Board Accountability

By policy and practice, the board is responsible for and must approve every land transaction – fee or easement. The board will be actively engaged in our involvement with the Plum Creek proposal as it moves through the LURC process. The board will make the final decision regarding acceptance of any easements resulting from LURC action, in full recognition of the legal responsibilities for monitoring and enforcement that would be assumed with holding the easements. A list of the board of directors and officers is enclosed.

Conflict of Interest

The Forest Society of Maine was established to operate in the public interest by protecting and conserving forestlands in Maine. It is not an “advocacy” organization. FSM also follows a board-adopted policy on conflicts of interest. The policy requires that any board member who is a landowner or agent of a landowner with whom FSM is involved in negotiations to acquire an interest in real estate must resign from the board. FSM’s policy also requires disclosure of any potential conflicts by board members at all meetings, and board members with conflicts must remove themselves from board actions on related issues. A copy of our latest annual report, including budget summaries and a list of donors are enclosed.

Financial Resources

The Forest Society of Maine is an organization dedicated to the long-term conservation of forestlands and with a strong commitment to the perpetual responsibilities of easement monitoring and enforcement. FSM has a staff of seven, two of whom are fully focused on FSM’s stewardship program that includes easement monitoring and enforcement. Other staff members, board members, and consultants are also involved. FSM policy requires a stewardship fund for each easement we accept, of a size adequate to serve as an endowment to perpetually support the cost of overseeing the easement. A policy is followed that guards the principal and allocates annual disbursements toward the stewardship and monitoring program. FSM requires that a contribution be made to a stewardship endowment in support of any easement it accepts of an amount FSM deemed necessary to meet ongoing costs of stewarding the easements.

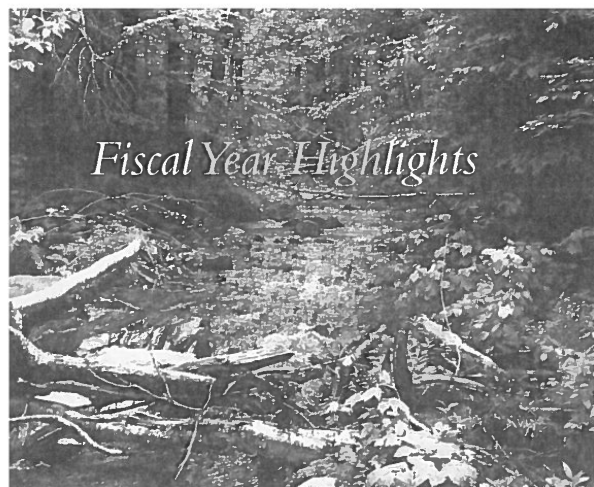
Commitment to Monitoring

FSM has nearly 30 years of successful experience in monitoring large and complex easements, and is committed to continuing as a leader in this area. FSM develops and follows a systematic approach to monitoring each of its easements. Activities are conducted at least annually. Our monitoring activities involve an array of coordinated actions, including: on the ground visits; regular meetings and communications with landowners and managers; reviews of forest management plans and activities; aerial flights; satellite and geo-spatial data analysis, and thorough record keeping. A committee of the board of directors oversees and guides the work of the stewardship staff and reports regularly to the full board.

FSM monitors nearly 1 million acres of easements annually, including easements held by FSM and easements held by others with FSM providing easement-monitoring services.

Commitment to Enforcement

FSM's approach to easement stewardship is designed, first and foremost, to maintain compliance and prevent violations. However, our ongoing monitoring efforts are also structured to detect activities that are not in compliance with easement terms. We are committed and fully prepared to enforce easement terms and take necessary steps, including legal action. Our commitment and capability is demonstrated by past enforcement actions. Legal action, restitution, and restoration were all part of the solutions. As part of any violation, we also work to identify its cause and institute measures to prevent future problems.



Fiscal Year Highlights

Restored trout habitat at Intervale Brook

Accepted 2,800-acre conservation easement on the Piscataquis River

Last winter Northeast Wilderness Trust donated a conservation easement on approximately 2,800 acres on the Piscataquis River to FSM. The easement lands include three miles of frontage on the Piscataquis River and its tributary, Alder Stream, 74 acres of deer wintering habitat, and a rare naturally occurring stand of American chestnut trees. The Piscataquis River lands add to a network of approximately 20,000 acres of conserved lands in the greater Dover-Foxcroft area.

Collaborated with partners to restore brook trout habitat

Through a partnership between Plum Creek, the Maine Department of Inland Fisheries and Wildlife, and FSM, four miles of brook trout habitat were restored in the greater Moosehead Lake region. The restoration effort took place at Intervale Brook, an important tributary to First Roach Pond, and on easement lands overseen by FSM. An old dam was removed and boulders and trees were added to the stream bed, creating pools and cover for brook trout.

Successfully monitored nearly a million acres of easements in Maine's North Woods

FSM now oversees 33 conservation easements in seven Maine counties, which combined approach a million acres. To put that into perspective, that acreage would rank FSM as the fourth largest forestland manager in the state. Working forestlands make up 94% of lands that we oversee; 6% are ecological reserves. We work hard to ensure compliance with the terms of each easement. We use state-of-the-art satellite imagery and remote sensing data, aerial and ground monitoring, and regular communication with landowners to ensure the unique conservation values of all FSM easement lands are maintained.



FOREST
SOCIETY
of MAINE

Annual Report

Statement of Financial Position

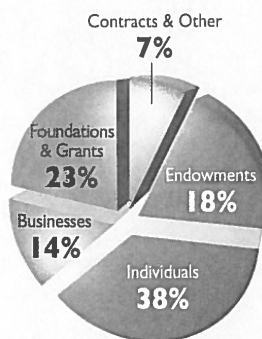
Assets	July 31, 2014*	July 31, 2013
Current assets	3,164,063	2,602,813
Property & equipment	974,453	936,453
Receivables & other assets	861,969	284,076
Total assets	5,000,484	3,823,342
Liabilities		
Current liabilities	84,352	66,499
Loan Payable	0	200,000
Long-term debt	0	0
Total liabilities	84,352	266,499
Net assets	4,916,132	3,556,842
Other		
Endowments held at MCF**	1,997,922	1,805,270

* Note: Current year figures are unaudited

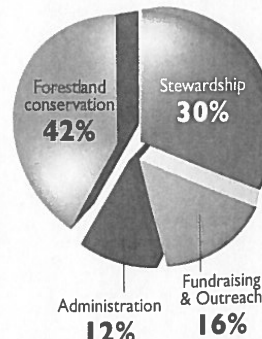
** Donor established funds at the Maine Community Foundation supporting FSM

The Forest Society of Maine continues to maintain a strong base of support from a variety of sources. The charts below show the breakdown of this year's general operating revenue and how it was allocated in support of FSM's mission.

Sources of Revenue



Uses of Revenue



In addition to the general operating revenue shown above, special gifts were received to build FSM's Stewardship and Conservation Opportunities Endowment funds and to support specific land conservation projects.



*From the
Executive Director*

Statement of Conservation Position

Forestlands conserved	July 31, 2014	July 31, 1997*
Total acres FSM has helped conserve**	1,011,395	21,189
Acres involving conservation easements	957,284	20,242
% involving conservation easements	95%	96%
Acres conserved as working forests	948,246	20,242
Acres conserved as ecological reserve	63,149	947
% conserved as working forests	94%	96%
Examples of values conserved		
Number of lakes and ponds	174	9
Miles of lake, pond and river shoreline	919	68
Miles of streams	1,569	33
Number of mountain summits	22	2
Number of Native and Wild brook trout ponds***	135	4
Acres in area of Critical Habitat for Canada lynx	739,998	20,052

* Year FSM became a staffed organization
 ** Includes easements and lands conserved by FSM plus easements acquired by others where FSM has annual stewardship responsibility
 *** Native and Wild are official designations of high priority brook trout ponds by the Maine Department of Inland Fisheries and Wildlife

FSM Receives Special Gift of Art

FSM is excited to have received two paintings this summer by artist Joseph Fiore through a special program of Maine Farmland Trust (MFT). Both are part of Fiore's Rock Series Collection. Seen here, FSM Board member Greg Shute poses with MFT Gallery Curator Anna Abaldo while picking up the artwork on behalf of FSM. The paintings will be displayed at FSM's Bangor and Greenville offices.



The fly landed, perfectly centered, in the ripples left by the rising trout, and like lightning it rose again and took the fly. Within minutes my fishing companion netted and released this stunning native brook trout.

Sitting in the stern of the canoe, enviously watching my companion's well-honed fly fishing skills, I also marveled at our surroundings: a small, remote back country pond, a moose feeding along the shore, fish

rising as the sun was setting, unbroken forests surrounding us, and the delightful smell of the North Woods—a mix of pine, sweet fern, and blueberry. This was one of several ponds we fished while staying at a sporting camp, another icon of Maine's North Woods. We had hiked a few miles to get to this particular pond. Others were nearer at hand. There were dozens to choose from, and in keeping with what makes Maine's North Woods so unique, almost all were on privately owned, managed forestlands. A few had been conserved by FSM or others, but most were here to enjoy because of the care and stewardship provided by the private owners of these amazing tracts of forestlands.

The Forest Society of Maine was created 30 years ago as a land trust for Maine's North Woods, to be ready to help if a landowner needed assistance keeping lands like these as forests. Since our founding in 1984, working with landowners, local communities, and many other conservation partners, FSM has reached an amazing goal: we have helped conserve a million acres of important forestlands in Maine. This has only happened because of you—those who receive this newsletter and have supported our work in so many ways.

I think we would all agree that, in a perfect world, Maine's forestlands would stay as they are, long into the future, and FSM's help would never be needed. But the future of Maine's forests is not guaranteed, and FSM must be ready and able to respond when our help is sought. Your past support has given FSM the capacity to help conserve a million acres and your continued generosity will allow us to stay strong and keep pace with the growing demand for our services.

— Alan Hutchinson



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info@fsmaine.org

FOREST SOCIETY OF MAINE
BOARD OF DIRECTORS
December 22, 2014

George Browning
Georgetown, ME

Ian Burnes
Gardiner, ME

Aram Calhoun, Secretary
Amherst, ME

Ed Dysart
Hampden, ME.

David Flanagan, Treasurer
Appleton, ME

Karen Fresne
Cumberland, ME

Gordy Hall
Marblehead, MA

Alix Hopkins
Pownal, ME

Sherry Huber
Falmouth, ME

George Jacobson
Orono, ME

Michael Kelley, Sr.
Presque Isle, ME

Jessica Leahy
Orono, ME

Chris Livesay
Brunswick, ME

Sue McCrum
Belfast, ME

John McNulty, President
Bangor, ME

Greg Millert
Brunswick, ME

Catherine Robbins-Halsted
Searsmont, ME

Greg Shute
Alna, ME

Hank Swan
Lyme, NH

Peter Triandafillou
Old Town, ME

Roy Van Vleck,
Lyme, NH

Craig Watt
Greenville, ME



A statewide land trust working to conserve and maintain the many values of forestlands in Maine

BYLAWS
OF
FOREST SOCIETY OF MAINE

ARTICLE I
NAME

The name of the Corporation is Forest Society of Maine.

ARTICLE II
PURPOSES

This corporation is organized and operated exclusively for charitable, scientific, and educational purposes within the meaning of section 501(c)(3) of the Internal Revenue Code of 1986, as amended, including, without limitation, for the purposes of protecting and conserving the forests of Maine, increasing public awareness and understanding of temperate forests as ecosystems, and promoting appreciation and use of forests and other natural habitats as renewable resources.

ARTICLE III
NONPARTISAN ACTIVITIES

This corporation has been formed under the Maine Nonprofit Corporation Law for the purposes described above, and it shall be nonprofit and nonpartisan.

ARTICLE IV
MEMBERS

The Corporation shall have no members. The Board of Directors, when meeting as the Board of Directors, may exercise the rights and powers of members.

ARTICLE V
BOARD OF DIRECTORS

Section A. General Powers. The business and affairs of the Corporation shall be conducted and managed by its Board of Directors, which shall exercise all of the powers of the Corporation. The Board of Directors may by general resolution delegate to committees and officers of the Corporation such powers as it sees fit.

Section B. Duties. Every Director in exercising his or her powers and discharging his or her duties shall: (a) act honestly and in good faith with a view to

the best interests of the Corporation; and (b) exercise the care, diligence, and skill that a reasonably prudent person would exercise in comparable circumstances.

Section C. Number, Tenure, and Qualifications. The number of Directors constituting the Board of Directors shall be not less than five (5) or more than thirty (30). The exact number of Directors shall be fixed from time to time by a resolution adopted by the affirmative vote of a majority of the Directors then in office. Each Director in office at the adoption of these revised Bylaws shall continue to serve his or her term as designated in the attached document entitled "FSM Board Member 'Class' Assignments" dated June 4, 2002. Thereafter, Directors shall be elected at the annual meeting of the Directors or as soon thereafter as conveniently possible. Each Director so elected shall hold office for a term of three (3) years and until his or her successor has been duly elected and qualified or until his or her earlier death, resignation, or removal. Directors may be elected to succeed themselves, but may not be elected to serve more than three (3) consecutive terms; except that a Director who also serves as an Officer may be elected to serve a fourth three-year term if, at the time such Director's third three-year term expires, such Director (a) is re-elected to the same Office held by the Director the prior year; and (b) has served in such Office for fewer than six (6) years or in the case of the Treasurer fewer than nine (9) years (see Article VI Section B) After serving three consecutive terms, a Director may again be elected to the Board only after a break in Board service of at least one year.

Section D. Resignation; Removal; Vacancies. Any Director may resign at any time by giving written notice to the President or to the Board of Directors and may be removed at any time in accordance with applicable law. Any vacancy in the Board of Directors occurring during the year, including any vacancy created by an increase of the number of Directors, may be filled for the unexpired portion of the term by the Directors then serving, although less than a quorum, by an affirmative vote of the majority thereof, and any Director so elected shall hold office until the election and qualification of a successor.

Section E. Advisory Council. The Corporation may have an Advisory Council who shall be appointed by the Board, but who shall not have the right to vote. The Advisory Council shall operate according to procedures adopted by the Board.

Section F. Annual Meeting. An annual meeting of the Corporation shall be held each year for the purpose of electing Directors and taking such other action as may come before the Board. As soon as practicable after each annual election, the newly elected Directors shall meet for the purpose of organization, the election of officers, and the transaction of other business. Such meetings shall be held at such place within or without the State of Maine as may be designated by the Board of Directors.

Section G. Regular Meetings. Regular meetings of the Board of Directors may be held at such times and at such places, either within or outside the State of Maine, as may from time to time be determined by resolution of the Board. The Board of Directors may authorize the President to fix the exact date and place of each regular

meeting, in which case notice of the time and place of such regular meetings shall be given in the manner provided in 0 of this Bylaw.

Section H. Special Meetings. Special meetings of the Board of Directors may be called by the President or by the Secretary and must be called by either of them on the written request of any two (2) members of the Board. Special meetings may be held at such place, either within or outside the State of Maine, and at such time as shall be specified in the notice of meeting.

Section I. Notice of Meetings. Notice of all Directors' meetings, except as herein otherwise provided, shall be given by mailing the same at least three (3) days before the meeting, or by sending notice by email or facsimile transmission at least one (1) day before the meeting to the usual business or residence address of the Director. Any Director may waive notice of any meeting. The attendance of any Director at any meeting shall constitute a waiver of notice of such meeting, except where a Director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any meeting of the Board need be specified in the notice or waiver of notice of such meeting, unless specifically required by law or these Bylaws.

Section J. Quorum; Voting. At all meetings of the Board of Directors a majority of the Directors shall be necessary and sufficient to constitute a quorum for the transaction of business, and the act of a majority of the Directors present at any meeting at which there is a quorum shall be the act of the Board of Directors. If at any meeting there is less than a quorum present, a majority of those present may adjourn the meeting from time to time without further notice to any absent Director.

Section K. Informal Action by Directors. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if a written consent to such action is signed by all members of the Board or of such committee, as the case may be, and such written consent is filed with the minutes of the proceedings of the Board or committee.

Section L. Telephone Meetings. Members of the Board of Directors or a committee of the Board may participate in a meeting by means of a conference telephone or similar communications equipment if all persons participating in the meeting can hear each other at the same time. Participation in a meeting by these means constitutes presence in person at the meeting.

ARTICLE VI **OFFICERS**

Section A. Executive Officers. The Executive Officers of the Corporation shall be a President, a Secretary, a Treasurer, and such other officers with such powers and duties not inconsistent with these Bylaws as may be appointed and determined by the Board of Directors. Any two offices may be held by the same person,

provided that the President shall not also be a Vice-President if a Vice-President is appointed. A Director may be elected an officer.

Section B. Election and Term of Office. The term of office of all officers shall commence upon their election or appointment and shall continue until the next annual meeting of the Board of Directors of the Corporation and thereafter until their respective successors are chosen or until their earlier resignation or removal. Officers may serve a maximum of six (6) consecutive one-year terms except the Treasurer who may serve a maximum of nine (9) consecutive one-year terms based on the Board's determination of the benefits derived from special skills and experiences.

Section C. Resignation, Removal; Vacancies. Any officer may resign at any time by giving written notice to the President or to the Board of Directors, and may be removed from office by the vote of the Directors at any time, in accordance with applicable law. In case any office of the Corporation becomes vacant by death, resignation, retirement, disqualification, or any other cause, the Board of Directors by majority action may select an officer to fill such vacancy.

Section D. President. The President shall be the principal executive officer of the Corporation. Subject to the direction and control of the Board of Directors, he or she shall be in charge of the business and affairs of the Corporation and shall see that the resolutions and directives of the Board of Directors are carried into effect except in those instances in which responsibility is assigned to some other person by the Board of Directors. Except in those instances in which the authority to execute is expressly delegated to another officer or agent of the Corporation or a different mode of execution is expressly prescribed by the Board of Directors, he or she may execute for the Corporation any contracts or other instruments which the Board of Directors has authorized to be executed, and he or she may accomplish such execution either under or without the seal of the Corporation and either individually or with the Secretary or any other officer thereunto authorized by the Board of Directors, according to the requirements of the form of the instrument. He or she may vote all securities which the Corporation is entitled to vote except to the extent such authority shall be vested in a different officer or agent of the Corporation by the Board of Directors.

Section E. Secretary. The Secretary shall keep the minutes of all meetings of the Board of Directors in books provided for that purpose. The Secretary shall attend to the giving and serving of all notices of the Corporation; the Secretary shall have charge of the minute books and such other books and records as the Board of Directors may direct, may attest to the accuracy of such books and records and shall perform such other duties as are customary to that office and as may from time to time be directed by the President or the Board of Directors.

Section F. Treasurer. The Treasurer shall have the custody of all funds, property and securities of the Corporation, subject to such regulations as may be imposed by the Board of Directors. When necessary or proper, the Treasurer shall endorse on behalf of the Corporation for collection, checks, notes, and other obligations, and shall deposit the same to the credit of the Corporation at such bank or banks or depository as

the Board of Directors may designate. The Treasurer shall, in general, perform all duties incident to the office of Treasurer, including a general supervision and control of the accounts of the Corporation, subject to the control of the Board of Directors.

Section G. Other Officers. The Board of Directors may elect or appoint one or more Vice-Presidents and such other officers and assistant officers as they may deem necessary, who shall have such authority and perform such duties as from time to time may be prescribed by the President or by the Board of Directors.

Section H. Agents and Employees. The Board of Directors may appoint agents and employees who shall have such authority and perform such duties as may be prescribed by the Board. The Board may remove any agent or employee at any time with or without cause. Removal without cause shall be without prejudice to such person's contract rights, if any, and the appointment of such person shall not itself create contract rights.

Section I. Compensation of Agents and Employees. The Corporation may pay compensation in reasonable amounts to agents and employees for services rendered, such amount to be fixed by the Board or, if the Board delegates power to any officer or officers, then by such officer or officers.

ARTICLE VII COMMITTEES

Section A. Committees. The Board of Directors also may appoint from their number, or from among such other persons as the Board may see fit, such committees as the Board may determine, which shall in each case have such powers and duties as shall from time to time be prescribed by the Board. The President shall be a voting member ex officio of each committee appointed by the Board of Directors.

Section B. Executive Committee. The Board of Directors, by majority vote of the full Board of Directors, may appoint from its members an Executive Committee consisting of two or more Directors to serve at its pleasure and to the extent permitted by applicable law; and may delegate to such Executive Committee all the authority of the Board of Directors, except that the Executive Committee shall have no authority to elect officers or to enter into any transaction or activity which it knows to be contrary to the wishes of the Board of Directors.

Section C. Rules: Record of Proceedings. Each Committee may prescribe rules and procedures to call and conduct its meetings. Each Committee shall keep regular minutes of its proceedings and shall report the same to the Board of Directors and the President when required.

ARTICLE VIII
CORPORATE ASSETS AND EARNINGS

Section A. Investments. The Corporation shall have the right to retain all or any part of any securities or property acquired by it in whatever manner, and to invest and reinvest any funds held by it, according to the judgment of the Board of Directors, without being restricted to the class of investments which a director is or may hereafter be permitted by law to make or any similar restriction; provided, however, that no action shall be taken by or on behalf of the Corporation if such action would result in the denial or loss of the tax exemption under Section 501(c)(3) or any other section of the Internal Revenue Code of 1986 and applicable Regulations relating thereto as they now exist or as they may hereafter be amended (the "Code").

Section B. Inurement Prohibition; Interest in Contracts. No Director, officer, committee member, or employee of, or any person connected with, the Corporation, or any other private individual, shall receive at any time any of the net earnings or pecuniary profit from the operations of the Corporation, provided that this shall not prevent the payment to any such person of such reasonable compensation and reimbursement of expenses as shall be fixed by the Board of Directors for services rendered to or for the Corporation in effecting any of its purposes; and no such person or persons shall be entitled to share in the distribution of any of the corporate assets upon the dissolution of the Corporation. Any director, officer, employee, committee member, or agent of the Corporation may be interested directly or indirectly in any contract relating to the operation of the Corporation, and may freely make contracts, enter transactions or otherwise act on behalf of the Corporation notwithstanding that such person may also be acting for himself or herself or for a third party in so doing; provided, however, that any such contract or transaction shall be at arm's length and be in compliance with the requirements of this Section B of this Article.

Section C. Dissolution. Upon the dissolution or winding up of the affairs of the Corporation, whether voluntary or involuntary, the assets of the Corporation then remaining in the hands of the Board of Directors, after all debts have been satisfied, shall be distributed, transferred, conveyed, delivered, and paid over, in such amounts as the Board of Directors may determine or as may be determined by a court of competent jurisdiction upon application of the Board of Directors, exclusively to charitable, scientific, literary, or educational organizations which would then qualify under the provisions of Section 501(c)(3) of the Code.

Section D. Exempt Activities. Notwithstanding any other provision of these Bylaws, no member, Director, officer, employee, or representative of this Corporation shall take any action or carry on any activity by or on behalf of the Corporation not permitted to be taken or carried on by an organization exempt under Section 501(c)(3) of the code, or by an organization contributions to which are deductible under Section 170(c)(2) of the Code.

ARTICLE IX
MISCELLANEOUS

Section A. Corporate Seal. The Board of Directors may provide a suitable seal, containing the name of the Corporation, which seal shall be in the charge of the Secretary.

Section B. Fiscal Year. The fiscal year of the Corporation shall be as determined by the Board of Directors and evidenced by resolution filed with the corporate records.

Section C. Records and Reports. The Corporation shall keep correct and complete books and records of account and of its transactions and minutes of the proceedings of its Board of Directors and of any committee. The President or the Secretary of the Corporation shall prepare or cause to be prepared annually a full and correct statement of the affairs of the Corporation, including a balance sheet and a financial statement of operations for the preceding fiscal year, which shall be submitted at the annual meeting of the Board of Directors and filed within twenty days thereafter at the principal office of the Corporation.

ARTICLE X
INDEMNIFICATION AND INSURANCE

Section A. Indemnification. The Corporation shall, to the full extent of its power to do so provided by law, including without limitation Section 714 of Title 13-B of the Maine Revised Statutes Annotated, indemnify any and all present and former officers, Directors, employees, committee members, and agents of the Corporation against expenses, including attorneys' fees, judgments, fines, and amounts paid in settlement actually and reasonably incurred by them in connection with any action, suit, or proceeding in which they, or any of them, are made parties or a party by reason of their being or having been officers, directors, employees, committee members, or agents of the Corporation; except in relation to matters as to which any such person shall be finally adjudicated in any such action, suit, or proceeding not to have acted in good faith in the reasonable belief that his or her action was in the best interest of the Corporation, or, with respect to any criminal action or proceeding, where such person is finally adjudged to have had reasonable cause to believe that his or her conduct was unlawful. Such indemnification shall be made in accordance with the procedures set forth in Maine Revised Statutes Annotated, Title 13-B, Section 714, subsection 3, as the same may be amended from time to time. Such indemnification shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any other Bylaw, agreement, or otherwise.

Section B. Insurance. The Corporation may purchase and maintain insurance on behalf of any person who is or was a Director, officer, employee, or agent of the Corporation, or who is or was serving at the request of the Corporation as a Director, director, officer, employee, or agent of another corporation, partnership, joint venture, trust or other enterprise, against any liability asserted against him or her and incurred by

him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of this Article X.

Section C. Certain Limitations on Indemnification. In no case shall the Corporation indemnify or reimburse any person for any taxes on such individual under Chapter 42 of the Internal Revenue Code of 1986 as it presently exists or may hereafter be amended (the "Code"), or under the comparable or corresponding provisions of any future United States internal revenue laws. Further, at any time the Corporation is deemed to be a private foundation within the meaning of section 509 of the Code, then, during such time, no payment shall be made under this Article X if such payment would constitute an act of self-dealing or a taxable expenditure as defined in sections 4941(d) or 4945(d), respectively, of the Code.

Section D. Indemnification from Other Sources. The Corporation's obligation, if any, to indemnify any person who was or is serving at its request as a trustee, director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise shall be reduced by any amount such person may collect as indemnification from such other corporation, partnership, joint venture, trust, or other enterprise.

ARTICLE XI
AMENDMENTS

The Board of Directors shall have power to make, alter, amend, and repeal the Articles of Incorporation or the Bylaws of the Corporation by vote of a majority of all of the Directors at any regular or special meeting.

* * *

I certify that the foregoing Bylaws of Forest Society of Maine were approved and adopted by its Board of Directors, and that they are currently in effect.

Aram Calhoun

Aram Calhoun, Secretary

21 July 09

Date



Department of the Treasury
Internal Revenue Service

OGDEN UT 84201-0029

In reply refer to: 4077591934
June 10, 2014 LTR 4168C 0
02-0413555 000000 00
00040255
BODC: TE

FOREST SOCIETY OF MAINE
115 FRANKLIN ST FL 3
BANGOR ME 04401



6379

Employer Identification Number: 02-0413555
Person to Contact: Ms. Wiles
Toll Free Telephone Number: 1-877-829-5500

Dear Taxpayer:

This is in response to your Apr. 28, 2014, request for information regarding your tax-exempt status.

Our records indicate that you were recognized as exempt under section 501(c)(3) of the Internal Revenue Code in a determination letter issued in May 1986.

Our records also indicate that you are not a private foundation within the meaning of section 509(a) of the Code because you are described in section(s) 509(a)(1) and 170(b)(1)(A)(vi).

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Please refer to our website www.irs.gov/eo for information regarding filing requirements. Specifically, section 6033(j) of the Code provides that failure to file an annual information return for three consecutive years results in revocation of tax-exempt status as of the filing due date of the third return for organizations required to file. We will publish a list of organizations whose tax-exempt status was revoked under section 6033(j) of the Code on our website beginning in early 2011.

Question 5 – Location of Property

5. Location of Property: List all towns, townships, and plantations that include land proposed for rezoning to the P-RP subdistrict. Include the number of acres that you own or lease, the number of acres proposed for rezoning, and the names of waterbodies and roads located on or adjacent to land proposed for rezoning.

This is a list of all townships in the Unorganized Territories (UT) where there is land proposed for rezoning under this Petition. The entire Plan Area is in the UT in Aroostook County.

PLAN AREA

Township	Acres To Rezone (approximate)*	Waterbodies	Roads
Cross Lake Twp	21,277	Cross Lake, Mud Lake, Dickey Pond, Little California Pond, Cross Lake Bog, Cross Lake Fens, Mud/Cross Lake thoroughfare, Dimock Brook, Daigle Brook, Dickey Brook, West Fork Dickey Brook, East Fork Dickey Brook, Harris Brook, Pelletier Brook, Black Brook, Snare Brook, California Brook	Route 161/Caribou Road, Route 162, Square Lake Road, Ouellette Road, West Side Road, Ackerson Road, Guerette Road, Thoroughfare Road, Cyr Road, St. Peter Road, Saint Euthrope Cemetery Road, Sunset Lane, Ford Road, Little Cottages Road, Austin Road, Huntress Road, Windy Cove Road, Jay Road, Durgin Road, Shady Lane Road, Duck Cove Road, Sylvios Road, Cormier Road, May Road, Sandy Point Road, Connection Lane, Garcelon Road, Cooper Road, Cote Road, Beaulieu Road
T17 R4 WELS	9,737	Mud Lake, Long Lake, Long/Mud Lake thoroughfare, McLean Brook, West Fork McLean Brook, North Fork McLean Brook, Armstrong Brook	Main Street/Sinclair Road/Route 162, Herbert Drive, Irving Road, Sullivan Road, Treatment Plant Road, Thoroughfare Road, Shore Road
T17 R3 WELS	5,325	Long Lake (Van Buren Cove), Violette Stream, Mud Brook	Town Line Road, Lake Road, Sullivan Road, Irving Road, W. Van Buren Cove Road, East Road
T16 R5 WELS	7,040	Square Lake, Cross Lake, Cross Lake Fens, Square/Eagle Lake thoroughfare, California Pond Brook, Barstow Brook, Butler Brook, Black Brook, Halfway Brook	Square Lake Road, Gorfinkle Road, Black Brook Road, Landing Road, Disy Road, Mifs Lane, Gagnon Road
T16 R4 WELS	4,642	Carry Pond, Black Brook, Carry Brook	Black Brook Road, Route 161, To Lake Shore Road, Sullivan Road
T15 R5 WELS	2,994	Square Lake, Goddard Brook, Little Goddard Brook	Square Lake Road, Blackstone Road
TOTAL	51,015 Acres		

*These areas do not include waterbodies.

Question 6 – Notice of Filing

NOTICE OF FILING

Irving provided public notice of this filing by publishing notice in the Bangor Daily News and St. John Valley Times on December 24, 2014, and by mailing notice via registered mail on December 24, 2014, to persons owning or leasing land within 1,000 feet of the Plan Area and other specified officials, as shown in the following tables.

Land within 1000 Feet

NAME	FIRST NAME	LAST NAME	ADDRESS	CITY/TOWN	STATE/ZIP
ACADIAN-SON LLC % ALEXIS F COTE	ACADIAN-SON LLC % ALEXIS F COTE		PO BOX 248	SACO	ME 04072-0248
ALBERT ARMANCE & RICHARD % PATRICIA SEMROW	ARMANCE & RICHARD ALBERT % PATRICIA SEMROW		16 MAIN STREET	BURLINGTON	CT 06013
ALBERT BRIAN A	BRIAN A	ALBERT	PO BOX 93	SINCLAIR	ME 04779-0093
ALBERT JEANETTE	JEANETTE	ALBERT	5 DOMINION ROAD	WINDHAM	ME 04062
ALBERT PAUL O	PAUL O	ALBERT	6250 SWAN HARBOR COURT	HUGHESVILLE	MD 20637
ALLAGASH TIMBERLANDS LLC	ALLAGASH TIMBERLANDS LLC		PO BOX 240	FORT KENT	ME 04743
ALLEN CHARLES S IV	CHARLES S ALLEN IV		78 CLOVER LANE	BREWER	ME 04412
ANDERSON CHARLES PAUL	CHARLES PAUL	ANDERSON	14 BRUNSWICK TERRACE	GARDINER	ME 04345-2429
ANDERSON DAVID & SARA & RICHARD & KATHLEEN MICHAUD	DAVID ANDERSON, SARA & RICHARD & KATHLEEN MICHAUD		204 NEW SWEDEN ROAD	NEW SWEDEN	ME 04762
ANDREWS PHILIP S	PHILIP S	ANDREWS	151 HIGHLAND SHORE RD	CASCO	ME 04015
ANDREWS PHILIP S & FREDERICK H JR	PHILIP S ANDREWS & FREDERICK H ANDREWS JR		151 HIGHLAND SHORES RD	CASCO	ME 04015
Anne Desjardins	Anne	Desjardins	1212 St. John Road	St. John Plt.	ME 04743
AROOSTOOK COUNTY	AROOSTOOK COUNTY		144 SWEDEN ST	CARIBOU	ME 04736
BABSON WILLIAM W JR	WILLIAM W JR	BABSON	PO BOX 79	SINCLAIR	ME 04779
BAILEY GREGORY A	GREGORY A	BAILEY	6 SKYLINE DRIVE	AUGUSTA	ME 04330
BAKER PETER G & BRENDA A	PETER G & BRENDA A	BAKER	PO BOX 195	FORT KENT MILLS	ME 04744
BARBER JEANNE C	JEANNE C	BARBER	859 SALEM AVE	FRANKLINVILLE	NJ 08322
BAR ROGER J & MARTINE M	ROGER J & MARTINE M	BAR	22 LAFAYETTE ST	CARIBOU	ME 04736
BEAULIEU GERRY & JENNIE	GERRY & JENNIE	BEAULIEU	PO BOX 151	SINCLAIR	ME 04779-0151
BEAULIEU MARCO & JANICE	MARCO & JANICE	BEAULIEU	51 CHALETS RD	GRAND FALLS	NB E3Y 3W9
BELANGER ALAIN	ALAIN	BELANGER	PO BOX 6	VAN BUREN	ME 04785
BELL-NECEVSKI HELEN L	HELEN L	BELL-NECEVSKI	90 HERITAGE ROAD	OAKLAND	ME 04963
BERCE POTATO CO INC	BERCE POTATO CO INC		907 MAIN STREET	ST AGATHA	ME 04772
BERNIER WAYNE T & LEE K	WAYNE T & LEE K	BERNIER	118 ORCHARD STREET	BYFIELD	MA 01922
BILLS PAUL H & JUDY A	PAUL H & JUDY A	BILLS	PO BOX 49	SINCLAIR	ME 04779
BLAIS JACQUES & MARGARET	JACQUES & MARGARET	BLAIS	664 MAIN ST	ST AGATHA	ME 04772
BOSSIE PAUL & GILBERTE	PAUL & GILBERTE	BOSSIE	316 NORTON RD	KENSINGTON	CT 06037
BOSSIE JAMES R & DORIS G	JAMES R & DORIS G	BOSSIE	88 MIFS LANE	SINCLAIR	ME 04779
BOUCHARD ANDREW & JULIETTE	ANDREW & JULIETTE	BOUCHARD	BOX 69	SINCLAIR	ME 04779
BOUCHARD ANDREW J	ANDREW J	BOUCHARD	10 SKYBO DRIVE	PHIPPSBURG	ME 04562-4022
BOUCHARD ERIC A & JUDY D	ERIC A & JUDY D	BOUCHARD	PO BOX 27	MADAWASKA	ME 04756
BOUCHER CLAUDETTE	CLAUDETTE	BOUCHER	226 BOUCHER ROAD	SINCLAIR	ME 04779
BRAEUNINGER VIRGINIA L MAGEE TRUSTEE	VIRGINIA L MAGEE TRUSTEE	BRAEUNINGER	9362 OURTIME LANE	COLUMBIA	MD 21045
BROWN PETER A	PETER A	BROWN	34 PINES ST	MAPLETON	ME 04757
Bruce Pelletier	Bruce	Pelletier	PO Box 1411	Presque Isle	ME 04769
BULGER ESTELLE T TRUSTEE	ESTELLE T BULGER TRUSTEE		1 NORTH ST	N WILMINGTON	MA 01887
BURGHNER NORMAN & PATRICIA	NORMAN & PATRICIA	BURGHNER	PO BOX 75 BENJAMIN ST	MARS HILL	ME 04758
BURLOCK LAWRENCE J	LAWRENCE J	BURLOCK	PO BOX 275	SINCLAIR	ME 04779
BUTT LARRY S & JANE V	LARRY S & JANE V	BUTT	PO BOX 1207	HARLEM	GA 30814
CARON DANIEL DAVID & ALAN JACQUELINE MALS RACHEL SEKOLL %ERNEST CAR	DANIEL DAVID & ALAN CARON, JACQUELINE MALS, RACHEL SEKOLL %ERNEST CAR		60 DOBEK RD	NEW BRITAIN	CT 06053
CARON JOHN J TRUSTEE	JOHN J	CARON, TRUSTEE	PO BOX 17	SINCLAIR	ME 04779-0017
CASSIDY EUGENE W & LINDA M	EUGENE W & LINDA M	CASSIDY	PO BOX 181	SINCLAIR	ME 04779
CHABOT CAROL A & SHAWN M	CAROL A & SHAWN M	CHABOT	22 RICHMOND AVENUE	LEWISTON	ME 04240
CHANCELLOR AARON S	AARON S	CHANCELLOR	135 POOLER PIT ROAD	WISCASSET	ME 04578
CHASSE AMY & JASON	AMY & JASON	CHASSE	954 OSSIPPE TRAIL WEST	STEEP FALLS	ME 04085
CHASSE PAUL E & SHIRLEY	PAUL E & SHIRLEY	CHASSE	125 - 19TH AVE	MADAWASKA	ME 04756
CHASSE ROBERTINE	ROBERTINE	CHASSE	320 BETHS AVENUE	BRISTOL	CT 06010-4841
CHENEY JEFFREY E & MARY M	JEFFREY E & MARY M	CHENEY	PO BOX 142	SARANAC LAKE	NY 12983
CLAVETTE CLINTON & CLAUDETTE	CLINTON & CLAUDETTE	CLAVETTE	BOX 39	SINCLAIR	ME 04779
CLAVETTE V LAWRENCE % HELEN CLAVETTE	LAWRENCE CLAVETTE V % HELEN CLAVETTE		22 LEXINGTON AVENUE	TORRINGTON	CT 06790
COLLIN CINDY	CINDY	COLLIN	PO BOX 101	SINCLAIR	ME 04779
COLLIN JEFFREY & MANUELA K	JEFFREY & MANUELA K	COLLIN	102ND SIG BN	APO	AE 09096
COLTON SCOTT II & LAURIE A	SCOTT II & LAURIE A	COLTON	4023 CARIBOU RD	CROSS LAKE	ME 04779
CORBIN CHRISTOPHER J & TRACY M	CHRISTOPHER J & TRACY M	CORBIN	467 RIVER ROAD	CARIBOU	ME 04736
COREY ROBERT ET AL	ROBERT	COREY ET AL	168 19TH AVE	MADAWASKA	ME 04756
CORRIVEAU DAVID P & PATTY E	DAVID P & PATTY E	CORRIVEAU	PO BOX 555	CARIBOU	ME 04736-0555
COTE KIRK A & LISA M	KIRK A & LISA M	COTE	52 BEAULIEU RD	CONNOR TWP	ME 04736
COULOMBE KURT S & SHELLEY	KURT S & SHELLEY	COULOMBE	150 CLEVELAND RD	ST AGATHA	ME 04772
COUTURE JERRY R & EILEEN N	JERRY R & EILEEN N	COUTURE	PO BOX 162	SINCLAIR	ME 04779
CROUSE ROGER	ROGER	CROUSE	248 WASHBURN ROAD	WASHBURN	ME 04786-3418
CROWELL KATHRYN J	KATHRYN J	CROWELL	BOX 223	ULYSSES	PA 16948
CUNAN PATRICK	PATRICK	CUNAN	403 AMHERST STREET	MANCHESTER	NH 03104
CURRIER SUSAN E	SUSAN E	CURRIER	247 MCBURNIE RD	PRESQUE ISLE	ME 04769
Cyr Family Limited Partnership			PO Box 256	Portage	ME 04768
CYR MICHAEL	MICHAEL	CYR	5 MAIN STREET	LIMESTONE	ME 04750-1310
CYR MICHAEL L & ELEANOR J	MICHAEL L & ELEANOR J	CYR	BOX 44	SINCLAIR	ME 04779
CYR SALLY ANN	SALLY ANN	CYR	15 TEAGUE ST	CARIBOU	ME 04736
DAIGLE CORINNE M	CORINNE M	DAIGLE	PO BOX 7	SINCLAIR	ME 04779
DAIGLE JAMES P & CINDY L	JAMES P & CINDY L	DAIGLE	348 SINCLAIR RD	SINCLAIR	ME 04779-4012
DAIGLE JOSEPH G E & INGE B	JOSEPH G E & INGE B	DAIGLE	PO BOX 3	SINCLAIR	ME 04779
DAIGLE JULIE K	JULIE K	DAIGLE	2090 CARIBOU ROAD	CROSS LAKE	ME 04779
DAIGLE NORMAN LIVING TRUST	NORMAN DAIGLE LIVING TRUST		2090 CARIBOU RD	SINCLAIR	ME 04779-3013
DALEY DONALD R & LEANNE	DONALD R & LEANNE	DALEY	342 SINCLAIR ROAD	SINCLAIR	ME 04779
DAY CASTLE N TRUSTEE	CASTLE N DAY TRUSTEE		8945 SE HARBOR ISLAND WAY	HOPE SOUND	FL 33455
DE VRIES EWOUT RIJK & JILL	DE VRIES EWOUT RIJK & JILL		1116 1/2 NORTH COLLIER BOULEVARD	MARCO ISLAND	FL 34145
DEARBORN ALAN & MARY L	ALAN & MARY L	DEARBORN	PO BOX 11	SINCLAIR	ME 04779
DEMERCHANT RAYMOND E JR & SHERRI L	RAYMOND E JR & SHERRI L	DEMERCHANT	145 ASHBY ROAD	PRESQUE ISLE	ME 04769
DERNLAN GARY D	GARY D	DERNLAN	14575 PADDOCK DRIVE	WELLINGTON	FL 33414
DESJARDIN PHILIP D & CAROL A	PHILIP D & CAROL A	DESJARDIN	851 MAIN ST	ST DAVID	ME 04773
DESJARDINS THOMAS L SR	THOMAS L DESJARDINS SR		494 WEST MAIN STREET	FORT KENT	ME 04743
DIONNE EMERY & CLAUDETTE	EMERY & CLAUDETTE	DIONNE	BOX 90	SINCLAIR	ME 04779
DIONNE JAMES	JAMES	DIONNE	148 GENDREAU ROAD	SAINT DAVID	ME 04773-4114
DIONNE JOSEPH H & MARILYN C & LORI ANN KORNGIEREL	JOSEPH H & MARILYN C DIONNE, LORI ANN KORNGIEREL		3713 CARIBOU ROAD	CROSS LAKE TOWNSHIP	ME 04779
DIONNE KEVIN J & LORI A	KEVIN J & LORI A	DIONNE	3488 CARIBOU RD	CROSS LAKE	ME 04779
DIONNE ROLAND & KARIN	ROLAND & KARIN	DIONNE	3727 CARIBOU RD	GUERETTE	ME 04779
DISY GREGORY	GREGORY	DISY	6 ELM STREET	CARIBOU	ME 04736

Land within 1000 Feet

NAME	FIRST NAME	LAST NAME	ADDRESS	CITY/TOWN	STATE/ZIP
DONOVAN DARREN & MARANDA	DARREN & MARANDA	DONOVAN	PO BOX 402	PRESQUE ISLE	ME 04769
DORSEY ROBERT D & ELLEN C	ROBERT D & ELLEN C	DORSEY	PO BOX 26	FORT FAIRFIELD	ME 04743
Douglas & Tammie Lerman	Douglas & Tammie	Lerman	PO Box 271	St. Agatha	ME 04772
DROST DEBRA L	DEBRA L	DROST	712 PROVIDENCE AVENUE APT 8	VENTURA	CA 43004
DUBE BRUCE	BRUCE	DUBE	BOX 184	EAGLE LAKE	ME 04739
DUBOIS ALFRED H & BEVERLY J	ALFRED H & BEVERLY J	DUBOIS	11 HILLCREST DRIVE	MERRIMAC	NH 03054
EDWIN PELLETIER & SONS INC	EDWIN PELLETIER & SONS INC		PO BOX 133	FRENCHVILLE	ME 04745
EGELER WILLIAM G & JANE V	WILLIAM G & JANE V	EGELER	61 ACADEMY STREET	PRESQUE ISLE	ME 04769
EVERETT JEFFREY F & CATHY A	JEFFREY F & CATHY A	EVERETT	42 COVENTRY COURT	BLUFFTON	SC 29910
FAMC INC	FAMC INC		8530 BONO ROAD	TERRE HAUTE	IN 47802
FELTIS CLARISSA W	CLARISSA W	FELTIS	479 ATLANTIC HIGHWAY	WALDOBORO	ME 04572
FIEG GAY M	GAY M	FIEG	PO BOX 114	BERLIN	PA 15530
FOSTER JAMES & THERESA	JAMES & THERESA	FOSTER	6257 SILVER LAKES DR W	LAKELAND	FL 33810
FOSTER JOHN L	JOHN L	FOSTER	PO BOX 255	SINCLAIR	ME 04779
FRALLICCIARDI VINCENT J	VINCENT J	FRALLICCIARDI	289 MAIN ST	MADAWASKA	ME 04756
FREYTAG JAMES & MATTHEW	JAMES & MATTHEW	FREYTAG	BOX 53	SINCLAIR	ME 04779
G B & D FARMS	G B & D FARMS		1258 ST JOHN ROAD	ST JOHN PLANTATION	ME 04743
GAGNON CLAYTON P & MARIE P RHODES	CLAYTON P GAGNON & MARIE P RHODES		PO BOX 75	SINCLAIR	ME 04779
GAHAGAN & ASSOCIATES LLC	GAHAGAN & ASSOCIATES LLC		154 DEVELOPMENT DRIVE SUITE G	LIMESTONE	ME 04750
GALLAGHER BRIAN L	BRIAN L	GALLAGHER	39 SCENIC VIEW DR	TURNER	ME 04282
GERRISH SHARON D	SHARON D	GERRISH	PO BOX 204	PRESQUE ISLE	ME 04769
GIGGEY DANA K & SHARON C	DANA K & SHARON C	GIGGEY	8 MIRACLE WAY	GRAY	ME 04039
GIGUERE KIMBERLY J	KIMBERLY J	GIGUERE	7 MAIN STREET	BLACKSTONE	MA 01504
GLADDEN DIANA V	DIANA V	GLADDEN	1910 SOUTH 30TH STREET	QUINCY	IL 62301
Glenn Zetterman, JR	Glenn	Zetterman, JR	PO Box 266	St. Agatha	ME 04772
GLEW WILLIS & MAIDA	WILLIS & MAIDA	GLEW	PO BOX 77	GRAND ISLE	ME 04746
GORFINKLE H M ET AL % ANNE SCHNEIDER	GORFINKLE H M ET AL % ANNE SCHNEIDER		20 EAST 74TH STREET	NEW YORK	NY 10021
GRIFFIN DIANE M	DIANE M	GRIFFIN	113 PLEASANT STREET	FORT KENT MILLS	ME 04743
GUERETTE KAREN	KAREN	GUERETTE	27 LAKE GARDA DRIVE	UNIONVILLE	CT 06085
GUERRETTE MICHAEL C & BRIAN G	MICHAEL C & BRIAN G	GUERRETTE	2224 VAN BUREN RD	CONNOR TWP	ME 04736
GUERRETTE ROBERTA A	ROBERTA A	GUERRETTE	PO BOX 365	ST AGATHA	ME 04772
HADLEY JONATHAN H & JANIS M WERTZ-HADLEY	JONATHAN H HADLEY & JANIS M WERTZ-HADLEY		5630 RANCH ROAD	PORT ST JOHN	FL 32927
HAHN HERMAN & ROSEMARIE N	HERMAN & ROSEMARIE N	HAHN	302 EAST NEWPORT ROAD	STETSON	ME 04488-3310
HALE ROGER & BARBARA	ROGER & BARBARA	HALE	130 MIFS LANE	CROSS LAKE	ME 04779
HALL JAMES H & BARBARA J % BARBARA HALL	JAMES H & BARBARA J HALL % BARBARA HALL		752 ED DAVIS ROAD	WELLSTON	OH 45692
HAMMOND REGINALD R & STEPHEN R SPARACO	REGINALD R HAMMOND & STEPHEN R SPARACO		PO BOX 677	RANGELEY	ME 04970
HARMS HERMAN & LINDA	HERMAN & LINDA	HARMS	PO BOX 9447	PORT SAINT LUCIE	FL 34985-9447
HARRIS FRANK M JR	FRANK M JR	HARRIS	102 NORTH CROMWELL RD	SAVANNAH	GA 31410
HARRIS JAMES V & KATHRYN M TRUSTEES	JAMES V & KATHRYN M HARRIS, TRUSTEES	HARRIS	PO BOX 276	SINCLAIR	ME 04779
HAZARD THOMAS & LYNN	THOMAS & LYNN	HAZARD	253 MATTESON RD	HOPE	RI 02831
HEBERT ATHILL	ATHILL	HEBERT	PO BOX 96	CARIBOU	ME 04736
HEBERT MADELINE ET AL	MADELINE HEBERT ET AL		5 SAINT PETER ROAD	CROSS LAKE	ME 04779
HEBERT REGINALD	REGINALD	HEBERT	3929 CARIBOU RD	CROSS LAKE	ME 04779
HEINTZ CURT	CURT	HEINTZ	198 OLD WEST POINT ROAD E	GARRISON	NY 10524-3833
HERRICK SCOTT	SCOTT	HERRICK	279 FLAGGY MEADOW ROAD	GORHAM	ME 04038
HEYDEN SONJA TRUSTEE	SONJA HEYDEN TRUSTEE		133 MAPLE AVE	SMITHTOWN	NY 11787
HINCH & AHERN % PRENTISS & CARLISLE	HINCH & AHERN % PRENTISS & CARLISLE		107 COURT STREET	BANGOR	ME 04402-0637
HOLDER EMILY	EMILY	HOLDER	PO BOX 488	PRESQUE ISLE	ME 04769
HUNTRESS COYLE & JOANNE C & DIANNE LEAVITT	COYLE & JOANNE C HUNTRESS, DIANNE LEAVITT	HUNTRESS	19 HIGH STREET	LIMESTONE	ME 04736
IRVING STEVEN R	STEVEN R	IRVING	PO BOX 667	CARIBOU	ME 04736
JALBERT MICHAEL E & PATRICE A	MICHAEL E & PATRICE A	JALBERT	200 MAIN STREET	ST AGATHA	ME 04772
Jean Paul & Anne Chamberland	Jean Paul and Anne	Chamberland	PO Box 247	St. Agatha	ME 04772
John A Richey Trustee			33 Eastern View Dr.	Turner	ME 04282
JOHN B. and JOHN R. MITCHELL	JOHN B. and JOHN R.	MITCHELL	PO BOX 173	BASS HARBOR	ME 04653
JOHNSON LANCE J	LANCE J	JOHNSON	22261 SOUTHWEST BAR NONE ROAD	TUALATIN	OR 97062-7720
JULIANO MATTHEW	MATTHEW	JULIANO	9 ST PETER STREET	CROSS LAKE TWP	ME 04779-3151
KEATEN DONNA	DONNA	KEATEN	103 NORTH OAKS DRIVE	RAYMOND	ME 04071
KEATEN WILLIAM R	WILLIAM R	KEATEN	103 NORTHERN OAKS DRIVE	RAYMOND	ME 04071
KELLY PAUL R & JOYCE	PAUL R & JOYCE	KELLY	70 PLEASANT ST	FORT KENT	ME 04743
Kevin Theriault	Kevin	Theriault	32 Thibeault Road	New Canada	ME 04743
KILCOLLINS DWAYNE & DORINA	DWAYNE & DORINA	KILCOLLINS	3691 CARIBOU RD	CROSS LAKE TWP	ME 04779
KILLARNEY MARIE	MARIE	KILLARNEY	9 SUNSET LANE	CROSS LAKE TOWNSHIP	ME 04779
KINNEY KYLE R & KEITH R	KYLE R & KEITH R	KINNEY	470 HUDSON HILL ROAD	HUDSON	ME 04449
KRAUSE THERESA L & JOHN W	THERESA L & JOHN W	KRAUSE	PO BOX 742	FORT FAIRFIELD	ME 04742
Kristene Gagnon	Kristene	Gagnon	123 Evergreen Road	Cromwell	CT 06416
KZS LLC	KZS LLC		99 FORT FAIRFIELD	PRESQUE ISLE	ME 04769
LABBE DAVID M & SANDRA MARIE DAIGLE-LABBE TRUSTEES	DAVID M LABBE & SANDRA MARIE DAIGLE-LABBE TRUSTEES		30 PINKHAM AVENUE	FORT KENT	ME 04743
LABRECK RICHARD E & JUDITH A	RICHARD E & JUDITH A	LABRECK	PO BOX 63	SINCLAIR	ME 04779-0063
LABRIE DONAT J & LOIS	DONAT J & LOIS	LABRIE	6 HALL LANE BOX 128	FISKEVILLE	RI 02823-0128
LABRIE KEITH P & DUANE D	KEITH P & DUANE D	LABRIE	85 MAIN ST	ST AGATHA	ME 04772
LALLANDE JOSEPH G & NICOLA N	JOSEPH G & NICOLA N	LALLANDE	PO BOX 246	FORT FAIRFIELD	ME 04742
LAND HO INC	LAND HO INC		PO BOX 66	SWEDESBORO	NJ 08085
LESSARD CLERMONT	CLERMONT	LESSARD	198 SINCLAIR ROAD	SINCLAIR	ME 04779
LEVASSEUR JOEL	JOEL	LEVASSEUR	278 BISCAV ROAD	DAMARISCOTTA	ME 04543
LIBBY FRED C & GRETTA	FRED C & GRETTA	LIBBY	1180 WASHINGTON ROAD	WALDOBORO	ME 04572
LORD TROY D	TROY D	LORD	13 ELMWOOD AVE	HOPEDALE	MA 01747
LORD WAYNE D & LINDA J	WAYNE D & LINDA J	LORD	13 ELMWOOD AVE	HOPEDALE	MA 01747
MAHONEY GRAYDON M	GRAYDON M	MAHONEY	PO BOX 38	CARIBOU	ME 04736
MAINE STATE OF	STATE OF MAINE		DEPT OF CONS-PARKS & LANDS 22 SHS	AUGUSTA	ME 04333
MAINE WOODLANDS REALTY COMPANY	MAINE WOODLANDS REALTY COMPANY		PO BOX 204	FORT KENT	ME 04743
MANDILE JOHN & JANICE	JOHN & JANICE	MANDILE	2 RACETTE AVE	GARDNER	MA 01440
Mark D & Nicole Chamberland (Trustees)	Mark D (Trustee) & Nicole (Trustee)	Chamberland	67 Hillside Road	St. Agatha	ME 04772
MARQUIS RINO	RINO	MARQUIS	176 SINCLAIR ROAD	SINCLAIR	ME 04779
MARTIN KENNETH D TRUSTEE	KENNETH D	MARTIN, TRUSTEE	PO BOX 57	SINCLAIR	ME 04779
MARTIN LAUNIE R	LAUNIE R	MARTIN	PO BOX 133	SINCLAIR	ME 04779
MARTIN LUCIEN & SOLANGE	LUCIEN & SOLANGE	MARTIN	104 BLAKESLEE ST	BRISTOL	CT 06010
MARTIN NEAL	NEAL	MARTIN	PO BOX 57	SINCLAIR	ME 04779
MARTIN RICHARD V & JUDY L	RICHARD V & JUDY L	MARTIN	PO BOX 245	SINCLAIR	ME 04779

