State of Maine

Department of Conservation

Maine Land Use Regulation Commission

Wednesday, May 12, 2010

Volume II of III

Fifth Pre-hearing Procedural Order Hearing

In the Matter of

Development Permit DP 4860

TransCanada Maine Wind Development, Inc.

Kibby Expansion Project

Held at Sugarloaf Grand Summit Conference Center

Carrabassett Valley, Maine

Don Thompson & Associates

Court Reporters

(This hearing was taken before Angella D. Clukey, Notary Public, at the Sugarloaf Grand Summit Conference Center, Carrabassett Valley, Maine, on Wednesday, May 12, 2010, beginning at 8:12 a.m.)

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MS. HILTON: I would like to get going. Good morning, ladies and gentlemen. My name is Gwen Hilton and I'm the Commission chair, presiding officer, for the hearing. Members of the Commission present -- I'll have them introduce themselves starting with Steve on my right here -- or Ed.

MR. LAVERTY: Ed Laverty, Medford, Maine.

MR. SCHAEFER: Steve Schaefer, Grand Lake Stream.

MS. KURTZ: Rebecca Kurtz, Phillips.

MS. MILLS: Amy Mills from the A.G.'s Office.

MS. CARROLL: Good morning. My name is Catherine Carroll, I'm the Commission staff director.

MS. FARRAND: Sally Farrand from Beaver Cove.

MR. NADEAU: Jim Nadeau, Winterville Plantation.

MS. HILTON: And our court reporter is Angella Clukey. Rebecca Renaud is our administrative assistant at the sound system there. And Samantha Horn-Olsen, manager of the planning division. And Marcia Spencer-Famous, senior planner. And -- those are the staff people that are present today.

Today's hearing is being held pursuant to the provisions of 12 M.R.S. Section 685-B. The hearing will be conducted in accordance with Chapter 5 of the Commission's rules for the Conduct of Public Hearings.

Today's hearing is being held to receive testimony on the matter of Development Permit DP 4860, submitted by TransCanada Maine Wind Development, Incorporated to construct a 45 megawatt wind energy development in Kibby Township and Chain of Ponds Township, Franklin County. The proposed wind energy development would consist of fifteen 3 megawatt wind turbines, an access road, a 34.5 kV collector line, a substation, and a short segment of 115 kV transmission line to connect to the existing Kibby Substation. The proposed project would use the existing Kibby Operations and Maintenance building and the existing 115 kV transmission line that connect to the Bigelow Substation.

The purpose of today's hearing is to allow the applicant, interveners and government agencies to present testimony and evidence as to whether the development proposal meets the criteria for approval as specified in 12 M.R.S. of the Commission statutes and, also, the Commissions's Land Use Districts and Standards.

Representatives of the applicant will then provide a summary of the proposal and their pre-filed testimony.

Following the applicant, witnesses for the consolidated intervenors, which consist of Maine Audubon Society, the Appalachian Mountain Club and the Natural Resources Council of Maine, will present summaries of their pre-filed testimony. Following the consolidated interveners, witnesses for intervenor Friends of the Boundary Mountains will present summaries of their pre-filed testimony.

At the conclusion of the testimony from each witness, cross-examination may be conducted first by the Commission, and then by the staff, next by the applicant, and finally by the intervenors. However, Commission members, staff and counsel for the Commission may ask questions at any time.

The State's soil scientist, representatives of the Department of Inland Fisheries and Wildlife and the Natural Areas Program, and James Palmer, LURC's scenic third-party peer reviewer will be available to answer questions about their review and comments.

All witnesses must be sworn and will be required before they give testimony to state for the record their name, residence, business or professional affiliation, the nature of their interest in the hearing and whether or not they represent another individual, firm or other legal entity for the purpose of the hearing.

In addition to being transcribed, we will be recording the proceedings today. So I request that you speak clearly

and don't speak too quickly.

All questions and testimony must be relevant to the Commission's criteria for approval for this proposal. Irrelevant or unduly repetitious material or questions will be excluded.

The record for this hearing will remain open for ten days for written comments from the parties until Monday, May 24th and for an additional seven days until Tuesday, June 1st for rebuttal testimony as is determined by -- or as determined by the presiding officer.

No additional evidence or testimony will be allowed into the record after that date. Persons attending the hearing who wish to receive a copy of the final action taken by the Commission as a result of this hearing may leave their name and address with our staff at the table on right here.

And at this point, Marcia, it would be good for you to do your presentation.

MS. SPENDER FAMOUS: Actually, I'm going to enter into the record -- into the record Exhibit 10, which is the Staff's Statement and Administrative history. I'm not going to read that, but it will be Exhibit 10. I'm also entering into the record Exhibits 1 through 10 for the record as an exhibit list for people to look at. They will both be over here available for people to read rather than

me reading them to save time.

MS. HILTON: Great. The -- I just want to say we've got a -- what I would say a fairly rigorous schedule today. We're a little bit behind at the moment. And so I'm going to have Catherine keep track of time and we'll kind of give you a head's up warning when you're getting close to your time allotment. So we certainly don't want you -- we want to get all the information that you would like to present and -- but we ask that you be as concise as you can.

We also -- I was just asked to mention that Jay Clement from the Army Corps of Engineers will be available to answer questions about the process for Maine Historic Preservation Commission with regard to the Arnold Trail. And he will be here later on when the other state agencies are here. So if any of the commissioners have any questions about that, he will be hear to answer those questions.

I think that's everything. Is there anything else? I think we're all set. Okay. Why don't we get started. And I guess the first step is the opening statements by the consolidated parties and Friends of Boundary Mountains. And -- go ahead.

MS. JOHNSON: Okay. Good morning. I'm Cathy Johnson, senior staff attorney and North Woods project director for the Natural Resources Council of Maine. I'm speaking today

on behalf of the consolidated parties, which includes the Appalachian Mountain Club, Maine Audubon and NRCM.