Land within 1000 Feet

NAME	FIRST NAME	LAST NAME	ADDRESS	CITY/TOWN	STATE/ZIP
MARTIN ROLAND D RICHARD V JAMES S & MARCIA A STURGEON	ROLAND D RICHARD V JAMES S MARTIN & MARCIA A STURGEON		PO BOX 97	SINCLAIR	ME 04779
MARTIN THERESA	THERESA	MARTIN	PO BOX 97	SINCLAIR	ME 04779-0097
MARTIN THOMAS & WILLIAM	THOMAS & WILLIAM	MARTIN	778 ROUTE 3	PALERMO	ME 04354
MCGUIRE JAMES I & CHERYL A	JAMES I & CHERYL A	MCGUIRE	1106 KENNEBEC RD	HAMPDEN	ME 04444
MCLAUGHLIN VAUGHN J GEORGE F & MARTHA J HADLEY	VAUGHN J & GEORGE F MCLAUGHLIN, MARTHA J HADLEY	MCLAUGHLIN	179 CENTER LIMESTONE RD	FORT FAIRFIELD	ME 04742
MCQUADE JAMES H & R & TERRY D	JAMES H & R & TERRY D	MCQUADE	150 MAIN ST	CARIBOU	ME 04736
MELINDA & ZACKARY ZETTERMAN	MELINDA & ZACKARY	ZETTERMAN	PO BOX 266	ST. AGATHA	ME 04772
MENDELSON LLOYD M	LLOYD M	MENDELSON	PO BOX 441	NEW HARBOR	ME 04554
MICHAUD ELAINE M TRUSTEE ELAINE M MICHAUD REV TRUST	ELAINE M MICHAUD, TRUSTEE ELAINE M MICHAUD, REV TRUST		293 OAK STREET	MANCHESTER	NH 03104
MITCHELL J BRETT & REGINA M	BRETT J & REGINA M	MITCHELL	PO BOX 173	BASS HARBOR	ME 04653
MONTAGNA HENRIETTA C	HENRIETTA C	MONTAGNA	2757 CARIBOU ROAD	CROSS LAKE	ME 04779
MONTAGNA RAYMOND	RAYMOND	MONTAGNA	49 MCCULLOCH DRIVE	SOMERS	CT 06071
MORENCY RENE LOUIS & MARIE HELENE	RENE LOUIS MORENCY & MARIE HELENE		4155 DEEP LAKE BOUNDARY ROAD PMB	COLVILLE	WA 99114
MORIN RICHARD	RICHARD	MORIN	221 NORWAY DRIVE	WILKSBORO	NC 28697-7373
MUD LAKE LLC % JENNIFER STEVENS-CURWOOD	MUD LAKE LLC % JENNIFER STEVENS-CURWOOD		102 MITCHELL ROAD	NOTTINGHAM	NH 03290
MURPHY KEVIN & BETH	KEVIN & BETH	MURPHY	17 HODGKINS LANE	LAMOINE	ME 04605
N AROOSTOOK REGIONAL SEPTAGE BOARD	N AROOSTOOK REGIONAL SEPTAGE BOARD		PO BOX 110	ST AGATHA	ME 04772
NADEAU JAMES L	JAMES L	NADEAU	26 EAST MAIN ST	FORT KENT	ME 04743
NBB, INC.			907 MAIN STREET	ST. AGATHA	ME 04772
NECEVSKI ZLATKO	ZLATKO	NECEVSKI	90 HERITAGE ROAD	OAKLAND	ME 04963
NIEBEL CHRISTOPHER S & DEBRA G	CHRISTOPHER S & DEBRA G	NIEBEL	9 NW 25TH STREET	DELRAY BEACH	FL 33444
NORDIC PROPERTIES LLC	NORDIC PROPERTIES LLC		460 YORK STREET	CARIBOU	ME 04735-2051
NORSWORTHY DARREL R & JUDITH S	DARREL R & JUDITH S	NORSWORTHY	104 MIFFS LANE	CROSS LAKE	ME 04779
NORWOOD DWAYNE L & CHRIS & LISA PARSONS	DWAYNE L NORWOOD & CHRIS & LISA PARSONS		22 SMITH BROOK ROAD	WALTHAM	ME 04605
OLMSTEAD GARY	GARY	OLMSTEAD	14 DRIFTWOOD RD	TERRYVILLE	CT 06786
OLMSTEAD NORMAN JACQUELINE GARY & CHRISTIANA	NORMAN JACQUELINE GARY & CHRISTIANA	OLMSTEAD	PO BOX 203	SINCLAIR	ME 04779
OUELLETTE CECILE & JEANETTE	CECILE & JEANETTE	OUELLETTE	PO BOX 35	SINCLAIR	ME 04779-0035
OUELLETTE EMILE R & JOAN A	EMILE R & JOAN A	OUELLETTE	PO BOX 42	SINCLAIR	ME 04779
OUELLETTE HUBERT & JANET	HUBERT & JANET	OUELLETTE	594 MAIN ST	CARIBOU	ME 04736-4419
OUELLETTE JAMES & MARY LOU	JAMES & MARY LOU	OUELLETTE	3723 CARIBOU RD	CROSS LAKE	ME 04779
OUELLETTE JAMES R & SHARON L TRUSTEES	JAMES R & SHARON LOUELLETTE TRUSTEES		118 AROOSTOOK FALLS RD	FORT FAIRFIELD	ME 04742
OUELLETTE JAMES RALPH JR MICHAEL & TAMMY DUBE	JAMES RALPH OUELLETTE JR & MICHAEL & TAMMY DUBE		3723 CARIBOU ROAD	CROSS LAKE	ME 04779
OUELLETTE TAMMY	TAMMY	OUELLETTE	5 BIRCH STREET	FORT KENT	ME 04736
OWENS TIMOTHY	TIMOTHY	OWENS	618 GURNET RD	BRUNSWICK	ME 04011-3701
PAGE NORMAN	NORMAN	PAGE	556 BOG ROAD	LIMESTONE	ME 04750
PALM ROBERT M II & PAMELA J	ROBERT M II & PAMELA J	PALM	68 HILLSIDE ST	PRESQUE ISLE	ME 04769
PALMER JOEL O & LINDA M	JOEL O & LINDA M	PALMER	14 SHAWN LANE	LIMERICK	ME 04048-4051
PALUZZI CARLO & BLANCA C	CARLO & BLANCA C	PALUZZI	590 SMITHTOWN AVE	BOHEMIA	NY 11716
PANELLA THOMAS J & FAITH E	THOMAS J & FAITH E	PANELLA	PO BOX 182	SINCLAIR	ME 04779-0182
PARADIS PAUL & EDITH	PAUL & EDITH	PARADIS	325 GLENN STREET	NEW BRITAIN	CT 06051
PARISI JACK & BETTY	JACK & BETTY	PARISI	43 HARVEST RD	CARIBOU	ME 04736
Patricia Macneil, Victor Serafini			21 Washington Terr	Newtonville	MA 02460
Paul A & Michael P Cyr	Paul A & Michael P	Cyr	165 Gagnon Road	Madawaska	ME 04756
Paul Martin	Paul	Martin	PO Box 492	Moody	ME 04054
PELLETIER APRIL & CEDRIC T	APRIL & CEDRIC T	PELLETIER	257 THOROUGH FARE RD	SINCLAIR	ME 04779
PELLETIER CLIFFORD J & NANCY A	CLIFFORD J & NANCY A	PELLETIER	19 GAGNON ROAD	CROSS LAKE	ME 04779
PELLETIER ERNEST J III	ERNEST J	PELLETIER III	7011 W PARMER LANE #131	AUTSIN	TX 78729
PELLETIER GARY L & LINDA L	GARY L & LINDA L	PELLETIER	2873 CARIBOU ROAD	SINCLAIR	ME 04779
PELLETIER JOHN T & PAULINE A	JOHN T & PAULINE A	PELLETIER	1982 MOUNT VERNON ROAD	SOUTHINGTON	CT 06489
PELLETIER OSCAR E & GLORIA M	OSCAR E & GLORIA M	PELLETIER	6 DEWBERRY DRIVE APT. 118	PRESQUE ISLE	ME 04769
PELLUSO SHAWN P	SHAWN P	PELLUSO	265 COSTELLO RD	GARDINER	ME 04345-6444
PENNINGER JARVIS K & ERIKA	JARVIS K & ERIKA	PENNINGER	5620 GEORGIA O'KEEFFE ROAD	LAS CRUCES	NM 88011
PETERSON JEFFREY G ET AL	JEFFREY G PETERSON ET AL		236 CENTER ST	BREWER	ME 04412
Phillip and Hermence Michaud	Phillip and Hermence	Michaud	441 Main Street, PO Box 159	St. Agatha	ME 04772
PICARD ANDRE	ANDRE	PICARD	PO BOX 58	SINCLAIR TWP	ME 04779
PICARD GINETTE	GINETTE	PICARD	3049 HICKORYMEDE COURT	ELLICOTT CITY	MD 21042
PICARD MARIE JEANNE	MARIE JEANNE	PICARD	PO BOX 58	SINCLAIR	ME 04779
PICARD GAFFNEY GINETTE	GINETTE	PICARD-GAFFNEY	3049 HICKORYMEDE CT	ELLICOTT CITY	MD 21042
PIERSON HUGH C & CAROL A FAMILY TRUST	HUGH C & CAROL A PIERSON FAMILY TRUST		745 MAIN ST	CARIBOU	ME 04736
POMERANTZ JOSEPH T & DONNA	JOSEPH T & DONNA	POMERANTZ	405 QUEEN ANNE CLUB DR	STEVENSVILLE	MD 21666
PRATICO TINA & TROY GUERRETTE	TINA & TROY GUERRETTE	PRATICO	11 DEERFIELD WAY	FALMOUTH	ME 04105-2625
PRESS LAURA M	LAURA M	PRESS	512 SWEET PEACH LANE	FORT MILL	SC 29715
RARES SUZANNE C TRUSTEE SUZANNE RARES REVOCABLE TRUST	SUZANNE C RARES TRUSTEE, SUZANNE RARES REVOCABLE TRUST		4300 SW 73RD AVENUE SUITE 103	MIAMI	FL 33155
RAYMOND DAVID TRUSTEE PELLETIER FAMILY TRUST	DAVID RAYMOND TRUSTEE, PELLETIER FAMILY TRUST		429 MAIN STREET	PRESQUE ISLE	ME 04769
RICHARD GAIL A & RANDALL A	GAIL A & RANDALL A	RICHARD	41 HIGH STREET	LIVERMORE FALLS	ME 04254
RODGERS GARY A & LINDA A	GARY A & LINDA A	RODGERS	PO BOX 84	SINCLAIR	ME 04779-0084
ROHE TRUST	ROHE TRUST		43 DUDLEY ST	PRESQUE ISLE	ME 04769
ROMAN CATHOLIC DIOCESE OF MAINE	ROMAN CATHOLIC DIOCESE OF MAINE		CHANCERY OFFICE 510 OCEAN AVE	PORTLAND	ME 04101
ROMANN BRIAN K & JANICE M	BRIAN K & JANICE M	ROMANN	866 CHARETTE HILL RD	FORT KENT	ME 04743
ROSSIGNOL EMILIO & CHARLEEN M	EMILIO & CHARLEEN M	ROSSIGNOL	172 WILDERNESS DR	MEDWAY	ME 04460
ROSSIGNOL RICHARD & LUCILLE	RICHARD & LUCILLE	ROSSIGNOL	4072 CARIBOU RD	SINCLAIR	ME 04779
ROY JACQUELINE	JACQUELINE	ROY	304 SINCLAIR ROAD	SINCLAIR	ME 04779
ROY LUCY ANN BELL L/T	LUCY ANN BELL L/T	ROY	PO BOX 83	SINCLAIR	ME 04779
ROY PETER S SHERRY L & LUCY-ANN	PETER S, SHERRY L & LUCY-ANN	ROY	1819 WORTON BLVD	WEST MIFFLIN	PA 15122-3615
ROY RICHARD R	RICHARD R	ROY	PO BOX 536	MADAWASKA	ME 04756
ROY SERGE & LAURA	SERGE & LAURA	ROY	129 JAMES DRIVE	BROADALBIN	NY 12025
SCHOEL MAVIS W	MAVIS W	SCHOEL	PO BOX 39	CARIBOU	ME 04736
SEARLES WENDALL & LILY & MICHAEL L	WENDALL & LILY & MICHAEL L	SEARLES	3 SEARLES DRIVE	CARIBOU	ME 04736
SEAVEY KATHLEEN M	KATHLEEN M	SEAVEY	13 STONEY BROOK RD	TRENTON	ME 04605
SEVIGNY GERARD O	GERARD O	SEVIGNY	PO BOX 519	WAKEFIELD	MA 01880-4419
SHADY JOAN	JOAN	SHADY	20 NAMSKAKET RD	ORLEANS	MA 02653
SHEA MICHAEL J	MICHAEL J	SHEA	44 DEER RUN	DURHAM	ME 04222
SIMON PEDRO T MD	PEDRO T	SIMON MD	5 REDPOLL DR	TOPSHAM	ME 04086
SINCLAIR EDMUND	EDMUND	SINCLAIR	BOX 16	SINCLAIR	ME 04779

Land within 1000 Feet

NAME	FIRST NAME	LAST NAME	ADDRESS	CITY/TOWN	STATE/ZIP
SINCLAIR SANITARY DISTRICT	SINCLAIR SANITARY DISTRICT		PO BOX 71	SINCLAIR	ME 04779
SITES TIMOTHY & DEBRA	TIMOTHY & DEBRA	SITES	981 VAN BUREN ROAD	CARIBOU	ME 04736
SLIKE RICHARD L & CATHY D	RICHARD L & CATHY D	SLIKE	75 MCKENZIE AVE	LINCOLN	ME 04457
SMITH MARK S	MARK S	SMITH	116 SMITH RD	MARS HILL	ME 04758-3029
SOUCIE TINA M	TINA M	SOUCIE	PO BOX 554	AUGUSTA	ME 04332
SOUCY ALBERT E & GLORIA M TRUSTEES	ALBERT E & GLORIA M SOUCY TRUSTEES		124 AUSTIN ROAD	CROSS LAKE TOWNSHIP	ME 04779
SOUCY JIMMY J	JIMMY J	SOUCY	38 ACCESS HIGHWAY	CARIBOU	ME 04736
SOUCY L PHILIP & CHARLENE	PHILIP & CHARLENE	SOUCY	335 YOUNG LAKE ROAD	WESTFIELD	ME 04787
SPERREY CARROLL & RODNEY	CARROLL & RODNEY	SPERREY	PO BOX 284	WASHBURN	ME 04786
SQUARE LAKE LLC % MADISON PARTNERS	SQUARE LAKE LLC % MADISON PARTNERS		12121 WILSHIRE BLVD STE 959	LOS ANGELES	CA 90025
ST JEAN JEAN	JEAN	ST JEAN	2 PENNY LANE	LISBON	ME 04250
ST PETER JOSEPH G & MARIE	JOSEPH G & MARIE	ST PETER	3706 CARIBOU RD	CROSS LAKE	ME 04779
ST PETER JULES M & RUTH M	JULES M & RUTH M	ST PETER	3580 CARIBOU RD	CROSS LAKE TWP	ME 04779
ST PETER MARYANN	MARYANN	ST PETER	4759 SOUTH WINDROSE DRIVE	TUCSON	AZ 85730
ST PETER RUDOLPH & LEORIA	RUDOLPH & LEORIA	ST PETER	3736 CARIBOU ROAD	CROSS LAKE TOWNSHIP	ME 04779
ST PIERRE RUSSELL & THERESA	RUSSELL & THERESA	ST PIERRE	202 SINCLAIR RD	SINCLAIR	ME 04779-4007
STARRETT JOHN P COL	JOHN P COL	STARRETT	14908 SIMMONS GROVE DR	HAYMARKET	VA 20169-2300
SUNSET PARTNERS	SUNSET PARTNERS		PO BOX 118	ROCKVILLE	CT 06066
Susan Devoe (Bouchard Farm)	Susan	Devoe	143 Pelletier Road	New Canada	ME 04743
THAYER RUSSELL & PHYLLIS	RUSSELL & PHYLLIS	THAYER	PO BOX 82	SINCLAIR	ME 04779
THERIAULT DUANE J	DUANE J	THERIAULT	100 DAIGLE CROSS RD	ST AGATHA	ME 04772
THERIAULT GERARD & LISA	GERARD & LISA	THERIAULT	RFD 1 BOX 52	ST AGATHA	ME 04772
THERIEN ROBERT	ROBERT	THERIEN	628 CHARENTE HILL ROAD	FORT KENT	ME 04743
THIBODEAU BRUCE D	BRUCE D	THIBODEAU	326 SINCLAIR ROAD	SINCLAIR	ME 04779
THIBODEAU JAMES A NACY A TRUSTEE	JAMES A & NACY A THIBODEAU, TRUSTEE		PO BOX 204	FORT KENT	ME 04743
THIBODEAU JIMMIE & LORI	JIMMIE & LORI	THIBODEAU	347 COLBY SIDING ROAD	WOODLAND	ME 04736
THIBODEAU JOHN & DAWN D	JOHN & DAWN D	THIBODEAU	PO BOX 35	CARIBOU	ME 04736-0035
THIBODEAU PATRICE	PATRICE	THIBODEAU	18 SUMMIT CIRCLE	WESTBROOK	ME 04092
THIBODEAU RAYMOND & BEVERLY ET AL	RAYMOND & BEVERLY THIBODEAU ET AL		BOX 9	SINCLAIR	ME 04779
THOMAS GAYNA R	GAYNA R	THOMAS	349 NEWINGTON ROAD	NEWINGTON	NH 03801
TIBBETTS RITA R & STANLEY W ST PIERRE	RITA R TIBBETTS & STANLEY W ST PIERRE	TIBBETTS	950 FEDERAL ROAD	LIVERMORE	ME 04253
TIBBETTS STERLING R	STERLING R	TIBBETTS	30 PARK ST	CARIBOU	ME 04736
TINNEY THOMAS & SANDRA	THOMAS & SANDRA	TINNEY	154 SKYLINE DRIVE	PALERMO	ME 04354
TWIGGS EARL & JOYCE HEBERT	EARL TWIGGS & JOYCE HEBERT		PO BOX 367	PRESQUE ISLE	ME 04769-0367
VALLEY REALTY COMPANY	VALLEY REALTY COMPANY		PO BOX 997	CLARKSDALE	MS 38614
VAN KIRK MYRON U JR & LETHA MAE TRUSTEES	MYRON U VAN KIRK JR & LETHA MAE, TRUSTEES		12348 N WASHBED DR	TUCSON	AZ 85755
VARNUM BRETT	BRETT	VARNUM	424 LADNER ROAD	EASTON	ME 04740-4317
WALLACE DANA & CATHY	DANA & CATHY	WALLACE	824 WASHINGTON ROAD	WADLOBORO	ME 04736
WALTON ALAN H & EDITH V	ALAN H & EDITH V	WALTON	90 WOODRIDGE RD	BREWER	ME 04412
WEBB PETER & PAULINE	PETER & PAULINE	WEBB	78 RASPBERRY LANE	BRIDGTON	ME 04009
WEBER LORI R & WERNLI ERIN L TRUSTEES	LORI R WEBER & ERIN L WERNLI TRUSTEES		21110 NE SUNNYCREST ROAD	NEWBERG	OR 97132
WELCH RYAN C & JAMESON M	RYAN C & JAMESON M	WELCH	140 13TH AVENUE	MADAWASKA	ME 04756
WHITE DANIEL BOONE	DANIEL BOONE	WHITE	9 BIRKSHIRE RD	NASHUA	NH 03064
WHITE MICHAEL S & MONIC J	MICHAEL S & MONIC J	WHITE	PO BOX 24	SINCLAIR	ME 04779
WHITNEY CAROLE A	CAROLE A	WHITNEY	3762 CARIBOU ROAD	CROSS LAKE TWP	ME 04779
WHITTEN JEANNETTE B	JEANNETTE B	WHITTEN	47 BARTON ST	PRESQUE ISLE	ME 04769
WILCOX PAMELA	PAMELA	WILCOX	4 MCMANUS STREET	WASHBURN	ME 04786
WILLEY PHILIP L	PHILIP L	WILLEY	2411 EMERALD LAKE DRIVE	SUN CITY CENTER	FL 33573-4890
WILLEY RICKY L & LISA G	RICKY L & LISA G	WILLEY	18 THOMAS AVE	CARIBOU	ME 04736
WILLEY RONALD L & LOUELLA M	RONALD L & LOUELLA M	WILLEY	PO BOX 1098	CARIBOU	ME 04736-0397
WILLIAMS WINFRIED & PAULA R	WINFRIED & PAULA R	WILLIAMS	19 OLD GRASSY ROAD	HOLLIS	ME 04042
WILLIAMS WINFRIED W SR & PAULA R	WINFRIED W SR & PAULA R	WILLIAMS	19 OLD GRASSY RD	HOLLIS	ME 04042
WINGER TROY G & CHARLOTTE P	TROY G & CHARLOTTE P	WINGER	22 OLD BREWER FARM RD	TRENTON	ME 04605
WYMAN DONALD I & CYNTHIA D	DONALD I & CYNTHIA D	WYMAN	4033 MESSERSMITH RD	GLENROCK	PA 17327-9580
YVON RUSSELL L	RUSSELL L	YVON	62 LYMAN ST	SOUTH HADLEY	MA 01075
ZAI MARCIA & DAVID V	MARCIA & DAVID V	ZAI	412 RIVERBEND DRIVE	PEARISBURG	VA 24134
ZETTERMAN GLENN JR	GLENN JR	ZETTERMAN	PO BOX 266	ST AGATHA	ME 04772

Officials

FIRST NAME	LAST NAME	TITLE	COMPANY	ADDRESS	CITY/TOWN	STATE/ZIP	NOTE
Paul	Bernier		Aroostook County Commissioners Office	144 Sweden Street	Caribou	ME 04736	County
Angela	Coulombe	Town Clerk	Fort Kent Town Office	416 W. Maine Street	Fort Kent	ME 04743	Municipality
Roland Danny	Martin	Representative	Maine House of Representatives	2 State House Station	Augusta	ME 04333-0002	Legislator
Peter	Edgecomb	Senator	Senate of Maine	3 State House Station	Augusta	ME 04333-0003	Legislator

Question 7 – Existing Zoning

7. Existing Zoning: List the zones currently applied to the area(s) proposed for rezoning.

The following Land Use Subdistricts currently apply to the areas proposed for rezoning through the Concept Plan (see Volume 2 - Maps 4 through 10):

- General Management Subdistrict (M-GN)
- General Development Subdistrict (D-GN)
- Residential Development Subdistrict (D-RS)
- Wetland Protection Subdistrict (P-WL)
- Great Pond Protection Subdistrict (P-GP)
- Fish and Wildlife Protection Subdistrict (P-FW)
- Flood Prone Area Protection Subdistrict (P-FP)
- Shoreland Protection Subdistrict (P-SL)

Question 8 – Current Use

8. Current Use: Describe the current and historical use of the land proposed for rezoning

Residential development, recreational activities, and forestry have coexisted within the Plan Area for decades. The Plan Area includes more than 400 camp lots, as well as campsites, forest management roads, and large blocks of working forest. Current and historic uses in the Plan Area are described below, as well as in the Existing Conditions Report included as Appendix A.

Forestry. For generations, the lands in the region were held and managed by large paper companies, such as International Paper, Great Northern Paper, Bowater, and others. Today, the Plan Area is owned by Aroostook Timberlands LP, Allagash Timberlands LLC, and Maine Woodlands Realty Company and managed by Irving Woodlands. As discussed in detail in response to Question 20, the majority of the Plan Area is actively managed forest land using sustainable forestry practices in accordance with an Outcome Based Forestry agreement with the State of Maine. Irving forestry operations in Maine help sustain over 1,800 jobs (direct, contractor, and indirect) supported by a full-time staff of over 30 professionals on the ground every day. Forest products from the operations help supply timber to 20 separate facilities in Maine, including the new state-of-the-art sawmill in Nashville Plantation. Irving ensures the sustainability of the forest and its economic benefits through an ongoing commitment to stewardship, research, and development, and its continued reforestation efforts, having planted over 56 million seedlings in the past 35 years.

Residential Use. Much of the residential development in the region occurs near lakes. Portions of the Plan Area on Long, Cross, and Square Lake are developed with both seasonal and year-round structures. When Irving acquired the lands that make up the Plan Area, there were over 400 camp lots already developed on these three lakes. These lots were created prior to the formation of the Land Use Regulation Commission (LURC) and are currently being licensed to camp owners on an annual basis by Irving.

Currently, Irving licenses 148 waterfront camp lots on Van Buren Cove on Long Lake. There are no camp lots on Mud Lake licensed by Irving. Irving licenses 237 camp lots on/near Cross Lake and 20 camp lots on the Mud/Cross Lake thoroughfare. On Square Lake, Irving licenses 19 camp lots on the west side of the lake. For more information on residential development within the Plan Area, see Sections 4 and 12 of the Existing Conditions Report, included as Appendix A, and Maps 14-17 in Volume 3 for the location and additional information on the Irving camp lots.

Development within the Plan Area has historically shown a haphazard growth pattern. Maps 11 through 13 in Volume 3 are historic U.S. Geological Survey topographic maps of portions of the Plan Area which evidence historic growth patterns since 1931.

Recreational Use. The Plan Area is used for many traditional recreational activities (including hunting, fishing, boating, and camping). The Fish River chain of lakes is well-known for some of the best salmon and trout fishing in Maine. Each of the lakes is connected by a river-like thoroughfare, a natural channel that offers the unique opportunity to canoe from Long Lake through Mud Lake, Cross Lake, Square Lake, and Eagle Lake to the Fish River and back nearly to the point of beginning. Irving allows public access at a boat launch on Cross Lake, beach access at Van Buren Cove, and at multiple campsites and picnic areas throughout the Plan Area. Hunting for deer, bear, and other species occurs seasonally throughout the Plan Area. With a yearly snowfall average of 115 inches, the Plan Area is very popular with snowmobile

enthusiasts. ATV riding is also very popular within the Plan Area, with a series of marked trails maintained by local clubs.

The Yexas Camps. The Yexas Camps (also known as the Gorfinkle Camps) is located on the east side of Square Lake and was a commercial sporting facility founded and constructed c. 1912 by Jack and Jennie Yexa. The Yexas Camps consisted of seven cabins of various sizes, plus storage buildings, a generator building, and privies. According to Maine Lodges and Sporting Camps (Wilson, Donald A., 2005), the Yexas Camps were “a favorite gathering place for outdoor writers groups, and they were popular with Maine dignitaries, including Governor Lucius Barrow who was a regular.” The Yexas Camps were discontinued as a sporting camp sometime prior to 1984. In December of 1984, LURC issued Development Permit DP 3655 to Daniel L. Hede authorizing him to operate the existing cabins and accessory structures as a commercial sporting camp facility, and to install a replacement combined sewage disposal system. While the replacement system was installed, it is unclear whether the facility was ever operational; it has not been run as a commercial sporting camp facility for many years.



One of the remaining cabins at the Yexas Camps

Question 9 – Surrounding Uses and Resources

9A. Surrounding Uses and Resources / Existing Development: Describe the uses and resources of the area/region surrounding the land proposed for rezoning (i.e., commercial forest, farm land, seasonal/year-round residential use, commercial uses, etc.).

The Plan Area is located in northern Aroostook County within the St. John River Valley region. The St. John Valley in Maine stretches from Allagash to Hamlin and encompasses parts of the Fish River waterway, including Long Lake, Mud Lake, Cross Lake, and Square Lake. The region has a long history of agricultural, industrial, and working forest uses. There are vast forest lands around portions of the Plan Area, open agricultural fields around Long Lake and to the north toward Canada, and industrial areas predominantly located in the larger surrounding communities.

The region is home to many small villages and hamlets, including New Sweden, Sinclair, St. Agatha, Stockholm, and Frenchville. Most goods and services are obtained in the larger communities of Van Buren (approximately 11 miles east of Van Buren Cove), Fort Kent (approximately 16 miles northwest of Cross Lake), and Caribou (approximately 28 miles southeast of Cross Lake). These service center communities provide a full range of services, including health care, education, lodging, grocery stores, car dealerships, banks, restaurants, and numerous other small businesses.

Overall, economic development in the region is fairly stagnant. The unemployment rate for Aroostook County was 8.8% (not seasonally adjusted) in 2013. This is about 2% higher than the state average. Within the region employment opportunities are dominated by the forest products and agricultural sectors. The forestry and the forest products industry has created and is responsible for over 6,000 jobs within Aroostook County, according to a 2013 report, Maine's Forest Economy, by the Maine Forest Products Council. Wood from Irving's forest operations provides a sustainable wood supply to over 20 separate businesses in Maine, including local sawmills and paper mills. Farming for potatoes and other crops is the second largest economic contributor in Aroostook County (behind forestry). Agricultural activities include farms, processing facilities, and distribution.

Recreational tourism is another contributor to the regional economy. Major recreational uses in the region include camping, ATV riding, snowmobiling, fishing, hunting, cross-country skiing, boating, canoeing, and kayaking. Many of these uses are common in the Plan Area. The most significant recreational resource in the immediate vicinity is the 24,083-acre Eagle Lake Unit of the Bureau of Parks and Lands, adjacent to the west side of the Plan Area. Eagle Lake is a popular destination for four-season recreation and most of the land surrounding the 5,581-acre Eagle Lake is managed forestland. The lakeshore of Eagle Lake, west of the State land, includes several hundred camps and year-round residences. Within the State land the shoreline is essentially undeveloped, with the exception of 5 camp lots and a commercial sporting camp on the Square Lake thoroughfare. Recreational use of Eagle Lake is also divided, with pleasure boaters and water-skiers concentrated west of the Eagle Lake Unit near the Town of Eagle Lake, and anglers and campers more common within the State land. In addition, the Maine Winter Sports Center, located in Ft. Kent, draws significant attention when hosting world-class skiing events.

For more information on the surrounding uses and resources, see the Existing Conditions Report included as Appendix A.

9B. Existing Development in the area/region: Describe existing development in the area/region and within the area proposed for rezoning, including type, amount, density, and proximity (by road) to the area proposed for rezoning. If the plan includes only a portion of a lake, describe existing development on the rest of the lake in sufficient detail to understand the context of the proposed plan.

Development within the Plan Area and throughout the region is typical of rural Maine. There is a mixture of larger service center communities (Fort Kent, Van Buren, Caribou), smaller villages (St. Agatha, New Sweden), and various hamlets (Sinclair, Cross Lake Township). In between these settlements there are home sites, farm fields, and large tracts of unfragmented forest land.

Throughout the region, there is a system of State, local, and land management roads that provide connectivity and access. State Route 161 bisects the Plan Area with Mud Lake and Long Lake on its east side and Cross Lake and Square Lake on its west side. The closest developed village to the Plan Area is the small hamlet of Sinclair, between Long Lake and Mud Lake, which has a post office, general store, gas station, and lodging facilities. Sinclair also has a community wastewater treatment facility that serves over 200 customers, most of which are residential properties on the western end of Long Lake. The Village of Cross Lake, between Mud Lake and Cross Lake, also has a small general store located on Route 161 near the Mud Lake/Cross Lake thoroughfare.

The Plan Area includes the southeastern end of Long Lake at Van Buren Cove, where Irving licenses 148 waterfront camp lots, and also includes a 1/4 mile sand beach. Overall, Long Lake is highly developed with over 775 residential and commercial structures on its shoreline. The Town of St. Agatha (approximate population 756) is located at the northern end of the lake. Long Lake and its surrounding area offer a variety of recreational opportunities, such as swimming, boating, fishing, fishing derbies, snowmobiling, and ATV riding. Two public boat launches provide water access. Much of the land at the north end of Long Lake is used for agriculture, primarily potato farms.



Aerial view of the northern portion of Long Lake

The Plan Area includes all of the southern and western shorelines of Mud Lake. There is no existing development on this portion of the lake. There are, however, over two dozen privately-owned camp lots on the northern shore of the lake. The most prominent use is a private campground with 56 campsites, 6 cabins, and a variety of outbuildings on 5.6 acres of land. Recreational opportunities around Mud Lake are similar to those of other lakes in the Plan Area – fishing, boating, snowmobiling,

ATV riding, etc. Recreational access to the lake is limited as there is currently no public access point, except from the Long Lake thoroughfare.

The Plan Area includes all but the southwesterly portion of Cross Lake and frontage lots on several locations on the east side of the lake. Cross Lake is highly developed with the northern two-thirds of the lake having over 300 seasonal and year round camp lots. There are 237 camp lots on Petitioners' land, as shown in Appendix G. Much of the land surrounding the lake is actively managed woodlands. The area also provides recreational opportunities such as swimming, boating, fishing, fishing derbies, snowmobiling, and ATV riding. There is one boat launch at the end of Landing Road, which is on Irving owned land.

On Square Lake, the Plan Area includes all but a small portion of the northern shoreline and an isolated lot at the Cross Lake thoroughfare. The lake is lightly developed with residential lots. There are 19 camp lots on Irving owned land on the western shore, and approximately 36 lots on the northern shoreline. There is one boat launch on private property on the northern shore and a private home where the Cross Lake/Square Lake thoroughfare enters Square Lake. One of the most prominent features of the lake is the former Yexas Camp property, which is located on the east side of Square Lake. The property, while run down, is developed with seven structures of various sizes.



The former Yexas Camps on Square Lake

Question 10 – Proposed Uses

10. Proposed Uses: Describe all proposed uses of the land involved in this rezoning petition. If any subdivisions are proposed, describe the types of subdivisions (seasonal, year-round, residential, commercial, etc.) and the numbers and sizes of lots within each subdivision (including any common areas or lots designated to remain undeveloped). Attach a site plan that shows all locations of the proposed subdivisions within the concept plan. If structural development is proposed, describe its type, size and use and attach a preliminary site plan that shows how such structural development and support facilities will be located. If any other use is proposed, describe in detail what that use will be and why it is being proposed.

This Petition is to rezone lands within the Plan Area. No specific subdivisions or development projects are being proposed in this Petition. Permitted uses within the Plan Area after rezoning will be similar to those historic and current uses outlined in Question 8, including:

Forestry. The Plan will continue to encourage forestry uses and allow it to continue throughout the Plan Area. The forest resource will be conserved through restrictive zoning and conservation, and managed using sustainable forestry principles, as outlined in response to Question 20. In addition, as discussed in response to Question 22, approximately 14,600 acres of the Plan Area (Easement Area) will be subject to the Fish River Chain of Lakes Conservation Easement (Conservation Easement), included at Tab 3(A) of the Concept Plan in Volume 2, thereby preserving the working forest values in perpetuity.



Recently harvested area above Cross Lake

Residential. The Plan allows limited residential use and development in specified zones, as shown on Map 21 in Volume 3, and regulates future development through appropriate standards similar to those already in Chapter 10. The majority of these development zones are adjacent to compatible development, as discussed in the response to Question 12.

The total number of new residential units (Units) within the new residential development zones (including Square Lake Yexas) is capped at a maximum of 330 Units. In addition, a maximum number of units (Maximum Total Units) is established for Long Lake (75 Units), Cross Lake (125 Units), and Square Lake (130 Units). Units may not be transferred from one lake to another lake within the Plan Area. Final layout of subdivision lots and structures will be guided by the land use standards established in the Chapter 10 Addendum as well as any other applicable standards in effect at the time.

Area	Location (township)	Approximate Size (acres)	Zone
Long Lake A	T17 R3	136	D-FRL-RS
Long Lake B	T17 R3	75	D-FRL-RS
Long Lake C	T17 R4	114	D-FRL-RS
<i>Maximum Total Units for Long Lake: 75</i>			
Cross Lake A	Cross Lake	119	D-FRL-RS
Cross Lake B	Cross Lake	79	D-FRL-RS
Cross Lake C	Cross Lake	64	D-FRL-RS
Cross Lake D	T16 R5	183	D-FRL-RS
Cross Lake E	T16 R5	156	D-FRL-RS
<i>Maximum Total Units for Cross Lake: 125</i>			
Square Lake E	T16 R5	278	D-FRL-RS
Square Lake W	T16 R5	121	D-FRL-RS
Square Lake Yexas	T16 R5	51	D-FRL-RF
<i>Maximum Total Units for Square Lake: 130</i>			

The size of the residential development zones are such that there would be flexibility in siting roads and houses as well as common open spaces, buffers, trail corridors, and other amenities. This provides developers the flexibility to minimize, or avoid altogether, adverse impacts to existing resources, some of which may not be fully mapped as part of this planning process (e.g., wetlands and vernal pools). Land in these residential development zones that may not be utilized in a specific development could be retained as part of the working forest.



Camps on the west side of Long Lake

Recreational Use. Preserving recreational opportunities and maintaining the traditional uses of the region is a key component of the Concept Plan.

The Plan provides for, subject to certain rights of the landowner, public access throughout the majority of the Plan Area (such as the picnic area on Limestone Point, the small beach at the southern end of Cross Lake, and the smelt-dipping area on Mud Brook) for purposes of low-intensity outdoor recreational uses, such as boating, swimming, fishing, smelt dipping, ice fishing, hiking, hunting, trapping, picnicking, nature observation and photography, cross-country skiing, snowshoeing, and enjoyment of open space. In addition, the Plan also provides for the managed use of motorized vehicles (e.g., cars, trucks, ATVs, and snowmobiles) throughout the majority of the Plan Area. The Conservation Easement allows all of these uses in perpetuity within the Easement Area.

There is a unique opportunity for a central recreational facility in the region and the Plan includes a specific development zone (Square Lake Yexas) that would allow for the establishment of such a recreational lodging facility. This zone is sited at the former Yexas Camps and permitted uses within this zone include development of a recreational lodging facility and associated amenities. See Question 15 for a description of a possible Hub, Spokes, and Rim system centered around the Yexas Camps site.

Further, the Cross Lake boat launch, picnic area, and beach, as well as the beach at Van Buren Cove will remain public access points and a portion of the shorefront on each of Square Lake and Mud Lake are zoned to allow for a water access site. There is currently no public access available on Mud Lake and limited public access available on Square Lake. The Northern Aroostook Regional Management Plan recognized the need for boat access to both lakes in the Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000.¹ The Maine Department of Inland Fisheries and Wildlife (Maine IF&W) has been seeking opportunities to provide “equitable access” to these lakes, as access is currently limited to those who either have or lease property on the lakes, or have boats that are small enough to access the lakes during the summer months when the water levels are low. Irving anticipates that any facilities at these water access sites would be designed, permitted, constructed, and managed by the State or a responsible non-governmental organization (NGO).

See Maps 32 and 33 in Volume 3 for existing and potential recreational resources in the region.

Community and Economic Development Use. Another component of the Concept Plan is to provide opportunities for local economic growth.

The Plan’s zoning allows for commercial, industrial, and mixed uses in 3 designated areas that continue to permit forestry operations and will support local residents and visitors (lodging, convenience stores, etc.). These areas are separate from the residential development zones, are sited adjacent to existing major transportation corridors (i.e., Routes 161 and 162), and are within close proximity to existing developed areas in the established Villages of Sinclair and Cross Lake.

¹ Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000. Boating Facilities Program of the Maine Dept. of Agriculture, Conservation & Forestry, Maine Department of Inland Fisheries and Wildlife.

The table below provides a summary of the Community/Economic Development Zones:

Area	Location (township)	Approximate Size (acres)	Zone
CD-1	Cross Lake	279	D-FRL-CI
CD-2	T17 R4	167	D-FRL-GN
CD-3	Cross Lake	101	D-FRL-GN

The Community/Economic Development Zones are sized to allow flexibility in siting future development to maximize efficient use of the land while minimizing, or avoiding, impacts to existing resources, some of which may not be fully mapped as part of this planning process. Development in each of the zones is restricted to a maximum of 5 lots. The land area that is not used for development could remain as open space and serve as a buffer to the adjacent working forest, or it could be reserved for additional uses. See Maps 23 and 24 in Volume 3 for the location of these zones.



Sinclair Village

**Question 11 – Consistency with the
Comprehensive Land Use Plan**

11. Consistency with Comprehensive Plan: The Commission’s plan includes specific goals to guide the location of new development; to protect and conserve forest, recreational, plant or animal habitat and other natural resources; to ensure the compatibility of land uses with one another; and to allow for a reasonable range of development opportunities important to the people of Maine.

A. PRINCIPAL VALUES

The Commission has identified four principal values in Section 1.1 of the Comprehensive Land Use Plan (CLUP) that, taken together, define the distinctive character of the jurisdiction:

- ***The economic value of the jurisdiction derived from working forests and farmlands, including fiber and food production, largely on private lands. This value is based primarily on maintenance of forest resources and the economic health of the forest products industry.***
- ***Diverse and abundant recreational opportunities, including many types of motorized and non-motorized activities. Unique opportunities exist for recreational activities that require or are significantly enhanced by large stretches of undeveloped land, ranging from primitive recreation in certain locations to extensive motorized trail networks. Recreation is increasingly an economic driver in the jurisdiction and the State.***
- ***Diverse, abundant and unique high-value natural resources and features, including lakes, rivers and other water resources, fish and wildlife resources, plants and natural communities, scenic and cultural resources, coastal islands, mountain areas and other geologic resources.***
- ***Natural character, which includes the uniqueness of a vast forested area that is largely undeveloped and remote from population centers. Remoteness and the relative absence of development in large parts of the jurisdiction are perhaps the most distinctive of the jurisdiction’s principal values, due mainly to their increasing rarity in the Northeastern United States. These values may be difficult to quantify but they are integral to the jurisdiction’s identity and to its overall character.***

The proposed Plan has been developed to promote the values described in the CLUP that define the distinctive character of the UT. The Plan integrates sound planning practices that will maintain and enhance the traditional forest economy, promote recreational and traditional uses, protect critical natural areas, and appropriately guide future development patterns to maintain the natural character of the Fish River chain of lakes. Each of these values is discussed in greater detail below.

1. Working Forests

The CLUP identifies a key goal of conserving, protecting, and enhancing the forest resource to promote the values of the working forest. See CLUP § 1.2, II, F. Approximately 96% of the Plan Area will be sustainable working forest. The forest resource is highly valued by Irving as intrinsic to its core business. The Irving organization is a global leader in sustainable forestry practices and is committed to the

principles outlined in the State of Maine’s Outcome Based Forestry (OBF) approach. These are described in detail in response to Question 20. To that end, a primary objective of the Concept Plan is to maintain and preserve the working forest landscape using the latest techniques (such as by requiring implementation of sustainable forestry principles). In addition, the Conservation Easement will permanently restrict certain development in approximately 14,600 acres (Easement Area), thereby keeping that area available as a working forest. For more information on conservation measures, please see the response to Question 22.



Recent forest management activity on the south side of Mud Lake

2. Diverse and Abundant Recreational Opportunities

The CLUP provides a goal of conserving the natural resources that are fundamental to maintaining the recreational environment that enhances diverse and abundant recreational activities. See CLUP § 1.2, II, I. By guaranteeing public access for traditional low-impact recreational activities, the Plan protects, preserves, and enhances recreational opportunities for those living within the Plan Area, as well as for visitors who use the Fish River chain of lakes throughout the year. Much of the Plan Area will be zoned to ensure that a diverse range of managed recreational opportunities, such as hunting, fishing, camping, ATV riding, snowmobiling, and cross-country skiing, will be available. In addition, the Conservation Easement will allow managed access for such activities in perpetuity.

Land will also be made available for dedicated public access to the lakes, with opportunities for new access points on Mud Lake and Square Lake helping meet goals set by Maine IF&W to improve public access. Recreational lodging opportunities centered around the Yexas Camps would likely promote and capitalize on the wide variety of recreational opportunities in the Plan Area, while supporting the regional economy. The new Community and Economic Development Zones will also provide opportunities for businesses, including those that specialize in recreational activities such as guides and outfitters, to capitalize on these recreational activities and offer services and amenities to support residents and visitors alike.

3. Diverse, Abundant, and Unique High-Value Natural Resources

The CLUP also identifies in several provisions the importance of protecting natural resources. See, for example, CLUP § 1.2, II, H (habitat), K (water quality), and L (wetlands). Irving actively protects biodiversity and scientifically and ecologically significant features through its innovative Unique Areas Program. The Irving organization voluntarily established the program in 1996 to:

- Preserve rare and uncommon species and significant landscape features.
- Preserve “indicator” species that can be used to monitor natural or man-made changes in the environment.
- Establish a database that will aid regional scientists and policymakers in determining the abundance and distribution of species and natural features.
- Formulate better management plans for unique areas.
- Educate the public about forest and resource management and invite its support in identifying significant sites.

The Unique Areas Program ensures that the commercial forestry management activities on all Irving lands account for areas that are notable for aesthetics, wildlife habitats, old-growth and high conservation forests, unique forest stands, lakes, wetlands, plants, historic sites, and geological and fossil sites.

As part of the planning process for the Concept Plan, the Unique Areas Program data was combined with Irving’s forestry planning tools to help determine where development zones should be located to minimize impacts to areas of particular ecological, scientific, or aesthetic value and avoid unnecessary fragmentation of the working forest. This data was also used to identify certain critical cultural and natural habitats that are now included within the Easement Area. See Appendix E for more information on Irving’s Unique Areas Program and the criteria that are used to identify areas eligible for inclusion.

The Plan adopts the boundaries of the existing Protection subdistricts established by LUPC. These include the Wetland Zone (P-WL), Great Pond Zone (P-GP), Wildlife Habitat Zone (P-FW), Flood Prone Zone (P-FP), and the Shoreland Zone (P-SL). (See Maps 4 through 10 in Volume 3 for the location and extent of these existing Protection subdistricts.) In addition, the Conservation Easement will connect the 24,083-acre Eagle Lake Unit with both Square Lake and Cross Lake and provide additional protection for the highly scenic thoroughfare between Square Lake and Eagle Lake. The Conservation Easement protects approximately 17 miles of undeveloped shoreline on the lakes and connecting thoroughfares to assure that these resources will be preserved in perpetuity. See the response to Question 22 for more information on conservation.

4. *Natural Character*

The CLUP also establishes a goal of guiding the potential location of new development to protect the unique values of the region, while ensuring a reasonable range of development opportunities. See CLUP § 1.2, I, A. The Plan was developed from a landscape-scale perspective that began by using data from the Unique Areas Program and other sources to identify areas of high natural, scenic, and recreational resource value (e.g., deer wintering areas, steep slopes, picnic areas, and campsites). The areas zoned to allow future development were selected to minimize adverse impacts on these high value areas and to help conserve large blocks of unfragmented forestland. Most of the proposed residential development areas are located along main travel corridors, near existing similar development, or – in the case of Square Lake E – near the site of a previously-developed sporting camp (Yexas). They are generally located adjacent to or near existing patterns of settlement where established roads and public infrastructure is available.



Typical shoreline conditions along
the Cross/Square Lake thoroughfare

If the Concept Plan is approved, any future development will be required to follow the standards incorporated into the Plan, which are based on the Commission's Chapter 10, Sub-Chapter III Land Use Standards. These are incorporated into the Plan in the Chapter 10 Addendum. Please see Tab 2(D) of the Concept Plan in Volume 2. Under these standards, new development would be required to maintain buffers for water quality, habitat interconnectivity, and visual integrity, and deal proactively with erosion control, bank stabilization, and protection of those qualities that are intrinsic to maintaining the natural character of the shoreline.

While forest management activities following OBF principles will continue throughout the Plan Area, there are certain public vantage points that exhibit scenic qualities that are managed through appropriate timber harvesting techniques. Within these areas, Irving's harvest operations will use methods that minimize the visual impacts. In addition, all forestry and planning staff are trained in methods to minimize visual impact. Typical aesthetic management techniques include maintenance of roadside buffers, avoidance of cutting patterns on hilltops that would result in a notched appearance, and avoiding the use of strip cuts within lake viewsheds. Strict policies for harvesting within the riparian zone to protect natural resources, habitat values, and scenic quality have been established by Irving and are incorporated into the Concept Plan, as discussed in response to Question 20.

B. GOALS AND POLICIES

As noted above, the CLUP includes a series of specific goals and policies in Section 1.2 that guide the location of new development; protect and conserve forest, recreational, plant or animal habitat and other natural resources; ensure the compatibility of land uses with one another; and allow for a reasonable range of development opportunities. The discussion below identifies how specific goals and policies are supported by the Concept Plan, with a cross-reference to a discussion in this Petition for more information.

Location of Development – CLUP Section 1.2,I,A

Goal: *Guide the location of new development in order to protect and conserve forest, recreational, plant or animal habitat and other natural resources, to ensure the compatibility of land uses with one another and to allow for a reasonable range of development opportunities important to the people of Maine, including property owners and residents of the unorganized and deorganized townships.*

<i>Policies re: location of development on a jurisdiction-wide level</i>	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> • <i>Provide for a sustainable pattern of development, consistent with historical patterns, which directs development to suitable areas and retains the principal values of the jurisdiction, including a working forest, integrity of natural resources, and remoteness.</i> 	<ul style="list-style-type: none"> • Proposed residential and community/economic development areas will be adjacent to existing development and near existing road networks, or (in the case of Square Lake East and Square Lake Yexas), near historical development, leaving the majority of the Plan Area as unfragmented working forest. 	9, 10, 12, 13, 14, 15, 21
<ul style="list-style-type: none"> • <i>Guide development to areas near existing towns and communities and in other areas identified as appropriate development centers.</i> 	<ul style="list-style-type: none"> • The Plan identifies community/economic development areas that are centered around the Villages of Cross Lake and Sinclair. New zoning allows opportunities for future growth near these existing centers. 	8, 9, 12, 13, 17, 20, 21

<i>Policies re: location of development on a community or regional level</i>	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> • <i>Encourage orderly growth within and proximate to existing, compatibly developed areas — i.e., existing development of similar type, use, occupancy, scale and intensity to that being proposed, or a village center with a range of uses for which the proposed development will provide complementary services, goods, jobs and/or housing.</i> 	<ul style="list-style-type: none"> • Over 60% of the area zoned for residential development is on Long Lake and Cross Lake, in close proximity to similar land uses. The areas zoned for community/economic development were selected for their proximity to existing infrastructure. 	9, 12, 13, 14, 15, 17, 21
<ul style="list-style-type: none"> • <i>Permit subdivision for the purpose of development only in areas zoned for development or in areas that meet the criteria for Level 2 subdivisions.</i> 	<ul style="list-style-type: none"> • Subdivisions will only be allowed within designated residential development zones. 	10, 19

Economic Development – CLUP Section 1.2,I,B

Goal: Encourage economic development that is connected to local economies, utilizes services and infrastructure efficiently, is compatible with natural resources and surrounding uses, particularly natural resource-based uses, and does not diminish the jurisdiction’s principal values.

Policies	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> Encourage forest, recreation and other resource-based industries and enterprises which further the jurisdiction’s tradition of multiple use without diminishing its principal values. 	<ul style="list-style-type: none"> Traditional resource-based land use activities (forest products, recreation) will continue in approximately 96% of the Plan Area. Community/economic development zones provide businesses, including those that rely on forestry or recreation, either directly or indirectly, with a growth and development opportunity. 	10, 15, 21, 22
<ul style="list-style-type: none"> Encourage economic development in those areas identified as the most appropriate for future growth. 	<ul style="list-style-type: none"> There is a need for a destination tourism facility following a Hub, Spokes, and Rim pattern. The Plan encourages this pattern of development by zoning an area for development of a recreational lodging facility. 	10, 15, 21

LAND CONSERVATION – CLUP Section 1.2,I,G

Goal: Encourage the long-term conservation of select areas of the jurisdiction that are particularly representative of its cultural and natural values, including working forests, high-value natural resources and recreational resources.

Policies	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> Encourage conservation efforts that protect one or more of the following: working forest; landscape features of statewide, regional or local significance; public access to lakes, rivers or ocean waters; high-value recreational resources; high-value natural resources; and undeveloped, multiple use lands in high- 	<ul style="list-style-type: none"> In preparing the Concept Plan, Irving met with multiple agencies and stakeholders to solicit input. The Concept Plan evolved through these interactions to better protect the values of the Plan Area. The Conservation Easement will 	9, 13, 14, 15, 20, 21, 22

<p><i>growth areas. In areas distant from population centers and infrastructure, encourage conservation of large, landscape-level areas of the jurisdiction, particularly those that allow continued use of the forest for wood products and recreation. Work cooperatively with landowners and conservation organizations to encourage the designation of large tracts of land with these values for limited or no development.</i></p>	<p>protect, in perpetuity, approximately 14,600 acres of working forest and about 17 miles of undeveloped waterfront along portions of Mud Lake, Cross Lake and Square Lake; over 600 acres of the Cross Lake Fens (an area of Statewide Ecological Significance); all of the Cross Lake Bog (roughly 3,000 acres); plus many high-value natural areas identified by the Unique Areas Program.</p> <ul style="list-style-type: none"> • The Conservation Easement will greatly strengthen the conservation efforts initiated by the State’s 24,084-acre Eagle Lake Unit of the Bureau of Parks and Lands. In combination, the areas will protect nearly 62 square miles. • Long-term conservation of approximately 33,800 acres of the Plan Area will be achieved through restrictive zoning regulations that limit commercial and residential development. 	
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FOREST RESOURCES – CLUP Section 1.2,II,F

Goal: *Conserve, protect, and enhance the forest resource in a way that preserves its important values, including timber and fiber production, ecological diversity, recreational opportunities, as well as the relatively undeveloped remote landscape that it creates.*

Policies	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> • <i>Encourage active forest management.</i> 	<ul style="list-style-type: none"> • Approximately 96% of the Plan Area is available for forestry and working forest activities using sustainable forestry principles. 	14, 15, 22
<ul style="list-style-type: none"> • <i>Support uses that are compatible with continued timber and wood fiber production, as well as outdoor recreation, biodiversity and remoteness, and discourage development that will interfere unreasonably with these uses and values.</i> 	<ul style="list-style-type: none"> • Approximately 96% of the Plan Area is available for forestry and working forest activities using sustainable forestry principles. • Potential development areas have been sited to minimize 	14, 15, 21, 22

	interference with ongoing forest operations while maintaining biodiversity and the existing character of the Fish River chain of lakes.	
<ul style="list-style-type: none"> • <i>Protect areas identified as environmentally sensitive by regulating forestry activities, timber harvesting, and construction of land management roads.</i> 	<ul style="list-style-type: none"> • The Plan will require sustainable forestry practices in the management of land within the Plan Area. 	15, 22
<ul style="list-style-type: none"> • <i>Support efforts by landowners to manage vehicular access to private roads when necessary to reduce land use conflicts and protect high-value natural resources.</i> 	<ul style="list-style-type: none"> • Lots will, upon sale, be deeded guaranteed vehicular and utility access over Irving’s roads, subject to Irving’s right to relocate such access as appropriate. This will reduce the need to develop new roads for future residential development. 	10, 14, 15
<ul style="list-style-type: none"> • <i>Encourage the use of Maine’s best management practices for forestry.</i> 	<ul style="list-style-type: none"> • The Plan requires the use of sustainable forestry practices, which are the best management practices for forestry. 	9, 10, 15, 20

PLANT AND ANIMAL HABITAT RESOURCES – CLUP Section 1.2,II,H

Goal: *Conserve and protect the aesthetic, ecological, recreational, scientific, cultural and economic values of wildlife, plant and fisheries resources.*

Policies	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> • <i>Coordinate with and support agencies in the identification and protection of a variety of high-value wildlife habitats, including but not limited to: habitat for rare, threatened, or endangered species; rare or exemplary natural community and ecosystem types; native salmonid fish species; riparian areas; deer wintering areas; waterfowl and wading bird habitats; and significant vernal pools.</i> 	<ul style="list-style-type: none"> • The Plan requires continued active monitoring and updating of changes in deer use, in cooperation with regional wildlife biologists, to ensure the long-term management of DWAs. 	15, 18, 21, 22
<ul style="list-style-type: none"> • <i>Retain connectivity of habitats and minimize road mortality of wildlife by promoting road building practices that facilitate wildlife movement and by directing development to appropriate areas.</i> 	<ul style="list-style-type: none"> • Areas zoned for development are adjacent to or near existing development to help maintain habitat connectivity and protect unfragmented forestland. • The Easement Area was selected 	10, 12, 15, 22, Vol. 3 - Maps 22-26

	<p>to provide large blocks of unfragmented land that retain connectivity and are more easily managed by the easement holder.</p> <ul style="list-style-type: none"> • All of the areas zoned for development can be accessed from existing roads. • The Plan requires the use of best management practices for road construction based on current Chapter 10 standards and sustainable forestry practices. 	
<ul style="list-style-type: none"> • <i>Protect wildlife habitat in a fashion that is balanced and reasonably considers the management needs and economic constraints of landowners.</i> 	<ul style="list-style-type: none"> • Wildlife habitat is protected in approximately 96% of the Plan Area through use of sustainable forestry practices and conservation. • Areas zoned for development are adjacent to or near existing development to help maintain habitat connectivity and protect unfragmented forestland. 	15, 22
<ul style="list-style-type: none"> • <i>Support landscape-scale planning and habitat management.</i> 	<ul style="list-style-type: none"> • The Concept Plan establishes areas of new development zoning, conservation, and regulatory requirements using a landscape-scale planning approach that identifies existing patterns of development, natural resource constraints, historic uses, and recreational opportunities. 	15, 21, 22
<ul style="list-style-type: none"> • <i>Consider mechanisms to encourage sustainable land use patterns that contribute to maintenance of large tracts of undeveloped land, particularly those areas having Statewide Ecological Significance that are important to healthy plant and animal populations.</i> 	<ul style="list-style-type: none"> • Unique Areas Program data was used to help site development zones, also helping to maintain larger tracts of unfragmented land. 	15, Vol. 3 - Maps 19-20
<ul style="list-style-type: none"> • <i>Encourage cooperative agreements between landowners and public agencies which enhance protection of high-value habitat and, when appropriate, modify the Commission’s zoning to facilitate the execution or strengthen the goals of such agreements.</i> 	<ul style="list-style-type: none"> • The Plan requires DWA cooperative agreements with the Maine IF&W or its successor. • An area on Mud Lake and an area on Square Lake will be made available for an appropriate public agency or NGO to design and permit a water access site to these resources. 	10, 15, 20, 22

RECREATIONAL RESOURCES – CLUP Section 1.2,II,I

Goal: Conserve the natural resources that are fundamental to maintaining the recreational environment that enhances diverse, abundant recreational opportunities.