The consolidated parties oppose the granting of a permit for the proposed 15 turbine wind power project on Sisk Mountain. We believe this project as a whole fails to meet the necessary statutory criteria, including the criteria that there will, quote, be no undue adverse impacts on existing uses, scenic character and natural and historic resources in the area, closed quote.

Specifically, we believe the project will have undue adverse impacts on a rare subalpine forest, which provides breeding habitat to a species of highest conservation concern, that's the Bicknell's Thrush, and has undue adverse impacts on the scenic character and related uses at Chain of Ponds and other statutorily designated scenic resources.

Our opposition is focused on the adverse impacts caused by the seven southern turbines. We would support a permit for the eight northern turbines, which do not pose the same undue adverse impact.

Our three organizations have been strongly supportive of wind power in Maine. We were all active participants in and supported the recommendations of the governor's task force on wind power development. We have all supported or remained neutral on nine of the eleven wind power projects

which have completed the process to date in this state. This is only the third project that any of our organizations have opposed either in whole or in part during the permitting process.

We supported the rezoning permitting for the original Kibby wind project because it would provide, and already has started to provide, significant clean energy benefits while avoiding significant adverse impacts on important natural and scenic resources. We take climate change and the environmental impacts from our dependence upon fossil fuel seriously. We believe Maine and the broader world must move swiftly and effectively to curb fossil fuel use and substitute cleaner forms of energy including renewable. But nothing in our understanding of the energy issues confronting us leads us to believe that Maine, or this Commission, must approve all wind power projects even if they are proposed in the expedited area.

As parties involved in the process to the designation of the expedited area and the adoption of the wind power sighting law, our groups understand very well that this expedited designation makes wind an allowable use from a zoning perspective in LURC jurisdiction, but even projects in the expedited area very clearly regard continued full scrutiny of natural resource impacts in the permitting process with an important but narrow change only to the

scenic impacts standards.

The Commission will face significant pressure to approve this project, including by those in this region who benefitted from the first Kibby project. However, our close involvement with both projects gives us a particularly strong understanding of the specific adverse impacts of the Sisk project as compared to the Kibby project. Although Sisk is located close to Kibby, it is a separate mountain and the adverse impacts from the proposed seven southern turbines would be significantly different and greater than those of Kibby.

As documented in the testimony submitted by Dave Publicover, Susan Gallo and me for the consolidated parties, we have identified three specific areas in which the project, specifically the southern seven turbines, fails to pass the no undue adverse impact test.

We encourage you to keep these three concerns in mind as you hear testimony today. First, the project would degrade and fragment a significant and essentially pristine example of the rare Fir-Heart-Leaved Birch Subalpine forest community. The project would eliminate or indirectly degrade 30 percent of this particular community occurrence. Second, the applicant significantly underestimates the adverse impact on Bicknell's Thrush, a species that is found only in very limited areas of the northeastern U.S.

and southeastern Canada and one that has been identified as a species of highest conservation concern by state, national and international groups. Third, the project would significantly compromise the large undeveloped character of several scenic resources in the area, including a public reserve land unit whose management plan focuses on recreation in a highly scenic environment and seven lakes and ponds rated outstanding by the Maine Wildlands Lakes Assessment.

I know that you took a field trip yesterday. This is a photo taken from a canoe in Lower Long Pond. And I know you were not able to get out on that pond yesterday.

MS. MILLS: Is this a pre-filed exhibit?

MS. JOHNSON: This is just a demonstrative exhibit. No, it was not pre-filed, it was taken last week.

MS. MILLS: Okay.

(A discussion was held off the record amongst Ms. Mills and Ms. Browne.)

MS. BROWNE: I would appreciate an opportunity to get copies of anything new that is being presented for information for the first time.

MS. MILLS: Did Friends want to take a look at this before it's shown to the Commission? Mr. Weingarten, did Friends want to see a copy of this photo before the Commission does?

MR. WEINGARTEN: Sure.

MS. MILLS: Why don't you come up and take a look at it.

MS. JOHNSON: Each of these three adverse impacts to the natural community, to Bicknell's Thrush and to the scenic resources can be considered individually, but together they clearly demonstrate that Sisk Mountain is an area of particularly high natural resource and scenic value that is unsuitable for development.

We hope that there may be a path forward to allow some additional wind development to occur on the northern end of the Sisk Ridge and making use of the existing Kibby infrastructure, but if that is not possible and this permit must be evaluated solely as it appears today, then we believe the Commission must issue a denial based on the clear multiple undue adverse impacts on natural and scenic resources. Thank you very much.

MS. HILTON: Thank you, Cathy. Friends of the Boundary Mountains.

MR. WEINGARTEN: Good morning. Members of the Commission, my name is Bob Weingarten, I am president of Friends of the Boundary Mountains. And I will be representing Friends of the Boundary Mountains today along with some of my colleagues from our group. I just want to mention that I'm not a trained attorney and I hope you'll

bear with me.

Friends of the Boundary Mountains intends to demonstrate to the Commission that there are more than sufficient fundamental reasons to deny TransCanada a permit for GP 4860. We intend to demonstrate that no reconfiguration of turbines or partial implementation of this project can overcome the very fundamental flaws and extreme adverse impacts associated with it. We intend to bring to your attention major construction design and construction technology flaws in TransCanada's application. We intend to bring to your attention major environmental flaws in TransCanada's proposal, much of which will lead to permanent damage. We intend to bring to your attention major ecological flaws in this proposal, including wildlife impacts, wetlands impacts and vernal pool identification impacts.

The project diverts -- the project entails diverting, crossing or otherwise impacting streams over 100 times. The project site contains habitat for numerous state and federally listed species and a rare natural community, raising the question, how ecologically significant does an area have to be for Maine and its state agencies to recommend denial of the project?

We want to bring to your attention to the absence of sufficient tangible benefits and negative consequences on

existing producers of the proposal. We intend to bring to light the total cumulative adverse impacts of this proposed project in an area where such cumulative negative impacts have a potential for doing extreme harm and damage to the environment. We intend to demonstrate that these detrimental impacts would do permanent damage on the surrounding area.