Policies	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> • <i>Protect the values of the jurisdiction that provide residents and visitors with a unique array of recreational experiences, especially high-value natural resources and remoteness where they exist.</i> 	<ul style="list-style-type: none"> • Existing forest management and recreational uses will continue on approximately 96% of the Plan Area. • The Concept Plan will protect over 14,600 acres of forestland from residential development, including many areas of recognized recreational value. • The Plan zones an area for the development of a recreational lodging facility. 	8, 10, 14, 15, 20, 21, 22
<ul style="list-style-type: none"> • <i>Encourage diverse, non-intensive and non-exclusive use of recreational resources and protect primitive recreational opportunities in certain locations.</i> 	<ul style="list-style-type: none"> • The Concept Plan will conserve the shoreline and recreational resources in over 1.7 miles of Mud Lake, over 10.6 miles of Square Lake, over 2 miles of Cross Lake, and over 2.5 miles of thoroughfares. • The Plan zones areas for development of remote campsites and remote rental cabins. 	10, 14, 15, 22
<ul style="list-style-type: none"> • <i>Accommodate a range of recreational uses and facilities in appropriate locations, based on the level of use, size, scale, and compatibility with existing recreational and non-recreational uses. Specifically:</i> <ul style="list-style-type: none"> - <i>Accommodate less intensive, non-exclusive recreational uses and facilities in other appropriate locations where such uses and facilities will not adversely affect existing uses and resources.</i> - <i>In more remote locations, accommodate low-impact, small-scale facilities that are most compatible with primitive recreational uses.</i> 	<ul style="list-style-type: none"> • The Plan zones areas for development of recreational lodging, remote campsites, and remote rental cabins. • The size and intensity of remote campsites and remote rental cabins will be limited to small-scale facilities. • The Plan identifies areas for development of non-exclusive water access sites on Mud Lake and Square Lake and maintains public access points on Long Lake and Cross Lake. 	14, 15, 21, 22

<ul style="list-style-type: none"> • <i>Support cooperative efforts that ensure continued public access across, and recreational use of, private lands.</i> 	<ul style="list-style-type: none"> • The Concept Plan has been prepared with considerable input from public agencies, leaseholders, and town and state officials to ensure continued public access and use of the Plan Area for recreational use. 	15, 22, Appendix B
<ul style="list-style-type: none"> • <i>Support efforts that ensure continued public access to public waters.</i> 	<ul style="list-style-type: none"> • The Plan identifies areas for development of non-exclusive water access sites on Mud Lake and Square Lake and maintains public access points on Long Lake and Cross Lake. 	15, 22

SCENIC RESOURCES – CLUP Section 1.2,II,J

Goal: Protect the high-value scenic resources of the jurisdiction by fitting proposed land uses harmoniously into the natural environment.

Policies	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> • <i>Encourage concentrated patterns of growth to minimize impacts on natural values and scenic character.</i> 	<ul style="list-style-type: none"> • The majority of residential and commercial/economic development zones are concentrated in close proximity to existing development, preserving extensive lengths of lake and thoroughfare shoreline. • The majority of development areas are in upland areas. Development in those zones would be minimally visible from waterbodies. 	18, 19, 22
<ul style="list-style-type: none"> • <i>Regulate land uses generally in order to protect natural aesthetic values and prevent the incompatibility of land uses.</i> 	<ul style="list-style-type: none"> • Residential and commercial/economic development zones are sited in areas to avoid conflicts with incompatible uses. • Forestry and forest management activities will be guided by sustainable forestry practices, which include accounting for the aesthetic impact of timber harvesting. 	14, 15, 18, 19, 20

<ul style="list-style-type: none"> • <i>Continue to regulate timber harvesting activities in important recreational and scenic areas to protect aesthetic qualities.</i> 	<ul style="list-style-type: none"> • Forestry and forest management activities will be guided by sustainable forestry practices which include accounting for the aesthetic impact of timber harvesting. 	14, 15
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WATER RESOURCES – CLUP Section 1.2,II,K

Goal: *Preserve, protect, and enhance the quality and quantity of surface waters and groundwater.*

Policies	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> • <i>Regulate uses of land and water in order to prevent degradation of the jurisdiction’s excellent water quality and undue harm to aquatic habitat.</i> 	<ul style="list-style-type: none"> • The Plan adopts the Chapter 10 standards for land use, shoreline setbacks, and clearing limits to protect water quality and aquatic habitat. 	14, 15, 18
<ul style="list-style-type: none"> • <i>Protect the recreational and aesthetic values associated with water resources.</i> 	<ul style="list-style-type: none"> • The Plan will conserve about 17 miles of shoreline on lakes and thoroughfares. • Forestry and forest management activities will be guided by sustainable forestry practices, which include accounting for the aesthetic impact of timber harvesting. 	14, 15, 22
<ul style="list-style-type: none"> • <i>Conserve and protect lakes, ponds, rivers, streams, and their shorelands, which provide significant public recreational opportunities.</i> 	<ul style="list-style-type: none"> • The Plan will conserve about 17 miles of shoreline on Mud, Cross, and Square Lakes and their thoroughfares, including many areas with significant recreational opportunities. • Irving’s strict policies for harvesting within the riparian zone meet state standards and will continue to be used throughout the Plan Area. 	14, 15, 22
<ul style="list-style-type: none"> • <i>Permit a reasonable range of development and land uses on lakeshores in order to accommodate a range of recreational opportunities important to Maine people.</i> 	<ul style="list-style-type: none"> • The Concept Plan strikes an appropriate balance between development and access to the lakes. • The majority of the Plan Area will be accessible for low-intensity outdoor recreational uses. 	14, 15, 22

	<ul style="list-style-type: none"> The Plan achieves a conservation-to-development ratio for miles of shoreline of approximately 6:1 on Square Lake. 	
<ul style="list-style-type: none"> Require appropriate setbacks and other development standards to protect water quality, water quantity, and the recreational and aesthetic values of lakes and rivers. 	<ul style="list-style-type: none"> The Plan adopts the Chapter 10 standards for shoreline setbacks and clearing limits. The Plan will conserve about 17 miles of shoreline on lakes and thoroughfares. 	14, 15, 19
<ul style="list-style-type: none"> Guide lake development based on identified land use characteristics and natural resource values, conserving important values and directing development toward those lakes or lake areas most capable of absorbing new development. 	<ul style="list-style-type: none"> Development zones were identified using historic land use characteristics and patterns, identified natural resources, and the soils report. 	14
<ul style="list-style-type: none"> Protect lake water quality from long-term and cumulative increases in phosphorus associated with development in lake watersheds. 	<ul style="list-style-type: none"> The Plan has been developed with input from Maine DEP on allowable phosphorus loading on each of the lakes included in the Plan Area. Modeling demonstrates that allowable levels of phosphorus discharged from maximum potential development would be below allowable limits. 	14

COOPERATIVE INITIATIVES – CLUP Section 1.2,IV

Goal: Encourage landowner initiatives and cooperative efforts that further the Commission’s objectives of protecting natural resources and guiding growth through non-regulatory or voluntary actions.

<i>Policies</i>	Proposed Concept Plan Action	Location in Petition by Question Number
<ul style="list-style-type: none"> Recognize the value and contributions of cooperative approaches to the protection of important resources and values, and provide opportunities for and recognize the achievements of such approaches. 	<ul style="list-style-type: none"> The Concept Plan has been prepared with considerable input from public agencies, leaseholders, and town and state officials to ensure continued public access and use of the Plan Area for recreational use. The Plan requires DWA cooperative agreements with the Maine IF&W or its successor. 	20, 22

	<ul style="list-style-type: none"> • The Plan requires the establishment of a Conservation Easement with a qualified easement holder. • The Plan contemplates the establishment of public water access sites to be designed, permitted, constructed, and managed by the State or qualified NGO. • The Plan requires input from a third-party auditor for sustainable forestry practices. 	
<ul style="list-style-type: none"> • <i>Promote cooperative efforts to substantially limit development on large tracts of land to ensure that these lands will remain available to sustain the State's rural, natural resource-based economies.</i> 	<ul style="list-style-type: none"> • Approximately 96% of the Plan Area is available for forestry and working forest activities using sustainable forestry principles. • The Plan establishes a permanent conservation easement on approximately 14,600 acres. • Roughly 33,800 acres will be restrictively zoned to help promote the long-term preservation of the working forest. 	21

Question 12 – Adjacency Criterion

12. Adjacency Criteria: The Commission’s plan encourages orderly growth within and proximate to existing, compatible developed areas. This is referred to as the “adjacency” criterion. When considering any petition for rezoning, the Commission places considerable weight on this objective. However, the Commission may consider adjusting the adjacency criterion when assessing concept plans, provided any such relaxation is matched by comparable conservation measures.

Does your proposal fit the adjacency objective? If so, describe in detail the type and amount of existing nearby development. Include the distance (by straight line and by road) of such development from your proposed area(s) of development.

The adjacency criterion encouraged by the Commission holds that new development should usually be located near existing compatible developed areas, which is generally expressed as being no more than one mile by road. The Commission has recognized, however, that there may be situations in which another distance is appropriate.

Within the Plan Area, the majority of the areas zoned to allow for future development are consistent with the adjacency objective outlined above because they are located less than one road mile from existing, compatible development. A waiver of the adjacency principle will be required for the development areas identified as Square Lake E and Square Lake Yexas. Granting such a waiver would be consistent with orderly growth and good planning objectives as these areas are sited to avoid natural resource constraints and adjacent to historic development. In addition, a waiver would be matched by comparable conservation measures as land located to the north and south of Square Lake E will be placed in permanent conservation. All other areas surrounding Square Lake E will have long-term restrictions on development.

The application of the adjacency criteria for each of the development areas identified in this Plan is addressed both in the narrative discussion below and in a summary table at the end of this question.

Long Lake. All of the new development zones proposed on Long Lake meet the adjacency criterion because they are either adjacent to or within 500’ of existing compatible developed areas.

- **Long Lake A** is located immediately adjacent to existing residential lots on the East Road. There are approximately 115 lots within a one-mile radius of Long Lake A. These include those lots on the west side of Long Lake. Zoning for Long Lake A will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.
- **Long Lake B** is located immediately upland of existing residential lots on the West Van Buren Road. There are approximately 150 lots within a one-mile radius of Long Lake B. These include those lots on the east side of Long Lake. Zoning for Long Lake B will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.
- **Long Lake C** is located within 500’ of the existing privately-owned waterfront lots at the end of Barnbrook Road, east of the Village of Sinclair. There are approximately 75 lots within a one-mile radius of Long Lake C. Zoning for Long Lake C will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.

Cross Lake. All of the new development zones on Cross Lake meet the adjacency criterion because they are either adjacent to existing compatible developed areas, within one mile over existing roads from existing compatible developed areas, or are within one road mile of existing compatible developed areas if a road were to be constructed.

- **Cross Lake A** is located within 500' of existing residential lots on the west side of Cross Lake. There are approximately 140 lots within a one-mile radius of Cross Lake A. Zoning for Cross Lake A will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.
- **Cross Lake B** is located immediately adjacent to existing residential lots on the northeast side of Cross Lake. There are over 190 lots within a one-mile radius of Cross Lake B. Zoning for Cross Lake B will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.
- **Cross Lake C** is located immediately adjacent to existing residential lots on the east side of Cross Lake. There are approximately 160 lots within a one-mile radius of Cross Lake C. Zoning for Cross Lake C will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.
- **Cross Lake D** is located immediately adjacent to existing residential lots on the northeast side of Cross Lake next to Mifs Lane, Disy Road, and Landing Road. There are approximately 80 lots within a one-mile radius of Cross Lake D. Zoning for Cross Lake D will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.
- **Cross Lake E** is located within one mile, measured in a straight line, from existing residential lots on Mifs Lane and Landing Road. If a new road were to be constructed to connect Cross Lake E with Cross Lake D, which could reasonably be done given the favorable terrain and lack of resource constraints, it would be approximately 0.6 miles. Alternative access to Cross Lake E is via existing Irving woods roads adjacent to Square Lake E or over a series of Irving woods roads which lead to Disy Road and then Landing Road (an approximately 2.9 road mile distance). These roads could be upgraded as part of any development process. There are approximately 10 lots within a one-mile radius of Cross Lake E.



Aerial view of Cross Lake boat launch

Square Lake. There are three development zones proposed on Square Lake: Square Lake W, Square Lake E, and Square Lake Yexas. Square Lake W meets the adjacency criterion because it is within one road mile of existing compatible developed areas. Square Lake E and Square Lake Yexas each need an adjacency waiver. They are approximately two miles (in a straight line) from nearby development on Mifs Lane and Landing Road.

- **Square Lake W** is located within one road mile of existing residential lots on the Square Lake Road (south of Limestone Point). There are approximately 19 lots within a one-mile radius of Square Lake W. Zoning for Square Lake W will be consistent with the residential zoning on adjacent developed areas and allow for residential uses to be developed.
- **Square Lake E** and **Square Lake Yexas** would need a waiver of the adjacency criterion since these zones are more than one road mile from existing compatible development. The Yexas Camps had been the focal point of activity on Square Lake for decades beginning in the early to mid-1900s. While the camps have not been used for commercial purposes for several decades they have been in private ownership and used for residential purposes up until Irving recently acquired it. As noted in Table 1, Square Lake E is about 5.1 road miles (and 2.1 “as the crow flies” miles) to the residential development surrounding the Cross Lake boat launch, picnic area, and beach at the end of Landing Road on Cross Lake, and about 5.3 road miles to Route 161. This development area is discussed in greater detail below.

Community and Economic Development. All of the new Community and Economic Development Zones meet the adjacency criterion because they are either adjacent to or within 500’ of existing compatible developed areas.

- **CD-1** is located within 500’ of an existing commercial campground and has frontage on State Route 162. It abuts the west side of the Sinclair Sanitary District and is within 1.6 miles of the commercial services located within Sinclair. Zoning for CD-1 will allow for commercial and economic development uses, which will complement the existing uses in the area.
- **CD-2** is located immediately adjacent to existing commercial activities in Sinclair (post office, general store, gas, etc.) and it abuts the east side of the Sinclair Sanitary District. Zoning for CD-2 will allow for commercial and economic development uses, which will complement the existing uses in the area.
- **CD-3** is located immediately adjacent to existing commercial uses on Route 161, including a general store, gas station, and a recently-installed electrical substation. Zoning for CD-2 will allow for commercial and economic development uses, which will complement the existing uses in the area.

**TABLE 1
SUMMARY OF ADJACENCY**

Proposed Development Area	TWP	Straight Line Distance to Nearest Development	Distance to Nearest Development Using Existing Roads	Type & Amount of Nearest Existing Development in Straight Line
Long Lake A	T17 R3	Within 500’ of camp lots on east side of Long Lake	Adjacent to East Side Road	Adjacent to D-RS zone. Approx. 115 DUs within 1 mile.

Long Lake B	T17 R3	Within 500' of camp lots on west side of Long Lake	Adjacent to West Side Road	Adjacent to D-RS zone. Approx. 150 DUs within 1 mile.
Long Lake C	T17 R4	Within 500' of private homes on Barnbrook Road	16.5± miles	Within 0.1 mile to D-RS zone. Approx. 75 DUs within 1 mile.
Cross Lake A	Cross Lake	Within 500' of camp lots on west side of Cross Lake	Adjacent to West Side Road/Shoreline Drive	Adjacent to D-RS zone. Approx. 140 DUs within 1-mile on West Side Road.
Cross Lake B	Cross Lake	Within 500' of camp lots on northeast side of Cross Lake	Adjacent to Windy Cove Road, Shady Lane, Duck Cove Road, Cormier Road, May Road, and Sandy Point Road.	Adjacent to D-RS zone. Over 190 DUs within 1-mile.
Cross Lake C	Cross Lake	Within 500' of camp lots on east side of Cross Lake	Adjacent to Cyr Road	Adjacent to D-RS zone. Approx. 160 DUs within 1 mile on Cyr Road, Huntress Road, Route 161, and Mifs Lane.
Cross Lake D	T16 R5	Within 500' of lots on east side of Cross Lake	Adjacent to Mifs Lane, Disy Road, and Landing Road	Adjacent to D-RS zone. Approx. 80 DUs within 1 mile on Cyr Road, Route 161, and Mifs Lane.
Cross Lake E	T16 R5	0.6 mile to Landing Road/Mifs Lane	2.9 miles to Mifs Lane/Landing Road	Approx. 10 DUs on Mifs Lane and boat launch/picnic area on Landing Road within 1 mile.
Square Lake E and Square Lake Yexas	T16 R5	2.2 miles to Mifs Lane and Landing Road on Cross Lake.	5.1 miles to Mifs Lane/Landing Road	Adjacent to former Yexas Sporting Camp. No occupied DUs within 1 mile. 2.2 miles to D-RS zone at Mifs Lane.
Square Lake W	T16 R5	Within 500' of camp lots south of Limestone Point on Square Lake	Adjacent to Square Lake Road	Adjacent to D-RS zone. Approx. 19 DUs within a 1-mile radius.

CD-1	Cross Lake	Within 500' of a commercial campground; adjacent to Route 162	1.6 miles to Village of Sinclair; 2.0 miles to Route 161/162 intersection.	Sinclair Sanitary District's Treatment Plant abuts on the east. CD-1 is opposite a commercial campground on Mud Lake.
CD-2	T17 R4	Adjacent to Route 162, Village of Sinclair, and Treatment Plant	Adjacent to Route 162	Adjacent to the Village of Sinclair and Route 162.
CD-3	Cross Lake	Adjacent to existing commercial uses on Route 161	Adjacent to both Route 161 and Route 162	Adjacent to St. Peters general store/gas station on Route 161 and new electrical substation at intersection of Routes 161 and 162.

Does the proposal require adjustment of the Commission's adjacency policy? If so, explain why such adjustment is justified in the context of the Commission's policies, and describe how the development gained through the adjustment is matched by comparable conservation.

While Square Lake E and Square Lake Yexas are greater than one road mile from existing compatible development, these development zones have many of the attributes of a well-planned location, and would, as a result, be preferable to a rigid application of the traditional one-road-mile rule-of-thumb. The proposal is consistent with both the locational and type and intensity components of the adjacency criterion.

First, there are several unique features of the area that should be considered when evaluating the locational component of the adjacency principle.

- The Yexas Camps (founded c. 1912) is an established recreational lodging location on Square Lake, and highly suitable to the applicable zoning in terms of its accessibility, topography, lack of limiting natural features, and general ambiance. The site is the prime location within the Plan Area for a regional recreational destination facility. Square Lake Yexas affords opportunities for recreational connections beyond its boundaries by utilizing woods roads, lakes, thoroughfares, and navigable streams throughout the Plan Area and beyond. This will promote the "diverse and abundant recreational opportunities" and "sustainable economic opportunities" identified as crucial for the UT in Section 1.1 of the CLUP.



Two of the remaining cabins
at the Yexas Camps

- Square Lake E and Square Lake Yexas have a multitude of features that are both unique to the Plan Area and highly desirable for recreational and residential development, including a protected cove, western orientation, an established lakeside activity area, a natural beach, interesting topography, highly varied vegetation, and deep water access.
- Square Lake E and Square Lake Yexas are located 7.2 road miles from Route 161. From Square Lake E or Square Lake Yexas, New Sweden is 18 road miles south, Caribou is 29 road miles south, and Fort Kent is 29 road miles north. These distances, although greater than one mile, are not unusual for this portion of the UT, where residents are accustomed to travelling relatively long distances on a regular basis to obtain goods and services. Public services, such as fire and police, can be provided efficiently to these areas. In addition, the new development allowed within the Plan Area will support the health of the existing service centers by providing new customers for goods and services. The established road network means that there will not be a need for new roadways that might fragment the surrounding forestland. Also, the distance itself from other developments is an integral part of the appeal of the Yexas Camp. It will be attractive as a recreational destination precisely because it is not located too close to other developments.
- The zoning of Square Lake E and Square Lake Yexas does not present significant concerns with encouraging further development along the shoreline. Following approval of the Plan, and once the Conservation Easement is in force, any further residential development on 10.6 of Irving's 13.9 miles of Square Lake shorefront will be prohibited. This will minimize overall development near natural resource-based activities and protect the resources and conservation values of the jurisdiction, two key objectives of the locational component of the adjacency principle.

Second, the following factors are important to analyzing the type and intensity component of the proposed development at Square Lake E and Square Lake Yexas.

- As explained above, there are two distinct (but interrelated) development zones proposed - Square Lake E and Square Lake Yexas. Square Lake Yexas is approximately 51 acres in size and would allow recreational lodging, residential development, and related uses. The former Yexas Camps historically included 7 cabins of various sizes, plus a large meeting hall, several storage

buildings, a generator building, and privies. When re-permitted as a commercial sporting camp in 1984, the proposal was to operate the existing cabins and accessory structures, as well as to install a replacement combined sewage disposal system. While the new sewage system was installed, it is not clear that the facility ever reopened. Currently, the Yexas facility is run-down and uninhabitable, and detracts from the scenic value of this area of Square Lake.

- There is a unique opportunity for a central recreational facility in the region. The proposed Square Lake Yexas development zone provides the opportunity to meet that need and is consistent with other, similar uses in the region. Map 32 in Volume 2 of the Petition Application shows existing recreational uses in the vicinity of the Plan Area, as well as other existing sporting facilities in the region. Zoning for Square Lake Yexas will allow development that is similar to and complementary of other uses in the area, such as the Eagle Lake Sporting Camp, the Fish River Lodge, the Lakeside Lodge, and the Long Lake Sporting Camp.
- Zoning of Square Lake E and Square Lake Yexas allows for residential uses that would be in keeping with established residential development patterns on both the west side of the lake and the north end of the lake. In fact, many of these existing lots are legally non-conforming, whereas any new development would be built to current standards. Unlike the current development pattern on Square Lake, the majority of these new units would be on upland areas.
- The Chapter 10 Addendum standards that will be incorporated into the Plan (for example, the recently-adopted recreational lodging standards, as well as standards for subdivisions, setbacks, buffers, lighting, and similar provisions pertaining to new development) should assure other owners and licensees on the lake that the fundamental character of the eastern shoreline will not be dramatically altered if these areas are developed. As LUPC has recognized in other instances, development subject to such review is preferable to haphazard individual, lot-by-lot development.
- During a meeting with LUPC staff, the Maine Department of Transportation indicated that it did not expect any negative impacts from increased traffic on Route 161, the major roadway in the area, from any development authorized under the Plan.

In sum, a waiver of the adjacency criterion's usual one-road-mile rule-of-thumb for Square Lake E and Square Lake Yexas is consistent with good planning principles and would serve the objectives of both the locational and type and intensity components of the adjacency criterion by providing the opportunity for a recreational lodging facility that can be an essential element of an overall regional recreational economic strategy. In addition, Square Lake E and Square Lake Yexas are easily accessed off of a major roadway, are proximate to the service centers in New Sweden and Fort Kent, and have historically been developed as a traditional sporting camp. It will also be surrounded to the north and south along the lake by portions of the Easement Area.



Moreover, if these zones are developed as permitted under the applicable zoning, such development will be offset by a number of comparable conservation measures:

- **Permanent protection of approximately 10.6 miles of Square Lake shoreline.** The Conservation Easement protects approximately 10.6 miles of the approximately 13.9 miles of shoreline that Irving currently owns on Square Lake. In comparison with the approximately 1.8 miles of new development area, there are roughly six feet of permanent conservation for every foot of new development area on Square Lake, which is comparable with multiple other concept plans approved by LUPC.
- **Portions of the Easement Area include approximately 8,131 acres of land directly abutting Square Lake.** This area includes several important smelt streams, designated deer wintering areas, eagle nests, wetlands, and other key habitats.
- **Limitations on development area.** The areas selected for Square Lake E and Square Lake Yexas took into account deer wintering areas and smelt streams to the south, and possible rusty blackbird habitat to the north. Square Lake E and Square Lake Yexas are larger than required to allow flexibility in siting future development and incorporating open space into a design. Further, Square Lake E and Square Lake Yexas are capped, along with Square Lake W, at a maximum of 130 new units.
- **Adoption of Chapter 10 rules** for development within Square Lake E and Square Lake Yexas. The intent is to ensure any development replicates the character of a traditional Maine sporting camp (which is the precedent in this case). The Land Use Standards in Sub-Chapter III of the Chapter 10 Addendum set parameters for, among other things, locating roads, buildings, other impervious surfaces, and forest openings to minimize visual impacts on the views from the water and surrounding shore.
- **Adoption of Sustainable Forestry Management Principles.** The Concept Plan adopts sustainable forest management principles (see Volume 2 at Tab 2(E), Chapter 10 Addendum § 10.31), which requires the use of aesthetic harvesting practices.

Question 13 – Protection Zoning

13. Protection Zoning: Is the P-RP zone that you propose more appropriate for the protection and management of existing uses and resources in the area? If so, describe how the P-RP zone is more appropriate.

The existing uses and resources of the Plan Area have been described in response to questions 8 and 9 and outlined in the CLUP. Even without the Concept Plan, the Plan Area is likely to see development in the future and existing uses and resources may experience significant adverse impacts from incremental and haphazard development. As can be observed from historical development (see Map 11 in Volume 2), development in the Plan Area has been scattered. Most of Irving's holdings along the lakes are currently in D-RS, P-GP, or other subdistricts, which allows for the creation of two lots per township every 5 years. Over the course of 30 years, Square Lake, for example, (which is in two townships) could have two-dozen lots in various locations throughout the shoreline. This approach could result in loss of public access, degradation of the scenic character of the area, inefficient road layouts and impact areas of significant natural resource value. While an individual residential unit may not cause a noticeable change to a lake, the cumulative effect of incremental unplanned development could be significant.

The Concept Plan is more appropriate for the protection and management of the existing uses and resources for the following reasons.

- *The Concept Plan is more appropriate for the protection and management of the existing forest resources and commercial forest uses.*

The Concept Plan will protect the commercial forest activities throughout the Plan Area through restrictions on the type and amount of development that can occur and the adoption of sustainable forestry principles. Approximately 96% of the total Plan Area will be regulated by restrictive zoning that allows working forest operations but prohibits residential development and limits the type of commercial activities that can occur. Approximately 14,600 acres of the Plan Area will be subject to the Conservation Easement. The Plan places limits on the density of residential and commercial development that would be allowed and sets regulatory standards in place.

- *The Concept Plan is more appropriate for the protection and management of existing natural resources.*

Future development that occurs in an incremental haphazard fashion threatens the existing natural resources of the Plan Area. The Concept Plan was prepared using a long-range, holistic approach to planning, which included identifying the existing natural resources and existing development areas throughout the Plan Area and then specifying the location of development zones to avoid significant natural resources. For example, the Easement Area includes over 600 acres of the Cross Lake Fens, which is identified as an area of Statewide Ecological Significance by the Maine Natural Areas Program. The Conservation Easement also protects about 17 miles of shoreline around the lakes, which will provide continued protection of critical habitat.



Aerial view of thoroughfare from Square Lake into Eagle Lake

- *The Concept Plan is more appropriate for the protection and management of recreational and scenic resources.*

The Concept Plan maintains long-term access to recreational resources throughout the Plan Area. Through and subject to the terms of the Conservation Easement, public access for low-intensity outdoor recreation will be guaranteed in perpetuity. In addition, motorized recreation, such as ATV riding and snowmobiling, are allowed to continue under the Conservation Easement. A large portion of the Easement Area is adjacent to the State's 24,084-acre Eagle Lake Unit, managed by the Bureau of Parks and Lands. When joined together, the Eagle Lake Unit and the Easement Area represent nearly 62 square miles of permanently protected habitat and forestland that can be enjoyed by the public for recreational activities.

The Concept Plan provides that the beach at Van Buren Cove and the Cross Lake boat launch, picnic area, and beach will remain public access points. A portion of the shorefront on the west end of Mud Lake and the east side of Square Lake (see Map 34 in Volume 3) will be zoned to allow for a water access site.

Further, the zoning of Square Lake Yexas and the adoption of sustainable forestry principles promote the management of recreational and scenic resources. In addition, the Plan identifies locations for future recreational resources (remote campsites, remote cabins) in more remote parts of the Plan Area so that they are appropriately planned to protect natural resources and enhance recreational opportunities overall.

Question 14 – Shoreland Criteria

14. Shoreland Criteria: The Commission’s lake management program contains policy statements that include review criteria for permit applications (including petitions for rezoning prior to such activities) that could affect the shoreline. These special review criteria for intensive development proposed on lakes are included in the Commission’s Land Use Districts and Standards under provisions of Section 10.13,B,2. If your petition for rezoning includes any shoreland areas, carefully read and refer to the Review Criteria for Shoreland Permits in Appendix C of the Comprehensive Land Use Plan (pages C-6 and C-7) and the Review Standards for Structures Adjacent to Lakes in Section 10.13,B,2 of the Commission’s Land Use Districts and Standards. Explain how the proposed rezoning is consistent with the following criteria.

The Plan Area includes over 38 miles of shoreline between the larger bodies of water (Long Lake, Mud Lake, Cross Lake, Square Lake, Carry Pond, Dickey Pond, and Little California Pond) and the thoroughfares. No specific developments are being proposed as part of the Concept Plan. Zoning around Long Lake, Cross Lake, and Square Lake will allow for future development opportunities. Within the shoreline areas of the smaller ponds (Carry Pond, Dickey Pond, and Little California Pond), development is prohibited with the exception of 1 remote campsite or remote cabin no larger than 400 square feet along each shoreline.

The following is a discussion of how the Concept Plan meets the review criteria for Shoreland Permits in Appendix C of the CLUP (pages C-6 and C-7) and the Review Standards for Structures Adjacent to Lakes in Section 10.25.A of the Commission’s Land Use Districts and Standards (Chapter 10).

a. Natural and Cultural Resource Values: The proposal will not adversely affect natural and cultural resource values identified as significant or outstanding in the Wildland Lakes Assessment.

The Maine Wildland Lakes Assessment (Lakes Assessment) identifies the following values for lakes within the Plan Area:

- **Long Lake** is rated “outstanding” for its botanical resources and “significant” for its fisheries and cultural resources.
- **Mud Lake** is rated “significant” for its fisheries and cultural resources.
- **Cross Lake** is rated “outstanding” for its botanical resources and “significant” for its fisheries and cultural resources.
- **Square Lake** is rated “outstanding” for its fisheries resources and “significant” for its cultural and physical resources.
- The Lakes Assessment does not provide information on Carry Pond, Dickey Pond, or Little California Pond.

The Concept Plan uses various mechanisms to assure that future shoreline development will not adversely affect natural and cultural resource values identified as significant or outstanding in the Lakes Assessment. These include:

- Adopting the Chapter 10 standards for shoreline setbacks and clearing limits, as well as the open space requirements of the Chapter 10 subdivision standards.
- Designating over 14,600 acres for permanent conservation. This includes approximately 17 miles of shoreline on lakes and thoroughfares, including approximately 10.6 miles of shoreline around Square Lake, approximately 2.1 miles of shoreline on Cross Lake, approximately 1.7 miles of shoreline on Mud Lake, approximately 2.0 miles along the Mud/Cross Lake thoroughfare, and approximately 0.5 miles on the south side of the Cross/Square Lake thoroughfare. The Conservation Easement will protect a significant portion (over 600 acres) of the Cross Lake Fens and all of the Cross Lake Bog (roughly 3,000 acres).
- New development areas were sited in locations that are proximate to existing development and will not disturb recognized botanical or fisheries resources. They also avoid significant physical features, such as steep slopes and ridgelines that contribute to the inherent character of each lake. No development zones exist on Mud Lake.
- Square Lake Yexas envisions a land use pattern mixing residential development with the development of recreational lodging facilities based upon the traditional Maine sporting camp, focused around the former Yexas Camps.
- The Plan avoids siting new development zones in areas where sensitive habitat occurs, including the smelt streams feeding into Long Lake, such as McLean Brook and Mud Brook, as well as DWAs.
- The Concept Plan provides the opportunity for the State or a responsible NGO to establish a water access site on Mud Lake, which would promote Maine IFW's goal of "equitable access" to the lake. In addition, a new access point could enable Maine IF&W to better monitor the fishery resource and stock the lake in the future.
- The Concept Plan provides the opportunity for the State or a responsible NGO to establish a water access site on Square Lake, which would promote Maine IFW's goal of "equitable access" to the lake.



Cross Lake Fens on west side of Cross Lake

- b. *Water Quality: The proposal will not, alone or in conjunction with other development, have an undue adverse impact on water quality.*

The phosphorus generated by potential future development was compared to phosphorus allocation allowances generated by Maine Department of Environmental Protection (Maine DEP). See Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development. Table 1 below shows the permissible allocation of phosphorus for the lakes included in the Plan Area.

**TABLE 1
PERMISSIBLE PHOSPHOROUS (P) INCREASE ALLOCATED FOR FUTURE DEVELOPMENT**

Lake	P Allocated to Total Direct Watershed per ppb in Lake (lbs) [F]	Acceptable Increase in Lake's P Concentration in ppb [C]	Allowable Increase in Annual P Load to the Lake (lb/yr)
Long	707.00	0.75	530.25
Mud	115.50	1.00	115.50
Cross	398.00	0.50	199.00
Square	728.00	0.75	546.00

Phosphorus allocation is typically based on land holdings within the direct watershed. See Volume 3, Map 18, for information on the affected watersheds. If the percentage of land ownership is used to divide the phosphorus allocation for future development, the amount designated to Irving is shown in Table 2.

**TABLE 2
COMPUTATION OF IRVING'S SHARE OF ALLOCATED PHOSPHOROUS**

Lake	Allowable Increase in Annual P Load to the Lake (lbs/yr) [FC]	Irving Ownership in Direct Watershed per GIS (%)	Allocation to Irving Based Upon Land Holdings
Long	530.25	39	208.55
Mud	115.50	90	103.75
Cross	199.00	41	82.19
Square	546.00	84	485.14

The phosphorus discharge for the average existing home on a licensed lot in the Plan Area was estimated based on the following assumptions:

- Building area 1,800 SF
- Drives and parking 3,500 SF
- Lawn areas 8,000 SF¹

¹ Estimates of existing conditions were based upon representative field reconnaissance.

The anticipated development for the average new home in the Plan Area was based on the following assumptions:²

- Building area 2,100 SF
- Driveway 2,000 SF
- Turf over disposal field 2,000 SF
- Additional lawn area 5,000 SF

The new phosphorus export generated by any future development within the proposed residential development zones is shown in Table 3 below. This analysis conservatively assumes that the Maximum Total Units allowable on each lake are developed.

**TABLE 3
PHOSPHOROUS EXPORT BY DEVELOPMENT AREA**

Lake	P allocated to total dir. watershed per ppb in lake (lbs) [F]	Acceptable increase in lake P conc. in ppb [C]	Allowable increase in ann. P load to lake (lb/year) [FC]	Direct Watershed per GIS (acres)	Irving Ownership in Direct Watershed per GIS (acres)	Irving Ownership in Direct Watershed per GIS (%)	Possible Irving Allocation for Direct Watershed (lb/yr)	Net Increase due to allowed Development	Net Increase due to New Roads since 2000	% of Allocation Used	Remaining Allocation
Long	707	0.75	530.25	49,450	19,449	39%	208.55	14.02	52	31.7	142.53
Mud	115.5	1	115.5	7,404	6,651	90%	103.75	0.58	17	19	84.07
Cross	398	0.5	199	37,267	15,392	41%	82.19	21.3	3	30.5	57.14
Square	728	0.75	546	48,402	40,613	84%	458.14	22.39	58	17.5	377.75
TOTALS							852.63	58.29	130	22.4	662.24

Based on the analysis, the residential development allowed as a result of the zoning would represent a small fraction of the total allowable phosphorous allocation on each lake.

Narrow forest management roads will need to be upgraded and widened in some areas to provide access to new development envelopes. Subdivision applications for future development will have to demonstrate how new/upgraded roads will comply with standards in the Chapter 10 Addendum, which would include best management practices for sedimentation and erosion control. Most of the proposed development areas already have woods roads or residential roads that could be used for future access, thus minimizing the amount of new clearing and impervious surfaces required.

In addition, phosphorus mitigation will be addressed, if necessary, when individual subdivisions, both residential and commercial/economic, are designed. At that time, specific phosphorus studies may be required by Maine DEP or LUPC to show that development will not adversely affect water quality.

² A larger building area was assumed for new development since it would be owner-occupied and not on licensed land. Driveway and turf areas were based upon typical lot layouts for new construction.

- c. *Traditional Uses: The proposal will not have an undue adverse impact on traditional uses, including without limitation, non-intensive public recreation, sporting camp operations, timber harvesting, and agriculture.*

One of the primary goals of the Plan is to maintain traditional public uses, including access to shoreland areas. To that end, there are multiple mechanisms being proposed.

- Maintaining approximately 96% of the Plan Area as traditional working forest.
- Continuing to allow and manage access to Irving-owned land within the Plan Area for traditional public uses, such as hunting, fishing, ATV use, snowmobiling, hiking, cross-country skiing, and snowshoeing.
- Continuing to offer residents of the Plan Area with guaranteed managed access to their lots over existing roads. It is understood that the access route may vary at times to accommodate ongoing forest management operations.
- Identifying areas for public access, as shown on Map 34 in Volume 3:
 - The beach at Van Buren Cove will remain a public access point.
 - A portion of the shorefront on the west end of Mud Lake will be zoned to allow for a water access site.
 - The Cross Lake boat launch, picnic area, and beach will remain a public access point.
 - A portion of the shorefront on the east side of Square Lake will be zoned to allow for a water access site.
- Allowing managed access to smaller ponds within the Plan Area for the development of small-scale facilities (e.g., remote rental cabins, remote campsites) in the areas set forth on Map 33 in Volume 3.
- Providing an opportunity, through zoning, for the redevelopment of a traditional sporting camp within the Square Lake Yexas development area.

- d. *Regional Diversity: The proposal will not substantially alter the diversity of lake-related uses afforded within the region in which the activity is proposed.*

Recreational uses, natural resources, the working forest, and residential and commercial uses – all contribute to the diversity of the Plan Area. The Concept Plan embraces the diversity of existing lake uses and recognizes the different characteristics that each lake has in terms of scale, setting, natural features, and type and intensity of development. Proposed allowable uses will be virtually the same as those uses currently allowed in Chapter 10.

- e. *Natural Character: Adequate provision has been made to maintain the natural character of shoreland.*

The Concept Plan includes numerous provisions to protect the natural character of the Fish River chain of lakes and thoroughfares.

- The Conservation Easement will cover approximately 14,600 acres (over 22 square miles) of land. Included in this easement are approximately 17 miles of lake shoreline, approximately 2.5 miles of thoroughfare shoreline, a portion of the Cross Lake Fens, all of the Cross Lake Bog, and several important smelt streams. In addition, the Concept Plan will protect approximately 33,800 acres (over 52 square miles) of land from development by prohibiting residential development and limiting non-residential development through restrictive zoning. Included in this area are a number of smaller ponds and waterbodies (Dickey Pond, Carry Pond, and Little California Pond), the steep hillsides surrounding Long Lake, and the network of roads and trails used for snowmobiling and ATV riding.
- The Concept Plan adopts LUPC's existing standards for vegetative clearing, subdivisions, open space, and building setbacks.
- Development areas were selected to avoid steep slopes, wetlands, and significant physical features that contribute to the natural character of the waterbodies.
- The Plan Area will be subject to sustainable forest management practices that are based on ecologically sound, economically appropriate, and socially responsible outcomes based forestry principles. These include watercourse and wetland buffer requirements that meet or exceed current Commission and Maine DEP regulations, aesthetic timber harvesting practices to minimize the visual impact of harvest operations, maintenance of biological diversity to maintain healthy populations of flora and fauna, and promotion of overall forest health.

f. Lake Management Goals: The proposal is consistent with the management intent of the affected lakes classification.

Long Lake is approaching Management Class 5, Heavily Developed Status. Under current LUPC zoning, the regulatory emphasis is on retaining the natural qualities of the remaining undeveloped land bordering the lake; any further shoreline development must be clustered.



Camps on east side of Long Lake at Van Buren Cove

The Concept Plan identifies 3 areas on Long Lake as future development zones. These locations are not adjacent to the shoreline. The only additional development on the shoreline may be a few infill lots on the west side of Van Buren Cove. The majority of future development will be on upland sites away from the shoreline, located to take advantage of viewing opportunities, avoid steep grades, and minimize new road construction. The remaining undeveloped Irving property along the shoreline will be restricted to prevent future development. The beach at Van Buren Cove will remain a public access point. The hillsides on either side of Long Lake are included in the Unique Areas Program due to their steepness and the scenic value they contribute to the lake. No development zones are sited in these areas and the aesthetic timber harvesting practices outlined by the required sustainable forestry principles will manage timber harvesting activities, as discussed in response to Question 20.

Mud Lake is assigned to Management Class 7, Lakes Not Otherwise Classified. This is the “all others” classification, with emphasis on a combination of resource conservation, recreation, timber production, and limited development that does not unduly compromise the lake’s resource values.

A portion of the shorefront on the west end of Mud Lake will be zoned to allow for a water access, as shown on Map 33 in Volume 3. Irving anticipates that the water access site would be designed, permitted, constructed, and managed by the State or a responsible NGO. Irving will work with the development entity to provide the appropriate access rights. Forest management activities will be governed by the use of sustainable forestry principles.

Cross Lake is assigned to Management Class 5, Heavily Developed Status. Unlike Long Lake, which is considered “approaching” heavily developed status, LURC found that Cross Lake has reached it. Under current LUPC zoning, the regulatory emphasis is on retaining the natural qualities of the remaining undeveloped land bordering the lake; any further shoreline development must be clustered.

The Concept Plan identifies five areas on Cross Lake as future development zones. Any future residential development within 250’ of the shoreline on Cross Lake (Management Class 5) will be required to follow the cluster subdivision approach provided in § 10.25.R of Chapter 10, which identifies and protects significant natural and cultural features in the planning process by requiring a balance between conservation and development in the overall design. The Cross Lake boat launch, beach, and picnic area will remain a public access point. Forest management activities will be governed by the use of sustainable forestry principles.

Square Lake is currently in Management Class 7, Lakes Not Otherwise Classified, but is potentially a Management Class 3. The specific language in the CLUP for Square Lake is: “Square Lake may be placed on this list [of Management Class 3 Lakes] when and if the Maine DEP is able to show that increased shoreland development around Square Lake would not significantly contribute to the stresses already being placed on it from lakes upstream.” This refers to the high nutrient (phosphorus) loadings in Long Lake and especially Cross Lake, which drain to Square Lake.³

³ Comprehensive Land Use Plan. Land Use Regulation Commission. Appendix C-17.



Aerial into Square Lake

The zoning for Square Lake identifies three areas where development can occur. Within these areas, the Chapter 10 Addendum standards for shoreland buffers, road construction, clearing of vegetation, erosion and sedimentation control, and other practices to maintain water quality, habitat value, and scenic integrity will be required. Furthermore, the Conservation Easement conserves approximately 10.6 miles of shoreline around Square Lake that will limit future development outside of the designated areas.

Although there are no specific lake classification goals for the smaller bodies of water (Carry Pond, Dickey Pond, Little California Pond) within the Plan Area, development is prohibited with the exception of one remote campsite or remote cabin no larger than 400 square feet.

- g. Landowner Equity: Where future development on a lake may be limited for water quality or other reasons, proposed development on each landownership does not exceed its proportionate share of total allowable development.*

The Concept Plan identifies development zones in areas that are considerably smaller than the areas that have the potential for development on each of the lakes and thoroughfares. The Conservation Easement affords permanent protection for about 17 miles of shoreline, which includes most of Irving's undeveloped land along the thoroughfares, approximately 1.7 miles of the Irving-owned shoreline on Mud Lake, significant portions of the remaining undeveloped shoreline on Cross Lake, and 10.6 miles of the undeveloped shoreline on Square Lake. Thus, Irving's proportional share of allowable development is not exceeded under the Concept Plan.

As noted in Table 3, Phosphorous Export by Residential Development Areas, the amount of development allowed under the Concept Plan would contribute phosphorus export below the limits allowable by Maine DEP. Long Lake is 31.7% of the allocation, Mud Lake is 19% of the allocation, Cross Lake is 30.5% of the allocation, and Square Lake is 17.5% of the allocation. Thus, even at maximum build-out, the Plan would allow development at levels less than the proportionate share of total allowable development on the lakes.

- **Long Lake** has approximately 33.1 miles of shore frontage and is approximately 6,000 acres in size. Using the CLUP Appendix C guidelines, the ideal number of dwelling units would be between 422 and 600 to preserve the natural character of the lake. As noted above, Long Lake is approaching Management Class 5, Heavily Developed Status, which means that it has less than 10 surface acres or less than 400 feet of lake frontage per dwelling unit.⁴ There are approximately 775 buildings (mostly private residences) on Long Lake, of which 148 are on Irving property in Van Buren Cove.



Aerial view of Village of Sinclair with Mud Lake in background

Because of this, the development zones on Long Lake have been placed in upland areas. As a result, the only waterfront development possible on Irving land may be a few infill lots on the west side of Van Buren Cove.

- **Mud Lake** has approximately 6.0 miles of shore frontage and is approximately 972 acres in size. Irving owns approximately 3.6 miles of frontage, all of which is undeveloped. The only shorefront development allowed under the Concept Plan is a public boat launch on the west side and remote campsites/remote rental cabins at designated locations. Approximately 1.7 miles of the Mud Lake shoreline within the Plan Area is included in the Conservation Easement. All of the shoreline falls within applicable protection zones that limit development.
- **Cross Lake** has approximately 13.1 miles of shore frontage and is approximately 2,515 acres in size. Irving owns approximately 9.0 miles of frontage. Using the CLUP Appendix C guidelines, the ideal number of dwelling units for a lake of this size would be between 168 and 251 to preserve the natural character of the lake. Cross Lake is, however, already heavily developed, with over 300 camps along the shoreline throughout the northern half of the lake. As a result, many of the proposed development zones have been located on upland sites. Development in these areas would not contribute to significant changes along the shoreline.
- **Square Lake** has approximately 19.4 miles of shore frontage and is approximately 8,150 acres in size. Irving owns approximately 13.9 miles of frontage. There are currently less than 60 homes on the lake (19 of which are on sites licensed by Irving on the west side of the lake). Using the CLUP Appendix C guidelines, the ideal number of dwelling units would be between 256 and 815 to maintain the natural character of the lake.

⁴ Appendix C of the CLUP provides the following general guidelines for development on lakes that are designed to preserve their natural character and prevent conflicts between incompatible uses: An average of one dwelling unit per 400 feet of shore frontage, or an average of one dwelling unit per ten acres of lake surface area.

The Concept Plan would allow 130 additional dwelling units on the lake, well below the numbers derived from the Appendix C guidelines. The majority of the new development would be located away from the shorefront, thus minimizing potential impacts on the natural character of the lake. The Concept Plan would place approximately 10.6 miles of the Square Lake shoreline in permanent conservation. In addition, all the land above the Eagle Lake thoroughfare would be placed in permanent conservation (the State already owns a 500-foot strip directly abutting both sides of the thoroughfare).

- **Carry Pond, Dickey Pond, Little California Pond** are in zones that prohibit residential and commercial development and allow for one small facility (remote campsite or remote cabin no larger than 400 square feet).

Question 15 – Anticipated Favorable Impacts

15. Anticipated Favorable Impacts: Do you anticipate that your proposed use of the land would result in any favorable impacts on any of the surrounding land, resources, and/or uses in the community or area? If so, describe in detail the anticipated favorable impacts.

Approval of the Petition and the resulting rezoning of the Plan Area will have a number of favorable impacts to the land, resources, and uses within and surrounding the Plan Area. Overall, the Plan will provide the landowners and the public with a comprehensive blueprint for future development. The Concept Plan identifies and prescribes those areas within the Plan Area that are appropriate for future development, as well as those areas where the conservation of natural resources is a priority. The anticipated benefits from approval of the Petition include those listed below, some of which are contingent on the development zones being developed.

- **Preservation of the Working Forest.** One of the goals of the Concept Plan is to preserve the working forest. The vast majority of the Plan Area will be protected for working forest uses. Ensuring that large unfragmented blocks of productive forestland are maintained and protected improves the long-term viability of the forestry and forest products industries. The Plan also subjects the Plan Area to ongoing sustainable forest management practices based on outcome based forestry principles. This helps to enhance forest health and resources, while promoting employment and economic opportunities in the region. Additionally, the approval of the Concept Plan would enable Irving to make long-term decisions for forest management activities with a high degree of predictability. By identifying and restricting areas designated for development, Irving can make the necessary and appropriate adjustments to its investments in long-term forest management, as well as its harvesting activities for a given area.
- **Allowing for Organized, Prescribed, Diverse and Limited Development.** The locations of the development zones were selected taking into account adjacency principles, current infrastructure, development patterns, existing natural resources, topography, and available soils information. In rezoning the Plan Area, future development will be organized, prescribed, and limited while also maintaining the character of the region, thus preventing the kind of haphazard development that is allowed under current development rules.

In addition, the Concept Plan allows for a variety of housing options to be developed. The form of the future residential development will depend upon the character of the individual parcel, proximity to similar housing, market conditions, and other factors. Housing types could include:

- Traditional single-family homes on one acre lots for year-round occupancy (e.g., Cross Lake A).
- Cluster development, featuring smaller lots with common open space within easy walking distance of the waterfront (e.g., Cross Lake C, south of the thoroughfare on the east side of Cyr Road).
- Waterfront development that provides easy access to the lake while minimizing impacts on the surrounding environment (e.g., Cross Lake D and E).
- Infill waterfront development, where new lots would be part of an established community (e.g., Long Lake B or Square Lake W).
- Housing opportunities in a largely natural setting with no connection to wire utilities (e.g., Square Lake W).

- Recreational lodging in an historic setting on a lake with miles of protected shoreline (Square Lake Yexas).
- Opportunities for fractional ownership in an amenity-rich setting (e.g., Square Lake E).
- **Preserving Public Access.** The use of the Plan Area and the waterbodies contained therein for hunting, fishing, snowmobiling, ATV riding, and other recreational activities is an intrinsic part of the culture of the region. The Concept Plan provides for public access throughout the majority of the Plan Area for low-impact recreational uses and managed motorized uses.

In addition, the Cross Lake boat launch, picnic area, and beach, as well as the beach at Van Buren Cove, will remain public access points and a portion of the shorefront on each of Square Lake and Mud Lake are zoned to allow for a water access site. See Map 33 in Volume 3 for the location of these sites.

For more information on preserving access please refer to the response to Question 10.

- **Maintenance of Habitat and Natural Resources.** The Plan Area includes a wide range of habitat and natural resource values. For example, the Cross Lake Fens near the western shore of Cross Lake is an ecological site of statewide significance. There are also several designated DWAs; inland waterfowl/wading bird areas; bald eagle and osprey nests; and other significant natural features. These areas have been recognized and mapped as part of the Unique Areas Program and the Maine Natural Areas Program and the development areas were sited taking these resources into account. The Plan also provides that DWAs will continue to be identified and managed to maintain or improve their quality. Landowners will be required to continue active monitoring and updating changes in deer use to ensure the long-term management of DWAs through cooperative agreements. The cooperative agreements currently encompass approximately 2,692 acres of the Plan Area and are in addition to the regulated DWAs, which cover approximately 501 acres.

In addition, the Plan incorporates all of the existing protection subdistrict boundaries that are located within the Plan Area.



Beaver flowage in the vicinity of Yexas Camps

For more information on the maintenance of habitat and natural resources please refer to the responses to Questions 9, 14, 20, and 22 and to Appendices A, D, and E.

- **Preservation of Undeveloped Shoreline.** The Concept Plan protects extensive amounts of undeveloped shoreline, especially around Mud Lake, Square Lake, and the thoroughfares. These areas help protect water quality by slowing runoff, reducing erosion, and filtering nutrients that can cause algae blooms. They also provide riparian habitat for many wildlife species. The Concept Plan preserves approximately 17 miles of shoreline on lakes and thoroughfares, including approximately 10.6 miles of shoreline around Square Lake, approximately 2.1 miles of shoreline around Cross Lake, and approximately 1.7 miles of shoreline around Mud Lake.

For more information on the preservation of undeveloped shoreline please refer to the response to Question 22.

- **Viewshed Protection.** The Plan subjects the Plan Area to ongoing sustainable forest management practices based on outcome based forestry principles, which include minimizing the aesthetic impacts of timber harvesting. See the Volume 2 at Tab 2(E), Chapter 10 Addendum § 10.31, for more information.
- **Conservation.** The Concept Plan proposes a landscape-scale conservation framework that provides a significant public benefit. This framework includes both long-term restrictive zoning of approximately 33,800 acres, as well as approximately 14,600 acres that will be placed in permanent conservation, all of which allow, but do not require, the Plan Area's continued operation as a working forest. Thus, in total, approximately 48,500 acres of the 51,015 acres in the Plan Area will be in either permanent or long-term conservation.

For more information on conservation please refer to the response to Question 22.

- **Opportunities to Purchase Land.** The Plan Area includes 424 existing camp lots that are licensed on an annual basis by Irving, many of which were approved and developed prior to the establishment of LURC. If the Concept Plan is approved, Irving intends to offer to sell these existing licensed lots. The lots will be valued using an equitable formula that takes into account the amount of water frontage a lot has and the area of the lot. The current license holders will be given the first option to purchase the lots at the value determined by the equitable formula. It is anticipated that the sale of lots would occur over a number of years. All lots will, upon sale, be subject to certain covenants and deed restrictions related to, among other things, road maintenance, management of open space and other common areas, and certain compliance issues, as applicable. In addition, all lots will, upon sale, be deeded guaranteed vehicular and utility access, to the extent necessary, over Irving's lands.

- **Favorable Impacts to Local Economy**

Tourism. The Concept Plan provides the framework to enhance the area's tourism economy. Over 96% of the land in the Plan Area will continue to be maintained as a sustainable working forest, which will help to preserve habitat for deer, moose, birds, and other wildlife that attract sportsmen and outdoors enthusiasts to the area. The lakes, ponds, streams, and thoroughfares

provide opportunities for camping, canoeing, kayaking, boating, and fishing – all important contributors to the local economy.

A recent market analysis commissioned by the Northern Maine Development Commission concluded that a destination tourism facility with the right scale and configuration would be viable in northern Aroostook County – particularly one with a core (“Hub”) facility with lodging and amenities, trails or other connections (“Spokes”) emanating from the core, and a “Rim” of satellite facilities or outposts available to the owners/guests of the resort. The Fish River chain of lakes, by its interconnected nature and setting in an extensive woodland environment, is well suited to this type of development. The Concept Plan and the zoning contained therein allow for the establishment of such a “Hub, Spokes, and Rim” system. The Plan provides for a recreational facility development zone (Square Lake Yexas), which could act as the Hub in such a system. Lodging could be patterned after what the market analysis described as a “frontier” facility, with cabins of varying sizes and accompanying amenities. The Spokes could be ATV, snowmobile, or hiking trails on land, and the thoroughfares and navigable streams on water. The Concept Plan also allows for the development of small-scale facilities in a number of prescribed areas, which could act as the Rims to such a system.

Local Trades and Employment. The Concept Plan provides the framework to enhance the region’s economy by promoting well-planned development. This will, in turn, support the traditional economic activities of the region, including tourism and the local trades, and provide the further opportunity to pursue community and economic development projects, all while still preserving the fundamental character of the Plan Area. An increase in population, over time, would also provide a larger customer base for local restaurants, stores, and other businesses, including lodging, guides, outfitters, and equipment rental shops.