As you listen to the testimony and receive answers to your questions, as you read all the commentary about this project, please keep in mind the description of this area that was given by the Deputy State Historic Preservation Officer as recently as May 6, 2010. And I quote, the Chain of Ponds area of the Arnold Trail is nearly pristine and unspoiled. Only the presence of Route 27 and a few seasonal lakeside camps along a portion of the lake's shoreline provides the visitor with a reminder that he or she is not in the late 19th century.

Imagine a place with industrial turbines, gear, massive roads, swath of power lines, et cetera in such a setting as described by the Historic Preservation Commission. Well, of course, you don't have to imagine that, it's right up on Kibby which we've seen. We just don't want to see it repeated.

While this proposal is being reviewed under the expedited wind energy law, it still must pass our muster,

it still must meet many stringent criteria and standards that LURC has set forth for the development of projects in the unorganized territory.

There are those in this room proposing a compromise to let TransCanada put eight turbines in the expedited north half of the Sisk Ridge, but protect the remainder. There are those that feel a political compromise is in order to slice the mountain in half so theoretically both sides can walk away with something. Well, you know such political compromises may work to some extent when cutting off the state budget, but they fail to work in the grossest terms when considering the survival of the natural world. No deal in the meeting room can account for the on-the-ground vagaries of the plant/animal communities, habitat and movement in the natural world.

So we reach a question that harkens back to King Solomon and his dilemma of cutting the baby in half. All of the ridge line from one side or the other or cut it in half. As we puzzle through this proposition, let's recall that we are not talking about cutting political lines of a map in half, but real ecological communities.

In recent years conservation principles have more often focused on protecting whole landscapes, ecosystems and bio regions less these communities become stranded and jeopardized by their isolation on smaller tracks. It is in

this context that we should judge this application of Solomon's wisdom.

As we move forward -- let me leave you with this one quote from a wind warrior in the United Kingdom. And this is Angela Kelley. And she says: The timely intermittent output of electricity and the negligible CO2 savings cannot possibly justify the huge sacrifice of that most finite resource, our unspoiled and irreplaceable countryside. It is our duty to protect our rural heritage for present and future generations from such gross and unnecessary industrialization.

I feel that -- and Friends of Boundary feels it is the imperative duty that this Commission has to consider when they move ahead on this application. And we hope to show you why we need to protect our natural resources. Thank you.

MS. HILTON: Thank you. Okay. I guess TransCanada is up next. What I would like to do is swear everyone in on this panel before we go any further.

MS. BROWNE: Do you want to swear everybody in? Because we're going to have all our witnesses testify for the full 80 minutes before anybody is subject to cross.

(A discussion was held of the record.)

MS. HILTON: Okay. If you could please raise your right hand and repeat after me? I swear to tell the whole

truth and nothing but the truth.

PARTICIPANTS: I swear to tell the truth, the whole truth and nothing but the truth so help me God.

MS. HILTON: Thank you very much.

MS. BROWNE: And just a quick procedural matter, we don't have everybody that's submitted pre-filed testimony making an affirmative presentation today. They're all here and available to cross, but in the interest of time, only some panels and only some members of the panel will be providing the brief presentations. And with that, I turn it over to Terry Bennett.

MR. BENNETT: Good morning. My name is Terry Bennett and I'm the director of renewable energy development for TransCanada and I'm part of Panel 1. On my left is Tom Patterson, who is the manager of wind energy development for TransCanada. And to my right is Nick DiDomenico, who is the project manager for the Kibby project -- or was for the Kibby project and is for the Kibby Expansion Project.

I would like to start off by just thanking the Commission for their time and attention this morning. We appreciate your busy schedule. I'm going to just do a brief summary overview of the project before turning it over to the subsequent panels.

Just a quick note on TransCanada, an update of sorts of slides you've seen before. We are a large company with a

strong financial position. And I just want to stress that that's important because of the commitments we're taking. We have the resources to development, operate -- construct and operate this project and live up to our commitments long term. Even through the, you know, financial crisis over the last few years, we've maintained our company and continue to finance our projects without the need to pull into the vagaries of the financial markets and stall it or -- or hesitate on the project. So that's an important point to make.

The Kibby Expansion Project, as has been explained, is a 15 turbine 45 megawatt project. These are the same turbine models that are being used at the Kibby project, the Vestas V90s. The project is located on Sisk Mountain, all within the expedited permitting area and all on private land. Sisk Mountain is about 2.5 miles from -- west of the Kibby Range and straddles the Chain of Ponds and Kibby Townships.

And another important point to make is that the closest residence or camp is about 2.3 miles away; therefore, we've avoided any noise or other possible issues that are there.

The reason we're there and the reason we were there at Kibby was because of the premier wind resource at the site. Average wind speeds are roughly around 8.4 meters per second, 19 miles per hour range at hub height. That

translates using these turbines into about 120,000 megawatt hours of energy or enough clean power to -- for 17,000 homes in the state of Maine.

Just as a relative measure, the wind resource here is good enough that we are producing roughly twice the amount of energy that other projects in Maine produce. Stetson, for example, a very good project on its own. We produce about 8,000 megawatts -- megawatt hours of energy per year versus 4,200 megawatt hours per year per machine at Stetson.

There are a number of synergies with this project that we can leverage off of from the Kibby project. You know, probably the largest one is we're able to utilize the 27 mile transmission line that we built from the Kibby project to the Bigelow Substation. That, obviously, avoids the need to -- the need for new right-of-ways, new transmission and the impacts associated with that. We're also able to utilize the line -- CMP line between Bigelow and Wyman without the need for any new construction there. We've made improvements to Gold Brook Road and we can utilize those for access into this project as well.

Finally, the Kibby Operation and Maintenance building will be used with slight alterations without the need for a new building. That's significant there.