Community Development. Each identified Economic/Community Development Zone provides an opportunity for economic stimulus to the region as well as an opportunity to develop and strengthen the surrounding communities. In particular, development of the Economic/Community Development Zones would provide employment opportunities, while additional taxable income from both residential and economic/community development could contribute to the general economic health and wellbeing of Aroostook County. Further, the addition of more year-round residents could assist local organizations who depend largely upon resident volunteers for staffing and organizational support.

Question 16 – Anticipated Unfavorable Impacts

16. Anticipated Unfavorable Impacts: Do you anticipate that your proposed use of the land would result in any unfavorable impacts on any of the surrounding land, resources, and/or uses in the community or area? If so, describe in detail the anticipated unfavorable impacts and any measures proposed to control or minimize them.

No specific subdivisions or development projects are being proposed in this Petition. In the event development occurs in the proposed development zones, this could result in certain unfavorable impacts to the land, resources, and uses within and surrounding the Plan Area, including the following (all of which were taken into account when siting the proposed development zones, determining development restrictions, and committing to making certain areas available to the public):

- **Additional Impact On Lake Resources.** Certain aspects of development in the Plan Area could, if left unregulated, have an unfavorable impact on lake resources. Additional residential development and water access sites could lead to more people seeking to utilize the lakes for recreational purposes. This potential increase in boating traffic may lessen the experience of those individuals who currently access these waterbodies and have grown accustomed to a certain level of boating activity. Likewise, some portion of these additional boaters may engage in fishing, which could lead to additional pressure on the fishery.

These potentially negative impacts are mitigated through a combination of restrictions on new water access sites and careful planning to both locate and size the development zones.

First, the Concept Plan provides that a portion of the shorefront on both Square Lake and Mud Lake will be zoned to allow for a water access site. Although Irving does not intend to develop such sites, Irving would allow the State or a responsible NGO to design, permit, construct, and manage the sites. Making these shorefronts available for a water access site is in response to a request from both Maine IF&W and the Bureau of Parks and Lands for additional access to these lakes. The entity designing, permitting, constructing, and managing these water access sites would be responsible for evaluating and assessing the lake carrying capacity and managing their use. Moreover, Maine IF&W currently does not stock Mud Lake, due, in part, to the lack of access. Providing access would remove this obstacle to stocking the lake and create more fishing opportunities.

Second, the amount of new development on each lake is restricted by maximum unit caps, which will serve to limit the number of new residences that can be built in the development zones, and thus limit the additional boating and fishing pressure on the lakes. In addition, the development zones allow for only limited waterfront access for new residential developments. These limitations are set forth in the Chapter 10 Addendum at § 10.29 (see Volume 2 at Tab 2(E)). As discussed in detail in the Evaluation of Impacts to Recreation, included in Appendix C, these limits, as well as limits such as the Chapter 10 Addendum standards for hillside development, setbacks from the water, and lighting, will minimize any adverse impacts.

Third, the development areas themselves are sited in part to avoid creating undue fishing pressure on the lakes. For example, there are no residential development zones proposed for Mud Lake, which Maine IF&W has noted currently experiences high levels of fishing. Long Lake and its tributary streams are considered important regional resources and draw visitors from outside the region; however, the number of units permitted to be developed on Long Lake is a

small fraction (about 7%) of the residential units already located at the lake, and thus the impact from the Concept Plan, even if fully developed, would be minimal. Maine IF&W considers Square Lake to be underutilized from a fisheries perspective.

- **Changes to Lake Character.** Development of units with water frontage may be seen as an intrusion by adjacent or nearby residents, or boaters, who are accustomed to the current level of development on the lakes. To minimize such impacts, some of the development zones are set back from the water in upland areas. In these areas, there will be little to no change on the lake's character. In addition, any lakefront development under the Plan would be required to meet the applicable standards in the Chapter 10 Addendum for waterfront development, including for setbacks, buffers, aesthetics, and lighting. Also, while the development of a recreational facility at Square Lake Yexas would change somewhat the current character of Square Lake, the development of such a facility would be in keeping with the historic use of the property. See Appendix C, Evaluation of Impacts to Recreation, for more information.
- **Natural Resource Impacts.** Any development in the Plan Area has the potential to impact natural resources, such as wetlands and vernal pools. To help mitigate this potential, the development zones have been sized to provide space for developers to avoid and minimize impacts. In addition, any development would be required to meet the applicable standards of the Maine DEP, LUPC, and the U.S. Army Corps of Engineers, which require more detailed mapping of on-site resources for project-level siting and design.



Aerial view of western shoreline of Square Lake

- **Secondary Development Pressure.** In the event the development zones are developed, there is the potential that the region (including areas adjacent to the Plan Area) could become more appealing for developers after the Plan has expired, which can create secondary development pressure that some might view as an unfavorable impact. Any such development, however, would be subject to the rules in place at the time it is proposed. Under the current regulations, for example, for land in the Plan Area it would first require either amending this Plan or allowing it to expire and subjecting the Plan Area to the zoning LUPC deems appropriate. From there, further development would have to meet whatever LUPC regulations are in place at the time. Thus, to the extent one views potential further development as potentially unfavorable, it will be mitigated by having to go through the rezoning and development review process. In addition, the Conservation Easement serves to protect, in perpetuity, large blocks of

unfragmented forest land and natural habitat in areas where future development would not be desirable. The long-term zoning restrictions in place as a result of the Plan will help to mitigate growth over the term of the Plan and allow decision-making on future growth to be directed appropriately in the future.

Question 17 – Public Services

17. Public Services: What municipal, county, or other services (i.e., solid waste disposal, fire and police protection, schools and school transportation, etc.) will your proposed use of the land require? Describe by what means these public services will be obtained.

No public services will be required as a result of rezoning the Plan Area. The following public services may be required for any future development that occurs following approval of the Concept Plan. More detailed information is provided in the report, Existing Conditions in the Plan Area, which is included in Appendix A.

- **Solid Waste.** Solid waste is generally picked up by private haulers and transported to one of two landfills: Tri-Community Landfill in Fort Fairfield or the Town of Van Buren’s municipal landfill. It is anticipated that this arrangement would continue with any new development.
- **Fire Protection.** The Aroostook County North Lakes Fire and Rescue (North Lakes Fire & Rescue) has three substations covering four unorganized territories in Aroostook County. The substations serve the northern part of Aroostook County, covering Cross Lake, Mud Lake, Long Lake, Madawaska Lake, and Square Lake. North Lakes Fire & Rescue has entered into written mutual-aid agreements with the Towns of Stockholm, St. Agatha, and Fort Kent, and the Caribou Fire and Ambulance Department. It is anticipated that fire protection for future development would continue to be provided by North Lakes Fire & Rescue or the Town of Van Buren, depending on the location of the call.
- **911 Calls.** Emergency calls to 911 from landlines go to Penobscot County, while calls from cell phones are handled by the Houlton Police. All calls are then transferred to Aroostook County for dispatch. It is anticipated that this service will continue.
- **Law Enforcement.** Law enforcement services are handled on a rotating basis by the Maine State Police and the County Sheriff. The County is subdivided into five zones for law enforcement and the responsibility for those zones changes weekly.
- **Transportation.** The Plan Area includes portions of two State-maintained arterial roads (Routes 161 and 162). These roads will continue to be the primary transportation routes to and from the Plan Area and no significant impacts are anticipated due to potential future development. There are multiple private roads in the Plan Area.

There are airports in Fort Kent, Caribou, and Presque Isle. There is no public transportation in the Plan Area and no passenger rail service.

- **Education.** Education in the Plan Area is administered by the State Department of Education’s Education in the Unorganized Territory (EUT) program. Education options may require unique solutions due to the remote and rural nature of the Plan Area and may depend on the specific location of the child in relation to the available educational facilities. If there is an existing school within a reasonable distance of the child, the EUT would make arrangements for the child to attend that school. If there is no reasonable option available, then the EUT works with the family to establish a program that the family would administer similar to a home school plan. In

some instances, the EUT will support room and board for alternative programming, such as computer generated educational programs.

As with all Maine schools, the EUT financially supports transportation to and from school via local buses for all students K-12. At times, they are not able to support grades 9-12 students, nor do they make special arrangements for pre-K students. To provide transportation, the EUT uses a variety of options, such as personal contracts, hired bussing services, EUT buses, and, on occasion, four wheelers and boats.

Question 18 – Compliance with Laws and Standards

18. Compliance With Laws and Standards: If your proposal includes a subdivision or development proposal, provide information in response to the following questions concerning whether the land is likely to be suitable for the proposed use.

There are no subdivisions or other developments being proposed as part of this proposal. Rather, the proposed Plan identifies areas where development can occur in the future and provides standards by which these developments will be reviewed. The Chapter 10 Addendum includes virtually all development standards that are currently in Chapter 10. During the term of the Plan, future projects will be required to meet the applicable standards for development, such as subdivision review or site plan approval. During these review processes, more detailed information will be required on items ranging from wetland impacts to archaeological surveys.

a. Water Supply: What provisions will be made for securing and maintaining a healthy water supply to the area?

Provisions for securing and maintaining water supply will be addressed at the time a specific new development is proposed. It is anticipated that virtually all new development would be served by on-site wells.

b. Soil Conditions: Are soil conditions appropriate for proposed uses, particularly in areas proposed for development?

As part of the planning process for the Concept Plan, the general soil characteristics of the proposed development areas were evaluated to determine if there is a reasonable likelihood that the soils could support the allowable level of development. The result of that review indicates that in all areas zoned for residential development there is a reasonable likelihood that existing soils can support the levels of development that would be permitted under the applicable zoning. See Exhibit D for a soil suitability assessment for the Plan Area as a whole and a more focused Class C/D soil survey of the Square Lake E and Square Lake Yexas development zones. In addition, where required by the Chapter 10 Addendum, when a specific development project is proposed, a more in-depth analysis of soils will be required as part of the permitting process.

c. Traffic: What provisions will be made for parking and safe traffic flow?

During a meeting with LUPC staff, the Maine Department of Transportation indicated that it did not expect any negative impacts from increased traffic from any development in the Plan Area. Other traffic issues will be addressed during permitting of specific development projects.

d. Erosion Control: What provisions will be made for stabilization and erosion control of the site?

Provisions for sedimentation, erosion control, and stabilization will be specified at the time a development is proposed pursuant to the provisions in the Chapter 10 Addendum.

- e. **Subsurface Waste Water Disposal: What provisions will be made to comply with the requirements of the Subsurface Waste Water Disposal Rules of the Maine State Plumbing Code?**

See response above to Question 18(b).

- f. **Harmonious Fit: What measures will be taken to fit the proposal into the existing surroundings? Include any special considerations given to siting, design, size, coloring, landscaping or other factors that will lessen the impact of the proposal on the surroundings.**

The proposed development zones were located to avoid valued natural and scenic resources. The siting and design standards included in the Chapter 10 Addendum will apply to any specific building proposal. Protections for features such as riparian buffers, DWAs, wetlands, streams, and other critical habitat protections will continue to apply under the applicable standards in the Chapter 10 Addendum and the requirements of other State and federal agencies.

- g. **Scenic Impacts: What measures will be taken to minimize impacts of the proposal on the scenic quality of the area? Consideration should be given to visibility from roads and water bodies.**

The siting and design standards for development included in the Chapter 10 Addendum will apply to any specific proposal. In addition, the Plan incorporates sustainable forestry principles that include consideration of the aesthetic impacts of timber harvesting.

- h. **Wildlife Habitat: What measures will be made to minimize impacts on wildlife habitat including birds and water fowl? Consideration should be given to riparian zones along water bodies.**

Information from the Unique Areas Program (which includes data from State and federal agencies and Irving staff) has been used to identify critical habitat, wildlife corridors, and other important natural resources. Development zones were sited to avoid these areas. Riparian buffers, DWAs, wetlands, streams, and other critical habitat protections will continue to be protected under the applicable standards from LUPC adopted in the Chapter 10 Addendum and the rules of other State and federal agencies, such as the Maine DEP and U.S. Army Corps of Engineers. Also, the Conservation Easement on approximately 14,600 acres and restrictive zoning on approximately an additional 33,800 acres will protect wildlife habitats by substantially restricting development in the majority of the Plan Area.

Question 19 – Conformance with the Commissions Standards

19. Conformance with Commission’s Standards: Does the proposal meet or exceed the Commission’s normal standards for site suitability, including the Commission’s minimum dimensional requirements? If the plan includes any provisions that deviate from the Commission’s Land Use Districts and Standards, explain in detail how the provisions differ from the Commission’s rules and provide reasons for the proposed deviations.

The Concept Plan meets the Commission’s current standards for site suitability by incorporating the Chapter 10 standards for scenic character, soil suitability, wetland alteration, road construction, erosion control, solid waste disposal, wastewater disposal, water supply, surface water quality, phosphorus control, and other such standards and dimensional requirements.

In some instances, the Concept Plan differs from those standards. Any such deviation is intended to ensure that future development will be appropriate to the Plan Area and will not have an undue adverse impact to the existing resources. These include the following:

- The Plan modifies the noise standards to clarify that certain traditional activities, such as forestry operations and the use of motor vehicles, including snowmobiles and ATVs, are exempt from the noise requirements of Section 10.25,F,1,a.
- The Plan adds additional restrictions designed to limit light pollution in Section 10.25,F,2,b.
- The Plan revises the lot layout and design criteria in Section 10.25,Q,3,b to provide standards for what constitutes a community center within the Plan Area. This change is intended to help provide clarity for future development projects so that they can better offer the opportunity for open space or other amenities appropriate to the size and scale of the Plan Area.
- The Plan provides at Section 10.25,R,2,d additional flexibility to allow the Commission, in its discretion, to reduce any dimensional standard for individual dwellings or lots in a cluster development, rather than just lot size, road frontage, or shore frontage, as in the current Chapter 10 standards.
- The Plan modifies at Section 10.26,A,1 the minimum lot size requirement for single-family dwellings from 40,000 square feet to 20,000 square feet and modifies at Section 10.26,B,2 & 6 the shore frontage requirement from 200 feet to 150 feet. This is intended to allow smaller lots within the Plan Area without – because of the Maximum Unit Caps – increasing allowable density and to minimize undue adverse impact to the forest resource.
- The Plan reduces in Section 10.26,F,1 & 2 the allowable height of structures to 35 feet for residential uses and 60 feet for commercial, industrial, and other non-residential structures, and provides that structures within 500 feet of certain waterbodies can be no higher than 35 feet tall. This is intended to reduce the potential adverse impacts to the scenic and natural character of the Plan Area.

Question 20 – Resource Protection

20. Resource Protection: Is the proposal at least as protective of the natural environment as the Commission’s existing protections? How does the proposal maintain or enhance the protection of the natural resources and public values within the areas involved?

Given the conservation measures and land use controls being proposed, the Plan is more protective of the natural environment than the existing standards.

As discussed in greater detail in response to Questions 9, 14, 15, and 22, the Concept Plan protects key natural resources and promotes the Commission’s values by establishing permanent protection through the Conservation Easement of approximately 14,600 acres of land, including approximately 17 miles of lake and thoroughfare shorelines, as well as other significant natural features, such as a portion of the Cross Lake Fens, all of the Cross Lake Bog, and bald eagle and osprey nests. The Plan maintains and potentially expands traditional public access for recreational opportunities, and protects the scenic character of the Fish River chain of lakes through careful location of the development zones and application of appropriate Chapter 10 standards.

Currently, the majority of the Plan Area is designated as a General Management Subdistrict (M-GN), which allows a wide array of development projects. Other areas are located within Residential Development Subdistricts (D-RS), General Development Subdistricts (D-GN), or one of the various protection subdistricts. In all but a few of these subdistricts, residential development is allowed with a permit from the Commission. In particular, consistent with subdivision rules, current zoning allows for haphazard, unplanned development by allowing the slow but steady division of the parcels in the Plan Area for residential uses.

In contrast, the Concept Plan limits future development to those areas that are most appropriate – i.e., adjacent to or near existing development, on or near access roads, and with suitable soil conditions – and prohibits residential development in areas zoned for forestry (M-FRL-GN). All but 2 of the new development zones have been sited adjacent to existing developed areas to help maintain larger unfragmented forest areas. The CD-1, CD-2, and CD-3 zones have been sited near public roads and in areas adjacent to developed centers already zoned as D-GN. The result is that less than 4% of the total Plan Area will be available for future residential development, leaving the vast majority of the land, as a practical matter, in forest management under sustainable forestry principles.



Beaver dam east of the Yexas Camps

The uses allowed within most subdistricts are based on the existing Chapter 10 standards. Within the planned development zones the standards are modeled after the D-RS, D-CI, and D-GN Subdistricts. The proposed D-FRL-RF zone for Square Lake Yexas has been designed to require, for at least 10 years, a focus on a recreational lodging development where residential development can only occur at the same

time as or subsequent to a recreational lodging project. This will help to ensure that development proposals will fit harmoniously into the existing character of Square Lake.

The great majority of the Land Use Standards from Chapter 10 will also be incorporated into the Concept Plan without revision. This includes the general criteria for approval of permit applications, development standards, and dimensional requirements. Utilizing all of the existing land use standards will help to ensure that all future projects will have minimal effects on the natural, cultural, and visual environment of the Plan Area.

The dominant use of the Plan Area will remain commercial forestry. As described in Appendix D, Irving is a leader in innovative forest management practices and is guided by principles of sustainable forestry. Irving has already committed to these principles through management criteria set out in the Outcome Based Forestry (OBF) approach of the Maine Forest Service, which, pursuant to 12 M.R.S. § 8869(3-A), is a cooperative approach to forestry that “must provide at least the equivalent forest and environmental protection as provided by existing rules.” In fact, many aspects of Irving’s OBF approach are stricter than the requirements of the Maine Forest Practices Act, as shown on page 3 of Appendix D.

The Concept Plan requires the use of sustainable forestry principles that are based on the following criteria:

- 1. *Water Quality, Wetlands, and Riparian Zones.*** The Plan Area has a diverse range of aquatic habitats, including bogs, fens, thoroughfares, wetlands, streams, lakes, and ponds, that are recognized for their water quality and the quality of their fisheries, their undeveloped shorelines and riparian areas, and their ecological values. Forestry activities in the Plan Area will meet and/or exceed the current LUPC or Maine DEP standards for setbacks and buffering through adoption of the Chapter 10 Addendum.
- 2. *Soil Productivity.*** Soil productivity is important for re-growth of the forest resource. Forestry activities within the Plan Area will be conducted pursuant to policies to maintain or improve site productivity. This will include setting specific policies for limiting the total amount of roads and landings within the Plan Area and establishing site disturbance procedures for rutting. No more than 5% of the land base will be in forestry roads or landings within the areas that are zoned as M-FRL-GN. Rutting, which can cause erosion and soil compaction, is not allowed within watercourse buffers. Outside of a watercourse buffer, no more than 30% of trails shall contain a rut (ruts are 12” deep and 60’ long) in any given harvest area.
- 3. *Timber Supply and Quality.*** The timber supply within the Plan Area is diverse and of high quality. To help sustain the timber supply and quality silviculture, activities will focus on stand tending and planting programs that optimize growth and long-term forest health. Planting and tending levels shall be determined as part of a forest management plan, which is updated on a rolling basis.
- 4. *Aesthetic Impacts of Timber Harvesting.*** The Plan Area has scenic qualities and aesthetic values that are intrinsic to the recreational resources and overall enjoyment by visitors. As part of the development of a forest management plan, planners shall identify, through a public process, areas that may have scenic or aesthetic value in the areas that are targeted for forestry activity.

Within these areas, harvest operations will use methods that minimize the visual impacts. In addition, all forestry and planning staff will be trained in methods to minimize visual impact.

5. **Biodiversity.** The Plan Area has a diverse and extensive range of wildlife, forest, meadow, and other terrestrial habitats, including habitats of rare, threatened, and endangered flora and fauna, natural communities, and places of significant ecological value. The maintenance of biological diversity with healthy populations of flora and fauna will be assured through a variety of practices, including:
 - a. **Deer Wintering Areas (DWAs).** Using current scientific and biological data, DWAs will be identified and managed to maintain or improve the quality of their habitat. Management of DWAs outside of State-regulated areas will continue to be coordinated with Maine IF&W or its successor through cooperative agreements and partnerships. For information on the current location of both regulated and voluntary DWAs in the Plan Area, see Volume 3, Map 19.
 - b. **Late Successional Forest Policy.** Currently there are about 2,500 acres of late successional forests within the Plan Area. These are important habitats for plant and animal species that rely on a mixture of dead and fallen trees and multiple canopy layers. Ten percent of each of the 5 major stand types of concern (old tolerant hardwood stands, old tolerant mixed-wood stands, old cedar stands, old pine/hemlock stands, and old softwood stands) will be maintained by acreage in late successional stage(s).
 - c. **Snag Policy.** As part of the forest management and harvesting operations, portions of standing dead and coarse woody debris throughout the harvest areas will be maintained. Where practicable, trees containing active stick or cavity nesting birds, large hollow trees that are providing wildlife dens or nests, and trees with decay exhibiting heavy use by cavity excavating birds should be left standing. In even-aged harvesting prescriptions, these trees could form the nucleus of an island. If these trees are located near the edge of a block or an adjacent riparian zone, small adjustments to the block boundary should be made.
 - d. **High Conservation Value Forests.** High Conservation Value Forests are those that possess one or more of the following attributes: (1) forest areas containing globally, regionally, or nationally significant concentrations of biodiversity values; (2) forest areas that are in or contain rare, threatened, or endangered ecosystems; (3) forest areas that provide basic services of nature in critical situations (e.g., watershed protection or erosion control); and (4) forest areas that are fundamental to meeting the basic needs of local communities (e.g., subsistence or health) or are critical to local communities' traditional cultural identity (e.g., areas of cultural, ecological, economic, or religious significance identified in cooperation with such local communities). At locations within the Plan Area that are identified as High Conservation Value Forests, harvesting operations will be managed to minimize impacts or to avoid these areas altogether.
 - e. **Important, Rare, Threatened, and Endangered Habitats.** Within the Plan Area there are areas that provide important habitat for rare, threatened, and endangered species. These include stick nests, rare plant sites, and smelt streams. These areas will be managed using

techniques, such as, but not limited to, timing activities, maintaining buffers, and/or avoiding the area altogether.

6. **Public Accountability.** Forest management activities in the Plan Area will be subject to third-party verification by a recognized forestry certification program (such as the American Tree Farm System, Forest Stewardship Council, or Sustainable Forestry Initiative). A forest management plan must be developed and approved by a licensed forester. Contractors must employ at least one Certified Logging Professional.
7. **Economic Considerations.** The working forest is an important part of the local and regional economy. The majority of the Plan Area will remain available as “working forest” that contributes to the overall local economy.
8. **Social Considerations.** Access to private timberlands for hunting, fishing, and other low-intensity recreational activities is an intrinsic aspect of the culture of northern Maine. Traditionally managed access for recreational purposes will continue as long as such uses do not conflict with forest management operations or landowner values. This includes adopting the appropriate management policies for recreational users (for example, ATV and snowmobile use) and committing to allowing managed access to the Plan Area.
9. **Forest Health.** Overall forest health is critical to the sustainability of the ecological and economic success of a working forest. Within the Plan Area, ongoing actions to maintain forest health will continue, such as insect and disease monitoring/management, fire suppression activities, and other forest health actions.

See Volume 2 at Tab 2(E), Chapter 10 Addendum § 10.31 for the sustainable forestry management principles that will apply in the Plan Area.

In combination, and as addressed in greater detail in response to Questions 11, 13, 14, and 15, all of these features of the Concept Plan more than offset the conversion of a relatively small amount of the M-GN Subdistrict to development zones.

Question 21 – Balance Between Development and Conservation

21. Balance Between Development and Conservation: How does the proposal strike a reasonable and publicly beneficial balance between appropriate development and long-term conservation of lake resources? Please keep in mind that proposed conservation measures must provide clear and significant public benefits.

Chapter 4 of the CLUP provides a good overview of the potential benefits to the jurisdiction from appropriately planned development:

Development in the jurisdiction has played a positive and important role in the culture and economy of the area. For example, businesses and homes, as well as recreational development, including a spectrum of facilities and uses ranging from primitive campsites to ski area expansions and commercial whitewater rafting bases, has enhanced and diversified recreational and economic opportunities for residents of and visitors to the jurisdiction.

CLUP, Chapter 4, Page 56.

To understand how the proposal strikes a reasonable and publically beneficial balance between development and long-term conservation, it is important to consider the Plan as a whole. The types of development allowed, locations of development areas, and density are balanced by overall conservation, public access, and zoning protections.

Types and Amount of Development. The Concept Plan provides a long-term public benefit by limiting the type and amount of development that can occur in the Plan Area to ensure that it is appropriate for its surroundings and consistent with other development in the region. The types of development – new seasonal and year-round homes, well-planned recreational lodging, and commercial/economic activities – are well suited to northern Aroostook County and not new to the region. These types of development, moreover, will ensure that the vast majority of the Plan Area will remain available for traditional activities, including forestry, recreation, and tourism. All of these activities will continue to be permitted under the Plan. In addition, the Plan only allows residential development in approximately 3% of the Plan Area, with the maximum total new units capped at 330.

Location. The Concept Plan also provides a long-term public benefit by guiding development toward those areas where it would be most appropriate, rather than continue to allow haphazard and incremental growth. The Plan's development zones have been sited to avoid the more remote areas of the region. As discussed in greater detail in response to Question 12, the development zones are primarily located near existing development and have easy access to major public roadways (Routes 161 and 162) or established Irving land management roads. The majority of the development areas are sited in upland locations away from undeveloped shorelines and other sensitive areas. No development (other than a limited number of remote campsites and remote rental cabins for low-impact recreation) is proposed on any of the smaller outlying ponds within the Plan Area. Further, development in these locations will be subject to the provisions of the Chapter 10 Addendum, which closely mirrors current LUPC requirements. For more information on how the development zones were sited, please see the responses to Questions 12, 19, and 20.

The Concept Plan thus provides the framework to enhance the regional growth by promoting well-planned development, which the CLUP identifies as a clear public benefit. This will, in turn, support the traditional economic activities of the region, including tourism and the local trades, and provide the further opportunity to pursue community and economic development projects, all while still preserving the fundamental character of the Plan Area.

Conservation and Public Access. To balance the allowable development outlined above, the Plan proposes a landscape-scale conservation framework that includes allowances for public access, strict land use regulation, and a conservation easement. These measures more than outweigh the limited additional development allowed under the Plan. The framework allows, but does not require, the use of the Plan Area for working forest activities. Approximately 33,800 acres will be restrictively zoned to promote the working forest, while prohibiting residential development and significantly restricting commercial activities. This contrasts starkly with the current zoning, which would allow residential development throughout most of the Plan Area.

Among other benefits, the conservation package will also:

- Permanently preserve 14,600 acres, which includes approximately 17 miles of shoreline on lakes and thoroughfares and over 600 acres of the Cross Lake Fens and all of the Cross Lake Bog, as well as many other significant natural areas, such as DWAs, wetlands, vernal pools, and rare, threatened, and endangered species habitats;
- Guarantee public access for low-intensity outdoor recreation, such as hunting and fishing, and allow it for motorized recreation, such as ATV riding and snowmobiling;
- Improve public access to the lakes and ponds by preserving existing access points and creating opportunities for additional ones; and
- Maintain the working forest in the Plan Area through both the Conservation Easement and long-term restrictive zoning.



Beach at Van Buren Cove on Long Lake

For more information on the specific conservation measures being proposed, and the associated benefits, see the response to Question 22.

Question 22 – Conservation Measures

22. Conservation Measures: If conservation easements are proposed, describe their substantive provisions (e.g. area of easement, allowed uses, access, special restrictions). Describe how the proposed easement holder meets the Commission’s Guidelines for Selection of Easement Holders. If alternative conservation measures are proposed, describe their substantive provisions and describe how these measures fully provide for long-term protection or conservation.

There are two conservation measures proposed as part of the Concept Plan to establish a landscape-scale conservation framework: a permanent conservation easement for approximately 14,600 acres and restrictive zoning that promotes the working forest on another approximately 33,800 acres. Each is discussed in greater detail below.

First, the cornerstone of the conservation plan is the Conservation Easement. The Conservation Easement was specifically designed to preserve large, unfragmented forest blocks to maximize its ecological value and to improve the ability of the holder to monitor activities therein. The Conservation Easement establishes key conservation values, such as promoting a healthy, diverse forest; protecting aquatic resources, wildlife, plant, and natural communities; and ensuring maintenance of public access for recreation; and prohibits activities that adversely affect those values. See Volume 2 at Tab 3(A) for a draft of the Conservation Easement.

Overall, the ratio of permanently conserved shoreline to new development areas on the shoreline is 6:1 when including both lakes and thoroughfares. This is consistent with multiple past concept plans approved by LUPC.

Second, the Plan also proposes long-term zoning (M-FRL-GN) for working forests of approximately 33,800 acres (an area larger than Bangor and Brewer combined) that restricts commercial development and prohibits residential development. In combination with the Conservation Easement, this means that only approximately 3% of the entire Plan Area is available for residential development.

Below is a summary of the conservation measures incorporated into the Concept Plan that provide substantial public benefits:

- **Permanently Preserve Habitat and Natural and Undeveloped Shorelines.**
The 14,600 acre Easement Area includes approximately 17 miles of shoreline on lakes and thoroughfares, including about 10.6 miles of shoreline around Square Lake, about 2.1 miles of shoreline on Cross Lake, about 1.7 miles of shoreline on Mud Lake, about 2.0 miles along the Mud/Cross Lake thoroughfare, about 0.5 miles on the south side of the Cross/Square Lake thoroughfare, and over 600 acres of the Cross Lake Fens and all of the Cross Lake Bog (roughly 3,000 acres). The areas under conservation also include eagle and osprey nests, DWAs, wetlands, vernal pools, and Inland Waterfowl and Wading Bird Habitat. See Volume 3, Maps 19 & 20 for more information on identified natural resources.
- **Continue to Allow Access for Low-Intensity Outdoor Recreation.**
Both the Conservation Easement and the long-term conservation areas will guarantee continued public access for low-intensity outdoor recreation, such as boating, swimming, fishing, hiking, hunting, trapping, picnicking, nature observation, photography, horseback riding, tent and

shelter camping, cross-country skiing, bicycling, snowshoeing, rock climbing, ice climbing, and enjoyment of open space. The development of new and expanded trail systems throughout the Plan Area is permitted.

- **Preserve and Improve Public Access to Lakes and Ponds.**

The long-term conservation areas will preserve and improve public access to lakes and ponds within the Plan Area.

Long Lake. The beach at Van Buren Cove, as illustrated on Map 34 in Volume 2, will remain a public access point.



Beach at Van Buren Cove

Mud Lake. A portion of the shoreline on the western end of Mud Lake (see Map 34 in Volume 2) will be zoned to allow for a water access site, as defined in § 10.29 of the Chapter 10 Addendum (see Volume 2 at Tab 2(E)). The exact size of the facility is to be established in consultation with Irving and the organization that is going to develop and maintain it. Irving anticipates that the facility would be designed, permitted, constructed, and managed by the State or a responsible NGO. Irving will work with the developing entity to provide it with current information on cover type, wetlands, topography, and wildlife habitats to minimize impacts on sensitive natural resources. Following approval, Irving would provide the appropriate access rights to the responsible party. In the event that such portion of the shoreline is located within the area covered by the Conservation Easement, the terms of that easement will apply.

Cross Lake. The Cross Lake boat launch, picnic area, and beach, as illustrated on Map 34 in Volume 2, will remain a public access point.



Cross Lake picnic area, beach, and boat launch

Square Lake. A portion of the shorefront on the eastern side of Square Lake (see Map 34 in Volume 2) will be zoned to allow for a water access site, as defined in § 10.29 of the Chapter 10 Addendum (see Volume 2 at Tab 2(E)). The exact size of the facility is to be established in consultation with Irving and the organization that is going to develop and maintain it. Irving anticipates that the facility would be designed, permitted, constructed, and managed by the State or a responsible NGO. Irving will work with the developing entity to provide it with current information on cover type, wetlands, topography, and wildlife habitats to minimize impacts on sensitive natural resources. Following approval, Irving would provide the appropriate access rights to the responsible party. In the event that such portion of the shorefront is located within the area covered by the Conservation Easement, the terms of that easement will apply.

- **Continue to Manage Public Access for Other Forms of Recreation.**
The Conservation Easement and the long-term conservation areas will continue to allow for the managed use of motorized vehicles (e.g., cars, trucks, ATVs, and snowmobiles), in the Plan Area. ATVs and snowmobiles will be restricted to dedicated trails that have been marked for such uses. As is currently required, ATV and snowmobile users will need to register with local clubs and follow rules based on Irving’s current policies. The availability of individual trails for ATV and snowmobile use will be evaluated on an annual basis and will be subject to modification based on factors such as ongoing forest management activities and resource conservation.
- **Maintain the Working Forest, While Limiting Residential and Commercial Development.**
Development within in the Easement Area will be limited to the specific activities delineated in the Conservation Easement, to preserve the land’s economic value as a commercial working forest while maintaining its character as a haven for recreational use. In addition, land within the approximately 33,800 acres of long-term conservation will be conserved through restrictive zoning that prohibits residential development.

Monitoring and enforcement of the terms, conditions, and provisions of the Conservation Easement will be conducted by a qualified easement holder. Irving will pay for a monitoring and enforcement fund to support these activities, in accordance with the Conservation Easement. The holder will, at a minimum, comply with the legal requirements for conservation easements in 33 M.R.S. § 476(2). In addition, the holder will be consistent to the extent practicable with LUPC's Guidelines for Selection of Conservation Easement Holders, including having compatible conservation goals, adequate financial resources, and a commitment to monitoring. Please see Exhibit G for more information on the proposed holder.

Appendix A – Existing Conditions in the Plan Area

APPENDIX A - EXISTING CONDITIONS IN THE PLAN AREA

1. THE PLAN AREA/OWNERSHIP

The area included within the Concept Plan (Plan Area) is approximately 51,015 acres in northern Aroostook County. The Plan Area includes land within 6 unorganized townships: T17 R3, T17 R4, Cross Lake (T17 R5), T16 R4, T16 R5, and T15 R5. The closest organized towns are to the north of the Plan Area: St. Agatha, Madawaska, and Frenchville. Grand Isle and Van Buren are to the east of the Plan Area; New Sweden and Westmanland are to the south of the Plan Area; and Eagle Lake and New Canada are to the west of the Plan Area.

The Plan Area includes substantial frontage on Long Lake, Mud Lake, Cross Lake, and Square Lake, as well as frontage along the thoroughfares that connect the lakes. The Plan Area also encompasses three smaller bodies of water: Carry Pond, Dickey Pond, and Little California Pond, as well as several named and unnamed streams. The Plan Area is traversed by two State roads (Route 161 and Route 162) and a network of forest management roads.



Concept Plan Area

The land within the Plan Area is currently managed by Irving Woodlands LLC (Irving Woodlands), acting as agent for the owners of the property: Aroostook Timberlands LP, Allagash Timberlands LLC, and Maine Woodlands Realty Company (collectively referred to as Irving). Irving Woodlands presently manages approximately 1.3 million acres of forestland in northern Maine.

Irving began expanding its ownership into the Plan Area in the 1980s when it acquired approximately 250,000 acres from International Paper Co. in the northern and eastern parts of Aroostook County. This area included townships from New Canada east to T16 R4, with some additional land in St. Francis and Allagash. In 1985 Irving purchased additional lands from Great Northern Paper in the northeastern part of Maine. This area included Townships T17 R3, T17 R4, and T17 R5 along with acreage in Cyr Plantation, Grand Isle, and Hamlin.

When Irving acquired the woodland assets from International Paper and Great Northern, they included 424 existing camp lots in the Plan Area: 148 on Long Lake, 20 on the Mud/Cross thoroughfare, 237 on Cross Lake, and 19 on Square Lake. Most of these lots pre-date the creation of the Land Use Regulation Commission (LURC) and are typically less than one acre in size with approximately 150 feet of lake frontage. Irving Woodlands has continued International Paper's and Great Northern's policy of licensing these lots to individuals, some of whom have held licenses for decades.

2. FOREST RESOURCES AND USES

The forestland managed by Irving in northern Maine is approximately 1.3 million acres, making it the largest land manager in the State of Maine. The property extends from the western border with Quebec to the eastern border with New Brunswick, with the majority of the land being in Aroostook County. Approximately 95% of Irving's Maine land base is productive forestland. The remaining lands include non-forest areas such as roads, water, licensed lots, wetlands, and a small amount of agricultural land.

Irving is a leader in innovative forest management practices and is guided by the management criteria set out in the Outcome Based Forestry (OBF) approach of the Maine Forest Service. For more information on Irving's sustainable forestry management practices in Maine and the OBF approach, see the response to Question 20 and Appendix D.

3. SOILS AND TOPOGRAPHY

SOILS

The lower areas in the Plan Area adjacent to the lakes are generally moderately well to poorly drained glacial till soils with inclusions of water-worked and glacio-lacustrine material. The upper slopes are dominated by well-drained deep to moderately deep glacial till soils over bedrock controlled landforms. Soil textures are generally loams and silt loams.

The Natural Resources Conservation Service soil survey identified the soils in the project areas as dominated by the "Plaisted-Howland-Monarda-Burnham" soil catena. A soil catena consists of soils with similar soil parent materials that occur over a repeatable pattern on the landscape. The soil map units are differentiated by slope, soil texture, stoniness, and depth to bedrock and a seasonally high water table. Field review by soils scientists indicate the presence of soil series and soil types other than what was mapped.

For more information on the soils conditions within the Plan Area, see Tab 8.

TOPOGRAPHY

The topography throughout the Plan Area ranges from gently sloping areas and rolling topography to areas of significant slopes. Elevations range from a high of approximately 1,180 feet on the south side of Long Lake to a low point of about 580 feet at the southern end of Square Lake. Slopes were a major limiting factor in evaluating the potential of designated Development Areas.

As part of its Unique Areas Program, Irving has recognized the sensitivity of extended areas of steep slopes with regard to their erosion potential, visual impacts, and harvesting logistics. Irving's policy is to manage harvest activities within these areas to protect the conservation values. Two of these areas have been designated on either side of Van Buren Cove on Long Lake, where the protection of these slopes and ridgelines will benefit license holders, future homeowners, and recreational users.

4. WATER RESOURCES/WATER QUALITY

LAKES, RIVERS, AND STREAMS

LONG LAKE

Existing Development. Long Lake is the third largest lake in Aroostook County (the largest is Grand Lake and the second largest is Square Lake). The shores of this approximately 6,000 acre lake are highly developed with seasonal camps, year-round residences, motor home parks, restaurants and motels, commercial and institutional buildings, and other related uses. There are approximately 775 structures on the water side of the roads that ring its roughly 33 miles of shoreline (including the large island at the north end of the lake). Irving owns approximately 4 miles of shore frontage on Van Buren Cove at the southeastern end of the lake. Irving's shore frontage consists of:



Aerial view of west side of Long Lake

- Developed shoreline: Irving has 148 licensed sites, each with a seasonal or year-round residence directly on the water. The majority of the licensed sites (116) are on East Road. The remaining 32 sites are located at the base of a steep hill on West Van Buren Cove Road.
- Long Lake Beach: A roughly quarter-mile long sand beach extends from East Road to the confluence of Mud Brook.
- Undeveloped shoreline: There are about 0.3 miles of undeveloped shoreline on the northern end of West Van Buren Cove Road.

Water Quality. At 163 feet, Long Lake is the deepest of the Fish River chain of lakes. The lake has average summer water temperatures of 65°F at the surface and 54°F at 150 feet. Long Lake has recently

experienced some water quality degradation. Because of the recreational significance of the lake and sport fishery resource, this situation is being addressed through cooperative agreements with the Maine Department of Environmental Protection (DEP) and private group efforts. Water quality enhancement projects are being implemented throughout the entire drainage to help control and correct the problem.

LUPC Management Classification. Long Lake is approaching Management Class 5, Heavily Developed Status. “Heavily Developed” means the lake has fewer than 10 surface acres or fewer than 400 feet of lake frontage per dwelling unit. Under current LUPC zoning, the regulatory emphasis is on retaining the natural qualities of the remaining undeveloped land bordering the lake; any further shoreline development must be clustered.

The Wildlands Lakes Assessment notes that Long Lake is accessible and developed and is assigned to Resource Class 1B (lakes of statewide significance with one outstanding resource value). The lake received a resource rating of “outstanding” for its botanical resources, and “significant” for its fisheries and cultural resources.

MUD LAKE

Existing Development. At 972 acres, Mud Lake is the smallest and shallowest of the four lakes within the Plan Area. Irving owns approximately 3.58 miles of shore frontage, all of which is undeveloped. There are over two dozen seasonal camps and permanent homes on the north shore of the lake, which are accessed off Route 162 (Sinclair Road). The most prominent use is a private campground with 56 campsites, 6 cabins, and a variety of outbuildings on 5.6 acres of land.



Aerial view of Mud Lake

The State is the second largest landowner on the lake, with a 304-acre Public Reserve Lot on the north side of the lake, known as the T17 R4 (Sinclair) Public Lot. This land is part of a series of small State holdings in northern Aroostook County that are managed primarily for timber production and dispersed recreation, such as hunting. The majority of the Sinclair Public Lot is on the north side of Route 162. In 1994, the State sold a 200-acre portion of the original lot to the Sinclair Sanitary District for the construction of a wastewater treatment plant that was designed to address water quality issues in the Village of Sinclair. The 2,218 linear feet of frontage on Mud Lake is designated as a Wildlife Riparian Area under the Regional Management Plan.

Water Quality. The lake has a mean depth of 11 feet and maximum depth of 20 feet. Wind mixing causes water temperatures to remain about equal at all depths throughout the summer (64°F at the surface and 63°F at 18 feet). The Maine Department of Inland Fisheries and Wildlife (IF&W) considers Mud Lake to have marginal habitat supporting cold water sport fish seasonally. Because of these habitat conditions, hornpout, suckers, and yellow perch have become abundant and limit sport fish production.

LUPC Management Classification. Mud Lake is assigned to Management Class 7, the “all others” classification with emphasis on a combination of resource conservation, recreation, timber production,

and limited development that does not unduly compromise the lake's resource values.

The Wildlands Lakes Assessment notes that Mud Lake is accessible and developed and is assigned to Resource Class 2 (lakes of regional significance with no outstanding resource values, but at least one significant resource value). The lake received a resource rating of "significant" for its fisheries and cultural resources.

CROSS LAKE

Existing Development. Cross Lake, the eighth largest lake in Aroostook County, has a surface area of 2,515 acres and over 13 miles of shoreline. The northern half of the lake is highly developed with over 300 seasonal and year-round residences. Irving owns approximately 9 miles of shoreline on the lake. The shore frontage consists of:

- Developed shoreline owned by Irving: 237 licensed sites on the lake (including 6 on a stream at the north end of the lake), each with a seasonal or year-round residence directly on the water. In addition, Irving has 20 licensed sites on the Mud/Cross Lake thoroughfare.
- Developed shoreline owned by others (Mifs Lane): approximately 1.4 miles.
- Public boat launch / picnic area at the end of Landing Road.
- Undeveloped shoreline owned by Irving: approximately 4.0 miles.



Aerial view of Cross Lake at
Mud/Cross Lake thoroughfare

Water Quality. The lake has a maximum depth of 46 feet, with summer water temperatures averaging 68°F at the surface and 54°F at 45 feet. Cross Lake is relatively shallow and has recently experienced some water quality degradation. Because of the recreational significance of the lake and sport fishery resource, this situation is being addressed through cooperative agreements with DEP and private group efforts. Water quality enhancement projects are being implemented throughout the entire drainage to help correct and control the problem.

LUPC Management Classification. Cross Lake is assigned to Management Class 5, Heavily Developed Status. Unlike Long Lake, which is considered "approaching" heavily developed status, LUPC found that Cross Lake has reached it. Under current LUPC zoning, the regulatory emphasis is on retaining the natural qualities of the remaining undeveloped land bordering the lake; any further shoreline development must be clustered.

The Wildlands Lakes Assessment notes that Cross Lake is accessible and developed and is assigned to Resource Class 1B (lakes of statewide significance with one outstanding resource value). The lake received a resource rating of "outstanding" for its botanical resources and "significant" for its fisheries and cultural resources. It also received a "+" under shore character resources (in need of further field checking due to public comment).

SQUARE LAKE

Existing Development. Square Lake, at 8,150 acres, is the largest of the Fish River chain of lakes and the second largest lake in Aroostook County. The lake remains largely undeveloped, with the exception of a group of 19 Irving licensed sites on the western shore, about 36 seasonal and year-round homes on the northern shoreline near the Moscovic Public Landing (outside of Irving land), and one residence (Fraser Camp) at the point where the thoroughfare enters Square Lake.



Aerial view of west side of Square Lake

The State owns two parcels of land on the northern end of the lake: a 252-acre original public lot on the northeast shore at Rocky Point that includes about 3/4 mile of lake frontage, and an 83-acre Parker Bog parcel that is part of the Cross Lake Fens. Both of these parcels are part of the 24,083-acre Eagle Lake Unit, which is the largest land area managed by the Bureau of Parks and Lands in northern Aroostook County.

Irving owns approximately 13.9 miles of the roughly 19.4-mile shoreline of Square Lake. Irving's shore frontage consists of:

- Developed shoreline: Irving has 19 licensed sites on approximately 1.0 mile of shoreline south of Limestone Point. Each licensed site is occupied by a seasonal residence on the water. This group of homes is not serviced by electric or telephone utilities; license holders provide their own power through solar collectors, gas generators, and other means.
- Yexas (Gorfinkle) Camps: formerly a traditional Maine sporting camp dating back to the early 1900s. Irving purchased this 17-acre parcel in 2013, recognizing its significance in achieving several recreational and land-use goals of the Concept Plan. The Camps occupy approximately 0.15 mile of shoreline, which includes an extensive sandy beach.
- Undeveloped shoreline: approximately 12.8 miles. This includes several campsites on the southern end of the lake.

Water Quality. The lake has a maximum depth of 122 feet, with summer water temperatures of 64°F at the surface and 61°F at 90 feet. The IF&W survey notes that Square Lake has recently experienced some water quality degradation. Because of the recreational significance of the lake and sport fishery resource this situation is being addressed through cooperative agreements with DEP and private group efforts. Water quality enhancement projects are being implemented throughout the entire drainage to help control and correct the problem.

LUPC Management Classification. Square Lake is currently in Management Class 7, but is potentially a Management Class 3, which would mean "potentially suitable for development" – the classification that provides the most leeway for lake-oriented development. Appendix C of the CLUP, at page C-17, specifically provides: "Square Lake may be placed on this list [of Management Class 3 Lakes] when and if the Maine Department of Environmental Protection is able to show that increased shoreland development around Square Lake would not significantly contribute to the stresses already being placed on it from lakes upstream." This refers to the high nutrient (phosphorus) loadings in Long Lake and

especially Cross Lake, which drain to Square Lake.

The Wildlands Lakes Assessment notes that Square Lake is accessible and developed and is assigned to Resource Class 1B (lakes of statewide significance with one outstanding resource value). The lake received a resource rating of “outstanding” for its fisheries resources, and “significant” for its cultural and physical resources. It also received a “+” under shore character resources (in need of further field checking due to public comment).

CARRY POND

Carry Pond is a 65-acre waterbody approximately one mile east of Cross Lake. The pond has a maximum depth of 9 feet, with summer water temperatures of 66°F at the surface and 64°F at the bottom. There is currently no development on the pond, with the exception of logging roads to provide access for forest management operations.

Carry Pond provides a wild brook trout fishery of modest quality. Additional fish species include minnows (golden shiner, redbelly dace, and creek chub), white sucker, brook stickleback, threespine stickleback, and pumpkin sunfish.



Aerial view of Carry Pond with Cross Lake in background

Tributaries and spring seepages provide cool refuges for brook trout during critical summer periods. Chemical reclamation was carried out in 1957 and 1961 to reduce competing species of fish and allow intensive brook trout management. Due to extensive boggy areas, complete kills were not achieved. Barrier dam washouts allowed further reinfestation of competing species. The outlet is presently free-flowing through the remains of the old barrier dam.

RIVERS

The Fish River chain of lakes thoroughfare is the common natural thread that links each of the four lakes in the Plan Area (Long Lake, Mud Lake, Cross Lake, and Square Lake). Eagle Lake, to the west of the Plan Area, is also connected by the thoroughfares, but is outside the Plan Area.

The thoroughfares are rated as a “B” river by the Maine Rivers Study, which means that they have composite natural and recreation resource values of outstanding statewide significance. The thoroughfare starts at Long Lake and extends for 60 miles to Eagle Lake. The Maine Rivers Study found that the thoroughfares have unique/significant river resource values in the undeveloped category, as well as inland fisheries and canoe touring. It further notes that the fisheries resources are some of the State’s most significant.

The **Long/Mud Lake thoroughfare** (approximately 0.5 miles in length) is highly developed with seasonal camps and year-round homes lining its bank. It is also close to a number of local roads (Route 162, Thoroughfare Road, Martin Road, Shore Road) and the Village of Sinclair. Irving does not own any land abutting the thoroughfare in this area.

The **Mud/Cross Lake thoroughfare** (approximately 1.9 miles in length) consists of two significantly different segments. From Mud Lake to the transmission line corridor that parallels Route 161, the thoroughfare is characterized by a general lack of development and a wooded shoreline. From the transmission line corridor to Cross Lake, the thoroughfare is developed with a general store, seasonal cottages, and year-round homes along the shoreline. Irving owns the majority of the land on either side of the thoroughfare, except for the store in Cross Lake. Low water exposes a considerable amount of ledge above Route 161, making passage during the late summer months difficult or impossible for motorized boat traffic.



Mud/Cross Lake thoroughfare

The **Cross/Square Lake thoroughfare** (approximately 0.8 miles in length) is largely undeveloped, with the exception of a residential development at the site of the former Fraser Camps at the outlet into Square Lake. Irving owns most of the land on the southeastern shore (with the exception of the Fraser Camps). According to the tax records, the land on the opposite (northwestern) shore has been subdivided, but apparently no lots have been sold or built upon. Low water exposes a considerable number of large rocks near the junction with Square Lake, making it virtually impossible for larger boats to gain access from the Cross Lake boat launch into Square Lake throughout much of the summer and fall.

STREAMS

Long Lake. There are several streams that feed into Van Buren Cove and the immediate surroundings: Mud Brook, Paulette Brook, Chapel Brook, and Auclair Brook. Mud Brook flows into Long Lake at the southern end of Van Buren Cove, at the west side of the Long Lake Beach. IF&W considers it to be the most important “smelt engine” feeding into Long Lake.

The **North Fork McLean Brook**, which drains into the western leg of Long Lake just north of Sinclair, is rated on the Maine Rivers Study as a C River, which means that it has composite natural and recreation resource values of statewide significance. From its headwaters at the northern end of the Plan Area, the brook extends for 12 miles to its confluence with Long Lake. The Maine Rivers Study found that the brook has unique/significant river resource values in the undeveloped and critical/ecologic categories. The area on either side of the stream contains wetlands, deer wintering areas (DWAs), and inland waterfowl/wading bird habitat.



Mud Brook

Cross Lake. IF&W noted that there is a small stream at the southern end of the lake (Black Brook) that is recognized for the trout that spawn there. The stream drains the eastern portion of the Cross Lake Fens, and enters the lake on land that is outside of Irving ownership. Dickey Brook, at the northeastern end of the lake, could be an important smelt producer, but is impacted by various land uses (nearby residential development, an electrical transmission corridor, and State Route 161).

Square Lake. There are several streams that feed into Square Lake that are important for smelt production: Butler Brook on the southeastern end of the lake; Barstow Brook at the southwestern end of the lake; California Pond Brook at the northwestern end of the lake; and Dimmock Brook at the northern end of the lake. Goddard Brook and Little Goddard Brook at the southern end may also have value for smelt spawning. All of these streams enter Square Lake on Irving property. A short segment of Dimmock Brook forms the boundary between Irving and the large adjacent parcel of non-Irving land.

FLOOD PLAINS

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) consider the following portions of the Plan Area as Unmapped Areas (assumed to be considered Zone C: areas outside the 500-year flood):

- The eastern end of Long Lake (in the vicinity of Van Buren Cove);
- The block of land surrounding Carry Pond and either side of Route 161 east of the Cross Lake thoroughfare;
- The southern half of Cross Lake; and
- All of Square Lake.

The western leg of Long Lake and most of Mud Lake are shown on FEMA Map 230454A. The northern half of Cross Lake is shown on FEMA Map 230453A. Detailed maps indicate that the extent of Zone A: 100-year flood; base flood elevations and flood hazard factors are not determined.

Any shorefront development proposed in the future would have to evaluate the 100-year flood and make suitable provisions to avoid areas that may be affected by flood events.

WETLANDS/VERNAL POOLS

Wetlands. A preliminary wetlands analysis was undertaken by Irving scientists, using multiple resources such as depth to water table mapping, lidar contour mapping, LUPC zoning, and hydric soils as a base line. A limited field reconnaissance covering the proposed Development Areas was conducted to broadly identify any wet areas and verify areas of major concern. These areas were mapped as being unsuitable for development and accounted for in the selection of the Development Areas.

There are extensive wetland systems in conjunction with all four of the lakes in the Plan Area. Some of the higher value areas include wetlands at the south end of Van Buren Cove on Long Lake, associated with Mud Brook; a small cove at the southeastern end of Mud Lake; the land mass between Cross Lake and Square Lake, which includes the Cross Lake Fens; and wetlands associated with Goddard and Little Goddard Brooks at the southern end of Square Lake.

Vernal Pools. Irving scientists conducted a preliminary vernal pool survey for potential Development Areas on each of the four lakes in April and May, 2012: the west side of Square Lake (Square Lake W), the east side of Cross Lake (Cross Lake C), the east side of Long Lake (Long Lake A), and the south side of Mud Lake. A combination of infrared aerial photography, topographic mapping, and depth to water table mapping was used to establish a systematic survey route for each site. Active vernal pools with wood frog egg masses were found at many of the sites investigated; salamander eggs were also found in one vernal pool on the east side of Cross Lake. The majority of the vernal pools were in or adjacent to old logging roads or borrow pits.



Vernal Pools

It is likely that wetlands and vernal pools will be found in all of the Development Areas. Before any significant development can occur under the Plan, a comprehensive study will be required as part of the site assessment process, prior to submitting a subdivision or site plan application. The Development Areas have been sized to be large enough to provide adequate area to avoid and minimize wetland impacts, as well as provide buffers around any vernal pools determined to be significant wildlife habitat, as defined by IF&W.

5. FISHERIES RESOURCES

LONG LAKE

The principal fisheries in Long Lake include landlocked salmon, brook trout, and rainbow smelt. Additional fish species include yellow perch, minnows (lake chub, golden shiner, common shiner, redbelly dace, blacknose dace, creek chub, and fallfish (chub)), longnose sucker, white sucker, hornpout (bullhead), burbot (cusk), threespine stickleback, ninespine stickleback, and slimy sculpin.



Long Lake is surrounded by both agricultural and forest land. Despite the heavy level of development within its watershed, Long Lake supports a sport fishery of statewide significance for brook trout and landlocked salmon. Long is considered by many to be the best salmon fishing in Maine. IF&W considers it to be the top lake in the 27 lakes that are rated for size quality. According to IF&W, sizes have dropped recently and there has been a downward trend in catches.

Of local significance, a popular hook-and-line smelt fishery exists at Long Lake both in winter and

summer. Smelts also provide an extremely important forage species for salmon and, to a lesser extent, trout.

The lake's outlet, Long Lake thoroughfare, provides limited spawning and nursery area for salmon. In addition, some salmon travel through Mud Lake and spawn at Cross Lake thoroughfare. Paulette and Mud Brooks contain some spawning and nursery areas suitable for salmon. In spite of the presence of ideal spawning habitat, the salmon population is supplemented with annual stockings (4,000/year). The wild brook trout population spawns in several of the smaller inlet tributaries.

Smelt Dipping. In 2003, a law was passed that allowed recreational smelt dipping on a part of Long Lake, with a bag limit of two quarts. Upwards of 200 people have been reported at the Long Lake beach participating in smelt dipping in Mud Brook.

MUD LAKE

The principal fisheries in Mud Lake are landlocked salmon and brook trout. Additional fish species include rainbow smelt, yellow perch, minnows (lake chub, creek chub, and fallfish (chub)), longnose sucker, white sucker, hornpout (bullhead), three-spine stickleback, and nine-spine stickleback. IF&W considers Mud Lake to be an important resource for salmon, since they seem to use it for overwintering.

The IF&W survey (updated in 2002) recommends that Mud Lake should be managed for salmon and trout in conjunction with the adjacent Cross and Long Lakes, which have much better habitat and support sport fisheries. Movement of young and adult salmon and trout is common among the lakes by use of the connecting thoroughfares. These waterways contain excellent spawning and juvenile habitat and are critical in maintaining the wild stock of brook trout and the natural component of the salmon population. The lake is currently not stocked, partially due to lack of public access to the lake.

CROSS LAKE

The principal fisheries in Cross Lake include landlocked salmon, brook trout, and rainbow smelt. Additional fish species include yellow perch, minnows (lake chub, common shiner, redbelly dace, blacknose dace, creek chub, fallfish (chub)), longnose sucker, white sucker, hornpout (bullhead), burbot (cusk), threespine stickleback, ninespine stickleback, and slimy sculpin.

Cross Lake supports a sport fishery of statewide significance for brook trout and landlocked salmon. Smelts provide the main forage for salmon and also support a hook-and-line sport fishery that is variable in quality.

The major inlet from Mud Lake – Cross Lake thoroughfare – provides excellent salmon spawning and nursery area. Dickey and Daigle Brooks also provide suitable salmon spawning area. In spite of these significant spawning and nursery areas, it remains necessary to supplement the salmon population with annual stockings. The various tributaries to the lake are utilized to sustain the wild brook trout population.

Cross Lake continues to be stocked and the use seems to be steady, according to IF&W survey records. There is greater potential for trout in the future (IF&W only stocks salmon at the moment). None of the

lakes are stocked for trout, although they were in the past. Salmon have a relatively slow growth rate, due primarily to water quality (oxygen and temperature).

SQUARE LAKE

The principal fisheries of Long Lake include landlocked salmon, brook trout, and rainbow smelt. Additional fish species include lake trout (togue), round whitefish, yellow perch, minnows (lake chub, common shiner, redbelly dace, blacknose dace, creek chub, fallfish (chub)), longnose sucker, white sucker, hornpout (bullhead), burbot (cusk), banded killifish, threespine stickleback, ninespine stickleback, and slimy sculpin.

Square Lake supports a sport fishery of statewide significance for brook trout and landlocked salmon. In addition to the salmon and brook trout fisheries, a popular hook-and-line smelt fishery exists at Square Lake both winter and summer. Smelts also provide an extremely important forage species for salmon and, to a lesser extent, trout.

Although the salmon population is now supplemented with annual stockings, Eagle Lake thoroughfare (Square Lake's outlet) provides excellent salmon spawning and nursery areas. Square Lake thoroughfare (Cross Lake's outlet) and Goddard Brook also provide limited salmon spawning and nursery areas. Brook trout spawning area exists in many of the smaller inlets.

IF&W considers Square Lake to be underutilized from a fisheries perspective and would like to see more people fishing on it (and harvesting more fish). While the lake is large, access is restricted to a relatively shallow boat launch on private land at the north end of the lake. There is currently no deepwater access.

6. WILDLIFE RESOURCES

DEER

Irving operates under cooperative agreements with IF&W for the management of areas that extend beyond regulated DWAs¹. Within the 1.2 million acres of land owned and managed by Irving in Maine, 122,770 acres (approximately 9.8% of Irving's total managed lands) are covered by the agreement. Within the Plan Area there are approximately 501 acres of regulated DWAs. There are approximately 2,692 additional acres of DWAs that Irving manages voluntarily as part of its cooperative agreement with IF&W. The general management guidelines included within the cooperative agreement address a number of issues related to the management of DWAs, including: construction activities and standards; silviculture practices; treatments of travel corridors; recreation use; and special considerations.

The following chart summarizes DWAs in four townships within the proposed Plan Area:

¹ New cooperative agreement with IF&W is being finalized.

Township	Yard Type	Acres (approximate)
T16 R5 Square Lake Vicinity	Cooperative DWA	765
	Zoned P-FW	158
T17 R4 McLean Brook	Cooperative DWA	217
	Zoned P-FW	174
T17 R5 North end of Cross Lake. Both sides of Dickey Brook at the northern end of Cross Lake, extending to the northeast across Route 161	Cooperative DWA	342
T15 R5 South of Square Lake	Cooperative DWA	1368
	Zoned P-FW	169

MOOSE

The Plan Area is located in IF&W Wildlife Management District (WMD) 3, which includes portions or all of 31 towns/townships in northeastern Aroostook County. Within WMD 3, the management objective is to balance public concern about moose/vehicle collisions with the public's desire to hunt moose.



The forests in the Plan Area are ideal for moose due to the diversity of habitat ranging from mature to regenerating stands. Regionally, moose are a popular species for both hunters and nature photographers. According to state wildlife biologists, Maine's moose population was estimated at 76,000 in 2012. There were 437 moose taken during the 2012 moose hunt in WMD 3. This represents a success rate of 87% for the 500 permits that were issued for that year, and is the third highest number of moose taken in the State.

IF&W manages the moose population in the State using one of three guiding objectives:

- Recreational management, where moose are managed for hunting and viewing;
- Road safety, where moose are managed to reduce the number of moose/vehicle collisions; and
- Compromise, where moose are managed to balance the two.

BLACK BEAR

According to IF&W, the number of black bears in Maine has been increasing over the past 5 years. Current estimates indicate that the population ranges from 24,000 to 36,000 bears throughout the State. The forestland in the Plan Area provides ideal habitat for black bears, i.e., regenerating forest stands, ample food supply, and adequate range.

Black bear hunting is an important aspect of the regional economy. In 2012, 168 of the 3,207 bears taken statewide were from WMD 3; of this number, 17 bears were taken in or near the Plan Area.

CANADA LYNX

Canada lynx have been reported in the less populated portions of the Plan Area. The most important factor determining habitat quality for Canada lynx is the abundance of snowshoe hare. Therefore, habitat that is ideal for snowshoe hare is also important to Canada lynx. Throughout their range, snowshoe hares are highly associated with dense forest understories and appear to select this type of habitat cover, food, and protection from predators, precipitation, and temperature extremes. Winter is the period of greatest stress for hares, thus dense cover takes on a greater importance during this time of year. In Maine, the forest stands that provide dense cover and are preferred by both snowshoe hare and Canada lynx are regenerating sapling (15-35 years old) spruce-fir forest. Regenerating conifer clearcuts provide ideal foraging habitat for Canada lynx in Maine.

The U.S. Fish & Wildlife Service (USFWS) listed the Canada lynx as threatened under the Endangered Species Act in 2000 and designated critical habitat for the species in 2006 (revised in 2009). On September 25, 2013, USFWS announced a proposal to revise the critical habitat designation for the Contiguous United States Distinct Population Segment (DPS) of the Canada lynx. In Maine, the habitat designation includes most of the northern part of Maine (most of Somerset, Piscataquis, and Aroostook Counties). Route 161 in the Plan Area is one of the northern boundaries for the designation. USFWS accepted public comment on this action until December 26, 2013; a final decision is still pending.

FURBEARERS

Furbearers include all mammals harvested primarily for their pelts. In Maine, these include coyote, red and gray fox, bobcat, fisher, marten, raccoon, skunk, short- and long-tailed weasels, mink, otter, beaver, muskrat, and opossum. The pelts of all furbearers, except weasel, raccoon, muskrat, skunk, and opossum, are tagged for tracking the furbearer harvest. Pelt tagging is one of the primary population indices used in the IF&W furbearer management systems. Furbearers are primarily trapped, but some species (e.g., fox, coyote, bobcat, raccoon, and skunk) are also hunted. Furbearers are common throughout the Plan Area.

UPLAND BIRDS - RUFFED GROUSE AND WOODCOCK

Approximately half of all licensed hunters in Maine hunt for ruffed grouse (partridge) and woodcock, so upland birds constitute a significant draw for hunters. The ruffed grouse population is primarily a function of the availability of habitat. The birds live in young forests, so forestry practices that favor sapling and pole stands of hardwoods, as well as mixed stands, will improve or sustain ruffed grouse habitat. These upland birds are common throughout the Plan Area.



Woodcock numbers are in decline across their range. USFWS instituted a shortened hunting season and plans to continue these management strategies. Despite these restrictions, however, the population remains low compared to levels in the 1960s. Maine biologists attribute this to loss of habitat due to

urban and industrial development and forest maturation. Forestry is generally thought to be positive for woodcock habitat.

BALD EAGLES

State and federal law first recognized the bald eagle as an Endangered Species in Maine and 42 other states in 1978. Subsequent recovery of eagle populations led to reclassification as a Threatened Species in 1995. Further improvements prompted the federal government to remove bald eagles from its list of Endangered and Threatened species in 2007. In January 2009, IF&W similarly removed the bald eagle from Maine's list of Endangered and Threatened Species. Bald eagles still receive substantial protections, however, under the Federal Bald Eagle and Golden Eagle Protection Act. IF&W and partners will not end bald eagle monitoring, research, and management because of delisting. Strategies are already in place and will evolve further as necessary.



IF&W management goals and objectives for bald eagles include the following:

Population Goal. Increase the population and expand the range of breeding bald eagles in Maine.

- Population Objective: By 2019, increase the bald eagle population to at least 600 nesting pairs, and allow the population to naturally expand statewide.
- Productivity Objective: Maintain a statewide minimum productivity of 9 fledged eaglets per 10 occupied breeding areas through 2019.

Habitat Goal. Identify, maintain, and enhance bald eagle breeding, foraging, and wintering habitat to allow for future expansion of the bald eagle population in Maine.

- Habitat Objective 1: By 2019, ensure long-term protection of viable bald eagle nesting habitat through fee ownership, easements, and landowner agreements for a minimum of 300 nest sites, proportionately distributed throughout occupied range.
- Habitat Objective 2: By 2019, promote private stewardship of 300 additional viable bald eagle nest sites through landowner agreements, outreach, tax credits, or other means.
- Habitat Objective 3: By 2008, determine the amount and distribution of shoreline habitat that is currently protected for feeding, wintering, and future nesting sites for bald eagles, and determine the amount of additional shoreline that needs to be protected to ensure the viability of 600 nesting pairs of eagles in Maine.

The Irving Unique Areas Program has identified several bald eagle nests within the Plan Area and on adjacent properties outside of Irving ownership. The greatest concentration of nesting sites is at the southern end of Square Lake. Bald eagle sightings are relatively common in the Plan Area, especially on Cross Lake and Square Lake. None of the nest sites are within proposed Development Areas.

GREAT BLUE HERONS

A possible great blue heron nesting site east of Van Buren Cove is included on the inventory of Unique Areas. This area was noted during the site evaluation process and is outside the Development Areas.

RUSTY BLACKBIRDS

Once-common breeders in boreal wetlands across New York, Vermont, New Hampshire, and Maine, rusty blackbirds have experienced chronic long-term and severe short-term population declines in recent years. Some estimates suggest that rusty blackbird populations have declined by 85-99% over the past 40 years. In a recent study of boreal forest-breeding birds, rusty blackbirds experienced the steepest declines, leading scientists to state that the rusty blackbird is “one of the most precipitously declining species in North America” (Niven et al., 2004). Until 1999, these alarming losses went unrecognized; only for the last decade has scientists finally struggled to understand the roots of this decline.

Rusty blackbirds breed in boreal forest wetlands from northern New England throughout Canada to Alaska. While the eastern portion of the breeding range may have once contained the highest densities of breeding birds (Erskine, 1977), this region may have experienced the steepest population declines (IRBTG, 2009). Surveys of wetlands throughout Maine between 2001 and 2007 documented a range contraction of 160 square km since 1983 (Powell, 2008). In Maine, the rusty blackbird is listed as a Species of Special Concern, and the International Union for Conservation of Nature Red List denotes this species as globally Vulnerable.

In 2012, Irving contracted with Dr. Judith Scarl, Vermont Center for Ecostudies, to conduct rusty blackbird surveys within the Plan Area. There were 10 survey sites near the proposed Development Areas. The observers detected rusty blackbirds at only one of the ten survey sites. This was at a highly forested site just north of Square Lake E with no visible evidence of beaver activity.² See Appendix F for Dr. Scarl’s report.

INLAND WATERFOWL/WADING BIRD HABITAT

Significant Wildlife Habitats are regulated under Maine’s Natural Resources Protection Act, which is administered by the DEP. Inland Waterfowl/Wading Bird Habitats, one type of Significant Wildlife Habitat, are freshwater breeding, migration/staging, and wintering habitats for inland waterfowl, or breeding, feeding, loafing, migration, or roosting habitats for inland wading birds. These are typically wetland complexes and a 250-foot-wide upland zone surrounding them. The quality of a wetland complex is determined by the dominant wetland type, the diversity of wetland types in the complex, the size of the wetland(s), the interspersions of the different types, and the relative amount of open water.

There are several inland waterfowl/wading bird habitats found within the Plan Area, including:

- Wetlands associated with the unnamed stream at the eastern end of Mud Lake;
- A portion of the thoroughfare into Cross Lake;

² 2012 Rusty Blackbird Detections on J.D. Irving, Ltd. Lands, Square Lake and Long Lake Regions. Dr. Judith Scarl, Vermont Center for Ecostudies. Norwich, VT. July 24, 2012.

- The Cross Lake Bog and the Cross Lake Fens;
- A beaver flowage along Black Brook east of the Yexas Camp; and
- Wetlands associated with Goddard and Little Goddard Brook at the southern end of Square Lake.

None of these habitats are within a proposed Development Area.

7. PLANT RESOURCES/UNIQUE NATURAL AREAS

UNIQUE AREAS PROGRAM

Irving has adopted a company-wide program, known as the Unique Areas Program, that catalogues unique features on the landscape and provides woodlands operations personnel with recommendations on how to maintain that feature within the concept of a working forest. See Appendix E for more detail on the Program. This information was a critical factor in determining the locations of areas proposed for conservation and development in the Plan Area.

The following are the broad-based objectives of the Unique Areas Program:

- Use of “indicator” species from which we may monitor for changes in the environment caused by man or nature;
- Preservation of rare and uncommon species or significant landscape features;
- Establishment of a database that will aid regional scientists and policy makers in determining the abundance and distribution of species or natural features; and
- Use of the information within the newly established database to formulate better management plans for Unique Areas, educate the public on how Irving manages its resources and invite their support in identifying significant sites.

There are a number of criteria that are used to define Unique Areas. At least one is required for a site to be designated and become a part of the program. Places such as DWAs, streams, and rivers – while of significant habitat value – are generally not included since they already receive special management considerations to ensure their viability. Criteria include:

- Presence of rare and uncommon species (such as the inlet on Mud Lake where the pigmy waterlily has been identified);
- Critical habitats;
- Outstanding, rare, or uncommon state types (such as the Cross Lake Fens between Square and Cross Lake);
- Unique geologic features (such as Limestone Point on the west shoreline of Square Lake);
- Historical and archaeological features; and
- Sites with high aesthetic appeal (such as the steep slopes above both sides of Van Buren Cove on Long Lake).

Potential sites are often proposed through dialogue with biologists, foresters, concerned citizens and environmental groups, or through scientific or historical literature. Once this information is obtained, the site undergoes an ecological survey and inventory of the plant and animal species. If accepted, a boundary is delineated and a management recommendation is created to ensure the conservation of the feature(s).

The number of Unique Areas within Irving lands can fluctuate on a yearly basis. Harvesting operations in these areas are governed by site-specific management instructions (prescriptions). In many cases, the prescriptions forbid harvesting within a given site. In Unique Areas where limited harvesting is permitted a management plan is formulated with the intent of preserving the elements that give these sites their significance. As public awareness of this program increases it is expected more sites will be proposed and will likely be accepted as unique areas. Likewise, it is also likely that some sites may be removed from the database, e.g., if known heron or eagle nesting sites are permanently abandoned or destroyed due to wind damage. Current sites in the Program are provided on Map 19 in Volume 3.

BEGINNING WITH HABITAT FOCUS AREAS / CROSS LAKE FENS

Beginning with Habitat (BwH) Focus Areas are natural areas of statewide ecological significance that contain unusually rich concentrations of at-risk species and habitats. These areas, identified by biologists from the Maine Natural Areas Program (MNAP), IF&W, Maine Department of Marine Resources (DMR), USFWS, The Nature Conservancy, Maine Audubon, and Maine Coast Heritage Trust, support rare plants, animals, and natural communities, high quality common natural communities, significant wildlife habitats, and their intersections with large blocks of undeveloped habitat. BwH Focus Area boundaries are drawn based on the species and natural communities that occur within them and the supporting landscape conditions that contribute to the long-term viability of the species, habitats, and community types.

One or more of the following must be present before an area is considered a Candidate Focus Area (in most cases, two or more are present):

- Globally rare plant or animal;
- Three or more healthy populations of a rare plant species;
- Any healthy population of a rare animal species;
- Rare natural community;
- Excellent example of a common natural community;
- Good example of a common natural community and one or more high value wildlife habitats; or
- Large undeveloped block and at least one of the following: a good example of a common natural community, or high value wildlife habitat, or two or more healthy populations of a rare plant species.

Within the Plan Area, the Cross Lake Fens, above the western shore of Cross Lake, is listed as a BwH Focus Area. The Fens as a whole contains more than 1,500 acres of inland waterfowl/wading bird habitat, of which approximately 40% are on Irving land. The Fens contains several rare and exemplary natural communities, as well as two rare plant species.³

³ http://beginningwithhabitat.org/about_bwh/focusareas.html



Cross Lake Fens

The State owns an 83-acre tract called the Parker Bog parcel that is part of the Cross Lake Fens complex. This area, which is a Maine Public Reserve Land, abuts Irving's portion of the Fens. The Parker Bog property is underlain by swamp, marsh, and bog deposits, with more than 50 acres in open wetland. Most of the parcel provides inland wading bird and waterfowl habitat. There are several exemplary features on the parcel including an extensive Patterned Fens Ecosystem, most of which lies outside the property. The "patterning" arises from low, parallel peat ridges alternating with wet hollows or shallow pools creating a ribbed appearance on the surface of the peatland. Fens tend to have higher pH levels than other wetland types. The pH range on this parcel is 4.5 to 4.9. Exemplary natural communities within the ecosystem include Low Sedge-Buckbean Fen Lawn and Sedge – Leatherleaf Fen Lawn. Moor rush (*Juncus stygius*), a rare plant (S2), is found in the open Low Sedge – Buckbean Fen Lawn portion. Wiegand's sedge (*Carex wiegandii*) grows in the transition zone between the open fen and spruce swamp.⁴

BOTANICAL RESOURCES

Preliminary Field Investigations. Irving scientists performed a rare plant habitat pre-screening survey in July and August 2012 for the following residential Development Areas: Long Lake A and B; Cross Lake A, C, and E; and Square Lake E and W. Despite identifying a small number of rare plant indicator species (as outlined in J.D. Irving, Limited's Rare Plant Habitat Pre-Screening Program for Maine), no state or federally listed (nor S1-S3, G1-G3) plant species (rare plants) were observed during the surveys at each of the Development Area visited. No rare plants were located within the Development Areas, nor the 1,000' buffers on those areas. Irving contacts the MNAP annually for a listing of new flora finds on Irving's properties.

Known Botanical Resources. The following species have been identified through the MNAP and the Unique Areas Program:

- A pigmy waterlily (*Nymphaea leibergii*) (S1) site was identified at the confluence of a small stream at the eastern end of Mud Lake. In all cases, these sites are outside the areas proposed for development;

⁴ Northern Aroostook Regional Management Plan. Maine Department of Conservation Bureau of Parks and Lands. Augusta, Maine. June, 2007.

- Cross Lake Bog, on the north side of Route 161. This is an inland waterfowl/wading bird habitat that runs from Dickey Brook on the west to the Cross Lake thoroughfare on the east;
- Cross Lake Fens (see description above); and
- Several small stands of old growth hemlock and red oak.

8. SCENIC RESOURCES

STATE ASSESSMENT

The Fish River chain of lakes is a noteworthy scenic feature, offering the recreational user and residents a combination of woods and water views. There is significant variety in the visual landscape that includes large lakes with moderately configured shorelines, small ponds, steep hills overlooking the waters, open beaches, and wildlife viewing opportunities. The scenic resources are undoubtedly one of the attractions that led to the dense development along some of the shorelines.

In 1987, LURC published The Wildlands Lakes Assessment, which evaluated each of the lakes within the Unorganized Territory for its resource values. While each of the lakes was noted for a variety of resource values, none of them were recognized for their scenic resources under the Assessment.

Prior to the publication of the Assessment, the State Planning Office issued the Scenic Lakes Character Evaluation in Maine’s Unorganized Towns, which evaluated the scenic characteristics of all 1,509 lakes and ponds (with a surface area greater than 10 acres) in the area under LURC jurisdiction. The Evaluation was based on six criteria: relief, physical features, shoreline configuration, vegetation diversity, special features, and inharmonious development. A point system was developed to assign a rating to each of the criteria, depending upon their presence in the landscape. Based upon a review of the methodology, it appears that the Fish River chain of lakes did not make the initial cut due to the relative lack of physical relief near the shoreline.

Despite these assessments by the State, Irving has designated sites within the Plan Area as Unique Areas due to their high aesthetic appeal. The steep slopes on both the east and west side of Long Lake have been established as protection areas under the Unique Areas Program to preserve the steep topography above the shoreline communities on either side of Van Buren Cove.



Southern end of Long Lake at Van Buren Cove

Irving’s current forest management practice considers and incorporates aesthetics when planning

management activities in areas where visual impacts may be of concern. As part of the development of a Forest Management Plan, planners identify, through a public process, areas that may have scenic or aesthetic value in places that are targeted for forestry activity. Within these areas, harvest operations use methods that minimize the visual impacts.

This approach parallels the Department of Conservation's management strategy for the adjacent Eagle Lake lands, where the background views as seen from Eagle Lake and Square Lake and the thoroughfare are designated as Visual Class II areas. Under this designation, State lands are managed to avoid any obvious alterations to the landscape. Openings will be of a size and orientation as to not draw undue attention.

For more information on Irving's sustainable forestry management practices in Maine and the Outcome Based Forestry approach, see the response to Question 20, Appendix D and Volume 2 at Tab 2(E), Chapter 10 Addendum § 10.32.

9. HISTORICAL, CULTURAL, AND ARCHAEOLOGICAL RESOURCES

The Maine Historic Preservation Commission (MHPC) has identified the general locations of four prehistoric archeological sites in the Plan Area. One is located on Cross Lake near the thoroughfare from Mud Lake. Two are located on Cross Lake near the thoroughfare to Square Lake. One is located on Square Lake at the thoroughfare to Eagle Lake. MHPC has concluded that the Plan Area possibly contains one or more prehistoric archaeological sites based on its predictive model of archaeological site location. A Phase I archaeological survey prior to any ground disturbance would be necessary for future development projects if they occurred in the vicinity of these known sites. Each of these identified areas includes a significant amount of land that is outside of the Plan Area (e.g., the frontage along the Eagle Lake thoroughfare is owned by the State), and thus it is not clear at this time that there would be any impact from development.

There are no historic archeological maps for the Plan Area. MHPC has concluded that the Plan Area possibly contains one or more historic archaeological sites based on their predictive model of archaeological site location. Therefore, a Phase I archaeological survey will be needed for any future projects prior to any ground disturbance. The survey should include a search for logging camps and possible driving dams.

Regarding architectural resources, there may be potentially eligible historic properties within the Plan Area. Once individual projects have been identified, photos should be taken of any existing buildings or structures that are 50 years or older so that they can be evaluated by MHPC for eligibility on the National Register of Historic Places.

10. RECREATIONAL RESOURCES

IF&W has done stratified random design surveys to determine recent and 15-year recreational use patterns within the Plan Area. Counts were done both in the air and on the ground. The general feeling (on the part of IF&W) is that the seasons are getting shorter (lakes freeze later and ice goes out sooner), and that there is more pressure in some locations and less in others as a result.

IF&W would like to see an “equitable access” policy established, whereby everyone has the ability to gain access to each lake within the Plan Area. Long Lake has no deep water access; Mud Lake has no access; Cross Lake has good access at a designated boat launch; and Square Lake has no deep water access.

BOATING

Long Lake. Three public boat landings are available around the lake, in Sinclair, St. Agatha, and Van Buren Cove in T17 R3. The St. Agatha boat landing, which also includes a picnic area, is being upgraded to accommodate additional boaters. There is no deep-water access within the Plan Area. Even if Van Buren Cove were improved, it would not provide access for larger boats. A boat launch is not allowed under the current permit.

Mud Lake. There is currently no public access available on Mud Lake. Boating access is possible from an informal put-in at the western end of Long Lake in Sinclair, which provides access to the 1.9-mile long Mud Lake thoroughfare. The Northern Aroostook Regional Management Plan recognized the need for boat access to Mud Lake; however, an inspection of the Bureau-owned property indicates that the frontage is not suitable for development for boating access.⁵ Mud Lake is listed by the State as the #1 priority lake for access in the Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000.⁶

Cross Lake. A public boat landing and picnic area is located on the southeast corner of Cross Lake on Irving property. Vehicle access to this site is from Route 161 over an improved gravel road. The boat launch is also one of the main access points into Square Lake. Bigger boats are used in the spring when water levels are high, and go from Cross Lake into Square Lake. However, during the summer and fall months, the water in the thoroughfare drops, exposing large boulders and sandbars that effectively cut off access into Square Lake for most motorized boats.

Square Lake. Primary access to Square Lake is via boat through either of the Cross Lake or Eagle Lake thoroughfares. The Moscovic Public Landing at the northern end of the lake provides the only publicly accessible access into the lake. Shoreline gradients at this end of the lake are relatively shallow, which limits the size of the boats that can be launched. Vehicle access to the landing is over 7½ miles of unimproved, privately-owned gravel road from Route 161. Local residents consider Square Lake to be highly unpredictable, with large whitecaps frequent at various times of the year. The Northern Aroostook Regional Management Plan recognized the need for boat access to Square Lake, since the Moscovic Public Landing is on private property. Square Lake is listed by the State as the #2 priority lake for access in the Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000.⁷

⁵ Northern Aroostook Regional Management Plan. Maine Department of Conservation Bureau of Parks and Lands. Augusta, Maine. June, 2007.

⁶ Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000. Boating Facilities Program of the Maine Dept. of Agriculture, Conservation, & Forestry, Maine Department of Inland Fisheries and Wildlife.

⁷ Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000. Boating Facilities Program of the Maine Dept. of Agriculture, Conservation, & Forestry, Maine Department of Inland Fisheries and Wildlife.

Thoroughfares. One of the unique qualities of the Fish River chain of lakes is the presence of the thoroughfares, which provide a natural water route from Long Lake to Indian Lake, a distance of over 60 miles. The Maine Rivers Study found that the thoroughfares have unique/significant river resource values for canoe touring.

SWIMMING

The primary swimming beach in the Plan Area is at Van Buren Cove on Long Lake, where a quarter-mile sand beach separates dense development on the east and west sides of the lake. There are no formal facilities at the beach. Wide shoulders along East Side Road provide room for parking. While this is not a permitted boat launch, people use it to gain boat access to this end of the lake.

For several years, Irving licensed the beach to the Town of Van Buren for its summer recreation program. However, with the decline in population, Van Buren no longer has a formal relationship with Irving. The Town still considers the beach and Long Lake in general to be a significant recreational resource for the community.

The boat launch and picnic area on Cross Lake also has a short sand beach that is easily accessible and highly scenic. There is also a narrow beach at the southern end of Cross Lake that is boat-accessible.

HIKING

While there are no designated hiking trails within the Plan Area, there is ample opportunity for hiking along Irving logging roads. The Bureau of Public Land's (BPL) Northern Aroostook Region Management Plan notes that hiking trails are of limited demand on the Unit (which includes the adjacent land around Eagle Lake).

CAMPING

There are a limited number of designated campsites within the Plan Area. The U.S. Geological Survey (USGS) map for the region indicates three such sites at the southern end of Square Lake; however, local residents only know of one that is currently in use. There had been a campsite on the thoroughfare between Cross Lake and Square Lake (according to local residents), but no evidence was found during field investigations. The BPL's Northern Aroostook Region Management Plan indicates that there is the potential for a water-access campsite on Rocky Point, at the northern end of Square Lake, where there was formerly a Maine Forest Service campsite.

CROSS COUNTRY SKIING / SNOWSHOEING

While there are no designated cross-country ski trails within the Plan Area, there is ample opportunity for skiing along Irving's logging roads. The Northern Aroostook Region Management Plan notes an interest in developing cross-country ski and dog sled trails on the Unit (including the adjacent Eagle Lake land).

SNOWMOBILING

With a yearly snowfall average of 115 inches, the Plan Area is very popular with snowmobile enthusiasts. Registered club members are welcome to use Irving's dedicated trail network, provided they follow recreational use guidelines based on Irving's land management policies.

ATV RIDING

ATV riding is very popular within the Plan Area, with a series of marked trails maintained by local clubs. Irving allows managed ATV access to designated trails within their holdings, as long as the vehicle owner is a member of the local ATV club and abides by the rules regarding the use of their land.

11. EXISTING LUPC ZONING

The existing zoning districts in the Plan Area are typical of many developed lakes in the jurisdiction. Residential and commercial uses are currently permitted throughout the Plan Area. Within 250 feet of the shoreline two subdistricts predominate: the P-GP (Great Pond, Protection) Zone and the D-RS (Residential, Development) Zone. Beyond 250 feet, most of the land is in the M-GN (General, Management) Zone. Smaller areas are zoned as P-SL2, P-WL1 & 2, and D-GN, etc., within this general zoning pattern. See Maps 4-10 in Volume 3 for more information in existing LUPC zoning in the Plan Area.

12. EXISTING DEVELOPMENT

Most of the shoreline of Long Lake and much of the shoreline of Cross Lake that is owned by Irving is extensively developed with seasonal and year-round homes. Although none of Irving's frontage on Mud Lake is developed, there are over two-dozen homes and a camping area on the north shoreline outside of Irving's holdings. Square Lake has 19 licensed camps lots on land owned by Irving. There are roughly 36 privately owned camps lots on the north shore in the vicinity of the Moscovic Boat Landing.

In addition to the lakes, development also occurs on the thoroughfares connecting each of the lakes. The Long /Mud Lake thoroughfare has about three dozen privately-owned homes on it, primarily near the Village of Sinclair. The Mud/Cross Lake thoroughfare has 20 camp lots that are licensed by Irving, plus a general store at the intersection with Route 161. Irving owns the land on the southern half of the Cross/Square Lake thoroughfare, with the exception of the Fraser Camp (now a private residence) on the eastern shore of Square Lake. The land along the Square/Eagle Lake thoroughfare is owned by the State as part of the Maine Public Reserve Land.

Much of the development in and around the Plan Area occurred in the early to mid-1900s, prior to the establishment of LURC. The type of development that is typically found on the lakes – 1/2 acre lots, minimal setbacks from the water, extensive lawn areas with minimal tree cover – would not be allowed under current LUPC standards designed to protect the integrity of the lakes.



Over 400 camp lots are located within the Plan Area

The 2010 U.S. Census recorded a total of 1,089 housing units in the portion of the Unorganized Territory that includes all of Square, Cross, and Mud lakes and the southern portion of Long Lake, plus the heavily developed northern basin of Madawaska Lake. Since the northern basin of Madawaska Lake accounts for an estimated 150 to 200 units of this total, and since there is virtually no residential development in the interior of this part of the Unorganized Territory, it can be estimated that Long, Cross, Square, and Madawaska Lakes have on the order of 850 to 950 housing units around them. Of these, Irving owns and licenses an estimated 424 lots to private parties on Long, Cross, and Square Lakes and the Cross Lake thoroughfare. The majority of these lots have seasonal or year-round homes on them; some may be vacant or used for a garage or other accessory building.

Other development on the lakes includes churches and other institutional uses, commercial establishments (restaurants, stores, commercial campgrounds), and recreational facilities (marina/seaplane base, boat ramps, golf course). The northern end of Long Lake is heavily agricultural. A network of ATV and snowmobile trails is maintained in the area, including on Irving lands.

There are no longer active traditional sporting camps on any of the four lakes in the Plan Area. Well known ones from the past included the Fraser Camp at the mouth of the Cross-Square Lake thoroughfare and Yexas on Square Lake (now labeled “Gorfinkle Camp” on USGS maps). Eagle Lake Sporting Camps, with seven year-round and six seasonal cabins and a dining room, continues to operate at the point where the thoroughfare enters Eagle Lake, outside of the Plan Area. It is surrounded by Maine Public Reserve Land and is accessible by four-wheel drive vehicles, boats, and snowmobiles.

The only commercial center in the immediate four-lake area is in the Village of Sinclair on the Long Lake/Mud Lake thoroughfare. Most goods and services are obtained in the surrounding towns, including Van Buren, Fort Kent, and Madawaska.

13. EXISTING MUNICIPAL SERVICES AND CAPACITY TO SERVE

WATER SERVICE

There is no municipal water service within the Plan Area.

SEWER SERVICE

The Village of Sinclair is served by a sanitary treatment facility that was constructed and put into operation in 1994. The need for the plant was driven by a concern for water quality in the thoroughfare between Long Lake and Mud Lake, caused by outdated and/or failing septic systems. The goal was to remove nutrients that contributed to water quality issues. The plant consists of three lagoons and four spray irrigation fields designed by Wright-Pierce, an engineering firm in Topsham, Maine. Since the treatment plant was constructed, the license was modified to include a one-mile sewer extension on Barnbrook Road on the south side of Long Lake and the installation of a 2-inch force main line.

According to Raymond Thibodeau, the retired superintendent of the Sanitary District, the design capacity is 45,000 gal/day, while the average actual use is 15,000-20,000 gal/day (as of 2011). According to the proposed license renewal, the spray capacity is 54,300 gal/ac/week. The average actual discharge is 32,000 to 39,000 gal/ac/wk over the last 5 years. Thus, there appears to be a reasonable amount of available capacity for additional users. The DEP would require historical records of flows into the plant to determine the capacity to handle additional customers. Wright-Pierce felt that the type of community/economic development that would be of interest to the Town would be unlikely to have a high water and treatment demand.

ELECTRICAL POWER

Electricity is supplied to most parts of the Plan Area by Maine Public Service (MPS) and Bangor Hydro. MPS and Bangor Hydro are regulated electric transmission and distribution utilities that are wholly owned by Emera, a full-service energy company based in Nova Scotia. Existing residential developments on Long Lake and Cross Lake are served by MPS. The Irving licensed sites on the west side of Square Lake do not have electrical service and rely upon other means, such as solar collectors and gas generators, for their power requirements.

TELEPHONE / CATV SERVICE

FairPoint Communications is one of a number of entities that provides internet, telephone, and television service for northern Aroostook County. As noted above, wire utilities are not available on the western side of Square Lake.

AMBULANCE SERVICE

Ambulance Services, Inc. (ASI), headquartered in Fort Kent, provides ambulance services for Cross Lake Township, Sinclair, and Square Lake. ASI maintains satellite offices in St. Agatha and Cross Lake.

SOLID WASTE

Solid waste is disposed of at the Tri-Community Landfill in Fort Fairfield for Sinclair, Cross Lake, and Square Lake. Aroostook County pays Tri-Community on a tonnage basis for solid waste disposal. There is a transfer station in Sinclair for bulky waste. There are three companies that currently provide pick-up services for individuals in the area. Individual haulers handle recycling; there are igloos in both Sinclair and Cross Lake for recyclables.

FIRE PROTECTION

Fire protection for Sinclair, Cross Lake Township, and Square Lake is provided by North Lakes Fire & Rescue (NLFR), which has three substations covering four unorganized territories in Aroostook County. The substations serve the northern part of Aroostook County, covering Cross Lake, Mud Lake, Long Lake, Madawaska Lake, and Square Lake. NLFR has written mutual aid agreements with the Towns of Stockholm, St. Agatha, and Fort Kent, and the Caribou Fire & Ambulance Department. In addition to fire protection, they also provide the following services:

- Fire prevention and home inspections;
- Jaws of life;
- Basic haz-mat response;
- Removal of debris from camp roads after major storms; and
- First response for assisting local ambulances.

LAW ENFORCEMENT

The Maine State Police and the County Sheriff handle law enforcement in the Plan Area on a rotating basis. Aroostook County is subdivided into five zones for law enforcement, and the responsibility changes weekly. Calls to 911 from landlines go to Penobscot County; the Houlton Police handles those from cell phones. All calls are then transferred to the County for dispatch. There are 68 jurisdictions within Aroostook County; the Unorganized Territory constitutes one jurisdiction.

14. ROAD NETWORK

PUBLIC ROADS

There are three public roads that serve the Plan Area.

- **Route 161** is a state road that runs northwest/southeast through the center of the area between Mud Lake and Cross Lake. It serves as the major north-south connector between Fort Kent to the north and Caribou to the south. Route 161 is in good condition and there are no problems with its traffic capacity or sight distances. Within the Plan Area it is lightly developed, with occasional residences and businesses. The St. Peter's Country Store in Cross Lake Township (north of the Mud/Cross Lake thoroughfare) is the focal point for commercial activity within the Plan Area. There are no current Maine Department of Transportation (MDOT) projects on this section of the highway.
- **Route 162** is also a state road that connects Frenchville to the north with Cross Lake Township (formerly known as Guerette) in the middle of the Plan Area. Unlike Route 161, Route 162 is moderately to heavily developed along much of its length within the Plan Area. The most intense development is in the Village of Sinclair, at the western end of Long Lake and adjacent to the Long/Mud Lake thoroughfare. Route 162 is in good condition; MDOT has no current plans for any improvements within the Plan Area.
- **Van Buren Road** is a local road that connects Van Buren from the east to Irving' Lake Road. This is the main east-west route between Van Buren and Van Buren Cove on Long Lake.

IRVING ROADS

The Irving roads within the Plan Area fall into four general categories:

- **Primary Roads.** Primary roads are year-round named roads designed for daily use for forest management activities. Members of the public also use the primary roads to travel through the Plan Area and to access recreational areas and licensed sites. These roads generally have a travel surface 24-30' in width and shoulders giving a total width of about 40'. They are often built up on shaley fill with drainage ditches leading to turnouts. The Sullivan Road is a good example of a primary road.
- **Secondary Roads.** Secondary roads are often named roads used for forest management activities and may provide direct access to residential areas and recreational resources. The typical travel surface of secondary roads is 12-18' in width and gravel shoulders for a total width of about 24'. The Disy Road leading to Cross Lake is a good example of a secondary road.
- **Camp Roads.** These are a subset within the secondary road system and are primarily used for access and frontage for the licensed sites throughout the Plan Area. Many of these roads have little value from a forest management perspective. These roads are typically maintained by Irving for use by license holders and recreational users, and are often managed by a license holder association. Examples include the East Side Road on Long Lake and the Cyr Road on the east side of Cross Lake.
- **Logging Roads.** The typical logging road is a one-lane travel way developed on shaley fill with a width of about 12-15'. These are actively used during forest management operations, and are often discontinued once harvesting has occurred. Many of the logging roads have sags that tend to collect water, with few turnouts.



Access road to camps on west side of Square Lake

For more information on the road network, please see Maps 35-37 in Volume 3.

Appendix B – Public Outreach Activities

APPENDIX B - PUBLIC OUTREACH ACTIVITIES

As part of the process for developing the Concept Plan, Irving met with local stakeholders, current license holders, individuals, state and federal agencies, local and county officials, and Non-Governmental Organizations. The following table lists these meetings, all of which provided the planning team with valuable insights into the Plan Area and surroundings and helped to shape the proposed Concept Plan petition. Numerous newspaper articles published in the Bangor Daily News, St. John Valley Times, and the Star Herald, as well as interviews by WAGM TV-8, provided citizens of Aroostook County and Western New Brunswick with up-to-date information on the status of the Concept Plan, as well. In addition, Irving retained the services of Hollie Umphrey, a long-time Aroostook County resident and former town manager of Portage Lake, to be available to answer questions and provide on-the-ground information for local residents and license holders.

DATE	PLACE	AUDIENCE	TOPICS
June 3, 2013	Lakeview St. Agatha	Fish River Lakes License Holders Association - Board of Directors	Provided overview of the Concept Plan. Discussed how it could potentially benefit license holders.
June 4, 2013	NMDC Caribou	Community Guided Planning and Zoning Committee; NMDC staff	Provided overview of the Concept Plan to the CGPZ Steering Committee. Explored possible synergies.
June 4, 2013	NMDC Caribou	NMDC staff and consultants	Provided overview of the Concept Plan.
June 12, 2013	Houlton	Land Use Planning Commissioners	Provided overview of the Concept Plan.
June 12, 2013	Lakeview St. Agatha	Public Meeting: over 200, mostly license holders, in attendance	Provided overview of the Concept Plan. Q&A session with attendees.
July 7, 2013	Long Lake	Public Meeting with Van Buren Cove Association (Club 17): over 70+ members	Provided overview of the Concept Plan. Q&A session with attendees re: how the plan will impact license holders, opportunity for land purchase; road maintenance; new boat launch. A result of these public outreach meetings was the creation of a database to ensure all lake association members have access to current information on the development of the Plan.

DATE	PLACE	AUDIENCE	TOPICS
July 23, 2013	Brewer	Maine Audubon Society (MAS)	Provided overview of the Concept Plan. Established line of communication. Discussed MAS mission, involvement with other concept plans, lessons learned, habitat in Concept Plan Area, role of MAS in process.
July 23, 2013	Brewer	The Nature Conservancy (TNC)	Provided overview of the Concept Plan. Established line of communication. Discussed TNC mission, involvement with other concept plans, conservation options, role of TNC in process.
July 23, 2013	Brewer	Forest Society of Maine (FSM)	Provided overview of the Concept Plan. Established line of communication. Discussed FSM mission, involvement with other concept plans, conservation easements, potential role of FSM in process.
July 30, 2013	Augusta	Bureau of Parks & Lands (BPL)	Provided overview of Concept Plan. Discussed BPL Eagle Lake Management Plan, role of BPL in development of Concept Plan, possible boat launches.
August 21, 2013	Ashland: LUPC	Resource Agencies: LUPC, Maine IF&W, Maine Forest Service, Maine DOT, Maine DEP, BPL, St. John Valley Soil and Water Conservation District	Provided overview of Concept Plan. Established lines of communication. Discussed agencies' roles, data needs, and areas of interest.
August 21, 2013	Caribou	Aroostook County Commissioners	Provided overview of Concept Plan and Commissioners' role. Q&A session with attendees.
August 21, 2013	Cross Lake	Fish River Lakes License Holders Assoc. Board of Directors; Club 17 Directors	Provided update on the development of the Concept Plan. Discussed specific recommendations for development areas.
August 22, 2013	St. Agatha	Eagle Lake and St. Agatha Town Managers	Provided overview of Concept Plan. Discussed the role of individual communities in the planning process. Q&A session with attendees.

DATE	PLACE	AUDIENCE	TOPICS
September 18, 2013	Ashland	Maine IF&W	Reviewed fisheries and wildlife records for each of the lakes; discussed fisheries and wildlife management issues and trends; responded to specific data requests.
September 18, 2013	Cross Lake	Property owners	Discussed Cross Lake-specific topics; boat tour of lake.
September 19, 2013	Van Buren	Town Manager and Economic Development Director	Provided overview of Concept Plan. Discussed historic and potential future use of beach at Van Buren Cove, county road maintenance.
September 19, 2013	Caribou	NMDC staff	Provided update on Concept Plan. Transferred GIS data, discussed Aroostook Partnership for Progress, discussed Yexas, discussed NMDC involvement in Plan.
October 9, 2013	Presque Isle	LUPC: Commissioners and staff	Provided update on Concept Plan. Provided overview of field trip the following day.
October 9, 2013	Caribou	Aroostook County Administrator and Road Commissioner	Provided update on status of Concept Plan. Discussion of providing services to residents, road maintenance and acceptance policy.
October 10, 2013	Fish River Lakes	LUPC Commissioners, staff, members of lake associations. 30+ in attendance	Guided tour of Concept Plan Area: Long Lake, Sinclair, Mud Lake, Cross Lake, Square Lake.
October 16, 2013	Square Lake	Local resident	Discussed Square Lake-specific topics.
October 17, 2013	Fort Fairfield	Aroostook County Town Manager's Association	Provided overview of the Concept Plan. Q&A session with managers. Discussed trails planning.
October 28, 2013	Brewer	FSM staff	Provided details of conservation plan and FSM's potential role in Concept Plan.
November 18, 2013	Augusta	LUPC staff, Maine Natural Areas Program; US Fish & Wildlife Service	Discussed wildlife issues, involvement of Natural Areas Program, preservation of significant natural resources, conservation objectives.

DATE	PLACE	AUDIENCE	TOPICS
November 18, 2013	Augusta	Natural Resources Council of Maine (NRCM)	Provided overview of Concept Plan. Discussed specific recommendations and proposals for development and conservation, review of field visit, discussed areas of concern.
December 5, 2013	Bangor	FSM Board of Directors	Provided overview of Concept Plan. Discussed potential conservation areas.
March 21, 2014	Lakeview St. Agatha	St. John Valley Soil & Water Conservation District	Provided overview of Concept Plan. Q&A session with attendees.

Appendix C – Evaluation of Impacts to Recreation

APPENDIX C - EVALUATION OF IMPACTS TO RECREATION

INTRODUCTION

The implementation of the Concept Plan will likely add some level of boating, fishing, and other recreational pressures on each of the lakes in the Concept Plan area (Plan Area), by virtue of additional home sites, increases in the number and quality of water access points, and greater recognition of the resources. This analysis reviews existing conditions and possible changes on each of the four lakes (Long, Mud, Cross, and Square Lakes) if the Concept Plan were fully implemented, as well as the thoroughfares that link them together in a unified whole.

For each lake there is an overview of existing conditions, a list of actions proposed under the Concept Plan, a discussion of future conditions, with both anticipated favorable and unfavorable impacts, a projection of the changes in recreational use to the lake (primarily boating), and a conclusion regarding the effect on the lake as a whole.

The analysis is based upon the Recreation Opportunity Spectrum (ROS), which provides a way to describe the continuum of recreational settings found within the Plan Area, and to evaluate the potential changes that may result from its implementation over the next 30 years.

ROS is a recreation inventory and management tool that was developed by the U.S. Department of Agriculture's Forest Service in the late 1970s for use on public lands in the western United States. It is based upon the notion that recreational users expect certain types of social experiences on the lands they visit, and that it is possible to provide recreational opportunities across a broad spectrum of land use classes.

In 2004 a similar program – the Water Recreation Opportunity Spectrum (WROS) – was adopted by the Forest Service for water-based recreation planning. WROS later became known as the Water and Land Recreation Opportunity Spectrum (WALROS). While these tools have become widely used and accepted by federal agencies, they were primarily designed for federal landscapes in the western portion of this country. In 2003, researchers in Vermont¹ developed a revised guide (ROS Northeast Guide, known as the "Guide") that is specifically aimed at the smaller land holdings and the greater frequency of roads typically found in the Northeast (i.e., the types of landscape represented by this Concept Plan). For purposes of this analysis, both WALROS and the Guide will be used to evaluate impacts to the recreation experience on the lakes in the Plan Area.

RECREATION OPPORTUNITY SPECTRUM: NORTHEAST GUIDE

The Guide recognizes a spectrum of six different ROS classes: Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Semi-Developed Natural, Developed Natural, and Highly Developed. "Highly developed" is primarily found in urban situations and is not included in this assessment. An ROS evaluation is based upon inventories of physical setting, the social setting (amount and type of contact

¹ More, Thomas A, Susan Buler, Linda Henzel, Anne E. Mates. [Extending the Recreation Opportunity Spectrum to Nonfederal Lands in the Northeast: An Implementation Guide](#). USDA Forest Service. Newtown Square, PA. August 2003.

with others), and the managerial setting (amount and kind of restrictions the landowner places on user activities).

Since Irving's lands are not primarily managed for recreation – which is the case in state and national recreation areas – a complete ROS analysis is not possible. However, it is possible to identify several of the criteria used to determine ROS classes and social setting.



Southern end of Square Lake

The Setting Characterizations for each of the ROS classes in the Guide² is:

- **Primitive.** The area appears to be an essentially unmodified natural environment of relatively large size. It may contain evidence of past human activities and historical-cultural sites, but these are subordinate to its natural state. Interaction between users is very low, and evidence of other users is minimal. The area is essentially free from evidence of management restrictions and controls. Motorized or mechanized use is not permitted.

Timber harvesting and vegetation management are not compatible with this class. There are no Primitive class lands within the Plan Area.

- **Semi-Primitive Non-Motorized.** The area appears to be a predominantly natural or natural appearing environment of relatively medium-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed so that minimum on-site controls and restrictions, if needed, are subtle. Non-mechanized uses predominate. Mechanized uses may be permitted. Motorized use is not permitted.

Timber harvesting and vegetation management may occur on a short-term basis if effects are minimized or mitigated to maintain class consistency (seasonality, scheduling harvest, aesthetics, road placement). Sights and sounds associated with skidder and chain saw use generally are not consistent with this class.

Portions of the southern end of Square Lake have characteristics of Semi-Primitive Non-Motorized.

² More, Thomas A, Susan Buler, Linda Henzel, Anne E. Mates. Extending the Recreation Opportunity Spectrum to Nonfederal Lands in the Northeast: An Implementation Guide. Table 1, p. 12.

- **Semi-Primitive Motorized.** The area appears to be a predominantly medium-to-large size natural or natural appearing environment. Interaction between users is low, but there is often evidence of other users. The area is managed so that minimum on-site controls and restrictions, if needed, are subtle. Mechanized uses may be permitted.

Timber harvesting and vegetation management are compatible with this class. Cross Lake south of the boat launch is an example of Semi-Primitive Motorized.

- **Semi-Developed Natural.** The area is a natural appearing environment. Evidence of the sights and sounds of people are moderate and usually harmonize with the natural environment. Interaction between users may be low to moderate, but evidence of other users is prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Construction standards and facility design accommodate conventional motorized and mechanized uses.

Many timber harvesting and vegetation management practices are compatible with this class. The Irving land surrounding Mud Lake is an example of Semi-Developed Natural.

- **Developed Natural.** The area is a substantially modified natural environment. Resource modification and utilization practices enhance specific recreation activities and maintain vegetative cover and soil. Sights and sounds of people are readily evident. Interaction between users often is moderate to high. Many facilities are designed for use by a large number of people. Density levels decline with increasing distance from developed sites. Facilities often are provided for special activities. Facilities for intensified motorized and mechanized uses and parking are available.

Many timber harvesting and vegetation management practices are compatible. Long Lake and Cross Lake north of the boat launch are two examples of Developed Natural.

The Physical Setting is evaluated in terms of remoteness, size, and evidence of human activity³:

- **Primitive.** The area is at least 2-3 miles from all maintained roads, railroads, or trails with designated motorized or mechanized use, and has a minimum of 3,000 acres.

The setting appears to be an essentially unmodified natural environment. Evidence of recent human activities would be unnoticed by an observer wandering through the area. Evidence of past human activities may be compatible. Trails may be acceptable but must be designed to a primitive standard. Structures are extremely rare.

- **Semi-Primitive Non-Motorized.** The area is at least 0.5 mile (but not farther than 2-3 miles) from all maintained roads, railroads, or trails with designated motorized or mechanized use. These areas can include unimproved roads and trails if usually closed to motorized use. These areas have a minimum of 1,000 to 2,500 acres.

³ Derived from More, Thomas A, Susan Buler, Linda Henzel, Anne E. Mates. [Extending the Recreation Opportunity Spectrum to Nonfederal Lands in the Northeast: An Implementation Guide](#). Tables 3, 4, 5.

The natural appearing setting may have subtle modifications that could be noticed, but would not draw the attention of an observer wandering through the area. There is little or no evidence of unimproved roads and motorized use of trails (e.g., snowmobile trail in winter with no evidence of its presence in summer). Structures are rare and isolated.

- **Semi-Primitive Motorized.** The area may contain unimproved roads or secondary trails, but is at least 0.5 mile from any improved, maintained roads, railroads, or primary motorized or mechanized trails. The area has a minimum of 1,000 to 2,500 acres.

The natural appearing setting may have moderately dominant alterations, but would not draw the attention of motorized observers on trails and primitive roads within the area. Unimproved roads and trails with motorized use are present. Structures are rare and isolated.

- **Semi-Developed Natural.** The area is within 0.5 mile from improved, maintained roads, railroads, or trails. There is no size criterion.

The natural appearing setting may have obvious modifications, ranging from easily noticed to strongly dominant. However, these alterations remain unnoticed or subordinate from visually scenic and heavily traveled routes and use areas. Designed roads and/or highways are present. Structures generally are scattered, remaining subordinate or unnoticed by observers on visually scenic or heavily traveled routes. Structures may include power lines, microwave installations, etc.

- **Developed Natural.** This class has no distance or size criteria.

The natural appearing setting has been culturally modified so that the modifications are dominant. Pedestrian or other slow moving observers are constantly within view of culturally changed landscape. This area may include pastoral, agricultural, intensively managed wildland resource landscapes, or utility corridors. Designed roads and/or highways are present. Structures are readily apparent and may range from scattered to small clusters that could dominate the landscape. Structures may include power lines, microwave installations, local ski areas, minor resorts, and recreation sites.

ROS experience characterization is described in terms of the probability of encounters with other people, the type of equipment used, and the quality of the experience⁴.

- **Primitive.** Extremely high probability of experiencing isolation from human development, use, and impact.
- **Semi-Primitive Non-Motorized.** Moderately high probability of experiencing isolation from human development, use, and impact.
- **Semi-Primitive Motorized.** Moderate probability of experiencing isolation from human development, use, and impact.

⁴ From More, Thomas A, Susan Buler, Linda Henzel, Anne E. Mates. Extending the Recreation Opportunity Spectrum to Nonfederal Lands in the Northeast: An Implementation Guide. Table 2.

- **Semi-Developed Natural.** About equal probability of encountering other user groups and isolation from sights and sounds of people.
- **Developed Natural.** Encounters with other individuals and groups are common. The physical setting is not as important as the activity opportunity.

WATER AND LAND RECREATION OPPORTUNITY SPECTRUM (WALROS)

Even though the WALROS system was designed for federal lands in the western part of the United States, it is instructive to review the defining characteristics of each of the five classes, especially in reviewing the characteristics of the four major waterbodies in the Fish River chain of lakes. The summary includes a reference to the comparable ROS classes in the Guide, where applicable.

Primitive Setting⁵: A primitive WALROS area is a large expanse of natural resources far from development and settlement. Sights, sounds, or smells of human activity are rare and seldom sensed. The water resources and shorelines appear natural, showing little evidence of past human use. A sense of remoteness, wildness, solitude, and self-reliance is dominant among visitors. Visitor comforts, conveniences, and concentrations are not appropriate to a primitive setting. Examples of primitive settings are large expanses of federal lands and waters that are miles from development and settlement. The settings are commonly designated as Wild and Scenic Rivers, Wilderness Areas, backcountry lakes, headwaters, marine reserves, roadless areas, or other types of federal or international protected areas.

Primitive Recreation Experience: The area provides many opportunities to see, hear, or smell the natural resources (e.g., forests, wildlife, and aesthetics) since development, human activity and natural resource modifications are rare. The opportunity to experience natural ecosystems with very little and no apparent human imprint is paramount. The natural views, sounds, and smells dominate the area. A sense of solitude, peacefulness, tranquility, challenge, adventure, risk, and self-reliance is highly important, as is the lack of sight, sound, and smells of other humans. A sense of freedom, tranquility, humility, relaxation, appreciation of nature, and stewardship is central and dominant. The primitive recreation experience provides opportunities for human-powered activities such as canoeing, kayaking, fly-fishing, hunting, floating, and backpacking. The high-speed noise of motorized conveyances is typically inappropriate for this area. Visitation often requires considerable trip planning and preparation, travel distance, physical exertion, and duration. Overnight visitors use tents in settings with no conveniences or facilities. Adventure travelers and ecotourists from distant locations are often attracted to the undisturbed wildland setting.