This slide just shows you the -- the relative proximity

of the two phases of the Kibby -- first Kibby project, the A range on top and the B range or Kibby range on the bottom. It just shows -- we're actually about the same distance between Kibby Mountain, Kibby Range, or A and B series as we call it, and between B series and -- and Kibby and Sisk. They're both 2.5 miles apart.

And, again, you can see Gold Brook Road access. This is the road that -- we've utilized that road already and it's already been operated. And we'll make use of the transmission line that starts here and then goes down into the Bigelow Substation without any --.

The next slide shows you a wind resource map. And, again, this is the reason we're here is that it's one of the best wind resources in New England. This shows the layout of the 15 turbines. The colors represent wind speeds. And the darker colors, the red colors, are the best wind speeds in the order of 9, 9 and a half meters per second.

And as you can see, they straddle the ridge line in general. Although, there's a fairly large gap between Turbine 11 there and Turbine 12. That's the Bicknell's Thrush habitat that we have avoided and given up a significant amount of premium wind there to do that for the project down through there and all within the expedited permitting area.

One last point here is that Turbine 11 was located here and it's part of the many, many iterations of layouts that we've gone through. Based on state agency and other state comments, we've moved that turbine off, you know, from that area of Bicknell's Thrush habitat and off into the edge over there.

TransCanada has used the same high standards that was used at Kibby when we were designing, developing this project. We believe that the impacts to the environment are minimal and have been minimized to the largest extent possible. The impacts that remain are moderate. And they are that 8 acres of Bicknell's Thrush habitat has been impacted. That supports the single breeding female. With a population in the state of 40,000 -- or in the northeast of 40,000 birds. And you will hear more about that from our expert panel. And while the Bicknell's Thrush is a species of concern, it's not listed as endangered either federally or at the state level.

We will impact 39 acres of Heart-Leaved Birch Subalpine forest, again, within a mapped community of 40,000 acres in the state of Maine. And, you know, for example, new areas are being discovered as we've seen at the -- within the -- on the Sisk Mountain area, so --. There are some visual impacts on portions of Long Pond and Bag Pond. And Jean Vissering will testify to that in her presentation.

The project benefits are, I think, numerous and far outweigh the modest impacts that we're having. Obviously, the project will contribute towards the State's goal of reaching 2,000 megawatts by 2015, 3,000 megawatts by 2020. The state is short on that goal and sort of -- you know, every megawatt will help contribute towards that goal.

The project benefits in terms of the monetary terms are roughly about $40 million over 25 years from state income taxes and property taxes alone. There are economic benefits to local businesses associated with construction spending. And just an update on the Kibby spending, we've spent to date through the first phase of the project about $109 million in Maine and about 9 million of that was right in the Franklin and Somerset Counties. The project will add an additional full-time operations job in addition to the additional 15 full-time jobs associated with the Kibby base project.

Although not strictly required to follow the tangible benefits legislation that was recently introduced, TransCanada is going along with meeting that standard. We will, as per the Kibby project itself, be contributing $1,000 per megawatt to the -- to the town of Stratton. That translates to 45 megawatts to $45,000 per year, or, roughly, a little over a million dollars within 25 years. We're also contributing $150,000 to the State Department of

Labor to support a program similar to the boot camp that I think you heard a little bit about last night. But that's basically an education and training program for low income and underprivileged youth related to jobs in the sustainable development area.

We're also contributing $150,000 to the High Peaks Alliance for land conservation and trail corridor acquisition in and around the Franklin County area.

Finally, though separate from tangible benefits, just as part of TransCanada's benefits policy, we have made two other contributions. One is the Bicknell's Thrush Habitat Protection Fund for $100,000. This is run by a group of nonprofit organizations as you see listed here. And the focus area is to protect the habitat of the Bicknell's Thrush wintering grounds in the Caribbean where the greatest threat to the species occurs.

And then, finally, we're making a $100,000 contribution to the Arnold Expedition Historical Society in which partnership will be started with the Kibby project. Thank you. I will turn it over to Panel 2 and .

MR. NAZARCO: Good morning, members of the Commission. My name is Matthew Nazrco, I'm the project manager for the engineering development of the Kibby Expansion Project. I've been doing that -- I've been working in that position for the last eight months. Prior to that I was, from the

beginning of 2008, working on the implementation of the Kibby project as the engineering manager.

To my left is -- to my left is Corey Goulet who until very recently was the -- was the vice president of energy projects for TransCanada and more recently he's now become the vice president of Bruce Power, a nuclear power station in Ontario. And to my right is Wolfgang Neuhoff, the project manager for implementation of the Kibby wind power project.

In the interest of time, we will -- I will not be presenting or making a direct presentation on our pre-filed testimony, but I would like to correct a couple inconsistencies in some of the pre-filed testimony -- pre-filed testimony from Friends of the Boundary Mountains.

On -- in the pre-filed testimony on Bert Lambert and Nancy O'Toole, on Page 15 of 23 they state -- and to quote: In Table B-13 land area, 17.5 miles of new road will be required for Kibby Phase 2 and for which -- as per their definition in the testimony is the Kibby Expansion Project. In Table B-13-3, land area of TransCanada's application, the correct number is actually only 4.7 miles of new road as seen in the table. That consists of 3.6 miles of new ridge road, which is -- has a width of 34 feet, and 1.1 miles of new access road, which is 20 feet in width.

In addition to that, there will be 2.4 miles of

existing road that will be upgraded, which is 2.2 miles of Mile 5 Road -- of existing Mile 5 Road and 0.2 miles of Wahl Road. So in total that's 4.7 miles of new road and 2.4 miles of existing road to be upgraded.

In addition, on the same page it states -- and to quote: An additional 17.8 miles by varying width of terrain will be opened up and seriously altered for the collector corridor. This is also an inconsistency. In Table B-13-3 of our application, the total length of collector corridor is only 8.9 miles. 3.1 miles of this will be on the ridge top for the collector system in between the turbines and 5.8 miles of this will be from the ridge to the new Kibby Expansion collector substation.