Semi-Primitive Setting: A semi-primitive WALROS area is a large expanse of natural resources that is far from any city or metropolitan area and a considerable distance from small communities, subdivisions, or developments. Natural resources dominate the landscape. Development is minor, and the sights and sounds of human activity in a semi-primitive setting may include evidence of human activity such as distant farming operations, powerlines, livestock, small buildings, old roadways, historic structures, and historic logging or mining. These water resources are often within large expanses of public lands and waters. Visitors desire a sense of tranquility and an escape from their daily routine. Facilities are rustic

⁵ Aukerman, Haas, and Associates, LLC. [Water and Land Recreation Opportunity Spectrum \(WALROS\)](#). User's Handbook, Second Edition. U.S. Department of the Interior. Denver. 2009.

and blend well into the setting. Resource protection is highly important. The opportunity for visitors to see, hear, and smell nature is widespread. Visitors sense solitude and remoteness. Examples of semi-primitive settings are large expanses of state and federal lands and waters that are commonly designated as Wild and Scenic Rivers, Wilderness Areas, backcountry lakes, headwaters, marine reserves, roadless areas, or other types of protected areas.

Semi-Primitive Recreation Experience: The area provides widespread and prevalent opportunities to see, hear, or smell the natural resources (e.g., forests, wildlife, and aesthetics) since development, human activity, and natural resource modifications are seldom encountered. The opportunity to experience a natural ecosystem with little human imprint, a sense of challenge, an adventure, a risk, a sense of self-reliance, and a feeling of solitude are all important characteristics. However, management is important on the water and at destination sites even though the recreation experiences tend to be more resource based. A sense of independence, freedom, tranquility, relaxation, appreciation of nature, testing skills, and stewardship is typical. The opportunity often requires more trip planning, preparation, travel distance of one or more days, physical effort, and duration. The semi-primitive area provides opportunities for the more adventure-based enthusiasts (e.g., fly and float fishing, hunting, backcountry camping, canoeing, rafting, and nature viewing). Overnight visits typically involve tents in settings with few conveniences and facilities, although extended stays may be accommodated. Adventure recreationists and ecotourists are attracted to this setting. However, inexperienced recreationists or visitors new to the area may be uncomfortable with the remoteness and the necessary requirement of self-reliance.

Rural Natural Setting (Northeast Guide: Semi-Primitive Motorized): A rural natural WALROS area is a considerable distance from metropolitan areas and communities. Natural features are predominant on the landscape, and the presence of development is occasional or infrequent. Agriculture, tourism, and outdoor recreation are often primary industries. Many rural natural areas are large enclaves of public lands and waters. Natural resources dominate the landscape. The sights, sounds, and smells of development are infrequent. Natural-looking settings border the water resources. Water controls or other structures are occasional along the shoreline. Visitors desire a sense of tranquility and escape from their daily routine. Opportunity for visitors to see, hear, and smell nature is prevalent and common, as are occasions to enjoy periods of solitude. Recreation use, diversity, socialization, concentration, sense of security, and conveniences are periodic and occasional. Examples of rural natural areas include unincorporated rural areas with secondary and unpaved roads, small cabins, single residences, farms and ranches, rustic campgrounds, rural county and state parks, powerline rights-of-way, small stores and fuel service stations, and areas bordering or surrounded by large expanses of public lands and waters.

Rural Natural Recreation Experience: The area provides frequent opportunities to see, hear, or smell the natural resources (e.g., forests, wildlife, and aesthetics), as development, human activity, and natural resource modifications are only occasional and infrequent. It is noticeably more natural, less developed, and more tranquil than an urban setting. Socialization with others outside one's group is not very important, although the presence of others is expected and tolerated. The opportunity to relieve stress and get away from an infrastructure environment is important; a high sense of safety, security, comfort, and convenience is not important or expected. Moreover, a sense of independence, freedom, moments of solitude, tranquility, and the appreciation of nature are also important. Various experiences tend to be more resource-dependent, diverse, and may include relaxation and contemplation. Such activities include camping, sunbathing, canoeing, sailing, and boat fishing. Other

activities involve socialization and physical exertion (e.g., competitive tournament fishing, kayaking, waterskiing, hunting, and float boat fishing). The rural natural area is typically attractive to extended weekend and long-term visitors who desire to experience the outdoors and get away from large numbers of other people. The rural natural area is popular with overnight visitors using recreation vehicles, tents, and rustic cabins.

Rural Developed Setting (Northeast Guide: Semi-Developed Natural): A rural developed WALROS area is beyond a metropolitan area and the suburban ring of development. Rural developed areas may serve as “bedroom” communities for urban areas and may contain working farms, ranches, and towns. In this setting, primary road networks are common. Although development will be prevalent and common, the setting has a pastoral sense because of an interspersing of forests, water resources, hills, valleys, canyons, wetlands, open spaces, and agricultural lands. Naturally appearing shoreline edges are common, although various water controls or other structures are also common. Recreation use, diversity, socialization, concentration, sense of security, and conveniences are less common than in a developed suburban or urban setting. The sights, sounds, and smells of recreation and non-recreation use are common, yet interspersed with locations and times when the urbanized visitor may experience a sense of tranquility and escape from everyday challenges. Examples of rural developed areas include areas with country estates, second homes and cabins, dams, power stations, primary and secondary roads, communication lines, resorts, marinas, small communities, full service campgrounds, county and state parks, farms, ranches, and small commercial and industrial establishments.

Rural Developed Recreation Experience: The area provides occasional or periodic opportunities to see, hear, or smell the natural resources (e.g., forests, wildlife, aesthetics), but development, human activity, and natural resource modifications are common and frequently encountered. The area is less developed and more tranquil than a suburban setting. The opportunity to experience brief periods of solitude is important but changes from day to day. In a rural-developed area, everyday sights and sounds are also important. Socialization within and outside one’s group is typical, and the presence of other visitors is expected. The opportunity to relieve stress, alter everyday routines, and achieve a moderate level of comfort and convenience along with a sense of safety and security is important. The array of recreation activities may be diverse, ranging from relaxation and contemplation (e.g., sunbathing, sailing, shoreline fishing) to physical exertion and challenge (e.g., competing in shoreline and water sports, tournament fishing, ice fishing, water skiing, snowmobiling, motocross racing, and kayaking). The rural developed area is typically attractive for day use by weekend visitors from local metropolitan areas, nearby communities, short-term campers, recreational vehicle users, large groups, and adventure tourists within a day’s drive.

Suburban Setting (Northeast Guide: Developed Natural): A suburban WALROS area is on the fringe of the urban area. The sights, sounds, and smells of development and built structures are widespread. The built environment tends to be commercial and residential. The sights, sounds, and smells of commerce and everyday living are very obvious and prevalent.

Suburban Recreation Experience: The area provides little opportunity to see, hear, or smell the natural resources (e.g., forests, wildlife, aesthetics) because of the widespread and prevalent level of development, human activity, and natural resource modification. Moreover, watching and meeting other visitors is expected and desired. The area provides an opportunity to briefly relieve stress and alter everyday routines. Socializing with family and friends is also important since large groups and families are common. A high sense of safety, security, comfort, and convenience is central and

dominant. The mix of recreation activities may be diverse, ranging from relaxation and contemplation (e.g., sunbathing, reading, and nature walking) to physical exertion, thrills, excitement, and challenge (e.g., parasailing, jet boating, and water skiing). Learning about natural or cultural history, ecology, and reservoir and river operations is important to some people. Thus, the suburban area is a popular attraction to many local residents.

Table 1 summarizes various social setting and managerial setting attributes of WALROS classes. Information is derived from Tables 2.3 and 2.4 in WALROS.

**TABLE 1
LAND AND WATER ATTRIBUTES: WALROS**

Attributes	Primitive	Semi-Primitive	Rural Natural	Rural Developed	Suburban
Degree of visitor concentration	Very minor 0–3%	Minor 3–10%	Occasional 10–20%	Common 20–50%	Very prevalent 50–80%
Degree of recreation diversity	Very minor 0–3%	Minor 3–10%	Occasional 10–20%	Common 20–50%	Very prevalent 50–80%
Boats seen /heard/day	< 3	< 10	N/A	N/A	N/A
Water acres per boat	480 – 3,200	110 – 480	50 – 110	20 – 50	10 – 20
Sea planes	N/A	N/A	Occasional	Very prevalent	Very prevalent
Picnic and day use areas	N/A	N/A	Occasional	Common	Very prevalent
Designated beach areas	N/A	N/A	Occasional	Common	Very prevalent
Boat ramps	N/A	N/A	Occasional	Common	Very prevalent
Unimproved trails	Very few	Seldom	Occasional	Common	Very prevalent
Water trails	Seldom	Seldom	Occasional	Common	Very prevalent
Fuel services	N/A	N/A	Occasional	Common	Very prevalent
Community boat docks	N/A	N/A	Occasional	Common	Very prevalent

FISH RIVER CHAIN OF LAKES

The Fish River chain of lakes offers a wide spectrum of physical settings and recreational experiences to its license holders and visitors. In general, the density of development decreases as the visitor starts at Long Lake and heads downstream (west) toward Square Lake. Table 2 summarizes both the Northeast Guide ROS and WALROS classes identified for each major waterbody in the Concept Plan area.

**TABLE 2
ROS/WALROS CLASSES OF MAJOR WATERBODIES**

WATERBODY	NORTHEAST GUIDE CLASS	WALROS CLASS
Long Lake	Developed Natural	Suburban
Long/Mud Thoroughfare	Developed Natural	Suburban
Mud Lake	Semi-Developed Natural	Rural Developed
Mud/Cross Thoroughfare (Mud Lake to Route 161)	Semi-Primitive Motorized	Rural Natural
Mud/Cross Thoroughfare (Route 161 to Cross Lake)	Developed Natural	Suburban
Cross Lake (N of boat launch)	Developed Natural	Suburban
Cross Lake (S of boat launch)	Semi-Primitive Motorized	Rural Natural
Cross/Square Thoroughfare	Semi-Primitive Motorized	Rural Natural
Square Lake (North half)	Semi-Developed Natural (Semi-Primitive Motorized)	Rural Developed (Rural Natural)
Square Lake (South half)	Semi-Primitive Motorized (Semi-Primitive Non- Motorized)	Rural Natural (Semi Primitive)

LONG LAKE

Existing Conditions. In its present condition, this portion of Long Lake may be considered Developed Natural (Suburban in WALROS). Starting at Van Buren Cove on Long Lake, the lakefront is highly developed, with virtually every licensed lot occupied by seasonal cottages and year-round homes that dominate the view of the shoreline. Irving has 148 licensed sites on both sides of the cove. There are approximately 775 residences and other structures along the shoreline of Long Lake, the vast majority of which are not on Irving lands. Natural resources are still very prominent, with steep wooded hillsides defining the cove on the east and west. The array of recreation activities and opportunities are diverse, and include swimming, boating, water skiing, fishing, ice fishing, fishing derbies, smelt dipping, ATV riding, and snowmobiling. The focal point is a quarter-mile sand beach that provides access to the water for local residents (e.g., Van Buren).



Van Buren Cove on Long Lake

Proposed Actions. The Concept Plan is proposing to zone areas for residential development that could affect the existing recreational experience on Long Lake:

Long Lake A. This is a residential development zone on a 136-acre tract of land on the east side of Van Buren Cove. None of the lots would have water frontage. The existing beach at Van Buren Cove would provide access to the waterfront.

Long Lake B. This is a residential development zone on a 75-acre tract of land on the west side of Van Buren Cove. The existing beach at Van Buren Cove would provide access to the waterfront.

Long Lake C. This is a residential development zone on a 114-acre tract of land above Barn Brook Road east of the Village of Sinclair overlooking Long Lake. None of these lots would have water frontage.

Future Conditions: Anticipated Favorable Impacts. The Concept Plan is expected to result in a number of favorable impacts to the recreational resources associated with the lake and surrounding lands, including:

- Assured access to the beach;
- Preservation of scenic resources at Long Lake; and
- Preservation of existing ATV/snowmobile trails.

Future Conditions: Anticipated Unfavorable Impacts. Future development associated with the Concept Plan has the potential to cause some unfavorable impacts on the visual and recreational resources associated with the lake and surrounding lands:

- There will likely be some visual impact from new development. The measures to control these impacts are the adoption of Chapter 10 regulations in the Chapter 10 Addendum, such as for setbacks, screening, clearing, and road and driveway construction. The limited amount of land designated for future development will provide the opportunity to preserve woodlands for privacy, screening, and trail corridors.
- Additional development opportunities may bring more people and waterfront activity to this part of the lake. Water access will be limited to possible common facilities and/or use of the beach. The hillside development at Long Lake C, east of the Village of Sinclair, will not have direct water access.

Conclusion. Given the heavy existing development in this area, the development permitted by the Concept Plan should not have an appreciable effect on the setting or the recreational experience found in Van Buren Cove and the surrounding lands. The ROS class for this portion of Long Lake should remain as Developed Natural (Suburban).

LONG/MUD LAKE THOROUGHFARE

There are no Development Areas along the thoroughfare between Long Lake and Mud Lake. Development authorized by the Concept Plan will not have a direct impact on the thoroughfare between Long Lake and Mud Lake. The thoroughfare is considered Developed Natural (Suburban), due to the number of camps/homes that line its bank and the proximity to major roads (Route 162), local roads (Thoroughfare Road, Martin Road, Shore Road), and the Village of Sinclair. The ROS class should remain the same.



Long Lake/Mud Lake thoroughfare

MUD LAKE

Existing Conditions. The majority of the northern shoreline of Mud Lake is developed with seasonal camps, a campground, and year-round residences, with the exception of a section of land owned by the State. Route 162 is located within 0.5 miles of the lake on both the north and west side. The primary access to the lake is via the Long Lake thoroughfare. The Village of Sinclair is within 0.5 miles of the lake. For these reasons Mud Lake may be considered Semi-Developed Natural (Rural Developed).



Mud Lake

Proposed Actions. The Concept Plan includes two actions that could affect the quality of the existing recreational experience on Mud Lake:

Mud Lake Boat Access. A possible boat access facility may be added to the western or northern shore of the lake. There is currently no public access available on Mud Lake. Boating access is possible from an informal put-in at the western end of Long Lake in Sinclair through the thoroughfare, a 1.9-mile journey. The Northern Aroostook Regional Management Plan recognized the need for boat access to Mud Lake and it is listed as the #1 priority lake for access in the Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000.⁶ Through the zoning process, the Concept Plan is providing the opportunity for the State or a responsible NGO to develop a boat access facility on the lake. At this point there are no commitments on the part of the State or any other body or organization to raise the necessary funds to plan for and construct the facility.

Outpost. The Concept Plan has identified a location along the Mud/Cross Lake thoroughfare for a potential remote campsite or cabin. This could be either a single campsite with minimal clearing, a path to the shore, and a fire ring/picnic table, or it could be a small primitive shelter set back from

⁶ Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000. Boating Facilities Program of the Maine Dept. of Agriculture, Conservation, & Forestry, Maine Department of Inland Fisheries and Wildlife.

the edge of the water.

Two areas on the north side of Route 162, CD-1 and CD-2, are designated for potential economic and community development. These locations are separated from the lake by the highway and existing development along the shoreline. The development anticipated for these areas would not be visible from the lake. By adherence to Chapter 10 regulations in the Chapter 10 Addendum for site development, there should be no impact on the recreation experience or water quality of Mud Lake.

Future Conditions: Anticipated Favorable Impacts. The Concept Plan is expected to result in a number of favorable impacts to the recreational resources associated with Mud Lake and surrounding lands:

- Formal access to the lake to meet a regional need that has been identified by the State. The Maine Department of Inland Fisheries and Wildlife (IF&W) has indicated that it may stock Mud Lake if access were available, which would improve fishing.
- Preservation of scenic resources. The Concept Plan includes permanent conservation of approximately 1.7 miles of Mud Lake shoreline and approximately 2.0 miles of shoreline along the thoroughfare into Cross Lake.

Future Conditions: Anticipated Unfavorable Impacts. The Concept Plan may result in some unfavorable impacts to the recreational resources associated with Mud Lake:

- Change in character to Mud Lake. A boat access could provide the opportunity for additional boating traffic and fishing on Mud Lake. Any water access site would have to comply with the applicable sections of the Chapter 10 Addendum.

Table 3, from WALROS, presents a range of “reasonable boating capacity coefficients.” A boating capacity coefficient is defined as the number of water surface acres adequate for each recreational boat in a particular WALROS class. For lakes in the Rural Developed class, coefficients range from 20 acres per boat to 50 acres per boat.⁷ Since Mud Lake is approximately 1,000 acres in size, a reasonable capacity of the lake would be 20 to 50 boats.

**TABLE 3
RANGE OF BOATING COEFFICIENTS**

WALROS CLASS	Range of Boating Coefficients	
	Low End (more boats)	High End (fewer boats)
Primitive	480 acres/boat	3,200 acres/boat (5 sq. miles)
Semi-Primitive	110 acres/boat	480 acres/boat
Rural Natural	50 acres/boat	110 acres/boat
Rural Developed	20 acres/boat	50 acres/boat
Suburban	10 acres/boat	20 acres/boat

If the State or other entity were to develop a water access site on Mud Lake, WALROS provides a boating capacity range decision tool (Table 2.6) that would be useful in determining the capacity range

⁷ At a density of 20 acres/boat, boats distributed evenly across the surface of the lake would be 933’ apart. At a density of 50 acres/boat, the distance between boats would increase to 1,475’ apart (slightly more than 1/4 mile).

(as presented in Table 2.5). This would provide useful input in arriving at decisions regarding the size of boats to be accommodated, typical boating speed, and the size of the parking lot to be constructed.

Table 2.6 in WALROS suggests that various factors be considered in selecting the low or the high end of the range, as well as the size and speed of the boats. The lower end, with greater number of boats, is aimed at lakes that have the following characteristics:

- simple shoreline configuration (degree of complexity);
- infrequent islands/shallows/hazards;
- limited diversity of boating types;
- simple boater visitation pattern;
- high compatibility with adjacent recreation/non-recreation land use; or
- low number of sensitive resources / potential for impact.

According to this analysis, Mud Lake has the capacity for up to 50 boats, typically less than 15 feet in length, with less than 10 mi/hr for a top speed. The following is an estimate of the average number of boats that may be anticipated on Mud Lake, with a future access facility:

15% of 24 existing camps on lake	4 boats
boats from new access facility	10 boats
<u>15% of the 30 lots on the thoroughfare</u>	<u>5 boats</u>
Total anticipated boats on lake	19 boats

This is well within the 20–50 range recommended by WALROS for a lake of this size and class; it is also within the 9–20 range if the lake were to be considered Rural Natural.⁸ This analysis indicates that the lake has the capacity to accept additional boats and still maintain the experience that recreational users expect when visiting Mud Lake.

Conclusion. The development of a water access site should not have an appreciable effect on the setting or the recreational experience found on Mud Lake. The ROS class for Mud Lake should remain as Semi-Developed Natural (Rural Developed). If the State or NGO wishes to develop a boat access facility on the lake, it should determine the existing use pattern at the time and size the boating facility accordingly to stay within the capacity of the lake while maintaining the quality of the recreational experience.

⁸ The rural natural area is typically attractive to extended weekend and long-term visitors who desire to experience the outdoors and get away from large numbers of other people. WALROS.

MUD/CROSS LAKE THOROUGHFARE

Development authorized under the Concept Plan should have minimal impact. The thoroughfare is considered Semi-Primitive Motorized (Rural Natural) from Mud Lake to Route 161, due to its general lack of development, and Developed Natural (Suburban) from Route 161 to its confluence with Cross Lake, due to the number of seasonal cottages and year-round homes along its shoreline. The undeveloped portion of the thoroughfare will be preserved under a permanent conservation easement. The only visible change that would affect the recreation experience is the potential outpost (campsite or shelter), as described above for Mud Lake. The ROS classes should remain the same for the thoroughfare.



Mud Lake/Cross Lake thoroughfare

CROSS LAKE

Existing Conditions. Starting at the boat launch on the southeastern shore, approximately 6.2 miles of shoreline are developed with over 300 seasonal camps and year-round residences (Irving has 237 licensed lots on Cross Lake and a small stream at the north end of the lake, and 20 on the Mud Lake/Cross Lake thoroughfare). The only exception to this pattern is a 0.8-mile section of the shoreline at the northern end, where wetlands and two major streams prohibit development. The developed portion of the lake is easily accessed: Route 161 is located within 0.5 miles of the lake on the east side; the Cyr Road, Landing Road, Mifs Lane, Disy Road, West Side Road, and a dozen smaller roads provide access and frontage to existing lots. The majority of the boating occurs at the northern end of the lake, generally in view of the lakeside camps. For these reasons the majority of Cross Lake may be considered Developed Natural (Suburban), similar to Van Buren Cove on Long Lake.



Cross Lake picnic area

The character of the lake changes markedly south of the boat launch, where there is little obvious sign of development for almost 6 miles of continuous shoreline (approximately 2.5 miles of this length is non-Irving land). The topography on the eastern side of the lake is much more pronounced than the northern section of the lake. Local residents occasionally use a small beach at the southern end of the lake. There have been recent harvest operations on both sides of the lake within 0.5 mile of the shoreline. Land access is limited to unimproved woods roads. The southern end of the lake may be described as Semi-Primitive Motorized (Rural Natural).

Proposed Actions. The Concept Plan is proposing areas be zoned for several residential developments that could affect the existing recreational experience on Cross Lake:

Cross Lake A. This is a residential development zone on a 119-acre tract of land at the northeastern end of the lake off the West Side Road. None of the lots would have water frontage or would be visible from the lake. A common area may provide a point of access to the waterfront.

Cross Lake B. This is a residential development zone on 79 acres of land at the northeastern end of the lake. This is in an area between Route 161 and the lake that has already been developed. Most of the shore frontage is already occupied with camp lots. A few shorefront areas that have not been licensed offer the potential for common waterfront areas to serve the new upland lots.

Cross Lake C. This is a residential development zone on a 64-acre tract of land just south of the Mud/Cross Lake thoroughfare, off the heavily-developed Cyr Road. None of these lots would have water frontage or would be visible from the lake. A common area may provide a point of access to the waterfront.

Cross Lake D. This is a residential development zone on a 183-acre tract of land in the vicinity of the boat launch on the east side of the lake. Access would be off Mifs Lane, Disy Road, and Landing Road. Several lots may have water frontage; the majority of the lots would have filtered views of the lake. The existing boat launch and picnic area may become the focal point for this new residential development.

Cross Lake E. This is a residential development zone on a 156-acre tract of land south of the boat launch. Road access would be from Square Lake. Many of the lots would be near the water or have filtered views of the lake. A common area could provide a point of access to the waterfront.

Future Conditions: Anticipated Favorable Impacts. The Concept Plan is expected to result in a number of favorable impacts to the recreational resources associated with Cross Lake and surrounding lands:

- Assured continued access to the boat launch, beach, and picnic area; and
- Preservation of approximately 2.1 miles of Cross Lake shoreline (the southern end of the lake and the western shoreline south of Matrimony Point).

Future Conditions: Anticipated Unfavorable Impacts. Future development associated with the Concept Plan has the potential to cause some unfavorable impacts on the visual and recreational resources associated with the lake and surrounding lands:

- Visual impacts from new development, primarily Cross Lake D and Cross Lake E. Adoption of the Chapter 10 standards in the Chapter 10 Addendum, specifically for setbacks, screening, clearing, and road and driveway construction, should minimize visual impacts and preserve the existing character of the lake. The amount of land designated for future development will provide the opportunity to preserve woodland for privacy, screening, and trail corridors.
- Additional development opportunities will bring more people and waterfront activity to the lake. The 125 additional housing units on Cross Lake that are included in the Concept Plan would represent a 41% increase in the number of existing residences on or near the lake. The majority of water access will occur at common facilities and/or the existing boat launch.
- Additional development may affect the quality of the recreational experience, especially in the area south of the existing boat launch.

Cross Lake has a surface area of approximately 2,515 acres. Reports from residents and personal observation indicate that the majority of the lake use occurs in the middle and northern section of the lake, near the developed shoreline. For purposes of this analysis, the northern 80% of the lake (approximately 2,000 acres north of the boat launch) is considered Developed Natural (Suburban). Table 3 indicates that for lakes in this class, coefficients range from 10 acres per boat to 20 acres per boat, or 100 to 200 boats. WALROS (Table 2.6, A boating capacity range decision tool) suggests that the midrange number might be suitable for Cross Lake.

The following is an estimate of the number of boats that may be anticipated north of the boat launch at peak times, if all five Development Areas were developed⁹:

15% of 275 existing residences on lake	41 boats
<u>15% of the 125 new units</u>	<u>19 boats</u>
Total anticipated boats on lake	60 boats

This is well below the 100–200 boat range indicated by WALROS for a lake of this size and class. It is also well within the 40–100 range if the lake were to be considered Rural Developed. This calculation does not account for the lower 20% of the lake, which is discussed below.

Approximately 20% of the lake (465 acres) south of the boat launch is considered Semi-Primitive Motorized (Rural Natural). Local residents report that there are typically between 1 and 5 boats in this part of the lake. If residential development were to occur (Cross Lake E) at the southern end of the lake, it is likely that this area would see an increase in the number of boaters.

Table 3 indicates that for a Rural Natural lake (or portion thereof), coefficients range from 50 to 110 acres per boat, or 4 to 9 boats in the area south of the boat launch. If the primary source of boating activity was development at Cross Lake E, approximately 6 additional boats would be expected at peak times (based upon 15% of an assumed 40 units at Cross Lake E using a boat at any one time). With 1 to 5 existing boats, this area would expect to see a total of 7 to 11 boats at peak times if 40 units were developed.

While the boating analysis indicates that this section of the lake may retain many of the characteristics of a Rural Natural area, the presence of development on the hillside above the lake may cause the classification to move toward Rural Developed (see description of Rural Developed experience above). The main group of people who would be affected by this shift are those who use the beach at the southern end of the lake and those who enjoy boating in a more natural appearing landscape.

Conclusion. With appropriate land use controls (i.e., the Chapter 10 standards in the Addendum), any development authorized under the Concept Plan should not have an appreciable effect on the setting or the recreational experience found over the majority of Cross Lake. The ROS class for the northern 80% of the lake should remain as Developed Natural (Suburban). Development and additional boat traffic at the southern 20% of the lake may cause that area to shift from a Rural Natural to a Rural Developed

⁹ The estimates of maximum use are very conservative. Year-round residents report that on a busy July 4th, there may be as many as 30 motorized boats (including jet skis) on the lake, plus another 5 canoes/kayaks. On a “typical” day during the summer, there may be as many as a dozen motorized boats on the lake. Cheryl St. Peter, Cross Lake Resident. Personal Communication.

class. Some current residents may find this shift undesirable; likewise, others may find the anticipated development and the opportunities that accompany it very desirable. The application of the Chapter 10 Addendum standards for hillside development, home siting, water access facilities, and other forms of infrastructure will be important to preserve the character of the southern end of the lake in order to minimize impacts to its recreation and visual character.

CROSS LAKE/SQUARE LAKE THOROUGHFARE

No Development Areas are proposed for the thoroughfare between Cross Lake and Square Lake. Development authorized by the Concept Plan should have minimal impact. The thoroughfare is considered Semi-Primitive Motorized (Rural Natural) due to its general lack of development. It is important to note that Irving does not own the land on the northwestern shore, and has no control over its future. According to the tax maps, the shoreline has already been subdivided, but apparently no lots have been sold or built upon.



Cross Lake/Square Lake thoroughfare

The undeveloped portion of the thoroughfare owned by Irving will be preserved under a permanent conservation easement. The only visible change resulting from the Concept Plan that would affect the recreation experience is the potential for an outpost (campsite or shelter) on the east side of the thoroughfare. The ROS classes should remain the same for the thoroughfare.

SQUARE LAKE

Existing Conditions. Irving Woodlands owns approximately 13.9 miles of the roughly 19.4-mile shoreline of the 8,150-acre Square Lake. Of this, approximately 12.8 miles of Irving's land are undeveloped. Irving has 19 licensed sites on approximately 1.0 mile of shoreline south of Limestone Point on the west side of the lake. On the eastern shoreline, the only visible development is the former Yexas Sporting Camp, now owned by Irving (approximately 0.15 miles of shoreline) and a private residence at the site of the former Fraser Camps at the point where the thoroughfare meets Square Lake. At the northern end of the lake (not owned by Irving), approximately 36 seasonal and year-round homes and a boat launch occupy about 3/4 mile of lake frontage. Access to these places is provided over forest management roads that are generally not maintained during winter months. The northern half of Square Lake is considered Semi-Developed Natural (Rural Developed).



Yexas Camps on Square Lake

The southern half of the lake is almost completely undeveloped, although there are several woods roads within 0.5 mile and three informal campsites on the shoreline. There has been considerable forest

management activity within this area. This section of the lake is described as Semi-Primitive Motorized (Rural Natural).

Proposed Actions. The Concept Plan is proposing areas zoned for residential and recreational developments that could affect the quality of the existing recreational experience on Square Lake:

Square Lake Yexas. This is a recreational lodging and residential development zone on approximately 51 acres of land in the vicinity of the former Yexas Camps. The concept for this area (in conjunction with Square Lake E) is to allow for a well-planned development that mixes a recreational lodging core with residential development. The core would be sited around the former camp property, which is a remnant of a traditional Maine sporting camp. Residential development and a variety of recreational activities could be sited within easy walking distance of the core facility.

Square Lake E. This is a residential development zone on approximately 278 acres in the land surrounding the Square Lake Yexas Development Area.

Square Lake W. This is a residential development zone on an approximately 121-acre tract of land in the vicinity of the existing licensed lots south of Limestone Point. While several of the lots are adjacent to the existing licensed sites and may have water frontage, the majority of the new units would be back lots without water views, or on the hillside overlooking the lake. Common areas may provide access to the waterfront.

Square Lake Boat Launch. The opportunity for a deep water boat launch/put-in facility has been identified on the north side of Square Lake E. At the present time the only way for the public to gain access to Square Lake is at the Muscovic Public Landing, at the north end of the lake, or to put in at the Cross Lake boat launch when water conditions allow passage through the thoroughfare. The Northern Aroostook Regional Management Plan recognized the need for deep water boat access to Square Lake, since the Muscovic Landing is on private property and is relatively shallow. Square Lake is listed as the #2 priority lake for access in the Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000.¹⁰ Through the zoning process, the Concept Plan is providing the opportunity for the State or a responsible NGO to develop a boat access facility on Square Lake. At this point there are no commitments on the part of the State or any other body or organization to raise the necessary funds to plan for and construct such a facility.

Future Conditions: Anticipated Favorable Impacts. The Concept Plan is expected to result in a number of favorable impacts to the recreational and scenic resources associated with Square Lake and surrounding lands:

- Preservation of scenic resources of Square Lake. Over 10.6 miles of Irving's shorefront would be put in permanent conservation;
- Forest management operations within the viewshed of the lake would follow sustainable forestry principles to minimize visual impacts;
- Development of remote rental cabins or remote campsites to be used on transient basis by

¹⁰ Strategic Plan for Providing Public Access to Maine Waters for Boating and Fishing, 1995 and 2000. Boating Facilities Program of the Maine Dept. of Agriculture, Conservation, & Forestry, Maine Department of Inland Fisheries and Wildlife.

- persons primarily in pursuit of recreation opportunities within the Plan Area;
- Restoration of a historic Maine sporting camp; and
- Hiking, ATV, snowmobile, and cross-country ski trails would be allowed within the permanent conservation easement.

Future Conditions: Anticipated Unfavorable Impacts. Future development associated with the Concept Plan has the potential to cause some unfavorable impacts on the visual and recreational resources associated with the lake and surrounding lands:

- Visual impact from new development, primarily Square Lake E. The adoption of the Chapter 10 Addendum standards for setbacks, screening, clearing, road and driveway construction should minimize visual impacts of future development activities. The amount of land designated for future development will provide the opportunity to preserve woodland for privacy, screening, and trail corridors.
- Additional development opportunities will bring more people and waterfront activity to the lake. The 130 additional housing units that could be built on Square Lake represent a substantial increase in the number of existing residences on the lake. Water access will be limited to common facilities and/or use of a future boat launch. Any water access facility or future development adjacent to the lake would have to comply with the applicable sections of the Chapter 10 Addendum.
- Additional development and boating traffic may affect the quality of the recreational experience, especially in the southern half of the lake where there is currently no development.

For purpose of this assessment, Square Lake is divided into the northern and southern half, due to their different ROS characteristics. The northern portion is considered Semi-Developed Natural (Rural Developed). Table 3 indicates that for lakes in this class, coefficients range from 20 to 50 acres per boat, which translates into a capacity of 80 to 200 boats for north half of the lake. The southern half of the lake is classified as Semi-Primitive Motorized (Rural Natural). Table 3 indicates that for lakes in this class coefficients range from 50 to 110 acres per boat, or 36–80 boats for the 4,000 acres at the south half of the lake. Combined totals for the whole lake are 116 to 280 boats.

Both halves of the lake also have characteristics of less intense ROS classes, i.e., portions of the northern half could be considered Semi-Primitive Motorized (Rural Natural), while portions of the southern half could be considered Semi-Primitive Non-Motorized (Semi-Primitive). The coefficients for these classes range from 36 to 80 boats for the northern half, and 8 to 36 for the southern half. Combined totals under this scenario range from 44 to 116 boats.

At the present time, the lake receives relatively light use for many reasons that include: lack of convenient public access; lack of deep water access; limited number of residents; distance from the Cross Lake boat launch; obstructions in the Cross Lake thoroughfare; wind and wave conditions on the lake; and lack of service facilities. At peak times the anticipated number of boats on the lake may include:

15% of 56 existing camps on lake ¹¹	8 boats
<u>Boats from Cross Lake boat launch¹²</u>	<u>10 boats</u>
Total	18 boats

The following is an estimate of the number of boats that may be anticipated on the lake at peak times, if the additional housing was developed over the ensuing 30 years.

15% of 56 existing camps on lake	8 boats
Boats from Cross Lake boat launch	10 boats
15% of 130 units on east side	19 boats
<u>Boats for lease (estimate)</u>	<u>15 boats</u>
Total anticipated boats on lake	52 boats

While this represents a significant increase in boating numbers, it is well within the more conservative 44–116 boat range provided by WALROS for a lake of this size with these classes. This also indicates that a boat launch similar in size to the existing facility on Cross Lake would not have an unreasonable effect on the recreational experience on Square Lake. It is likely that many of the boaters that now use the Cross Lake boat launch would simply move their access location, especially at times of lower water conditions in the thoroughfare.

The presence of development at the Yexas Camp would likely cause the classification in the vicinity of the camps to move from Semi-Primitive Non-Motorized (Semi-Primitive) to Semi-Primitive Motorized (Rural Natural) or even to Semi-Developed Natural (Rural Developed). The people who would be affected by this shift area) existing Irving license holders on the west side of the lake, who might be aware of new development at distances of 2.5 to 3.5 miles; b) several of the camps at the north end of the lake, where they might see signs of the development at about 3 miles, c) recreational boaters, fishermen, and ice fishermen on the lake who are accustomed to seeing a largely abandoned sporting camp, and d) the owners of the former Fraser Camp at the point where the Cross Lake thoroughfare discharges into Square Lake. The Chapter 10 Addendum regulations and design guidelines for development on Square Lake will be important components in maintaining the existing visual character of the lake.

CONCLUSION

Any development authorized by the Concept Plan should not have a significant appreciable effect on the setting or the recreational experience found on Square Lake as a whole. Some current residents may find this shift undesirable; likewise, others may find the anticipated development of the former Yexas Camps and a boat access facility very desirable. If the State or a responsible NGO wish to develop a boat launch on the lake north of the Yexas Camps, it should determine the existing use pattern at the time and size the boating facility accordingly to stay within the capacity of the lake while maintaining the quality of the recreational experience. The application of the Chapter 10 Addendum standards for hillside development, home siting, water access facilities, lighting, and other forms of infrastructure will be important to preserve the character of the lake in order to minimize impacts to its recreation and visual character.

¹¹ Based on information from Cross Lake.

¹² As reported by residents on Cross Lake. Cheryl St. Peter, Personal Communications.

Appendix D – Irving Woodlands in Maine

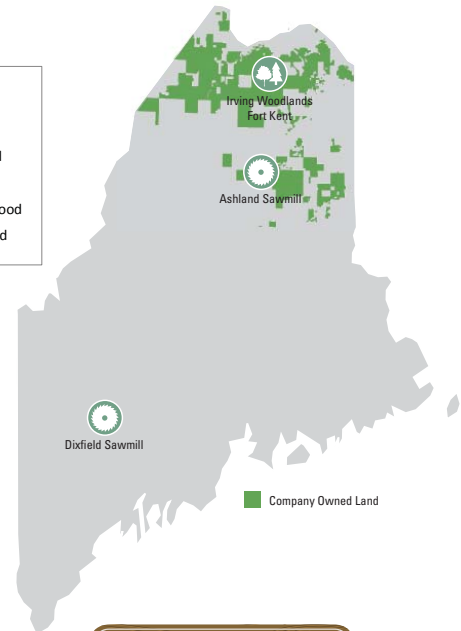
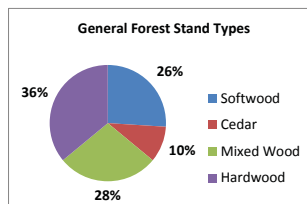
IRVING WOODLANDS IN MAINE



VITAL STATISTICS

- Over 60 years of operations in Maine
- 1.255 million acres in Maine (5% of the forested land in Maine)
- A team of 30 Forestry professionals working on the ground in Maine
- Voluntary Conservation Program – 214 sites and growing
- Voluntary investments in forest science with U Maine, Manomet, Inland Fisheries & Wildlife and other partners
- Irving Woodlands LLC plants 70% of the trees in Maine – over 56 Million seedlings in the last 35 years
- Jobs: Over 1800 (direct, contractor and indirect)
- Annual employment Income: \$67 million (direct, contractor & indirect)
- NEW Sawmill underway in Ashland, 63 NEW full-time jobs, \$33M investment
- Providing a sustainable wood supply to over 20 separate businesses in Maine

Irving Woodlands LLC Forest Composition



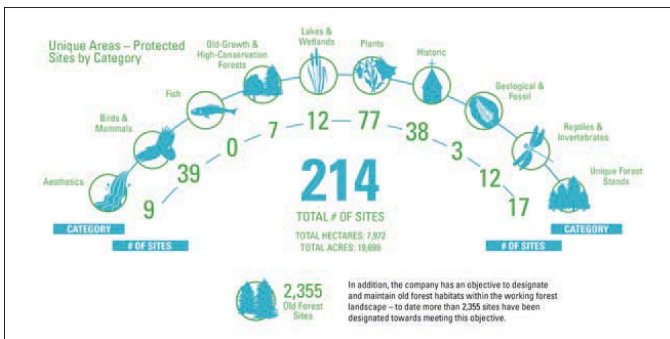
Sustainable Forest Management Planning 80-100 Years Ahead



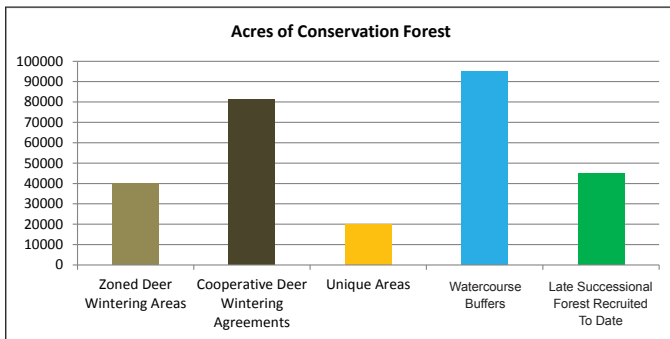
CONSERVATION & RESEARCH



VOLUNTARY CONSERVATION EFFORTS IN THE NORTH MAINE WOODS



122,000 Acres of Deer Wintering Habitat



94,000 Acres of Watercourse Buffers



RESEARCH PARTNERS

Our (voluntary) Forest Research Advisory Committee includes two U. Maine scientists: Dr. R. Wagner and Dr. A. Weiskittel as well as Mr. A. Whitman from Manomet.

Dr. A. Weiskittel is the Irving Chair in Forest Ecosystem Management at U. Maine.

JDI has been a long term and active member of the Cooperative Forestry Research Unit.

OUTCOME-BASED FORESTRY OVERVIEW



In 2013 we finalized a new management plan for the approximately 1,255,000 acres that we own in Northern Maine. This forest management plan aligns with the criteria and objectives outlined within the Maine Forest Service's (MFS) Outcome Based Forestry (OBF) law. We are confident that our new plan can be implemented to meet the desired outcomes of the OBF agreement that we entered into with the Maine Forest Service (MFS) in May of 2012. At a broad level this agreement requires that our operations be implemented in a manner that is ecologically sustainable, economically viable and socially responsible; while achieving the landowner's objectives.

Outcome Based Forestry is the only system that requires economic, social and environmental measurement.

http://www.maine.gov/dacf/mfs/policy_management/outcome_based_forestry.html

Our OBF agreement obligates us to maintain independent third party certifications for our woodlands and exempts us from certain provisions of the Maine Forest Practices Act (FPA). Today, our woodland's are certified to meet the standards of the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) forest certification systems. Under this agreement the FSC US Forest Management standards have been aligned (with additional indicators) with all federal and state laws.

Final OBF assessment is determined by a governor appointed panel of technical experts who report to the director of the MFS. The following table provides a quick reference comparison between OBF and the Maine FPA and the benefits that have been achieved thus far. A summary of our forest management plan and our SFI and FSC certification reports are both publicly posted on our website.

Comparison Between OBF agreement and FPA		
	OBF	FPA
State of Maine, Based Technical Experts Review	Yes ✓	No ✗
Independent 3rd Party Certification Required	Yes ✓	No ✗
Provisions to Improve Timber Supply and Quality	Yes ✓	No ✗
Provisions to Protect Forest Health	Yes ✓	No ✗
Provisions to Conserve Biological Diversity	Yes ✓	No ✗
Provisions to Consider Economic and Social Obligations	Yes ✓	No ✗
Reduced Administrative Work for Landowner and MFS Staff	Yes ✓	No ✗
Increased Reporting Transparency	Yes ✓	No ✗
Science Based Harvest Prescriptions	Required for all harvests	Only required for clearcuts
Regeneration of Clearcuts	Required	
Maximum Clearcut Size Allowable	250 acres	
Clearcut Separation Zone Requirements	Landowner can manage with scientifically based silviculture prescriptions	May only be harvested according to prescriptive standards in rule
	Buffering between clearcuts can utilize natural landscape features	Minimum 250 foot separation zones with short term 1:1 acreage requirement
**Required Compliance to All Local, State & Federal Regulations to Protect Water and Wildlife and Protected Resources (i.e. DEP, LURC, MFS, AWW, Local Ordinances etc.)	Yes	

**The State of Maine has established laws that protect the wildlife, waters and unique natural resources in our State that are above and beyond the FPA. All of the laws protecting our natural resources remain intact and are still subject to compliance under OBF.

http://www.jdirving.com/environment.aspx?id=5334&ekmense=8_submenu_168_btlink

BENEFITS OF OUTCOME BASED FORESTRY



- ✓ Less road building (42 miles less in 2013 than 2012)
- ✓ Operate on less of the landbase – less fragmentation of the forest
- ✓ Science-based harvest prescriptions = better management
- ✓ Salvaging mortality due to wind damage and disease, improving forest health and reducing forest loss due to mortality
- ✓ Lower operating costs
- ✓ Improved earnings and productivity for 90+ contractors due to reduced equipment moves and related downtime
- ✓ A competitive wood supply for our Maine mills and over 20 others in the state
- ✓ Growing jobs and investment – \$33M in Ashland Sawmill, 63 new jobs, opening Summer 2014
- ✓ No increase in percentage of clear cutting

“Under outcome based forestry my machines spend less time on a low-bed and this has helped me improve my bottom line.”

**Jeremy Fournier - Ironwood Logging
Eagle Lake, ME (7 employees)**

“KPel Industrial Services, Inc., is based in Fort Fairfield, ME. We employ 26 people. In an area that has been challenged by out-migration and limited job creation, Irving’s decision to create 63 jobs by investing \$33 million in the Ashland Sawmill was good news for the County and for our business in a particular. This investment and the benefits we have received as a local business and employer are in large part because outcome based forestry ensures a sustainable, cost-efficient delivery of wood to the Ashland Sawmill.”

**Scott Colton
Co-owner
Fort Fairfield, ME**



Science Based
Harvest Prescriptions

“To be successful in the State of Maine, we need to do more than to preserve the status quo. Simply stated, we need to grow and develop opportunities for work, reverse the outmigration of our young people and cultivate a climate conducive to future capital investment.

Maine’s outcome based forestry law has created an opportunity to do just that for one of our suppliers, Irving Woodlands LLC. Under Outcome Based Forestry, Irving has increased its levels of silviculture investments to grow more wood for mills in the State of Maine. As you would expect, an improved and stable fiber supply is critical for employment and good for Maine mills. As well as building a new mill, Irving has worked hard to develop more contractors and increased investments in training operators for the labor pool in the region. These efforts all demonstrate long term commitment to the State, the forest and the people. Outcome based forestry has played a major role for helping Irving do its part.”

**Bert Martin, Director
Woodlands Pulp LLC**

ACCOUNTABILITY

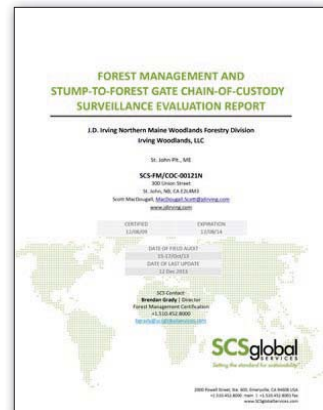
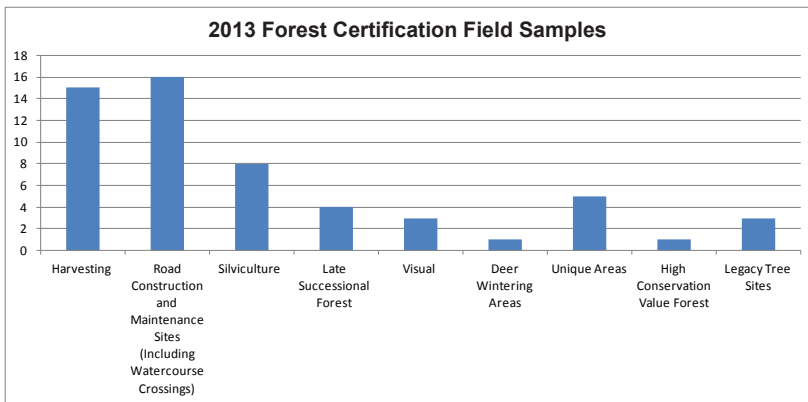


Independent 3rd party verification of our forest management is important for public credibility and confidence. Under the Outcome Based Forestry agreement that we signed with the Maine Forest Service in 2012, we are required to maintain independent 3rd party certification (aligned with all state and federal laws) for all of our Maine Lands with oversight and endorsement of auditing results by a Governor appointed panel of experts.

In 2013 our operations were audited to the standards of the Sustainable Forestry Initiative (SFI) and ISO 14001 as well as the principles and criteria of the Forest Stewardship Council (FSC) – US Forest Management Standards. Auditors found our sustainable forest management system to be in conformance to the SFI program and that the ISO 14001 EMS was being effectively implemented and that overall conformance to the applicable FSC standards was achieved. Two observations and corrective action requests for non-conformity were issued by auditors for two FSC indicators under the US Forest Management Standards. Corrective action requests require further training on Legacy Tree identification to improve consistency in application of policy and a more thorough cross referencing of policy documents with the forest management plan to improve understanding of desired future conditions or timber and non-timber resources.

Our FSC and SFI certifications require us to minimize and strive to reduce our use of chemical pesticides.

Expert panel findings for 2013 can be found on the Maine Forest Service's website for Outcome Based Forestry. The following graphs depict focal areas for auditors in 2013.



http://www.jdirving.com/environment.aspx?id=5334&ekmensel=8_submenu_168_btlnk



IRVING WOODLANDS DETAILED SCORECARD



MAINE WOODLANDS DETAILED SCORECARD

Sustainable Forestry	2013 Maine Data
Resource holdings (freehold - Maine) - Acres	1,255,000 acres in 2013
Land base harvested (%)	2% 2013
Trees planted - # of seedlings	3 million in 2013
Forest lost from disease	0 Acres in 2013
Forest lost from windthrow	900 Acres in 2013
Forest lost from fire	8 Acres in 2013
Forest lost from all causes	908 Acres in 2013
Mapped watercourse buffers (total)	94,000 acres in 2013
Watercourse distances sustainably managed (total)	3,000 miles in 2013
Forestry road building (new roads)	72 miles in 2013
First year planted tree survival rates	85% in 2013
Second year planted tree survival rates	84% in 2013
Pre-commercial thinning & plantation cleaning completed	3,346 Acres in 2013
Tree planting completed	4,296 Acres in 2013
Sustainable Forestry Initiative Certification (SFI)	100% of Maine holdings
Environmental Management System Registration (ISO 14001)	100% of Maine holdings
Forest Stewardship Council Certification (FSC)	100% off Maine holdings
Certification Non-Compliances (FSC, SFI & ISO 140001)	0 in 2013
Volunteer Conservation areas on JDI land # of unique areas set aside	214 sites / 19,699 Acres

From the Auditor's Report

"Numerous examples of effectively protected riparian areas and waterbodies were observed during the field audit."

"A number of vernal pools were observed during the field audit to be well protected under the Company's Vernal Pool Policy."

"JDI planners do an effective job of tailoring the silviculture system(s) being prescribed to the stand characteristics (species composition, structure, condition, age(s), etc.), site characteristics (fertility, trafficability) and broad management objectives pertaining to a particular stand. In addition to clearcut systems, a variety of partial cutting silviculture systems (including as shown in this picture shelterwood cuts) are prescribed and implemented by the Company."

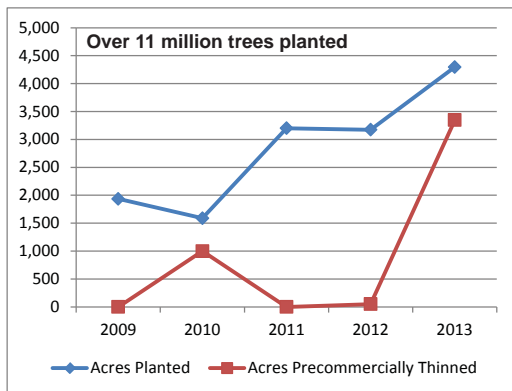
2013 Sustainable Forestry Initiative (SFI) Audit Report

2013 OPERATIONS REPORT

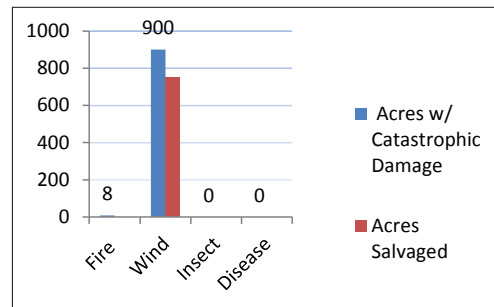


In 2013, our foresters implemented an operating plan that was designed to meet our sustainable forest management strategy as outlined in our management plan under Outcome Based Forestry (OBF). Operations were conducted under complex environmental, market and economic conditions this past season. Major wind events across numerous ownerships in the County caused severe damage to the forest resource. The flexibility afforded by OBF to properly plan and execute operations to meet the daily challenges that our people face was a tremendous asset to closing a successful operating year.

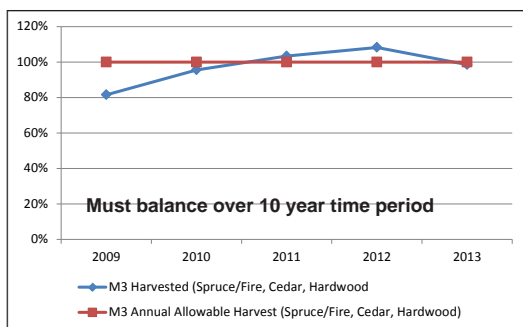
Tress Planted 2009-2013



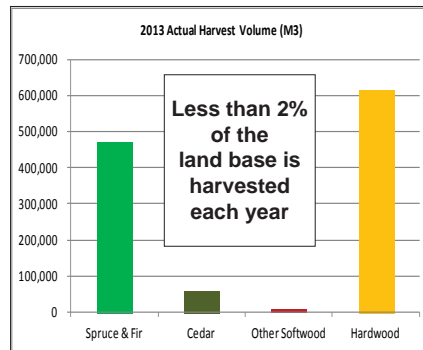
Forest Loss due to Wind, Fire, Insects and Disease



Harvesting by Species




2013 Actual Harvest Level Volumes (cubic meters)



FOREST MONITORING RESULTS



As part of our commitment to improve the health, growth and long term yield from our lands, we continuously monitor forest health, development and growth and yield (often in cooperation with the MFS). Monitoring is achieved through staff training and observation, stakeholder consultation and input, regular aerial reconnaissance, and an intensive ground sampling program. The following provides a sample of our 2013 monitoring program.

FOREST SURVEYS			
	1 st Year Planted Stand Survival Plots	85%-95%	Survival issues that are believed to be related to weather extremes in July.
	2 nd Year Planted Stand Survival Plots	84%-90%	Survival issues that are believed to be related to weather extremes over last two years.
	3 rd Year Harvest Surveys	-	Not surveyed in 2013.
	5 th Year Planted Stand Survey	2478 acres	Were surveyed and 98% were found to be free from significant competition.
	10 th Year Planted Stand Survey	3883 acres	Were surveyed and 70% of the polygons had areas with significant natural competition that now required intermediate thinning treatments.
	High Conservation Value Forest (HCVF) Survey	7 areas	No management activities occurred in or adjacent to any HCVF. No significant changes have occurred within the designated areas. Old trees continue to show signs.
	Insect Monitoring	-	Irving foresters assisted MFS personnel with insect monitoring, primarily looking for spruce budworm activity (see: MFS website for regional results of findings).

In addition to monitoring forest health and growth, we are obligated and required to measure our impact on the environmental and social aspects of our operations. We strive to protect our environment with programs to improve operations, lessen our impact on water resources and improve our handling of dangerous goods. Operations improvement is the focus of our daily work. It covers all of our operation from planning to reforestation of a harvest area. Programs to improve operations include sustainability of wood supply, public education and communication in forest management affairs, soil conservation by controlling equipment rutting, conservation of biodiversity by protection of habitat, respecting forest cover type distribution and site specific and forest level habitat protection.

Water protection programs include managing our use of dangerous goods near water, careful planning and management of riparian areas, management of siltation from harvest areas, proper installation and maintenance of watercourse crossings, and strict control of activities within municipal water supply areas. These programs all follow existing government regulations and are part of all staff and contractors' daily routine.

The environmental and social impact of our operations is monitored by following an Environmental Management System (EMS) that allows us to record, monitor and respond to incidents as they are reported. Our EMS system is based on a "top to bottom" communication system. Corporate leadership to our regional team is flowed throughout the operations, staff meetings are regular, and operational issues in the form of Incident's and Non-conformances are discussed between staff and contractors every week. All Incidents and Non-conformances are entered into a database where corrective actions are reported, prioritized and tracked to monitor trends for determining where we are off plan and where improvements need to be made.

STAKEHOLDER ENGAGEMENT



Meeting with and formally addressing stakeholder concerns is part of our 3rd party certification requirements. We have met both formally and informally with individuals and organizations in an effort to incorporate responsible ideas, guidance, suggestions, information/data, positive comments, complaints and concerns into our management planning process.

Organization	Nature of Business
Maine Natural Areas Program	Gathering spatial information on any recent finds of Maine's rare and invasive plants as well as providing State with details on JDI staff finds. This is done annually.
Maine Inland Fisheries & Wildlife	Gathering spatial information on recent finds of Maine Endangered/ Threatened fauna species and provide details to the State on any JDI staff finds. This is done annually. Spent time with MIFW staff in the field to confirm the the use of a number of GB Heron colonies. Regular discussions on issues such as deer and moose management, heron colonies, etc.
Maine Heritage Preservation Commission	Gathering spatial information on any recent archeological finds on JDI land.
University of Maine (Presque Isle)	Discuss operational constraints on our harvesting equipment that will be in the vicinity of an historic native site.
New England Wildflower Society (NEWFS)	NEWFS provides JDI with detailed information on the status of particular rare plant sites on JDI land in northern Maine.
Manomet Center for Conservation Sciences	Advice on rare/uncommon forest communities and late successional forests
Penobscot Environmental Consulting	Advice on retaining and recording Legacy Trees
SFI Fisheries Improvement Network (FIN)	MFPC / SFI led group consisting of Landowners, State and ENGO groups dedicated to improving fish habitat state-wide.
Maine Stream Connectivity Network	Regulator, landowner ENGO group formed to improve fish and aquatic connectivity on Maine watercourses.
MFPC Wildlife Technical Committee	Landowner group who discuss pressing fish & wildlife issues, usually with state regulators and user groups like SAM.
Cooperative Forest Research Unit (CFRU)	UMO researcher / landowner sponsored body which develops and researches a variety of forestry and wildlife interaction issues.
Maine Department of Environmental Protection	Issues concerning invasive forest plant species.

In 2013 we also met with the following:

- Numerous Individuals
- Local Town Boards
- Native Groups
- Sportsmen Organizations
- Technical Schools
- Other Landowners
- Numerous Forestry Organizations
- Small Forest Landowners Association
- Maine Snowmobile Association Clubs
- ATV Clubs
- North Maine Woods
- Allagash Wilderness Waterway
- Maine Forest Service



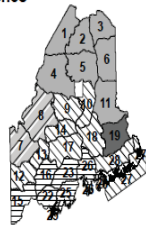
RECREATIONAL USE



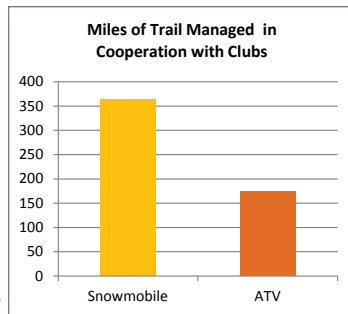
Irving Woodlands LLC continues to provide historic, traditional recreational opportunities. Both inside and outside the North Maine Woods framework of Aroostook County, there is a well developed culture that provides public access to private land for engaging in traditional recreational uses. The working relationships developed with both individuals and groups from this sector has been mutually beneficial to all. Continued support of traditional uses such as hunting, fishing, trapping, hiking on our lands is welcome.

Hunting Zones

- Week 1,2
- ▣ Week 1,2,3
- ▣ Week 2
- ▣ Week 2,3
- November



Week 1: September 23 - September 28, 2013
 Week 2: October 14 - October 19, 2013
 Week 3: November 4 - November 9, 2013
 November Season: November 4 - November 30, 2013
 November 2, 2013 (Maine Residents Only)



North Maine Woods, Inc.

P. O. Box 425, 92 Main Street, Ashland, Maine 04712

"Experience the Tradition"



INVESTING IN MAINE



WE ARE COMMITTED TO CONTINUOUSLY IMPROVING EVERY ASPECT OF OUR MANAGEMENT AND OPERATIONS.

We want to be partners and good neighbors and we continue to actively work to support our State, our communities, workers, contractors, suppliers and customers.

- ✓ *In 2013 we worked with 30 commercial outfitters offering outdoor experiences in our woodlands.*

NEW SAWMILL AT ASHLAND

- ✓ \$30+ million investment
- ✓ 63 new full time jobs
- ✓ Local contractors assisting with construction
- ✓ State of the art technology

LOCAL MAINE CONTRACTORS WORKING ON NEW SAWMILL AT ASHLAND

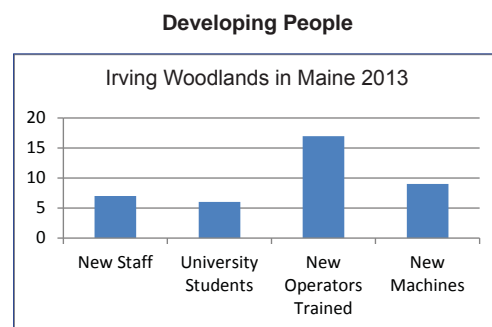
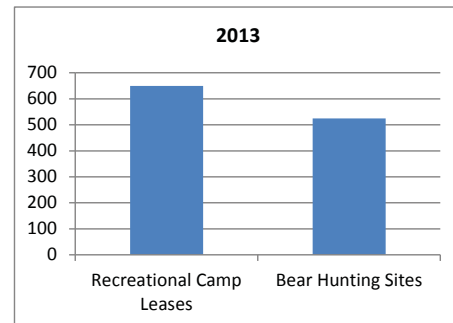
- ✓ Buck Construction
- ✓ Cianbro
- ✓ K-Pel
- ✓ PNM Construction
- ✓ Soderberg Construction
- ✓ Underwood Electric

2013 INVESTMENTS IN GROWING HEALTHY FORESTS

- ✓ 3,000,000 trees planted
- ✓ 3300 acre forest thinning program
- ✓ \$3,000,000 invested in 2013

ADDITIONAL PROJECTS UNDERWAY

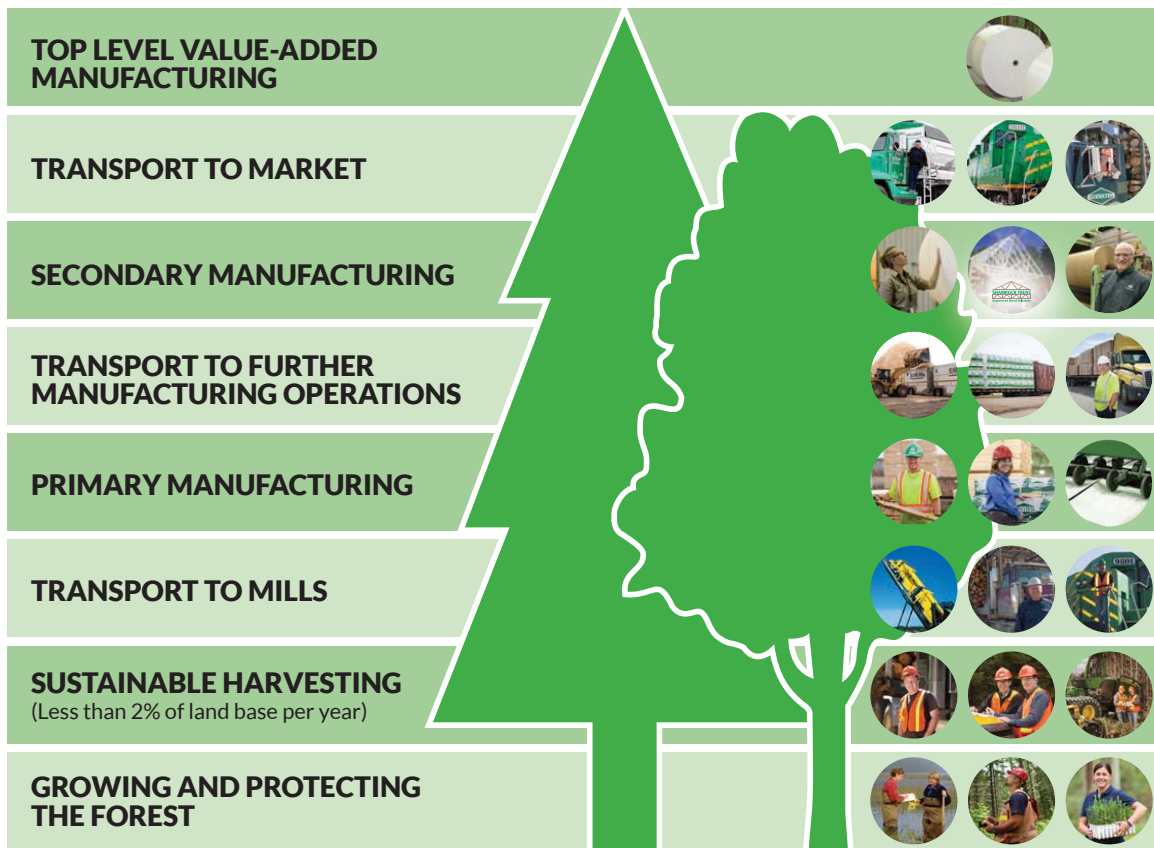
- ✓ Revised Riparian best management practices (BMP) for 2014
- ✓ Further Development of Specialized Riparian harvest crews
- ✓ Reviewing LIDAR mapping capabilities
- ✓ Thinning implementation of commercial thinning operations



OUTCOME BASED FORESTRY SUSTAINS A VALUE-CHAIN OF JOBS THROUGHOUT MAINE



HEALTHY FORESTS • GROWING JOBS • VIBRANT COMMUNITIES



Outcome based forestry means a competitive wood supply to many non-Irving mills in the state, including:

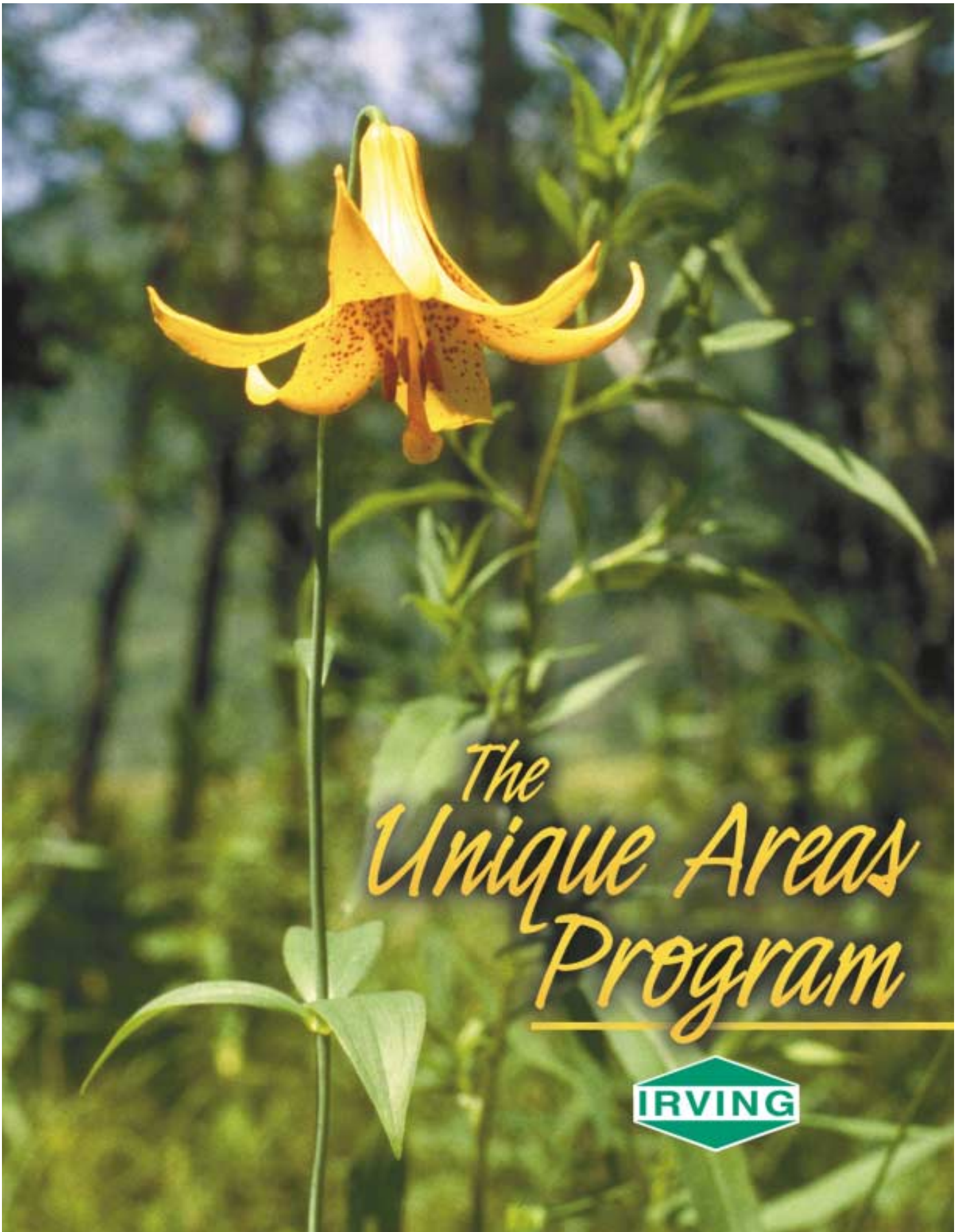
B & A Fort Kent
C&W Kennedy Farms
Carrier Chip Plant
Columbia Forest Products
Costigan Chip Plant
Gardner Chipmills

Huber
Katahdin Paper
Louisiana Pacific
Lumbra HW Sawmill
UPM - Madison

Moose River-Jackman
New Page - Rumford
Old Town
Pleasant River Lumber
Re-Energy Fort Fairfield

Sappi
Skills Inc
Verso Bucksport
Verso Jay
Woodland Pulp

Appendix E – Irving Unique Areas Program



*The
Unique Areas
Program*



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Azor's Beach.
Remote "pocket beach" along the Fundy coastline harbour. Uncommon plant species such as Pink Lady's Slipper (*Cypripedium acaule*).

Cover photo:
Canada Lily (*Lilium canadense*).
Grows in the rich alluvial meadows and woods along larger streams and rivers.
Can grow up to 2 meters tall.

The Unique Areas Program



White variety of the Red Trillium (*Trillium erectum*)
Uncommon - Skin Gulch,
New Brunswick.



Bull frog (*Rana catesbeiana*)
Tuadook Lake,
New Brunswick.



Great Blue Heron (*Ardea herodias*)
Black River Estuary,
New Brunswick.



Old boiler remains. Tusket
River, Nova Scotia.

At J.D. Irving, Limited, meeting the needs for wildlife conservation within a sustainable, working forest is one of our most important goals. The maintenance of natural systems and biological networks in both our leased and freehold forests is key to sustainable forest management and the legacy we leave for future generations. This ideology is reflected in our policies aimed at minimizing or eliminating forestry's impact on the environment. Some examples of what our environmental policies have produced include: wider watercourse and wetland management zones, extensive involvement in research activities aimed at monitoring and improving wildlife populations and an ongoing search for more environmentally sensitive harvesting equipment and techniques. All of our district foresters are trained in the implementation of visual landscape

forestry techniques, and incorporate these strategies in their management plans.

A popular means for the preservation of wildlife and the ecological integrity of natural systems has been to designate parcels of land as conservation areas, in which human activities are either regulated or prohibited. Indeed, such areas can serve as important strongholds for certain species which require undisturbed areas in which to thrive.

Our company feels that the Unique Areas Program is a fresh approach for addressing environmental conservation issues. The program is designed to encompass a wide range of values commonly shared by today's society, with respect to the conservation of our natural and cultural heritage. This program serves to compliment our company's many other efforts at addressing important environmental issues by recognizing the multitude of lesser-known, yet significant or "unique" elements found in our working forests.

Harvesting operations in these unique areas are governed by site-specific



Young bull moose (*Alces alces*)
Fort Kent District, Maine.

management instructions called prescriptions. In many cases, the prescription forbids harvesting within a given site. In areas where limited harvesting is permitted a management plan is formulated with the

intent of preserving the elements that give these sites their significance.

Osprey
(*Pandion haliaetus*)
A bird once protected
under New Brunswick's
Endangered Species Act
and now listed as
"secure".



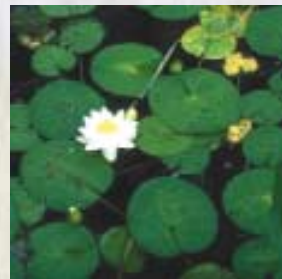
The Unique Areas Program



American Bittern (*Botaurus lentiginosus*)
East Brook Marsh,
New Brunswick.



White variety of the Pink
Lady's Slipper (*Cypripedium
acaule*)
Uncommon, Tuadook Lake,
New Brunswick.



Fragrant Water Lilly
(*Nymphaea odorata*)
Uncommon, Hatfield Point,
New Brunswick.

Historical Overview

Special areas have been set aside by J.D. Irving, Limited since the early 1980's in the State of Maine, as part of the Maine Critical Areas Program. A total of 29 sites were protected, after having been identified as containing sensitive elements or features deemed worthy of conservation by the State.

In 1990, a request was sent from J.D. Irving, Limited head office to all our woodlands districts, asking that special sites be recorded and accompanied by a management plan that would preserve

their features.

From 1993 to 1995, J.D. Irving, Limited cooperated with a project sponsored by the New Brunswick Department of the Environment and the Department of Natural Resources & Energy entitled "Environmentally Significant Areas". The Nature Trust of New Brunswick established a set of criteria to identify and catalogue environmentally significant sites throughout the province. Hundreds of sites were proposed, many of them within our company's freehold and leased lands. It was during this time that the company expanded the Unique Areas Program.

There are over 320 Unique Areas identified on J.D. Irving, Limited freehold and Crown leased lands. Some of these were

originally identified by the provincial project, but our own field staff has proposed many more over the years since this program was initiated.

The boundaries of any given Unique Area are typically governed by the element that is

targeted for preservation and its habitat requirements. Some sites are as small as 0.5 hectares (1.2 acres), while others exceed thousands of hectares. To date, the average size of a Unique Area is approximately 184 hectares (454 acres).



Old Conifer Stand, Basley
Lake. Rare plant site,
New Brunswick.

Black River Estuary, New Brunswick.
Important waterfowl breeding area.



The Unique Areas Program



Glaucus Lettuce (*Prenanthes racemosa*)
Uncommon, Big Black River, Maine.



Pure Silver Maple (*Acer saccharinum*)
Flood plain forest.
Portobello Stream, New Brunswick.



Small-flowered Gerardia (*Agalinus purpurea*)
Very rare, Southwestern Nova Scotia.

Project Objectives

The following are the broad-based objectives of the Unique Areas Program:

- Preservation of rare and uncommon species or significant landscape features.
- Preservation of "indicator" species from which we may monitor for changes in the environment caused by man or nature.
- Establishment of a database which will aid regional scientists and policy makers in determining the abundance and distribution of species or natural features.
- Public Education: Use of the information within the newly established database to formulate better management plans for unique areas, educate the public on how our company manages its resources and invite their support in identifying significant sites.

Protection of rare or uncommon species.

These include any type of plant or animal that is considered endangered, rare or uncommon in their distribution and/or abundance on a national, provincial or regional level, according to

the available literature and accredited agencies or sources. Most of these species are not covered under any federal or provincial protection measures. Of the approximate 400 rare or uncommon plant species in New Brunswick, only one, the Furbish's Lousewort (*Pedicularis furbishae*) is officially recognized as rare or endangered. Furthermore, some species can be considered as common in certain portions of our operations, but not in others. For example, the Eastern Cedar (*Thuja occidentalis*), which is common in New Brunswick and Maine can be quite rare in Nova Scotia.



Meadow Beauty (*Rhexia virginica*), South Western Nova Scotia.
Nationally rare.

Indicator species.

Sensitivity to changes within the environment is often reflected in species reproductive success. Frogs and salamanders are generally recognized as indicator species due to their sensitivity to a number of environmental factors. Areas with a variety of amphibians are considered unique by this program.

Distribution and abundance of rare and uncommon species.

Comparatively little research has been carried out on the status of rare and uncommon species. Accurate and up-to-date information on their true distribution is often difficult, if not impossible to obtain. The information compiled from the ecological inventories completed on each site will assist the scientific community in assessing the distribution of these rare and uncommon species.

Public education on issues of forest ecology and forestry have always been important to J.D. Irving, Limited.

Information gathered on plants, animals, forest communities, geological historical and archeological sites through the Unique Areas Program is an educational tool that, we as a company, can use to better manage our lands. This database of information will ultimately raise the awareness and appreciation of the many features found in our forests by both J.D. Irving, Limited staff and the general public.

Botanist Harold Hinds (in blue) with Charles Neveu (J.D. Irving) at a deep glacial ravine in Northern New Brunswick where rare plants occur.



Spotted Sandpiper (*Actitis macularia*)
Grand River Oxbows, New Brunswick.



Pickerel Frog (*Rana palustris*), Kennedy Lakes Ecological Reserve, New Brunswick.



The Unique Areas Program



Snake mouth (*Pogonia ophioglossoides*)
Uncommon, New Scotland Bog, New Brunswick.



Jillian Weldon standing beside a large White Pine (*Pinus strobus*)
Oram Lake, New Brunswick.



Bog laurel (*Kalmia polifolia*)
Black Brook District, New Brunswick.

Unique Area Selection and Evaluation

Potential sites are often proposed through dialogue with biologists, foresters, concerned citizens and environmental groups or through scientific or historical literature. Once this information is obtained, the site undergoes an ecological survey. An inventory of the plant and animal species, as well as other features on the site is compiled. Photographs are also taken in the documentation process. Scientifically based decisions are then made to determine whether the site qualifies as a unique area. If accepted, a boundary is delineated and a management recommendation is created to ensure the preservation of the feature(s). All information relating to any of the approved sites such as coordinates, descriptions, management recommendations, a sampling of photographs, species lists is gathered in a master database.

The number of unique areas within our database will not remain static. As public awareness of this program increases it is expected more sites will be proposed and will likely be accepted as unique areas. However, as nature is a dynamic force, it is also likely that

some sites may be removed from the database. For example, known heron or eagle nesting sites will eventually be abandoned because of fouling or perhaps wind damage, so these sites would not remain unique.

Silver River area, Nova Scotia.
Home of several uncommon plants.



The Unique Areas Program



St John River Northern Maine. Habitat for rare plants.



Pileated woodpecker cavity. Tusket River, Nova Scotia.



Northern Painted Cup (*Rhynchospora alba*) Rare plant found within ledges, Northern Maine.

Unique Area Criteria

The following are the criteria that are used to define the Unique Areas on lands managed by J.D. Irving, Limited. At least one of these criteria is required for a site to be designated and become a part of this program. Deer wintering areas, streams and rivers are generally not included as these sites already receive special management considerations to ensure their viability. However, portions of these may be included in the program for other reasons such as the presence of rare species of plants or animals.

Presence of rare and uncommon species

These include any species of plants or animals considered endangered, rare or uncommon on a national, provincial or even regional level. Bald Eagle (*Haliaeetus leucocephalus*) and Osprey (*Pandion haliaetus*) nest sites are included in this category. Although the population numbers of these birds have been improving over the years, they are still considered as significant species. Great Blue Heron (*Ardea herodias*) nesting colonies are also taken into consideration, not because of the birds rarity, but because of the fact that they

nest in colonies making a large number of them vulnerable to a single nearby disturbance.

Examples:

1- Wiggins Brook (Fort Kent District, Maine)

This site is one of a number occurring along the banks of the St. John River where the Furbish's Lousewort (*Pedicularis furbishae*) is known to occur. This species is not only rare, but has not been identified anywhere else in the world other than on this section of the river between the mouth of the Aroostook River and the mouth of the Big Black River. It seems to be habitat specific, occurring in small patches and does not appear to tolerate competition from other plants. The plant grows best on the river's ice scoured shorelines.



Furbish's Lousewort (*Pedicularis furbishae*) Very rare. St. John River, Maine.

A number of other species of rare and uncommon plants with very similar habitat requirements are also known to occur at this location. The small size of the site gives it one of the highest densities of rare or uncommon plants in the program.

2- Boston Brook Plateau (Black Brook District, New Brunswick)

The site is a large floodplain along the Restigouche River near the line between Madawaska and Restigouche counties. Annual deposits by the river have created a very rich and dark soil which supports a wide range of plant species.

The Boston Brook Plateau is one of a few areas along the Restigouche River where the Modest Aster (*Aster modestus*) is known to occur. This rare plant is known as a disjunct specie. It usually grows much further west of our region, but has a small population in New Brunswick. Some theories



Modest Aster (*Aster modestus*) Very rare, Boston Brook, New Brunswick.

Anticosti Aster (*Aster anticostensis*) Very rare. St. John River, Maine.

suggest that portions of the Restigouche River valley may have been spared the impact of the last glaciation, and would have remained ice-free. This may have allowed these plants to survive only in this valley.

A number of other rare or uncommon plants have also been identified at this site. Among these are the Small-flowered Anemone (*Anemone parviflora*), Braun's Holly Fern (*Polystichum braunii*) and the Canada Wild Rye (*Elymus canadensis*).



Grass of Parnassus (*Parnassia glauca*). Uncommon to rare. Big Black River, Maine.



The Unique Areas Program



Wood Horsetail
(*Equisetum sylvaticum*)
South Carrying Road Lake
Wilderness Area, Southwest
Nova Scotia.



Entrance to Lost Brook Cave,
Southwestern
New Brunswick.



Mossy Rocks
Third Lake Flumes,
Southwest Nova Scotia.

Critical habitats

Critical habitats are crucial to the sustainability of rare or uncommon species of plants or animals. Some caves, for example, provide roosting and hibernating areas for overwintering bats, while salt springs provide essential minerals and salts for populations of herbivores such as deer and moose.

Other forms of critical habitats are areas that are relied upon by migratory species found only in our region at certain times of the year. A case in point is the extensive mudflats in the upper reaches of the Bay of Fundy. These flats are essential as a feeding and roosting area for southward migrating shorebirds which normally inhabit the arctic and sub-arctic region of Canada.

Habitats that support a higher than usual diversity and density of plant or animal species are also included within this category. These are often the result of a combination of factors such as soil richness, moisture and sunlight conditions. Together, these characteristics may increase a site's capacity

to support an increased diversity of species.



Migratory Sandpipers at Johnson's Mills,
New Brunswick.

Examples:

1- Black Brook at Elmsville (St. George District, New Brunswick)

Generally, wetlands contain high concentrations of many different kinds of plants and animals, and the Black Brook Marsh is no exception. The



View of Black Brook Marsh in spring.

complex nature of this site with its many small ponds, deadwaters, grassy marshes, streams and forest stands gives this site high biodiversity. It is used extensively by many different species of waterfowl as a breeding area during the spring and summer months.

Black Brook also serves as an important resting area for these birds during their north/south migration. Many different kinds of furbearers such as beaver, muskrat, otter and mink also thrive here. The potential for the occurrence of rare species of plants is high.

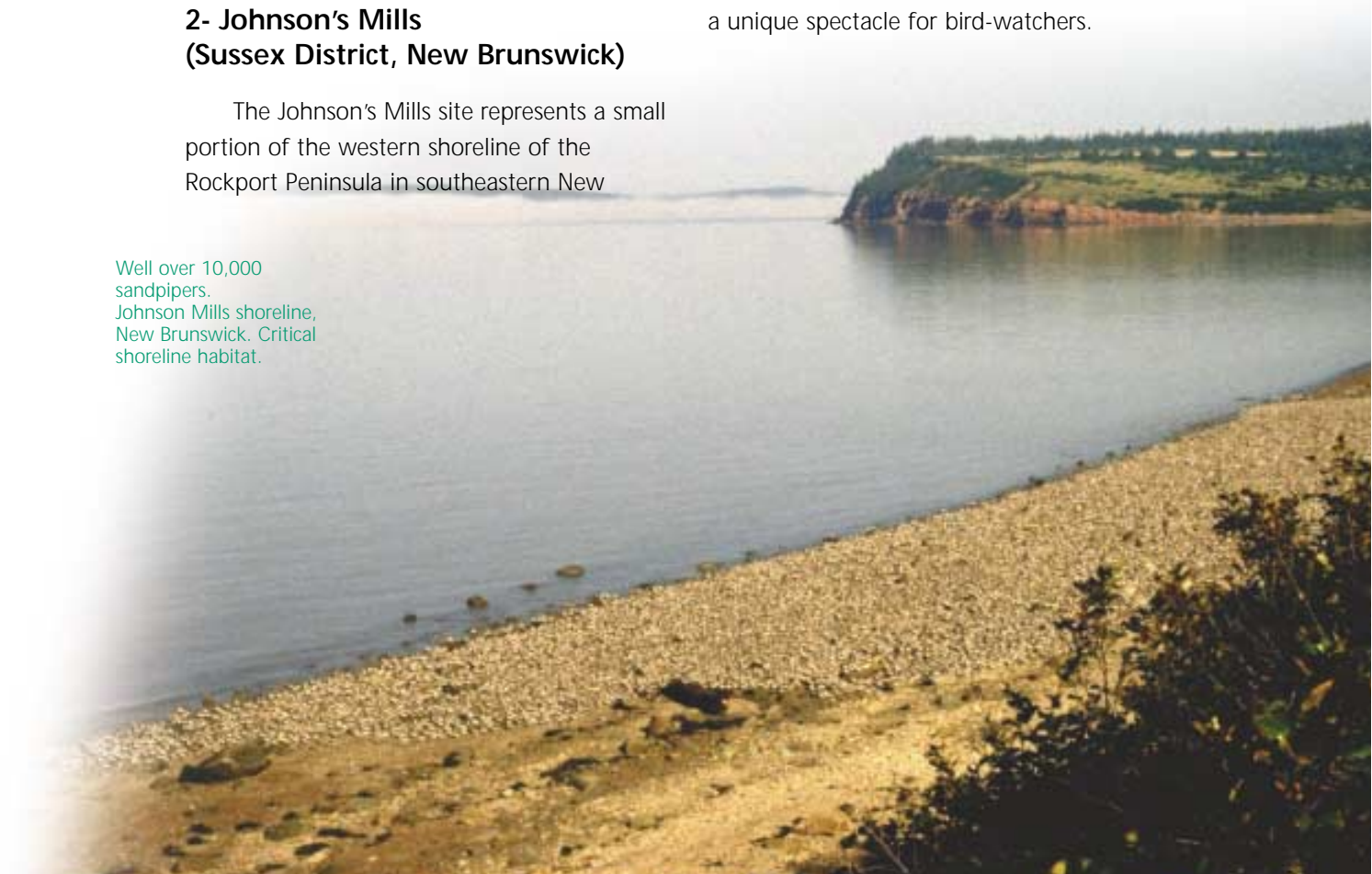
2- Johnson's Mills (Sussex District, New Brunswick)

The Johnson's Mills site represents a small portion of the western shoreline of the Rockport Peninsula in southeastern New

Brunswick that is part of the upper reaches of the Bay of Fundy. It has long been recognized as a feeding station for countless migratory shorebirds during the spring and mid summer months.

The extensive tidal mudflats located here support the vast numbers of the worms and arthropods that these small birds rely upon to build the reserves they need to complete their southward migration to their wintering areas in South America. Twice a day at high tide, thousands of these birds are forced to retreat to the shore where their concentration provides a unique spectacle for bird-watchers.

Well over 10,000 sandpipers.
Johnson Mills shoreline,
New Brunswick. Critical
shoreline habitat.



The Unique Areas Program



Marine fossil in rock from ancient sea. Over 260 km (162 miles) from the Atlantic Ocean. Square Lake, Northern Maine.



Pitcher Plant flowers (*Sarracenia purpurea*) Tuadook Lake, New Brunswick.



Star Earthball (*scleroderma polyrhizum*) Irving Eco-Centre: La dune de Bouctouche, New Brunswick.

Outstanding, rare or uncommon stand types

This criterion references forest stand types, or individual trees, that have attained an unusual size, or are in themselves rare or uncommon for a given area. A stand containing Red Oak (*Quercus rubra*) in Northern New Brunswick or Maine is considered significant because this region is close to the northernmost limit of its distribution.

Examples:

1- Sabbies Area Hemlocks (Chipman/Doaktown District, New Brunswick)

This site in the area of the Sabbies River in central New Brunswick supports a stand of trees that is largely composed of old Eastern Hemlock



Eastern Hemlock (*Tsuga canadensis*)

(*Tsuga canadensis*). A number of these are approximately one metre in diameter at chest height. Similar sized trees of this specie in



other areas have been measured to be over 400 years old. This however may not be true for these at Sabbies, as soil richness and other factors have a large influence on tree growth.

As is often seen in older Eastern Hemlock stands, the diversity of species growing on the ground is low because little light is able to penetrate the canopy. This type of stand can also provide shelter for animals like deer during the winter months.

2- Yankeetuladi (Fort Kent District, Maine)

This stand of hardwood in northern Maine is reported to be a remnant of old growth forest. It is mainly composed of Sugar Maple of varying ages, with a number of relatively large and old specimens. Some maples are reported to be 230 years of age or more. Some of the older trees that have died and fallen over have left openings in the canopy,

allowing for Sugar Maple seedlings to develop into young trees, making portions of the stand uneven aged.

This site has also received attention from agencies such as the Nature Conservancy, as a good representative of old growth hardwoods in this region. The variety of other plant species found here is typical for this type of habitat but can nonetheless be judged as a rich area because of their overall density and healthy appearance.

Old Sugar Maple (*Acer saccharum*) at Yankeetuladi, Maine.



Irving forester Marc Deschênes with summer student biologist Peggy Pinette at Yankeetuladi, Maine.



The Unique Areas Program



Eastern White Pine (*Pinus strobus*)
Canaan Rapids,
New Brunswick.



Turtle Head (*Chelone glabra*)
Wiggins Brook, Northern
Maine.



Yellow Lady Slipper
(*Cypripedium pubescens*)
Deersdale District,
New Brunswick.

Unique geological features

Unique geological features include sites such as rare geological formations, fault lines that define distinct types of bedrock, significant and representative geomorphological phenomena such as eskers, moraines and drumlins left behind on the landscape by the flow of ancient glaciers and rivers. Another element within this criterion is fossils. These may be found in the sedimentary rocks of some locations along the coast of the Bay of Fundy as well as marine fossils in northern Maine limestone.

Examples:

1- Balancing Rock (Weymouth District, Nova Scotia)

This unique site in south-western Nova Scotia is the result of some unlikely circumstances. This portion of the province is littered with granite boulders, including some very large ones. These boulders, also called erratics, were deposited here by glaciers 15,000 to 20,000 years ago during the last glacial era, and may have a point of origin hundreds of kilometres from their

present location.

At this site, it appears that one such boulder, weighing roughly 40 metric tons, was deposited overtop what would seem to be a smaller boulder buried in the ground, or possibly a protrusion of bedrock. Given its location on a small knoll, this somewhat intimidating feature does give visitors a certain sense of awe.



Balancing Rock, Nova Scotia.

2- Otter Brook Canyon (Deersdale District, New Brunswick)

Located in a valley that was severely burned by a large forest fire in 1982, the Otter Brook site has a number of interesting features. The most important of these is a narrow but deep canyon, eroded in a layer of brittle bedrock by the rushing water. River canyons in this region are rare, but are usually the result of fault activity, where two portions of the earth's crust pull away from each other. The Otter Brook canyon may be the only example of its kind in New Brunswick that was created by water erosion. At the mouth of this canyon are the remains of an old dam at the bottom of the stream.

Below this dam, on the southern bank of the stream, is a cavern, carved out by the

rushing water. The cavern is 4 or 5 meters deep and has several round pillars left behind by the brook's erosion action at its entrance. As a result of a severe fire in the valley the poorly regenerated site allows for a clear view of a number of glacial deposits in the form of drumlins and moraines scattered on the landscape.



Cave at mouth of Otter Brook Canyon, Deersdale,
New Brunswick.

Mouth of Otter Brook Canyon, with old dam remains in the stream.
Deersdale,
New Brunswick.



The Unique Areas Program



Orchard Bog. Northern Maine. Home to many uncommon plant species.



Royal Fern (*Osmunda regalis*) Rarely found in Northern areas of N.B. and Maine.



Black ducks (*Anas rubripes*) ducklings. Northwest, New Brunswick.

3- Joggins Area Cliffs (Nova Scotia East District, Nova Scotia)

This portion of Nova Scotia's Fundy coastline is known by many paleontologists around the world for the richness of its fossils. These fossils are largely the remnants of plants that existed here during the Carboniferous era hundreds of millions of years ago when the world was covered in tropical forests and swamps.

The fossilized bones of small bird sized dinosaurs have been located near the town of Joggins. These fossils are easily found in the shoreline cliffs.



Joggins Area Fossil Cliffs, Nova Scotia.



Plant fossil at Joggins Area Fossil Cliffs, Nova Scotia.

Historical and archeological features

Sites of higher than average cultural value are included in this category. These may include old logging, fishing or hunting camp locations, long abandoned and with only a few scattered remains to indicate their locations. Some sites are designated to preserve more significant settlement areas, where old stone foundations and structures can still be located. The category also includes sites of importance to native culture, like traditional camp locations and meeting places, where traveling people would have gathered.

Example:

New France Settlement (Weymouth District, Nova Scotia)

The New France Settlement site is one of the more historically interesting sites of the Unique Area Program. Jean-Jacques Stehelin established this settlement in 1892, as a community

based entirely on forestry. Located between Langford Lake and Tusket Lake, this substantial site once boasted a sawmill, holding pond, a generator driven by a water wheel and a wooden railway to the town of Weymouth. Since this community had electric power with lights along its streets long before most of the rest of Digby County, it was nicknamed Electric City.

Though very modern for its time and rich in culture, the settlement was short lived. Declining lumber markets and the onset of World War I brought about its demise. This settlement still remains in the form of stone foundations, well sites and old dumpsites. The old wooden railway bed location, along with remains of old ties, can still be discerned in areas between the settlement and Weymouth.



Old stone foundation at New France.

The Unique Areas Program



Monkey Flower (*Mimulus ringens*). Grows in rich soils along streams and marshes. Sussex District, New Brunswick.



Basley Lake. Rare plant site. Northwest, New Brunswick.



Goodfellow Lake. Rare plant site. Central New Brunswick.

Sites with high aesthetic appeal

Aesthetic appeal is a rather subjective term. This category includes areas that can arguably have an impact on human well being. Waterfalls are, by and large, visually pleasing to the public and also are said to promote a relaxed state of mind. As such, certain falls are designated as unique. Impressive mountain vistas may also be considered within this category.



Unusual type of erosion pattern in bedrock. Christie Brook, Nova Scotia.

Examples:

1- Christie Brook & Falls (Nova Scotia East District, Nova Scotia)

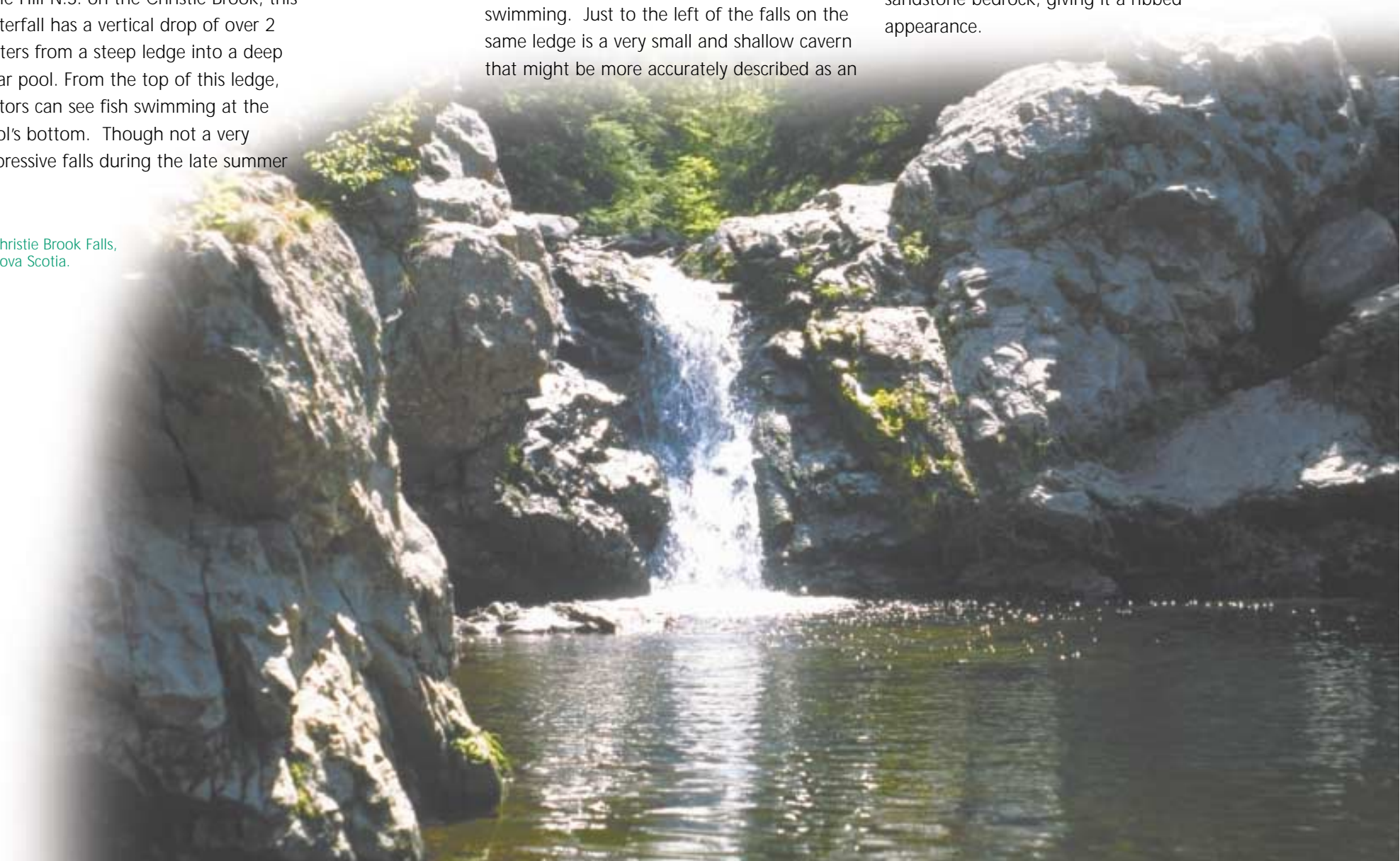
Located near the Lewis Sawmill at Bible Hill N.S. on the Christie Brook, this waterfall has a vertical drop of over 2 meters from a steep ledge into a deep clear pool. From the top of this ledge, visitors can see fish swimming at the pool's bottom. Though not a very impressive falls during the late summer

months, the worn rocks atop the ledge indicate a much more significant flow during the spring freshet.

Given the well-beaten trail leading here, the location appears to be a popular spot for activities such as picnicing, fishing and swimming. Just to the left of the falls on the same ledge is a very small and shallow cavern that might be more accurately described as an

overhang shelter, which appears to be used as a den by porcupines. Another feature of this site is found further downstream where the valley becomes more narrow and steep. Here the stream has smoothed out interesting patterns shaped like parallel troughs in the sandstone bedrock, giving it a ribbed appearance.

Christie Brook Falls, Nova Scotia.



The Unique Areas Program



Nova Scotia Flat-topped Goldenrod (*Euthamia galetorum*). Nationally rare. Southwest, Nova Scotia.



Tuadook River Deadwater. Important habitat for moose and waterfowl. Deersdake District, New Brunswick.



Left hand branch Falls Brook. Rare plant site. Northwest New Brunswick.

2- Spectacular Falls (Chipman/Doaktown District, New Brunswick)

Located northwest of Doaktown in a remote location, Spectacular Falls is characterized by two water falls with a total vertical drop of over 3 meters (9.8 feet). It is situated at the bottom of a small, narrow gorge with steep rock walls.

In addition to its aesthetic appeal, it also harbours some interesting plant

species such as the uncommon Small-flowered Wood Rush (*Luzula parviflora*) and the rare Broad-lipped Twayblade (*Listera convallarioides*). The presence of these plants and the abundance of other species at this site may be a result of the increased humidity, released by the falling water in this small, narrow gorge.

Spectacular Falls, New Brunswick.



Broad-lipped Twayblade (*Listera convallarioides*) Rare, Spectacular Falls, New Brunswick.



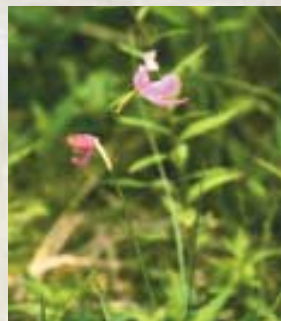
The Unique Areas Program



Layered limestone.
Rare plant site.
Big Black River, Maine



Lapland Buttercup
(*Ranunculus lapponicus*)
Very rare, Northern
New Brunswick.



Grass-pink (*Calopogon tuberosus*)
Uncommon, Big Salmon
River, New Brunswick.

Our Commitment to the Future

The Unique Areas Program is an integral part of our woodlands management and as such, will be an ongoing effort, evolving to meet the needs of both forestry and environmental conservation. Although many goals have been attained, this is still a new program and much remains to be done. Roughly 80% of the present Unique Areas have been surveyed. The remainder, along with many new sites being

recommended by the general public and company staff, must be inventoried and validated. Periodic monitoring of the more sensitive sites will be necessary to verify the success of the various management prescriptions for maintaining their respective unique elements. Also, more time will be spent surveying some of the larger sites, which to date may have only been partly investigated.

If you think you may know of a site that might qualify as a Unique Area on our managed lands, please contact us and tell us about it.

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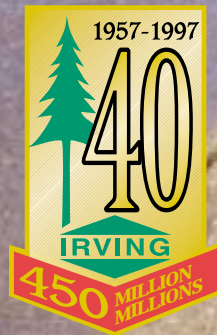
Sabbies Lake wetland.
Important moose calving area.
Chipman District, New Brunswick.





Franklin Lake beach, South-West Nova Scotia.

White sandy beach resulting from past glacial activity.



J.D. Irving, Limited



J.D. Irving, Limited
1997 Award Winner

Appendix F – Rusty Blackbird Study

2012 Rusty Blackbird Detections on J.D. Irving, Ltd. Lands Square Lake and Long Lake Regions



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24 July 2012

Introduction

Rusty Blackbirds, once-common breeders in boreal wetlands across NY, VT, NH, and ME, have experienced chronic long-term and severe short-term population declines. Recent estimates suggest that Rusty Blackbird populations have declined by 85-99% over the past 40 years; Breeding Bird Survey data document a 10% decline per year for the last 30 years (Greenberg and Droege, 1999). In a recent study of boreal forest-breeding birds, Rusty Blackbirds experienced the steepest declines, leading scientists to state that the Rusty Blackbird is “one of the most precipitously declining species in North America” (Niven et al, 2004). Until 1999, these alarming losses went unrecognized; only for the last decade have scientists finally struggled to understand the roots of this decline.

Rusty Blackbirds breed in boreal forest wetlands from northern New England throughout Canada to Alaska. While the eastern portion of the breeding range may have once contained the highest densities of breeding birds (Erskine, 1977), this region may have experienced the steepest population declines (IRBTG, 2009). Surveys of wetlands throughout Maine between 2001 and 2007 documented a range contraction of 160 km since 1983 (Powell, 2008), and data from Vermont’s second-generation Breeding Bird Atlas also suggest that the Rusty Blackbird breeding range is shrinking in this state (Fisher and Powell, in prep). The Rusty Blackbird is listed as a Species of Special Concern in NY, VT, NH, and ME, and the IUCN Red List denotes this species as globally Vulnerable. Despite recent research, however, scientists and landowners lack a clear understanding of the driving forces behind these declines, or the requirements for this species to persist. This information is critical in forming effective management plans for the conservation of this vulnerable species.

Rusty Blackbird declines may reflect a broader crisis across a sensitive ecosystem. Rusty Blackbirds, the avian species most closely tied to boreal forest wetlands (Niven et al, 2004), are considered a “poster child” for boreal forest conservation (IRBTG, 2009). Boreal forests suffer from wetland drying, logging, acidic precipitation, and mercury accumulation, and several diverse species that also breed in these forested wetlands, such as the Horned Grebe (*Podiceps auritus*), Lesser Scaup (*Aythya affinis*), and Lesser Yellowlegs (*Tringa flavipes*), are suffering similar severe and alarming declines (Greenberg and Matsuoka, 2010). Understanding factors that influence Rusty Blackbird declines in the boreal forests of North America will advance the conservation of this potentially threatened ecosystem.

To determine the current status of Rusty Blackbirds in the Northeastern U.S. and to evaluate the current distribution of this species, we conducted 280 surveys at locations in ME and VT in 2012. 10 of these surveys were at locations on J.D. Irving lands near Square Lake and Long Lake that had not been previously surveyed.

Methods

On June 18, 2012, a team of one trained technician and one trained intern conducted 10 surveys on J.D. Irving land in northern Maine. Survey locations were selected by J.D. Irving

and included locations at different types of wetlands near Square Lake and Long Lake. Each survey included a point count component and a habitat measurement component.

Point Counts (Bird Surveys)

Point count surveys were conducted during all daylight hours (approximately 6 a.m. to 8 p.m.) in periods of good weather (wind no greater than 18 miles per hour and no steady rain). The primary target species is the Rusty Blackbird (RUBL); however, we also collected data on 10 other species that may occur in similar habitats: Common Grackle (COGR), Red-winged Blackbird (RWBL), Brown-headed Cowbird (BHCO), Blue Jay (BLJA), Gray Jay (GRJA), American Robin (AMRO), Olive-sided Flycatcher (OSFL), Northern Waterthrush (NOWA), Tennessee Warbler (TEWA), and Red Squirrel (RESQ).

Each point count was 14 minutes and 18 seconds long and was broken into three periods. Observers conducted repeated simple counts for all target species during each period:

- Period 1: 0-2:59, passive observation
- Period 2: 3:00-3:38; 38-second playback
3:39- 8:38, 5 minutes of passive observation
- Period 3: 8:39-9:17, 38-second playback
9:18 to 14:18, 5 minutes of passive observation

During the first two periods, each individual Rusty Blackbird was tracked minute-by-minute. Information about wind, cloud, and insect conditions were noted at the start of each survey.

Playbacks consisted of Rusty Blackbird calls and were broadcast on either a Western Rivers Predation or Apache game caller.

Habitat Measurements

Observers collected the following habitat information:

Distance that view is unobstructed in each cardinal direction- how far away are trees/other features that prevent the observer from seeing the entire wetland or upland?

Wetland Habitat (within the bounds of the wetland)

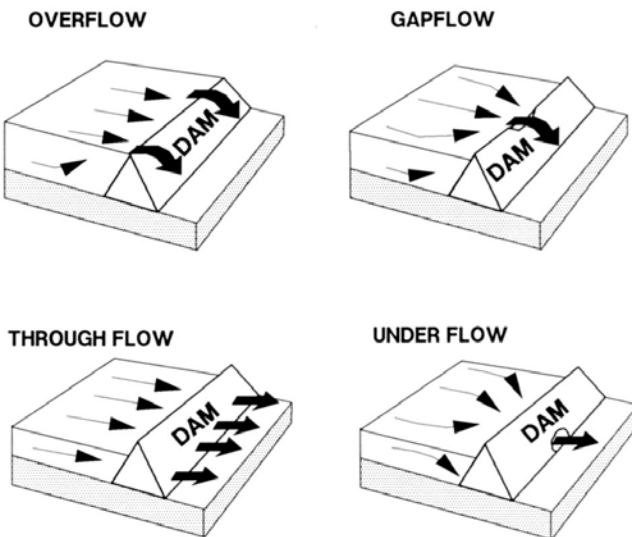
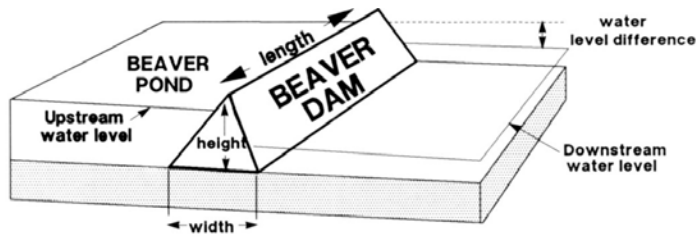
1. **Wetland Categorization:** percentage of wetland that is Palustrine Forested (PFO), Palustrine Scrub-Shrub (PSS), Palustrine Emergent (PEM), and Palustrine Unconsolidated Bottom (UB).
2. **Count of Visible Puddles-** areas of standing (stagnant) water unconnected to the wetland center and independent of wetland water.
3. **% Mud-** Estimate the percentage of the wetland covered by exposed mud visible from survey location.

4. **Number of snags-** Dead standing trees in the wetland area. Estimates were appropriate for numbers greater than 50.
5. **Tussocks:** a count of the number of vegetation tussocks in the wetland area. Estimates were appropriate for numbers greater than 50.
6. **Beaver Dam Stage:** If there was a beaver dam, observers noted the STAGE of the dam (active, old, relict, or none):

(reproduced from Woo and Waddington 1990)

Class	Materials	Stage
1	Stones, new branches, fresh mud	active
2	No stones, new branches, fresh mud	active
3	Stones, old branches, mud, and debris	old
4	No stones, old branches, mud, and debris	old
5	No stones, old branches, some mud and debris remain	old
6	Only large branches remain	old
7	Only small branches remain	relict
8	Most branches gone, only half of original structure remains	relict

7. **Flow:** If there was a beaver dam, observers noted the primary course/flow of water across the dam. If there was no flow, “no flow” was indicated. If no dam, “no dam” indicated. Diagrams reproduced from Woo and Waddington 1990.



8. **Alder Thicket Percent:** If there was an alder thicket present, observers estimated what percentage of the visible wetland was covered by alder thicket.
9. **Sphagnum:** percent of the wetland covered in sphagnum (“peat moss”).
10. **Open Water:** Estimate of the approximate percentage of the wetland visible from the survey location that was open water.

Upland Habitat (visible uphill from the wetland)

1. **Percent Forested:** Estimate of the percent of the upland that was forested (has trees).
2. **Percent Softwood and Hardwood:** Estimate of the percent of the forested upland that was softwood and the percent of the forested upland that was hardwood.

3. **Tree Height:** Observers used a clinometer to measure to the top and bottom of a tree of average height. Observers also measured the distance to the tree. These measurements can be used to calculate tree height.
4. **Size Class:** Average size class of trees in the upland.

Size Classes

CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH
1	Seedling tree	n/a	n/a	<1.0"
2	Sapling tree	n/a	<15.0'	1.0" - 5.9"
3	Pole tree	<12.0'	15.0' - 29.9'	6.0" - 10.9"
4	Small tree	12.0' - 23.9'	30.0' - 44.9'	11.0" - 23.9"
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥60% (layers must have ≥10.0% canopy cover and distinctive height separation).		
0	Not Applicable (no trees)			

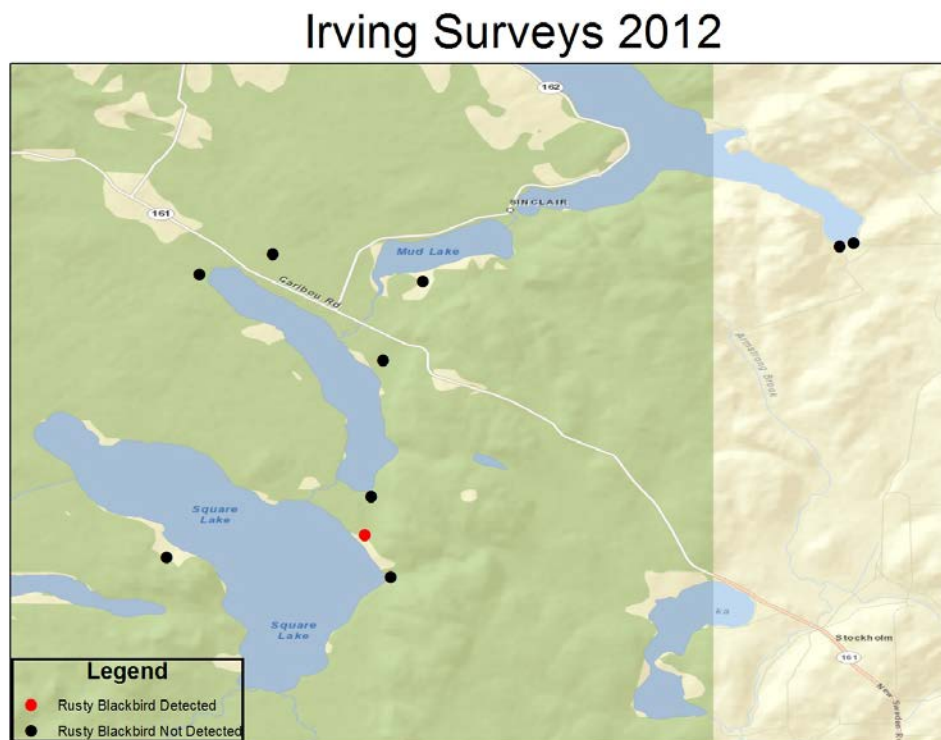
(reproduced from <http://www.fs.fed.us/r5/rs1/projects/frdb/tables/table114b.html>)

5. **Buffer:** Estimate of the width of the buffer (uncut trees) around the wetland.
6. **Snags:** Number of snags in the upland.
7. **Road Class:** Unimproved Dirt, Improved Dirt, Paved, or Remote (“remote” is any wetland >100 meters from a road; generally these are not surveyed).
8. **Nesting Habitat:** Observers noted whether there was a dense thicket of spruce or fir that is less than 5 meters tall.

Results

Observers detected Rusty Blackbirds at only one of the J.D. Irving survey sites; two Rusty Blackbirds were detected a Square Lake East, 4 (N 47°□57", W68°19'24") during a survey initiated at 0750 on June 18, 2012. This was a remote, highly forested site with no visible evidence of beaver activity near the survey point. The nine other J.D. Irving survey sites did not have any Rusty Blackbird detections during the survey periods (see Figure 1).