In addition, on -- most of the commissioners were on the site tour yesterday. There was one piece of information I said that I would like to check and that was around the -- the weight of the turbine -- the entire turbine. Yesterday we stated 150 tons. We went into the literature after the site tour and confirmed that although the top of the -- the blades was accurate, the tour we underestimated. So the total weight of the turbine is between 270 and 300 tons.

Thank you. I am going to pass it to Panel 3 now.

MS. CINNAMON: Madam Chair, commissioners, LURC staff, my name is Christine Cinnamon, I'm the environmental

manager with TransCanada working on the Kibby Expansion Project. With me today is Dana Valleau, environmental specialist with TRC who headed up the environmental permitting and field survey efforts. And both of us worked on the Kibby project as well. With me also is Don Hudson, he's going to speak to us about subalpine fir, and Peter Vickery who will talk to us about Bicknell's Thrush.

The details of our studies and results in the analysis is all contained in our pre-filed testimony as well as our application material. I'm not going to go into that detail today. Instead, I would like to focus on a few key points.

The first point I'd like to make is just to confirm our commitment to avoid and minimize impacts to the greatest extent possible. This has not changed from our approach on the Kibby. It is the exact same approach that we used both on Kibby and the Kibby Expansion Project. This is contrary to Dave Publicover's testimony in which a statement was made that perhaps the standard was weaker. And I'd like to just reconfirm that commitment to you that it has not changed.

We worked very closely in coordination with all of the relevant agencies in developing our survey protocols as well as in the presentation of results and then citing project elements to, as I said, avoid and minimize impacts to the greatest extent possible.

And this is a very important point for us because it is the agencies that -- that give the final test as to undue adverse impacts. And so it's important that they get the information they need to be comfortable with our information and to be sure that that is the case.

The first area I would like to focus on is relative to Bog Lemming habitat. What you see on the screen there is the overall project layout. There are three purple areas that were identified as the potential Bog Lemming habitat. I would like to focus in a little bit closer with the next slide. And this shows that we were able to site the project elements to completely avoid that Bog Lemming habitat as well as the outlined areas associated with that habitat. This is the same as what we did on Kibby.

The next area I would like to talk about is Roaring Brook Mayfly, Spring Salamander, vernal pools and wetlands. We understood early on in developing the project that there was the potential for habitat for Spring Salamander and Roaring Brook Mayfly. We worked with the agencies to survey the area. We did not find Roaring Brook Mayfly or Spring Salamander. Despite that, we implemented draft IF & W guidance to -- to protect those potential areas despite the fact that we did not find them there.

I'd like to address a comment in Ms. Boretos pre-filed testimony relative to vernal pools. It was an assertion

that we did not use the appropriate protocol. In fact, we did use the appropriate protocol to identify potential vernal pools. In Maine we -- the season -- the spring season for identifying the vernal pools is quite short. IF & W understands this and, therefore, they have a standard protocol to use to identify vernal pools or potential vernal pools outside of that season.

That's the protocol that we used. We identified potential vernal pools. The ones we identified were all manmade; that is, they are nonjurisdictional, not state regulated. Despite that, again, we treated them as though they were state regulated and applied the appropriate buffer zones according to that to protect those potential vernal pool areas.

And with respect to wetlands, we -- we did wetland surveys in the same manner in which we did -- we surveyed the Kibby area. And we used the results of those surveys to site project elements to avoid, minimize wetlands to the greatest extent possible. Permanent soil impacts end up being less than 1 acre. The vast majority of that is associated with improving the existing Mile 5 Road hydrology. So those improvements are -- are going to be good for that road.

Next I'd like to talk about avian and bat survey data. Briefly I'd like to address the statement by Ms. Gallo in

her pre-filed testimony that suggested that passage rates were somewhat higher and flight heights somewhat lower than in other projects such as Kibby. In fact, if you look at the data presented for the Kibby Expansion Project, passage rates are quite comparable as are the flight heights that we recorded and in many cases are lower than what we see in other projects in Maine, including those that have been permitted such as Kibby.

And despite the fact that I -- I trust that this data is sound based on the experts that we have hired to do the surveys and present the results, the final test of this again is the feedback from the agencies to ensure there is no undue adverse impact.

The next slide that we have up here is relative to the Bicknell's Thrush habitat. Again, we worked very closely with IF & W to ensure that our survey effort was robust. We identified breeding Bicknell's Thrush habitat on Sisk.

If we could zoom in. What you can see here is in the red hatched area two areas of core breeding habitat. And the yellow outline -- it's a little bit hard to see -- indicates a larger or broader potential habitat than we identified. We worked with the agencies to site project elements to avoid and minimize. So avoiding the core habitat and minimizing the impact of potential Bicknell's Thrush habitat. And Peter Vickery is going to talk to you

in greater detail about Bicknell's Thrush in a little bit.

And my final set of slides and point that I would like to -- to talk about is subalpine fir habitat. You can see here the original turbine and project element layouts, Turbine 11 is in the middle. That's Turbine 11 there. As you heard from Terry Bennett earlier, we moved Turbine 11. That avoided impact to the core Bicknell's Thrush habitat as well as minimizing impact to subalpine fir habitat.

And if you could go to the next slide. This shows you how we moved Turbine 11 as well as the associated road. Let's go to the final slide. That shows you the final layout, how we've moved it out to the outside of that habitat. And then if we could go to the final slide. This just shows you the entire map of subalpine fir communities.

And I would like to now turn it over to Don Hudson who is going to talk to us in greater detail about that community.

MR. HUDSON: Good morning. My name is Don Hudson and you have my pre-filed testimony as well as my CV. I currently serve as the president of the Chewonki Foundation in Wiscasset and I'm here to testify as a private individual.