Figure 1: 10 Rusty Blackbird surveys conducted on J.D. Irving lands in northeastern Maine, June of 2012.



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Appendix G – Inventory of License Lots within the Concept Plan Area

Inventory of License Lots within the Concept Plan Area

STATUS	LEASE_NO.	LOT_NO.	TRACT	LotNo	Acres	TOWNSHIP	LAST	FIRST	ADDRESS	CITY	ST	ZIP	TownRange
Licensed	L-2528		L1705 19A	0.25	T17R5	Alkerson	Richard C & Dorea E		1677 Hamlin Rd	Hamlin	ME	04785	T17R5 - Dickey Tract
Licensed	L-3176		G1705 164A & 164S	0.47	T17R5	Albair	Harold & Elizabeth		458 West Side Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-1627		L1705 ---	1.64	T17R5	Albert	Jeanette		PO Box 100	Sinclair	ME	04779	T17R5 - Dickey Tract
Licensed	L-1627		L1705 ---	1.64	T17R5	Albert	Jeanette		PO Box 100	Sinclair	ME	04779	T17R5 - Dickey Tract
Licensed	L-2599		L1705 37A	0.18	T17R5	Albert	Peter and Ann		33 Church Street	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-2660		L1705 33A	0.29	T17R5	Albert	Rev. James R.		270 St Peter St	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-2931		L1705 99	0.16	T17R5	Albert	Alan M. & Joan M.		53 Charles Street	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-3395	309	G1705 24A	0.23	T17R3	Albert	Michelle		13 Leighton Ave	Limestone	ME	04750	T17R3 - N/2
Licensed	L-3396	313	G1705 25A	0.23	T17R3	Albert	Michelle		13 Leighton Ave	Limestone	ME	04750	T17R3 - N/2
Licensed	L-1832		G1705 62	0.24	T17R5	Anderson	Betheny & Asher Chambers		21 York St	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1525	17	C1605 17	0.69	T16R5	Anderson & Michaud	David & Sara, Richard & Kathleen		204 New Sweden Rd	New Sweden	ME	04762	T16R5
Licensed	L-3094		G1705 111A	0.23	T17R5	Andrade	Santiago		37 Shoreline Drive	Sinclair	ME	04779	T17R5 - SPEC Tract
Licensed	L-1647		G1705 28 & 79	0.40	T17R5	Archer	Carl		256 Bishop Road	Troy	ME	04987	T17R5 - SPEC Tract
Licensed	L-1647		G1705 28 & 79	0.40	T17R5	Archer	Carl		256 Bishop Road	Troy	ME	04987	T17R5 - SPEC Tract
Licensed	L-1649		G1705 29	0.17	T17R5	Archer	Carl		256 Bishop Road	Troy	ME	04987	T17R5 - SPEC Tract
Licensed	L-2263		G1703 106	0.23	T17R5	Argraves	Gary M.		21 Cote Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2785	312	G1703 61	0.28	T17R3	Ayotte	Patrick & Tina		117 Lords Rd	North Waterboro	ME	04087	T17R3 - N/2
Licensed	L-2387	270	G1703 50 & 50A	0.51	T17R3	Ayotte and Michelle Ayotte	Chad E.		PO Box 65	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-1630		L1705 9B & 11	0.40	T17R5	Bacon	Randy & Paula		114 Gray Rd	Easton	ME	04740	T17R5 - Dickey Tract
Licensed	L-1630		L1705 9B & 11	0.40	T17R5	Bacon	Randy & Paula		114 Gray Rd	Easton	ME	04740	T17R5 - Dickey Tract
Licensed	L-1564	16	C1605 16	0.69	T16R5	Bartlett	David Jr. & Sally		PO Box 155	Bethel	ME	04217	T16R5
Licensed	L-2265		G1705 20 + Add'l lot	0.64	T17R5	Bates	Rose Mary		PO Box 163	Sinclair	ME	04779	T17R5 - SPEC Tract
Licensed	L-2267		G1705 107 & 107S	0.41	T17R5	Beaulieu	Paul J. & Doreen J.		211 Morris Rd	Limestone	ME	04750	T17R5 - SPEC Tract
Licensed	L-2502		G1705 24	0.34	T17R5	Beaulieu	Cathy		2006 Chapman Road	Chapman	ME	04757	T17R5 - SPEC Tract
Licensed	L-2701		G1705 109 & Add'l lot	0.29	T17R5	Beaulieu	Peter J. & Jeri I.		264 Morris Road	Limestone	ME	04750	T17R5 - SPEC Tract
Licensed	L-2011		L1705 5 & Add'l lot	0.46	T17R5	Belanger	Stephen & Debra		127 Cyr Road	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-2728		G1705 111	0.23	T17R5	Belanger	Wayne & Mary Lee		595 Van Buren Road	Caribou	ME	04769	T17R5 - SPEC Tract
Licensed	L-2929		L1705 87	0.23	T17R5	Belanger	Joshua		143 Cyr Rd	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-3119		G1705 140A - 141A - 141B	0.00	T17R5	bell	Frederick & Lynn		352 W Side Road	Cross Lake	ME	04779	T17R5
Licensed	L-3218	396	G1703 82 & Add'l lot	0.49	T17R3	bell	Glenn (& Lea Rollins & Renee Melvin)		185 Noyes Road	Limestone	ME	04750	T17R3 - N/2
Licensed	L-3172		G1705 126A	0.23	T17R5	Belleville	J Donald & Mary A		7 School St	Lewiston	ME	04240	T17R5 - SPEC Tract
Licensed	L-2620		L1705 36A	0.23	T17R5	Bennett	Lisa & Jonathon		10915 Hermit Thrush Lane	Charlotte	NC	28278	T17R5 - Dickey Tract
Licensed	L-2673		L1705 32 & Add'l lot	0.44	T17R5	Bennett	Jonathon & Lisa T		10915 Hermit Thrush Lane	Charlotte	NC	28278	T17R5 - Dickey Tract
Licensed	L-2511	186	G1703 29 & 29S	0.57	T17R3	Berube	Gilman		PO Box 285	Madawaska	ME	04756	T17R3 - N/2
Licensed	L-3149		G1705 165A	0.23	T17R5	Berube	Guy Jr. & Christine		25 School Avenue	Limestone	ME	04750	T17R5 - SPEC Tract
Licensed	L-2670		L1705 23A	0.25	T17R5	Bird	Dean E. & Debbie L.		49 Hemlock Point Road	Orona	ME	04743	T17R5 - Dickey Tract
Licensed	L-1395	6	C1605 6	0.69	T16R5	Blackstone	Gregory & Virginia		379 Centerline Road	Presque Isle	ME	04769	T16R5
Licensed	L-1398	5	C1605 5	0.69	T16R5	Blackstone	Gregory		379 Centerline Road	Presque Isle	ME	04769	T16R5
Licensed	L-1543		G1705 34	0.23	T17R5	Bouchard	Kathleen & Frances		24 Blanchard St	Bangor	ME	04401	T17R5 - SPEC Tract
Licensed	L-2230	11	C1605 11	0.69	T16R5	Bouchard	Hazel & Timothy Cates		60 Stevens Rd	Augusta	ME	04330	T16R5
Licensed	L-3102		G1705 139A	0.23	T17R5	Bouchard	Sophonria, Bennett, Joseph, Daniel		2471 Brentwood Dr.	Clearwater	FL	33764	T17R5 - SPEC Tract
Licensed	L-3162		G1705 158A & 157A & Add'l lot	0.60	T17R5	Bouchard	Rickey & Danna		156 East Road	New Sweden	ME	04762	T17R5 - SPEC Tract
Licensed	L-3162		G1705 158A & 157A & Add'l lot	0.60	T17R5	Bouchard	Rickey & Danna		156 East Road	New Sweden	ME	04762	T17R5 - SPEC Tract
Licensed	L-3334		G1705 35 & 35A	0.34	T17R5	Bouchard	William & Roy Bouchard & Marie Minet		27 Sandy Point Rd	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-3335		G1705 36	0.23	T17R5	Bouchard	Roy		27 Sandy Point Rd	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-3639		G1705 232A	0.32	T17R5	Bouchard, Jr.	Dwayne M.		303 Tupper Rd.	Perham	ME	04766	T17R5 - SPEC Tract
Licensed	L-2738	350	G1703 71 & Add'l	0.46	T17R3	Boucher	Michael & Elizabeth		PO Box 287	Islesboro	ME	04848	T17R3 - N/2
Licensed	L-3120		G1705 145A	0.23	T17R5	Boucher	Rebecca		37 Washburn Rd	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-3397	337	G1703 31A	0.23	T17R3	Bourgoin	Daniel J.		589 W Limestone Rd	Fort Fairfield	ME	04742	T17R3 - N/2
Licensed	L-2918		L1705 92 & 92S	0.48	T17R5	Bowden	Winfield B. & Linda		283 New Rd	Penobscot	ME	04476	T17R5 - Dickey Tract
Licensed	L-3237		G1705 183A	0.23	T17R5	Bragdon	Scottie & Brenda Jencks		26 Home Farm Rd	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1489		G1705 38 & 39	0.69	T17R5	Branscom	Bert P & Michelle		17 Windy Hill Dr	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1489		G1705 38 & 39	0.69	T17R5	Branscom	Bert P & Michelle		17 Windy Hill Dr	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1555		G1705 31	0.23	T17R5	Branscom	John M & Cynthia L		9 Chamberlain Dr	Hallowell	ME	04347	T17R5 - SPEC Tract
Licensed	L-2748		G1705 112	0.23	T17R5	Brawders	Sandra		280 Princeton Ave	Mill Valley	CAN	94941	T17R5 - SPEC Tract
Licensed	L-3104		L1705 51A	0.33	T17R5	Brescia	Stanley & Louise		PO Box 575	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-3158		G1705 106	0.23	T17R5	Bubar	Thamas & Roxanne		PO Box 470	Fort Fairfield	ME	04742	T17R5 - SPEC Tract
Licensed	L-2890	420	G1703 87	0.23	T17R3	Buckley	Tammy		29 Moose Ridge Road	Mapleton	ME	04757	T17R3 - N/2
Licensed	L-2879		L1705 B & D	0.46	T17R5	Butt & Jane V. Butt	Larry S.		PO Box 1207	Harlem	GA	30814	T17R5 - Dickey Tract
Licensed	L-2879		L1705 B & D	0.46	T17R5	Butt & Jane V. Butt	Larry S.		PO Box 1207	Harlem	GA	30814	T17R5 - Dickey Tract
Licensed	L-1547		G1705 37	0.37	T17R5	c/o David Soucy	Estate of Robert G. Soucy		46 E Main St	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-2370	142	G1703 20 & Add'l	0.23	T17R3	c/o Philip L. Dufour, Pers. Rep.	Estate of Fernand Dufour		PO Box 40	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-1734		G1705 56 & Add'l lot	0.64	T17R5	Caron	Garland		54 Duck Cove Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2354	80	G1703 4 & Add'l	0.51	T17R3	Caron	Reginald & Armande		PO Box 175	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3105		G1705 105A	0.23	T17R5	Caron	Alberic		PO Box 36	Fort Kent Mills	ME	04744	T17R5 - SPEC Tract
Licensed	L-3257		G1705 23	0.34	T17R5	Caron	Roger		1049 Caribou Road	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-2934	438	G1703 92	0.23	T17R3	Caron and Colby Caron	Spencer		306 Main St.	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2114		L1705 3A	0.21	T17R5	Carter	Mark & Deberah		PO Box 741	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-2883	402	G1703 84 & 84B	0.57	T17R3	Castonguay	Paul & Gisele		630 B Boul. Everard H Daigle Box 7296	Grand Falls, NB	CAN	E32 2R8	T17R3 - N/2
Licensed	L-2885	402	G1703 85	0.23	T17R3	Castonguay	Paul & Gisele		630 B Boul. Everard H Daigle Box 7296	Grand Falls, NB	CAN	E32 2R8	T17R3 - N/2
Licensed	L-3317	402	G1703 83	0.00	T17R3	Castonguay	Paul & Gisele		630 B Boul. E H Daigle Box 7296	Grand Falls, NB	CAN	E32 2R8	T17R3 - N/2
Licensed	L-3672	498	G1703 107	0.23	T17R3	Chalet Poitras Inc.			587 Rue Poitras	Grand Falls, NB	CAN	E3G 1U7	T17R3 - N/2
Licensed	L-3077		G1705 123A	0.23	T17R5	Chapman	James		19 Hickory Drive	East Waterboro	ME	04030	T17R5 - SPEC Tract
Licensed	L-3403		G1703 39A & Add'l lot	0.46	T17R3	Charette	Albeo & Patricia		PO Box 55	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3403	365	G1703 39A & Add'l lot	0.46	T17R3	Charette	Albeo & Patricia		PO Box 55	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2723	334	G1703 67 & 67B	0.53	T17R3	Chettiar, M.D.	Ramen V.		651 Everard H. Blvd. Suite 200	Grand Falls, NB	CAN	E32 252	T17R3 - N/2
Licensed	L-2462	234	G1703 41	0.28	T17R3	Chiasson	Louine		PO Box 283	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3091		G1705 104A + 103A	0.46	T17R5	Chick, Jr	John M & Cynthia		13959 Marine Drive	Orlando	FL	32832	T17R5 - SPEC Tract
Licensed	L-1623		L1705 37A	0.86	T17R5	Cloutier Holdings Inc	Bill		9292 Menaggio Ct	Naples	FL	34114	T17R5 - Dickey Tract
Licensed	L-2378		G1703 34	0.25	T17R3	Club 17			PO Box 126	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2523		L1705 14A	0.29	T17R5	Condon	Albert D.		PO Box 1320	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-1646		G1705 27C & 77	0.00	T17R5	Cormier	Matthew		51 Skinner Road	Colchester	CT	06415	T17R5 - SPEC Tract
Licensed	L-1646		G1705 27C & 77	0.00	T17R5	Cormier	Matthew		51 Skinner Road	Colchester	CT	06415	T17R5 - SPEC Tract
Licensed	L-2543	290	G1703 55	0.25	T17R3	Cote	Daniel P. Cote and Barbara M.		PO Box 185	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3240		G1705 179-A	0.23	T17R5	Cote	Galen		PO				

Inventory of License Lots within the Concept Plan Area

STATUS	LEASE_NO.	LOT_NO.	TRACT	LotNo	Acres	TOWNSHIP	LAST	FIRST	ADDRESS	CITY	ST	ZIP	TownRange
Licensed	L-3137	482	G1703	103 & Add'l lot	0.45	T17R3	Cyr	Randy J.	146 St. Bruno Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3219	426	G1703	88	0.23	T17R3	Cyr	Gerald & Kathleen	125 St Mary's Road	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3402	361	G1703	38A & 38S	0.41	T17R3	Cyr	Frederick & Rhonda	PO Box 205	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-4265	269	G1703	16A & 15A & 16B	0.69	T17R3	Cyr	Dorothy A.	17 Hoover Ave.	Caribou	ME	04736	T17R3 - N/2
Licensed	L-4265	269	G1703	16A & 15A & 16B	0.69	T17R3	Cyr	Dorothy A.	17 Hoover Ave.	Caribou	ME	04736	T17R3 - N/2
Licensed	L-4264	371	G1703	40A	0.00	T17R3	Cyr	(c/o Theresa Laplante)	PO Box 75	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3418	377	G1703	41A	0.23	T17R3	Cyr	(c/o Lou Cyr)	PO Box 75	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2501	79	G1703	3	0.28	T17R3	Cyr	Emelda Holeton & Margaret Clair					
Licensed	L-2725	332	G1703	66 & 66S	0.55	T17R3	Daigle France	Andre & Louise	244 Marquis Road	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2366	128	G1703	16	0.18	T17R3	Damboise	Wayne & Cynthia	10909 Route 144	St Leonard	NB	E7E 2S	T17R3 - N/2
Licensed	L-3129	244	G1703	43	0.00	T17R3	Davenport	Dannie & Anne-Marie	50 Dubay Pit Road	Connor	ME	04736	T17R3 - N/2
Licensed	L-2375	166	G1703	25 & 25S	0.82	T17R3	David & Mary Beth Lengyel	Lee & Diane Futch	PO Box 483	Fort Fairfield	ME	04742	T17R3 - N/2
Licensed	L-3136	478	G1703	102 & 102S	0.46	T17R3	Derosier	Jacqueline	221 Whitman Road	Arcadia	LA	71001	T17R3 - N/2
Licensed	L-2388	190	G1703	30	0.28	T17R3	Deschaine and Fr. Raymond	Philip and Barbara	PO Box 25	Sinclair	ME	04779	T17R3 - N/2
Licensed	L-2735	316	G1703	62	0.25	T17R3	Desjardins	Anne	PO Box 302	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-1755		L1705	7	0.00	T17R5	Dick	Carlene J.	105 Hardy St.	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-1587	22	C1605	22	0.69	T16R5	Dickinson	Wendell & Betty	164 Montgomery Rd.	Westfield	MA	01085	T16R5
Licensed	L-2381	222	G1703	38	0.28	T17R3	Dionne	Ruth P	75 Spruce Ridge Rd	Caribou	ME	04736	T17R3 - N/2
Licensed	L-2945	248	G1703	44	0.28	T17R3	Dionne	Marlene M.	276 Chapel St.	Grand Falls, NB	CAN	E32 2M3	T17R3 - N/2
Licensed	L-3263		G1705	172A	0.23	T17R5	Dooody	Philip & Beatrice	PO Box 323	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3133	468	G1703	99 & 99S & Add'l lot	0.39	T17R3	Doucette	Robert G.	134 High St.	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3134	470	G1703	100	0.23	T17R3	Doucette	Phyllis	128 Violet Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2919		L1705	93	0.23	T17R5	Dougherty	Paul L	84 Dorsey Rd	Fort Fairfield	ME	04742	T17R5 - Dickey Tract
Licensed	L-3406	393	G1703	46A & Add'l lot	0.46	T17R3	Dow	Dean	15 Maple Grove Rd.	Presque Isle	ME	04769	T17R3 - N/2
Licensed	L-3643	315	G1703	26A	0.23	T17R3	Dube	Keith & Kirk	114 Adams St	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3121		G1705	147A	0.23	T17R5	Dubois	Robert	380 West Side Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2509	192	G1703	31	0.28	T17R3	Durepo	Jeffery	354 Blake Road	Limestone	ME	04750	T17R3 - N/2
Licensed	L-3642	257	G1703	12A	0.23	T17R3	Durepo	Travis & Carolyn Dorsey	153 Main Street	Fort Fairfield	ME	04742	T17R3 - N/2
Licensed	L-3249		G1705	186A	0.23	T17R5	Durost	Lewis H. Jr.	9 South St.	Houlton	ME	04730	T17R5 - SPEC Tract
Licensed	L-2847	318	G1703	63 & add'l lot	0.61	T17R3	Entrust of Colorado		1070 West Century Dr Ste 101	Louisville	CO	80027	T17R3 - N/2
Licensed	L-2849	368	G1703	75	0.23	T17R3	Feehey	Gary, Jacinthe, & Alyson	146 Sheriff St.	Grand Falls, NB	CAN	E32 229	T17R3 - N/2
Licensed	L-2504		L1705	7A & 7B	0.17	T17R5	Felch	David N. & Brenda J.	237 Cyr Rd	Cross Lake	ME	04479	T17R5 - Dickey Tract
Licensed	L-3080		G1705	127A	0.23	T17R5	Ferguson	Arline & Sandra & Colleen Macklin	415 East Road	New Sweden	ME	04762	T17R5 - SPEC Tract
Licensed	L-1988		L1705	1A	0.39	T17R5	Flewelling	Richard P.	PO Box 244	South Freeport	ME	04078	T17R5 - Dickey Tract
Licensed	L-1988		L1705	1A	0.39	T17R5	Flewelling	Richard P.	PO Box 244	South Freeport	ME	04078	T17R5 - Dickey Tract
Licensed	L-2695		L1705	2	0.30	T17R5	Flewelling	Brian & Lynn	41 Ladner Rd	Easton	ME	04760	T17R5 - Dickey Tract
Licensed	L-2926		L1705	100 & Add'l lot	0.45	T17R5	Flewelling	Frederic	Box 398	Crosville	ME	04738	T17R5 - Dickey Tract
Licensed	L-2527		L1705	18	0.18	T17R5	Fox & Sylvia B. Fox	Larry K.	72 Hardy St.	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-3138	486	G1703	104 & 104A	0.39	T17R3	Frank	Danny	27 Westland Ave	Biddleford	ME	04005	T17R3 - N/2
Licensed	L-3318	486	G1703	105	0.23	T17R3	Frank	Danny	27 Westland Ave	Biddleford	ME	04005	T17R3 - N/2
Licensed	L-3405	389	G1703	45A & 45B & 45C	0.62	T17R3	Frank	Living Trust	PO Box 27	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2542	286	G1703	54	0.29	T17R3	Gagnon	Christopher E	106 Monroe Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2612	180	G1703	28 & 28A	0.57	T17R3	Gagnon	Wayne & Jeannine	106 Monroe Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2736	344	G1703	69 & 69S	0.90	T17R3	Gagnon	Miguel & Samuel Leclerc	10551 RTE 144	St Andre	NB	E3Y 3H9	T17R3 - N/2
Licensed	L-3008	382	G1703	79 & 79A & 79S	0.44	T17R3	Gagnon	Donna	PO Box 211	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3046	339	G1703	32A	0.57	T17R3	Gagnon	Natalie & Daniel	472 Chemin Petite Montagne	DSL de St Andre	NB	E34 1h4	T17R3 - N/2
Licensed	L-2601		L1705	39A	0.34	T17R5	Gahagan	Arnold Jr./Michael/Mark	219 South Shore	Stockholm	ME	04783	T17R5 - Dickey Tract
Licensed	L-1833		G1705	48 & 48A	0.40	T17R5	Garrison	Kelly A & Stephan L	PO Box 14	Mars Hill	ME	04758	T17R5 - SPEC Tract
Licensed	L-2524		L1705	15A	0.30	T17R5	Gendreau	Peggy	PO Box 124	Limestone	ME	04750	T17R5 - Dickey Tract
Licensed	L-1952	6	L1705	6	0.31	T17R5	Gentile	Susan D.	33 Center St.	Yarmouth	ME	04096	T17R5 - Dickey Tract
Licensed	L-2306		L1705	E	0.11	T17R5	Glidden	Kenneth & Mavis	PO Box 424	Crosville	ME	04738	T17R5 - Dickey Tract
Licensed	L-3174		G1705	144A	0.23	T17R5	Goff	Brian	16 Hardison Ave E	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1648		G1705	40 & Add'l lot	0.37	T17R5	Graves	Michael O. Graves & Susan M.	PO Box 1027, 90 Centerline Road	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-3103		G1705	118A	0.23	T17R5	Green	Laurel R.	93 Pine St.	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-3729		G1705	119A	0.23	T17R5	Green	Laurel R.	93 Pine St.	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-2246		G1705	103A & 104	1.03	T17R5	Griffeth	Robert L. & Lona M	PO Box 149	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2246		G1705	103A & 104	1.03	T17R5	Griffeth	Robert L. & Lona M	PO Box 149	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3394	301	G1703	23A	0.23	T17R3	Grivois	James & Gaetane	150 Champlain Street Box 3A	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2042	3	C1605	3	0.69	T16R5	Grondin	Kenneth & Carolyn	39 Belanger Ave	Windham	ME	04062	T16R5
Licensed	L-1628		L1705	---	0.51	T17R5	Guerrette	James P. & Mark T.	3599 Caribou Road	Sinclair	ME	04779	T17R5 - Dickey Tract
Licensed	L-2800		L1705	47A	0.23	T17R5	Guerrette	Roderick	215 Grines Rd	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-3202		G1705	171A	0.23	T17R5	Haines	Paul	PO Box 209	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3168		G1705	153A & Add'l lot	0.38	T17R5	Hale	Terrance L.	50 Dupont Drive	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-1809		G1705	60	0.23	T17R5	Hamilton	Christopher & Kimberly Hourihan Hamilton	205 Park Ave	Portland	ME	04102	T17R5 - SPEC Tract
Licensed	L-2385	266	G1703	49	0.28	T17R3	Hamton	Dr. Paul	1429 Miranda Lane	Warminster	PA	18974	T17R3 - N/2
Licensed	L-3082		G1705	129	0.23	T17R5	Harmon	Colleen/Judson Drake	678 Fort Fairfield Rd	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2008		G1705	43 & Add'l lot	0.40	T17R5	Harvey	Jeffrey	7 Connection Lane	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-3072		G1705	102A	0.23	T17R5	Haskell	Rebecca & Dana	44 Westwind Dr.	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3090		G1705	101A	0.23	T17R5	Haskell	Rebecca & Dana	44 Westwind Dr.	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3108		G1705	131A & 131B	0.36	T17R5	Heald	David & Troy	PO Box 254	Washburn	ME	04786	T17R5 - SPEC Tract
Licensed	L-2360	102	G1703	10	0.28	T17R3	Hebert	John H.	PO Box 157	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2361		G1703	11	0.28	T17R3	Hebert	John H.	PO Box 157	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2369	136	G1703	19	0.28	T17R3	Hebert II	John H.	192 Main Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3147		G1705	160A	0.23	T17R5	Helstrom	James	8 Country Rd	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2922		L1705	96 & 96A	0.39	T17R5	Hersey	Nathan & Michelle	177 Cyr Road	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-3170		G1705	163A + 163B	0.40	T17R5	Hersey	Robert E.	497 Davis Rd.	Woodland	ME	04736	T17R5 - SPEC Tract
Licensed	L-1624		L1705	9C	0.23	T17R5	Hill	Ricky D.	28 Getchell Lane	Litchfield	ME	04350	T17R5 - Dickey Tract
Licensed	L-1878		G1705	70	0.19	T17R5	Hill	Thomas M. Jr. & Rinette	PO Box 6	Sinclair	ME	04779	T17R5 - SPEC Tract
Licensed	L-2353	75 E	G1703	2 & 2B	0.39	T17R3	Hixon, Kelli J	Kenneth A. Hixon &	1201 Westmanland Rd	Westmanland	ME	04783	T17R3 - N/2
Licensed	L-2508		L1705	4A & 1/2 5A	0.44	T17R5	Holmquist	Harvard A. & Madeleine	225 Cyr Road	Sinclair	ME	04779	T17R5 - Dickey Tract
Licensed	L-2508		L1705	4A & 1/2 5A	0.44	T17R5	Holmquist	Harvard A. & Madeleine	225 Cyr Road	Sinclair	ME	04779	T17R5 - Dickey Tract
Licensed	L-3241		G1705	184A 57A & 184S	0.60	T17R5	Holmquist	John & Robin	18 Pilgrim Road	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1812		G1705	42	0.18	T17R5	Hopkinson	Betty N	4590 Brookhill Dr	Manlius	NY	13104	T17R5 - SPEC Tract
Licensed	L-2377	178	G1703	27	0.28	T17R3	Hunsader	Lt.Col.Thomas & Jacqueline D.	1 Bayberry Drive	Amherst	NH	03031	T17R3 - N/2
Licensed	L-2778		G1705	---	0.57	T17R5	Jalbert						

Inventory of License Lots within the Concept Plan Area

STATUS	LEASE_NO.	LOT_NO.	TRACT	LotNo	Acres	TOWNSHIP	LAST	FIRST	ADDRESS	CITY	ST	ZIP	TownRange
Licensed	L-1808		G1705 46		0.17	T17R5	LaFlamme	David	PO Box 126	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2799	338	G1703 68+68A		0.55	T17R3	LaForge	Guldor or Danna or Guy McCluskey	73 Deschene Street	Grand Falls, NB	CAN	E3Y 1 B8	T17R3 - N/2
Licensed	L-3141	504	G1703 109 & Add'l lot		0.69	T17R3	Laforce	Patrice	56 Saint. Andre Road	St. Andre, NB	CAN	E3Y 3P6	T17R3 - N/2
Licensed	L-3809	253	G1703 11A		0.23	T17R3	Lafrance	Rino & Lynda	107 Long St	Grand Falls, NB	CAN	E32 1B3	T17R3 - N/2
Licensed	L-2726	324	G1703 65 & 65S		0.55	T17R3	Lajoie	Phillip & Susan	375 Caribou Rd	Cyr Plantation	ME	04785	T17R3 - N/2
Licensed	L-3983	421	G1703 50A		0.23	T17R3	Lajoie	Michael and Ann-Marie	395 Caribou Road	Cyr Plantation	ME	04785	T17R3 - N/2
Licensed	L-2602		L1705 40A		0.21	T17R5	Lambert	Ethel	36 Roberts Street	Farmingdale	ME	04344	T17R5 - Dickey Tract
Licensed	L-1730		G1705 57 & 69		0.29	T17R5	Lancaster	Juanita D.	734 Main St Apt 3	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1730		G1705 57 & 69		0.29	T17R5	Lancaster	Juanita D.	734 Main St Apt 3	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2364	120	G1703 14		0.28	T17R3	Landry	Rejean & Nicole	682 Second Ave.	Grand Falls, NB	CAN	E32 1A3	T17R3 - N/2
Licensed	L-2711		G1703 51		0.28	T17R3	Lapierre	Steve R.	391 Hamlin Road	Hamlin	ME	04785	T17R3 - N/2
Licensed	L-2733	304	G1703 59		0.21	T17R3	Lapierre	Tyler & Kylie	233 Lake Rd	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2384	258	G1703 47		0.51	T17R3	Laplante	Cory & Monica	117 Academy St	Presque Isle	ME	04769	T17R3 - N/2
Licensed	L-2734	308	G1703 60 & 60A		0.34	T17R3	LaPlante	Brian	16 Longfellow Drive	Newburyport	MA	01950	T17R3 - N/2
Licensed	L-3131	428	G1703 89 & 89S		0.98	T17R3	Laplante	Bill	PO Box 273	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3139	492	G1703 106		0.23	T17R3	Laplante	Richard & Lucille	286 State Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3393	299	G1703 22A		0.23	T17R3	Laplante	Louis	193 Lake Rd	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-1893		G1705 82 & 83		0.46	T17R5	Leeman	Katarina K.	13 Ducas Avenue	Nashua	NH	03063	T17R5 - SPEC Tract
Licensed	L-1893		G1705 82 & 83		0.46	T17R5	Leeman	Katarina K.	13 Ducas Avenue	Nashua	NH	03063	T17R5 - SPEC Tract
Licensed	L-3135	476	G1703 101		0.23	T17R3	Levesseur	John & Linda	5802 E Carnifax Ferry Rd	Fredericksburg	VA	22407	T17R3 - N/2
Licensed	L-2933	374	G1703 77 & 78 & Add'l		1.02	T17R3	Levine	Elizabeth	142 Boardman Ave	Melrose	MA	02176	T17R3 - N/2
Licensed	L-2933	374	G1703 77 & 78 & Add'l		1.02	T17R3	Levine	Elizabeth	142 Boardman Ave	Melrose	MA	02176	T17R3 - N/2
Licensed	L-1560		G1705 33		0.23	T17R5	Libby	Rose G. & Paul A.	PO Box 516	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-1540		G1705 41 & Add'l lot		0.44	T17R5	Llewellyn	Matthew & Tammy	224 Doctor Drive	Virginia Beach	VA	23452	T17R5 - SPEC Tract
Licensed	L-2443		L1705 6A + 1/2 5A		0.69	T17R5	Lynch	Eugene A.	7 Ward St	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-2443		L1705 6A + 1/2 5A		0.69	T17R5	Lynch	Eugene A.	7 Ward St	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-1561		G1705 32 & Add'l lot		0.33	T17R5	Madore	Madore Family Revocable Trust, Brenda Johnson, Trustee	13 Lyons St	Rochester	NH	03867	T17R5 - SPEC Tract
Licensed	L-2379	208	G1703 35 & 35A		0.51	T17R3	Madore	Rodney & Vanda	144 Fulton St.	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3392	249	G1703 10A & Add'l lot		0.40	T17R3	Madore	Peter	173 Violette ST	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3078		G1705 124		0.23	T17R5	Mahoney	Graydon M.	PO Box 38	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2380	218	G1703 37 & 37S		0.00	T17R3	Marquis	James E. & Margaret Levesseur	PO Box 152	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2531	198	G1703 32 & Add'l lot		0.46	T17R3	Marquis	Nathan & Elise	254 Marquis Rd	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2529		L1705 25A & 25B		0.41	T17R5	Marshall	Winston Jr. & Gwendolyn	317 Cyr Road	Sinclair	ME	04779	T17R5 - Dickey Tract
Licensed	L-1731		G1705 45		0.18	T17R5	Martin	James P. & Eulalia Mae	30 Harvest Rd.	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1817		G1705 47		0.18	T17R5	Martin	James P. & Eulalia Mae	30 Harvest Rd.	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3265		G1705 174A		0.23	T17R5	Masse	Ouida M.	181 Perry St.	Unionville	CT	06085	T17R5 - SPEC Tract
Licensed	L-1593	28	C1605 28		0.69	T16R5	Maynard	Donald & Julee	PO Box 1	Presque Isle	ME	04769	T16R5
Licensed	L-2921		L1705 95		0.23	T17R5	McBreairty	Cathie J.	898 Sweden Rd.	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-1912		G1705 84 & 84A		0.54	T17R5	McCrum	Galen & Becky	620 New Port Shore	Alpharetta	GA	30005	T17R5 - SPEC Tract
Licensed	L-3081		G1705 128		0.23	T17R5	McCubrey	Duane & Melinda Ann	PO Box 568	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1558		G1705 30		0.23	T17R5	McGillan	Fred	37 May Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2373	154	G1703 23 & 24		0.55	T17R3	McGillan	Frederick & Janet	5 McGillan Drive	Fort Fairfield	ME	04742	T17R3 - N/2
Licensed	L-2373	154	G1703 23 & 24		0.55	T17R3	McGillan	Frederick & Janet	5 McGillan Drive	Fort Fairfield	ME	04742	T17R3 - N/2
Licensed	L-3153		G1705 159A		0.23	T17R5	McGlauffin	Carl & F. Catherine (& Carlene Kilby)	11 Barton St.	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-3203		G1705 175A		0.23	T17R5	McGlinn	Andrew	57 Ginn Rd	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-2365	122	G1703 15		0.28	T17R3	McGreal	Gloria G. & James F.	100 Starbird Rd.	Portland	ME	04102	T17R3 - N/2
Licensed	L-1629		L1705 13		0.23	T17R5	McLellan	Connie	5 Sunset Lane	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-2629		L1705 35A		0.21	T17R5	McNally	Joseph & Duska	1966 McKee Ave.	Deptford	NJ	08096	T17R5 - Dickey Tract
Licensed	L-1906		G1705 61 & 61A		0.37	T17R5	Michaud	Jean Pierre	35 Harvest Rd	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1942		L1705 2A		0.23	T17R5	Michaud	Gene & Carolyn	73 Hardy Street	Presque Isle	ME	04769	T17R5 - Dickey Tract
Licensed	L-2362		G1703 12		0.28	T17R3	Michaud	Emily M.C.	54 Morningside Dr. Apt. 32	New York	NY	10025	T17R3 - N/2
Licensed	L-2367	130	G1703 17		0.28	T17R3	Michaud	Ronald S.	273 Main St.	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2526		L1705 17A & 17AA		0.37	T17R5	Michaud	Douglas & Elaine	41 Garden Circle	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-2724	278	G1703 52		0.23	T17R3	Michaud	Chanel	PO Box 235	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3364		L1705 9A		0.21	T17R5	Michaud	Kirk & Heather	21 Mithcl Rd	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-3481	259	G1703 13A & 13S & 13G		0.80	T17R3	Michaud	Karla	31 Main Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-1756		L1705 8		0.23	T17R5	Mills	Hlynn M. and Nancy	20467 N Lemon Drop DR	Maricopa	AZ	85138	T17R5 - Dickey Tract
Licensed	L-2560		L1705 22A		0.25	T17R5	Mockler	James R. & Christine M.	11 Caroline Ave.	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-3096		G1705 130A		0.23	T17R5	Mockler	Thelma	24 Reservoir St.	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3101		G1705 138A		0.23	T17R5	Mockler	David & Roxann	26 Pioneer Ave	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-1576	13	C1605 13		0.69	T16R5	Moir	Jason R. & Krsitie A	29 Morse Rd	Woodland	ME	04736	T16R5
Licensed	L-3130	362	G1703 74		0.48	T17R3	Moreau	Donald J.	189 Rue Desjardins	Drummond, NB	CAN	E3Y 1T6	T17R3 - N/2
Licensed	L-3099		G1705 135A		0.23	T17R5	Moreau (& Dwight Helstrom)	Suzanne	94 Hanson Lake Rd.	Mapleton	ME	04757	T17R5 - SPEC Tract
Licensed	L-1030	8	C1605 8		0.69	T16R5	Morin	Timothy & Joan	PO Box 34, Heath Road	Whitefield	ME	04533	T16R5
Licensed	L-2679		G1705 108 & 108A		0.46	T17R5	Morin	Paul & Ann	1066 Albar Rd	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2383	230	G1703 40		0.28	T17R3	Morrow	Leigh	PO Box 433	Washburn	ME	04786	T17R3 - N/2
Licensed	L-2848	360	G1703 73		0.23	T17R3	Morrow	Cecile Larent	213 Dock Ave	Sebastian	FL	32958	T17R3 - N/2
Licensed	L-2948	442	G1703 93		0.23	T17R3	Morrow	David A. & Bobbie	9 Skyview Drive	Presque Isle	ME	04769	T17R3 - N/2
Licensed	L-3132	462	G1703 98 & 98S		0.46	T17R3	Morrow	Carl J. & Nancy	104 Adams St Apt 101	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3083		G1705 137A		0.23	T17R5	Mucci	Virginia, Leonard, John, Cynthia Greene, Kathy Meehan	3741 Dunbar Rd	Venice	FL	34293	T17R5 - SPEC Tract
Licensed	L-2671		L1705 30A		0.19	T17R5	Murphy	John D	PO Box 14	Fort Kent	ME	04743	T17R5 - Dickey Tract
Licensed	L-2675		L1705 31A		0.34	T17R5	Murphy	John D. & Terry L.	P.O. Box 14	Fort Kent	ME	04743	T17R5 - Dickey Tract
Licensed	L-3407	397	G1703 47 A		0.23	T17R3	Nadeau	Clarence Jr. & Jo Ann	28 Albar Road	Caribou	ME	04736	T17R3 - N/2
Licensed	L-3201		G1705 170A		0.23	T17R5	Nichols	Wayne & Deborah	482 West Side Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-3224		G1705 169A		0.23	T17R5	Nichols	Wayne & Deborah	482 West Side Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-3169		G1705 162A		0.23	T17R5	Norsworthy	Randolph D. & Robin	72 Lombard Street	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-2119	34	C1605 34		0.69	T16R5	Nunes	Richard & Sandra	5 Shady Dr	Fairhaven	MA	02719	T16R5
Licensed	L-3236		G1705 182A & 182S		0.46	T17R5	O'Donald	Richard & Renee	862 North Road	Newburgh	ME	04444	T17R5 - SPEC Tract
Licensed	L-2544	292	G1703 56		0.28	T17R3	Oliver	E Jean	PO Box 21	Levant	ME	04456	T17R3 - N/2
Licensed	L-1541	1	C1605 1		0.69	T16R5	Olmstead	Kirt & Cheryl	349 Center Street	Wolcott	CT	06716	T16R5
Licensed	L-4261		G1705 217A & 218A		0.36	T17R5	Olmstead	Cheryl Sue	741 E. Presque Isle Rd	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-4261		G1705 217A & 218A		0.36	T17R5	Olmstead	Cheryl Sue	741 E. Presque Isle Rd	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2667		L1705 21A		0.25	T17R5	O'Neil, Theresa R	Carol Conley	106 Killingly Drive	Danielson	CT	06239	T17R5 - Dickey Tract
Licensed	L-2356		G1703 6		0.28	T17R3	Ouellette	Spenser	PO Box 296	Caribou	ME	04736	T17R3 - N/2
Licensed	L-2376	168	G1703 26		0.31</								

Inventory of License Lots within the Concept Plan Area

STATUS	LEASE_NO.	LOT_NO.	TRACT	LotNo	Acres	TOWNSHIP	LAST	FIRST	ADDRESS	CITY	ST	ZIP	TownRange
Licensed	L-2506		L1705 10A	10A	0.18	T17R5	Pelkey	Rodney & Carol	638 Access Highway	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-1539		L1705 ---	---	0.00	T17R5	Pelletier	Raynold & Rolande	3141 Caribou Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2646		L1705 20A	20A	0.00	T17R5	Pelletier	Kevin	46 Klein Road	Fort Kent	ME	04743	T17R5 - Dickey Tract
Licensed	L-2708		G1705 114	114	0.23	T17R5	Pelletier	Ronald	PO Box 1411	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-2884	370	G1703 76 & 76A	76 & 76A	0.56	T17R3	Pelletier	John & Noreen	199 Main Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3189		G1705 150A	150A	0.23	T17R5	Pelletier	Richard & Leeta	605 Frenchville Road	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-3095		G1705 114A 113A	114A 113A	0.46	T17R5	Penta	Laura & Bryan Carpenter	99 Bartlett St	Portland	CT	06480	T17R5 - SPEC Tract
Licensed	L-3079		G1705 125A	125A	0.23	T17R5	Peterson	Frederic & Christine	121 Chapel St.	Holden	MA	01520	T17R5 - SPEC Tract
Licensed	L-3363		L1705 8A	8A	0.16	T17R5	Phillips	Albertine - Gayle Baber as Trustee of the Albertine T	29 Silver Ridge	Veazie	ME	04401	T17R5 - Dickey Tract
Licensed	L-1500	35	C1605 35	35	0.69	T16R5	Plourde	Phillips Revocable Trust	103 Lynn Drive	Caribou	ME	04736	T16R5
Licensed	L-2925		L1705 86 & Add'l lot	86 & Add'l lot	0.69	T17R5	Plourde	Richard & Deborah	382 Grimes Mill Rd.	Caribou	ME	04736	T17R5 - Dickey Tract
Licensed	L-3227		G1705 180A & 181A & 180-B	180A & 181A & 180-B	0.75	T17R5	Plourde	Jay	522 West Side Rd	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-3227		G1705 180A & 181A & 180-B	180A & 181A & 180-B	0.75	T17R5	Plourde	Jay	522 West Side Rd	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2949	460	G1703 97	97	0.21	T17R3	Poitras	Clermont	Box 212	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-1831		G1705 49 & 49A	49 & 49A	0.43	T17R5	Prescott	Kenneth & Lisa	77 Barton St	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-1759		G1705 1 & 2	1 & 2	0.00	T17R5	Raymond	Kate	3089 Caribou Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2715	280	G1703 53	53	0.23	T17R3	Reynolds	Jay and Karen	51 High Street	Fort Fairfield	ME	04742	T17R3 - N/2
Licensed	L-3225		G1705 177A	177A	0.23	T17R5	Richards	Cathie L.	8 Richards Road	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-3264		G1705 173A	173A	0.23	T17R5	Richards	Dennis	1351 Albar Rd.	Caribou	ME	04736	T17R5 - SPEC Tract
Licensed	L-2061		G1705 101 & 101A	101 & 101A	0.45	T17R5	Robbins and Karen Robbins	Richard	3107 Caribou Road	Cross Lake	ME	04743	T17R5 - SPEC Tract
Licensed	L-2186	4	C1605 4	4	0.69	T16R5	Roberts	Douglas & Cheryl	PO Box 72	Sinclair	ME	04779	T16R5
Licensed	L-3066		G1705 117A & 117S	117A & 117S	0.38	T17R5	Robertson	C. Michael & Sherry	7 Shoreline Dr	Sinclair	ME	04779	T17R5 - SPEC Tract
Licensed	L-3075		G1705 115A	115A	0.23	T17R5	Roderick	Gary B.	75 High St.	So. Windsor	CT	06074	T17R5 - SPEC Tract
Licensed	L-2320		C1504 ---	---	0.34	T17R5	Rossignol	Terah & Dennis R Carrier	3080 Caribou Rd	Sinclair	ME	04779	T17R5 - SPEC Tract
Licensed	L-2386	212	G1703 36 & 36S	36 & 36S	0.68	T17R3	Rossignol	Mark J. & Colleen	410 New Sweden Rd.	New Sweden	ME	04762	T17R3 - N/2
Licensed	L-2507		L1705 11A & 12A N1/2	11A & 12A N1/2	0.23	T17R5	Roy	Louise	253 Cyr Road	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-2507		L1705 11A & 12A N1/2	11A & 12A N1/2	0.23	T17R5	Roy	Louise	253 Cyr Road	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-2561		L1705 24A	24A	0.20	T17R5	Ran Antonio	Albert & Sandra	72 Chasse Road	St. Agatha	ME	04772	T17R5 - Dickey Tract
Licensed	L-3401	355	G1703 37A+ 37S	37A+ 37S	0.42	T17R3	Saucier	Joyce	331 Main Street	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2920		L1705 94	94	0.22	T17R5	Savoy	Mark & Lisa	1574 State St	Mapleton	ME	04757	T17R5 - Dickey Tract
Licensed	L-2955		L1705 98	98	0.22	T17R5	Sawyer	John & Marguerite	33 Teller Steet	Marlborough	MA	01752	T17R5 - Dickey Tract
Licensed	L-2963	416	G1703 86 & 86S	86 & 86S	0.00	T17R3	Scott	David & Debra Reynold	129 G Street	Salt Lake City	UT	84103	T17R3 - N/2
Licensed	L-3226		G1705 178A	178A	0.23	T17R5	Scott	Arnold & Grace	130 Canterbury St.	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-3088		L1705 43A	43A	0.18	T17R5	Segerson	Thomas & Marcia	75 Dawes Rd.	Dover-Foxcroft	ME	04426	T17R5 - Dickey Tract
Licensed	L-3088		L1705 43A	43A	0.18	T17R5	Segerson	Thomas & Marcia	75 Dawes Rd.	Dover-Foxcroft	ME	04426	T17R5 - Dickey Tract
Licensed	L-2589	298	G1703 57	57	0.21	T17R3	Selle	Hobart F. & Judith G.	289 Cliff Street	St. Johnsbury	VT	05819	T17R3 - N/2
Licensed	L-2355	84	G1703 5	5	0.25	T17R3	Sirois	Kenneth	PO Box 214	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2626		G1703 25	25	0.34	T17R5	Sirois	Gilberte T	PO Box 35	Madawaska	ME	04756	T17R5 - SPEC Tract
Licensed	L-2947	436	G1703 91	91	0.23	T17R3	Sirois	Kenneth & Michael	41 Higgins Rd	Presque Isle	ME	04769	T17R3 - N/2
Licensed	L-3151		G1705 112A & 112S	112A & 112S	0.51	T17R5	Sirois	Laurie A.	9 Hillside St	Presque Isle	ME	04769	T17R5 - SPEC Tract
Licensed	L-1600	15	C1605 15	15	0.69	T16R5	Smith	Barbara A.	P.O. Box 1225	Caribou	ME	04736	T16R5
Licensed	L-3089		L1705 88 & 88A	88 & 88A	0.38	T17R5	Smith	Steven & Kimberly	147 Cyr Rd	Sinclair	ME	04779	T17R5 - Dickey Tract
Licensed	L-1837		G1705 52 & 71B	52 & 71B	0.30	T17R5	St Peter	Larry & Bonnie Joler	31 Durgin Rd	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-1837		G1705 52 & 71B	52 & 71B	0.30	T17R5	St Peter	Larry & Bonnie Joler	31 Durgin Rd	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-1785		L1705 1 & Add'l lot	1 & Add'l lot	0.28	T17R5	St. Peter	Cheryl	203 Cyr Road	Cross Lake	ME	04779	T17R5 - Dickey Tract
Licensed	L-3199		G1705 166A & 166S	166A & 166S	0.57	T17R5	St. Peter	Patrick & Claire	468 West Side Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-3251		G1705 167A	167A	0.23	T17R5	St. Peter	Patrick	468 West Side Road	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-2745		G1705 113	113	0.23	T17R5	St. Pierre	Lisa M.	1423 Van Buren Road	Caswell	ME	04750	T17R5 - SPEC Tract
Licensed	L-1626		L1705 9D	9D	0.42	T17R5	St.Peter	Andrew & Roselyn	464 Route 49	Westfield	PA	16950	T17R5 - Dickey Tract
Licensed	L-2814		G1705 59	59	0.23	T17R5	Stevens	Thomas & Claudia	804 State Rd	Mapleton	ME	04757	T17R5 - SPEC Tract
Licensed	L-3097		G1705 132A	132A	0.23	T17R5	Stevens	Thomas R.	804 State Rd	Mapleton	ME	04757	T17R5 - SPEC Tract
Licensed	L-3409		G1703 58- 1/2 57	58- 1/2 57	0.34	T17R3	Sweeney	Robert	1301 Alfred Rd	Lyman	ME	04002	T17R3 - N/2
Licensed	L-2371	144	G1703 21	21	0.28	T17R3	Tardif	Stephew, Laurie, Thomas, Julie DiPierro	9 Clearview Dr	Scarborough	ME	04074	T17R3 - N/2
Licensed	L-2248	7	C1605 7	7	0.69	T16R5	Thatcher	Wayne A.	9 Algonquin Drive	So. Dartmouth	MA	02748	T16R5
Licensed	L-2630		L1705 26	26	0.18	T17R5	Theborge	Ernest & Lois	43 Dennet Rd	Dayton	ME	04005	T17R5 - Dickey Tract
Licensed	L-1729		G1705 54 & Add'l lot	54 & Add'l lot	0.36	T17R5	Therault	Carl & Patricia	183 Third Ave	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-2611		G1705		0.00	T17R5	Therault	Duane	100 Daigle Cross Rd	St. Agatha	ME	04772	T17R5 - SPEC Tract
Licensed	L-2702	250	G1703 45 & add'l lot	45 & add'l lot	0.60	T17R3	Therault	Sylvio	62 Wilson Cres	Grand Falls, NB	CAN	E3Y 1G3	T17R3 - N/2
Licensed	L-3076		G1705 116	116	0.23	T17R5	Therault	Gervais	15 Shoreline Dr	Cross Lake	ME	04779	T17R5 - SPEC Tract
Licensed	L-4708	275	G1703 17a & 18A	17a & 18A	0.34	T17R3	Therault	Reynold A. & Jeanne M.	PO Box 314	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-4708	275	G1703 17a & 18A	17a & 18A	0.34	T17R3	Therault	Reynold A. & Jeanne M.	PO Box 314	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3217	394	G1703 81	81	0.23	T17R3	Therault	Bertrand	35 Violette Road	DSL Drummond, NB	CAN	E3Y 2R4	T17R3 - N/2
Licensed	L-1585	30	C1605 30	30	0.69	T16R5	Thibault	Gary	PO Box 73	Portage Lake	ME	04768	T16R5
Licensed	L-1657		G1705 53 * Add'l lot	53 * Add'l lot	0.62	T17R5	Thibodeau	James A.	PO Box 204	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-1728		G1705 55 & Add'l lot	55 & Add'l lot	0.70	T17R5	Thibodeau	James A.	PO Box 204	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-2359	100	G1703 9	9	0.23	T17R3	Thibodeau	Frank H. & Rebecca R.	187 Reach Road	Presque Isle	ME	04769	T17R3 - N/2
Licensed	L-3092		G1705 107A	107A	0.23	T17R5	Thibodeau	Fernand	852 Caribou Road	Fort Kent	ME	04743	T17R5 - SPEC Tract
Licensed	L-3411	455	G1703 60A & Add'l lot	60A & Add'l lot	0.46	T17R3	Thivierge	Wayne A.	PO Box 472	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-2525		L1705 16A	16A	0.23	T17R5	Thomas	Frederick A.	PO Box 450	Washburn	ME	04786	T17R5 - Dickey Tract
Licensed	L-3117		G1705 110A + 110B	110A + 110B	0.41	T17R5	Thibbetts	Lorraine	12024 Venice Blvd	Foley	AL	36535	T17R5 - SPEC Tract
Licensed	L-2750	354	G1703 72 & Add'l	72 & Add'l	0.48	T17R3	Toner	Teddy & Madeleine	590 Chapel Street West	Grand Falls, NB	CAN	E32 2M8	T17R3 - N/2
Licensed	L-2935	454	G1703 96 & 96S	96 & 96S	0.46	T17R3	Toner	Gerald & Yvette	PO Box 7987	Grand Falls, NB	CAN	E32 3E9	T17R3 - N/2
Licensed	L-2572		L1705 3	3	0.25	T17R5	Trask	Norman & Ellen	PO Box 264	Easton	ME	04740	T17R5 - Dickey Tract
Licensed	L-3140	500	G1703 108 + 108B	108 + 108B	0.57	T17R3	Tremblay	Bertin, Sylvie, & Luc	26 Dube St	Grand Falls, NB	CAN	E3Y 1E6	T17R3 - N/2
Licensed	L-1911		G1705 80	80	0.23	T17R5	Trustees under the Ruth A. Cyr Living Trust	Ruth A. Cyr and Roland W. Cyr	1771 Ringling Blvd	Sarasota	FL	34236	T17R5 - SPEC Tract
Licensed	L-2635		G1705 81 & Add'l lot	81 & Add'l lot	0.37	T17R5	Trustees under the Ruth A. Cyr Living Trust	Ruth A. Cyr and Roland W. Cyr	1771 Ringling Blvd	Sarasota	FL	34236	T17R5 - SPEC Tract
Licensed	L-2081		L1705 51	51	0.23	T17R5	Tweed	Tyler J. & Rhonda A.	64 Elinor Lane	Wells	ME	04090	T17R5 - SPEC Tract
Licensed	L-2266		G1705 74	74	0.23	T17R5	Tweed	John W. & Gail	861 Blake Road	Limestone	ME	04750	T17R5 - SPEC Tract
Licensed	L-3146		G1705 142A	142A	0.23	T17R5	Tweed	Timothy	861 Blake Road	Limestone	ME	04750	T17R5 - SPEC Tract
Licensed	L-2749	322	G1703 64 & 64B	64 & 64B	0.64	T17R3	Vaillancourt	Gary & Diane	135 Monroe St.	Van Buren	ME	04785	T17R3 - N/2
Licensed	L-3645	423	G1703 52A & Add'l lot	52A & Add'l lot	0.31	T17R3	Vaillancourt	Gary J.	135 Monroe St.				

Inventory of License Lots within the Concept Plan Area

STATUS	LEASE_NO.	LOT_NO.	TRACT	LotNo	Acres	TOWNSHIP	LAST	FIRST	ADDRESS	CITY	ST	ZIP	TownRange
Unlicensed	L-2769		L1705	50A	0.18	T17R5	Joy	Walter	26 N. Charlame Ct.	Boston	MA	02119	T17R5 - Dickey Tract
Unlicensed	L-3159		G1705	133A	0.69	T17R5	Paradis	Bernard & Nancy	388 West Side Rd	Cross Lake	ME	04779	T17R5 - SPEC Tract
Unlicensed	L-2915		L1705	89 & 90A	0.46	T17R5	Seymour	Robert & Louella	4061 Lupine Pass	Lake Wales	FL	33898	T17R5 - Dickey Tract
Unlicensed	L-2915		L1705	89 & 90A	0.46	T17R5	Seymour	Robert & Louella	4061 Lupine Pass	Lake Wales	FL	33898	T17R5 - Dickey Tract
Unlicensed	L-2917		L1705	91	0.23	T17R5	Soucy	Erin & Mark	PO Box 42	Fort Kent Mills	ME	04744	T17R5 - Dickey Tract
Unlicensed					0.00	T17R5							
Unlicensed		14			0.00	T16R5							
Unlicensed	L-3118				0.00	T17R5							
Unlicensed	L-3148				0.00	T17R5							
Unlicensed	L-3152				0.00	T17R5							
Unlicensed	L-3400				0.00	T17R3							
Unlicensed	L-3967				0.00	T17R3							
Unlicensed					0.00	T17R5							
Unlicensed					0.00	T17R5							
Unlicensed	L-1672	1672			0.00	T17 R7							
Unlicensed	L-1855				0.00	T17R5							
Unlicensed	L-2064				0.00	T17R5							
Unlicensed	L-2064				0.00	T17R5							
Unlicensed	L-2064				0.00	T17R5							
Unlicensed	L-2732				0.00	T17R5							
Unlicensed	L-2801				0.00	T17R5							
Unlicensed	L-3073				0.00	T17R5							
Unlicensed	L-3074				0.00	T17R5							
Unlicensed	L-3551				0.00	T17R5							
Unlicensed	L-3950	239 W			0.00	T17R3							