I have a good deal of experience in forest ecology and alpine biology and ecology and specifically the plant biology and ecology of mountains in Maine and similar areas

in the subarctic and arctic. I have conducted inventories of the search of original undisturbed forests in Baxter State Park, Bigelow Preserve and the Mahoosuc Range. And that work also included the survey and documentation of subalpine forests and alpine areas, which I mapped for the Critical Areas Program in Baxter State Park in 1984 and Bigelow Preserve in Mahoosuc in 1985.

In preparation for my testimony today, I have -- I have reviewed the application of TransCanada for the Kibby Expansion Project and have viewed the area proposed for development. As I mentioned in my pre-filed testimony, based on a review of the application and my visit and in light of my experience in the mountains of Maine, I do not believe that this forest is particularly fragile or at risk of significant widespread disturbance as a result of the activity proposed.

This forest community is consistent with others in the Boundary Mountains that I inspected in 1994 and in 2007 which have persisted for thousands of years since the glaciation and notably during the past 75 years of the intensive forest management. Based on data from the Maine Natural Areas Program, there are approximately 40,000 acres of mapped subalpine forest in the state of Maine, roughly three-quarters of which I mapped.

The highest boundary forests, of course, are the large

tracks located in higher elevation areas such as the Mahoosuc, Baxter State Park, Redington Pond Range and the Bigelows. Thus, the Sisk subalpine forest of 358 acres represents approximately 1 percent of the total mapped forest community in Maine.

Importantly, although the community is considered rare in Maine, it is certainly not rare regionally or globally. The subalpine forest of Sisk Mountain is near the southern range of forest type in the northeastern United States. The vast majority of this forest type north and south of us in Maine and New England is permanently protected.

The subalpine forests in this slide -- do you have the list of the --? Yeah, just leave that. The subalpine forests in this slide were meant to show you in the shades in green those lines on this graph in front of you --

MS. JOHNSON: Excuse me.

MR. HUDSON: -- indicated that 91 percent --

MS. JOHNSON: I would like -- I object to the photographs. If I'm not mistaken, I don't believe those were submitted with the direct testimony and it's a new exhibit that we actually have not seen before.

MS. BROWNE: They were with the pre-filed direct and they're directly in response to the issues raised in Dr. Publicover's pre-filed testimony.

MS. MILLS: Which photo, just this one?

MS. BROWNE: Yes.

MS. JOHNSON: No, there are two photos.

MS. BROWNE: Both photographs -- both photographs of the common community on Sisk.

MS. JOHNSON: Well, we haven't seen them before, we haven't had a chance to respond to them. We would object to them.

MS. BROWNE: I guess I'm not sure what the -- this is an issue, obviously, that was raised in great detail in Dr. Publicover's testimony. There was no opportunity filed in --

UNIDENTIFIED SPEAKER: Please use the microphone.

MS. BROWNE: Sorry. This is directly responsive to Dr. Publicover's pre-filed testimony. And they're photographs, you can certainly cross-examine somebody on the photographs if you're concerned about it.

MS. MILLS: Your objection is?

MS. JOHNSON: My objection is that these were not provided to us in advance. The applicant new full well that this natural community would be an issue to be discussed at this hearing and to have new exhibits in the direct testimony of the applicant that we have not had a chance to look at is unfair.

MS. BROWNE: Well, with all due respect, you didn't seem to have any objection to you providing new photographs

to the Commission for the first time.

MS. JOHNSON: That was a demonstrative exhibit in the opening statement. I was not planning to offer it as an exhibit in this proceeding.

MS. MILLS: TransCanada, what Juliet Browne said is that these are rebuttal exhibits, that these are in response to testimony from Mr. Publicover. Do they appear relevant to you to testimony that's been provided by Mr. Publicover?

MS. JOHNSON: Mr. Publicover certainly spoke with the natural community. I'm not quite sure what purpose they're putting these photographs to because we got no -- we had no advanced notice about them, so I can't answer that question.

MS. BROWNE: If it gives you any greater comfort, we're certainly willing to have these be demonstrative and not introduce them into the record. It is a key topic of discussion and I thought it would be helpful for the Commission to actually have a visual of what Dr. Publicover's testimony is about and what Mr. Hudson's testimony is about.

MS. JOHNSON: I'm just concerned about setting a pattern here where exhibits, one after another, that we've not had a chance to see before are suddenly being sprung on us during this direct testimony summary.

MS. MILLS: That's why the prehearing --

THE REPORTER: I'm sorry, I can't hear you.

MR. WEINGARTEN: I can't hear. I'm sorry, I can't hear.

MS. MILLS: I'm saying that the objection is -- it's a fair one to make. I mean, the prehearing order was clear that the exhibits were to be pre-filed. However, there is an opportunity for parties to bring additional impeachment exhibits or rebuttal exhibits, which is what Ms. Browne is stating this is, it's --.

MS. HILTON: Is the timing of presenting these an appropriate one? Is the timing -- I mean, if these were brought in later during the rebuttal?

MS. MILLS: You could -- Gwen, you could reserve your ruling on them if you want to wait and give the consolidated parties an opportunity to question the witnesses on these exhibits during cross-examination. You could do that.

MS. HILTON: I think that's what I would prefer. I don't like setting a precedent here, certainly, of introducing them when you haven't had a chance to take a look at them.

MS. MILLS: My recommendation is why don't you set them aside for now, these two photos are not exhibits, and you can take it up when his testimony is presented.

MR. HUDSON: I think the words will speak for themselves, the illustrations can come later.

I have to find my place again. As one moves north in Canada and other northern hemispheres, this forest type becomes more common and widespread in the mountains. The significant subalpine forest exists in Quebec, Newfoundland and Labrador, for example.

Additionally, the subalpine forest on Sisk is not one of the more special examples of the community type in Maine. Most important and critical examples of subalpine forest communities in Maine are the larger examples found in such places as Baxter, Bigelow Range and the Mahoosuc or along the intervening mountain corridors followed by the Appalachian Trail where steeper grades, associated outcrops and exposed ledges support thinner soils in particular.

The topography of the Boundary Mountains is different from these other areas in meaningful ways. And as a result of these differences in topography and substrate, pure spans of subalpine forests are limited to the highest elevations in the Boundary Mountains. On the nearby Bigelow Range, for example, subalpine forests appear as low as 2,500 feet on the upper slopes of the ridge. In the Boundary Mountains pure spans of subalpine forests are not limited to Kibby Mountain, Kibby Range and Sisk.

We know of other areas of the communities that are not

mapped, including, but not limited to, Mt. Pisgah to the west, an unnamed mountain in the D series, Caribou Mountain, Number 6 Mountain, Merrill Mountain, Smart Mountain, Moose Mountain and Tumbledown Mountain to the north, Snow Mountain, Onion Hill, Boil Mountain, Cattle Ridge, Boundary Peak and Whitecap Mountain to the south. When considering the percentage values of subalpine forests in the Boundary Mountains, consideration should be made of that portion of the forest type that has not yet been mapped.

I suspect that the total acreage of subalpine forests in the state might increase by as much as 20 percent if more modern and accurate techniques were employed in place of the simpler and more crude techniques that I employed 25 years ago.

In summary, it is my estimation that the activity proposed in the application of TransCanada for Sisk Mountain will not threaten the integrity of the upper elevation of forests of the Boundary Mountains, nor put at risk the fragile ecosystem ordinarily associated with mountain tops in Maine. Geological and topographical features that help to define the PMA in Maine, taluses, buttresses of out-cropped granite, and rocky barren summits are not common in the Boundary Mountains. The forests associated with the upper slopes of these mountains are

more a mix, pushing the lower end of the pure balsam fir subalpine forest to 3,000 feet.

The disturbance associated with road building and construction of towers has been minimized by the applicant and is not out of scale with keeping with the sorts of natural disturbance that this forest has survived over the thousands of years that it has been on Sisk Mountain. When I went to the top of Sisk, for example, I walked through an area about a half an acre that had been completely altered by an overwintering moose; the trees dead and fallen over, and the natural succession of plants beginning to appear on the forest floor.

On the other side of the ridge was a larger patch of wind blown trees likely tipped over as part of a storm event sometime in the past ten years. Despite these natural disturbances, which have produced the sorts of edge effects described elsewhere in the testimony before you, the plants and animals that make up this subalpine forest community have persisted on Sisk. Although there is less evidence of past human disturbance within the subalpine forest on Sisk, that in some circumstances might compel me to recommend against development, in this case I am drawn to a different conclusion.

First, the nature and character of rarity of the forest type present on Sisk influences my thinking about this

subject. As noted earlier, the community presents on Sisk is not an especially critical example of the community in Maine as it does not share some of the attributes of other high mountain plant communities that includes rocky slopes and greater plant diversity in particular due to the mingling of alpine and subalpine communities.

Second, when considered regionally, this subalpine forest community is not particularly rare. Third, the project will only impact 39 acres of the mapped community. And while there will be some acres of impact associated with fragmentation and impacts on the edges of the project footprint, the collective impacts, direct adjacency and fragmentation shown on the plan, will not result in an unreasonable adverse effects to the plants and animals that make up this community.

The presence of a road or other breaks through the forest will not significantly adversely impact the plant community, as it is very well adapted to regular and sometimes dramatic natural disturbances. This forest type can and does persist in small discontinuous patches that are governed as much by topography as climate. Indeed, there are many examples of natural breaks in subalpine forests that do not adversely impact the overall forest community. Although I recognize that in some instances there will be impacts from natural or manmade breaks on the

wildlife community.

My conclusion is the project will not result in an unacceptable impact to this community, and is also consistent with how the State has characterized the significance of the community generally and the potential impacts to the community for wind power development. Specifically, the State describes the community as follows in its comprehensive wildlife strategy document: It is dynamic and cycles through periods of damage and regeneration, it is relatively stable in overall extent and is extensive on Maine's higher mountains, major occurrences are well protected within public lands or private conservation lands and recreation and wind generation could locally degrade other minor sites, but these uses are unlikely to present a significant threat to the integrity of these forests.

Finally, we cannot ignore the relevance of an impact of climate change on global environments. Where conditions prevail in Maine to develop renewable energy with the least impact to natural communities and human communities alike, I believe that we should move with all expedition. The Boundary Mountains is just such a place.

MR. VICKERY: Good morning. My name is Peter Vickery, I'm the president of a small nonprofit organization called The Center For Ecological Research. The focus of that

nonprofit is primarily to do research on ecologically rare and endangered species and plants as far northeast as Florida and as far south as Argentina.

I received my Ph.D. from the University of Maine in 1993 in wildlife ecology. My particular interest in -- with Bicknell's Thrush has gone back to about 35 years ago when -- having an interest in birds, was particularly interested in the distribution of Bicknell's Thrush, which was then called Gray Cheek Thrush in Maine. I followed that since. I've worked in a variety of different ways looking at Bicknell's Thrush.

More recently I've had the opportunity to go to the Caribbean, to the Dominican Republic, Cuba and Jamaica where the species are most at danger. We'll talk more about that later. I want to try and give a broader picture of what I think the conservation issues for Bicknell's Thrush are and then see if I can bring folks back to this site and this situation. And in my experience and in my opinion, the clear and unambiguous primary immediate threat to Bicknell's Thrush is loss of wintering habitat. And depending on the island in the Caribbean, anywhere from 75 to 90 percent of the habitat for Bicknell's Thrush is gone. And I can just -- if you think about Haiti, part of the Dominican, where Bicknell's Thrush used to winter, essentially, the forest became cleared. So that's really

the critical conservation -- immediate conservation issue.

The second one is actually predation by exotic rats in the Dominican Republic. Winter mortality from exotic rats is anywhere between 30 and 50 percent. And so if you think about that for a second, 100 Bicknell's Thrushes fly down to the Dominican Republic, make it through the migration and then during the course of the winter anywhere from 30 to 50 of them are not going to be coming back because they get eaten by rats at night. That puts a staggering stress on the population dynamics. So that's really -- for me those two issues just standout far and above anything else.

The next, I think, long-term conservation issue really has to do with the change in climate and how that may affect this species.

So I want to emphasize that habitat loss in the breeding grounds is not really a present threat. What's happening in the Caribbean is a huge threat. There are about 336,000 acres of traditional subalpine fir habitat in the northeast, including Canada, that's available to Bicknell's Thrush. And one of the things that's really struck me about this project and this area is the degree of industrial forestry that goes on.

And there's something like 90,000 entries of regenerating spruce fir habitat in Maine. And that's habitat that is available to Bicknell's Thrush. It's sort

of a new habitat. But if you think of regenerating forests -- and many of you saw it yesterday on the site visit -- that mimics the structure of the subalpine forests like you see further up. And we know from some of the field surveys that we've done for this project that Bicknell's Thrush is, in fact, using some of those regenerating clearcuts. So it seems to me that I think we can make a case that there's actually more habitat available in 2010 than there was in 1910, 100 years ago, because of the forestry practices.

What you can see here in this sort of mustardy yellow is the footprint of the proposed project right here. And what really struck me in visiting this site and looking from Kibby is really the amount of reasonably harvested forest. And all of this pale stuff is recently cut forest. This is all potential habitat. It wasn't the original forest type, but it is now a potential habitat for Bicknell's Thrush.

And I want to show you several images that I think some of you saw yesterday. And in the foreground of all these vistas we were thinking about wind turbines, but all of these clearcuts here provide extensive habitat -- potential habitat for Bicknell's Thrush. And in the distance you can see Cow Ridge.

And if I can have the next slide. This is a -- a clearcut of greater than 100 acres, over 3,000 feet. Now,

I can't tell you whether Bicknell's Thrush was there ten years ago before the cut, but I -- I'm convinced that if this regenerates within 10 to 15 years, there will be Bicknell's Thrushes up there. So there -- the forestry practices are creating a lot of new habitat, which is a different paradigm.

Next slide. On our site visit yesterday we went up to consult the turbines. But what really struck me just earlier -- on my earlier visit was the amount of habitat that has been created by industrial forestry. So in this green swath, this is probably 8 to 12 years old, is something that would be available to thrushes presently. But where you can see these snowy patches these are more recently cut and those will probably be available to Bicknell's Thrush six to 12 years from now.

Next slide. And just a close view showing again this sort of -- this stunted nature of this spruce fir regeneration.

Next slide. One of the things in reviewing some of the literature for all of this that really struck me is that -- this is sort of the -- a good -- looking at Bicknell's Thrush in the White Mountains in New Hampshire and there's been a 7 percent decline in a ten-year period, 7 percent annual decline. That again means that 100 Bicknell's Thrushes showed up in 1993, 93 showed up the following

year, 86, whatever it is, you just remove 7 percent of that remaining number. That's a huge decline in Bicknell's Thrush. But the habitat hasn't changed appreciably in the White Mountains in those areas during that ten-year period. So I think we need to look for another explanation.

To me that means that the breeding habitat is available and isn't occupied. I think the issue, again, is on the wintering grounds. So breeding habitat is not at present a limiting factor.

But what happens with climate change? We all expect that there will be an increase in temperatures. And that's going to -- is likely to effect this subalpine spruce fir habitat.

Next slide. And thinking about that, if the paradigm is simply that Bicknell's Thrush occurs uniquely in this subalpine habitat, then the story isn't very good for Bicknell's Thrush. That's one way you could view it. If that habitat diminishes, why wouldn't the birds diminish? Well, I think that the explanation is a lot more sophisticated and complicated than that.

Next slide. So if you think of climate change, we're looking into the future 50 years, 100 years, 200 years from now. So what's going to happen on these mountain ridges 200 years from now? That led me to think about so what happened in the past, what happened in the last ice age?

Next slide. Here you can see the breeding range of Bicknell's Thrush, the present breeding range. This is, of course, Maine, New Hampshire, Vermont, New York down to the Catskills. And in recognition of our Canadian friends, they do, in fact, breed in Canada. But what happened during the last ice age? If you see this dark line down here, ice completely covered the entire present breeding range of Bicknell's Thrush. So what happened? And that was about 16,000 years ago.

Next slide. So the entire breeding range of Bicknell's Thrush is under ice. So did those birds get buried in the ice for X period of time or did they move and shift? And clearly they moved and shifted. They must have bred to the south, possibly to the west. And what that means is that they're very adaptive. They're migratory birds and they're around.

So Bicknell's Thrush -- Bicknell's Thrush evolved something like 500 to 750,000 years ago. That's a period of time that we have difficulty grabbing. But during that period -- there have been numerous catastrophic climate changes during this period within the range of Bicknell's Thrush. And each and every time, the birds have been able to adjust. It's migratory, it adapts -- it's adaptive, it's moved into regenerating clearcuts. And so I have no doubt at all that this bird is going to respond to climate

change by shifting its range. It may no longer be in southern New York in the Call Skill Mountains, but it will be moving north to northeast or northwest or making some adjustment to its breeding range.

I think it's important to appreciate that this species has undergone numerous stressors during its 500-plus-thousand year history. And it will -- and climate change is probably going to be another one. But I don't think that that means that the species is, in fact, endangered.

Next slide. I want to bring that larger discussion back to the project at hand here. And I pointed out the -- the surveys were able to delineate core Thrush habitat. I think the surveys were excellent. If you've ever tried to work in this habitat, it's -- it's remarkably challenging, it's just a tangle. So the -- the point counts really helped identify the core Thrush habitat.

The red line shows more of a general habitat. And then the green area is subalpine fir, which can also be occupied by Bicknell's Thrush. And for me the -- really the important feature was that these -- the core area was not divided in any way and this general red area, where we would expect the primary activity for Bicknell's Thrush, remains largely intact. I think the engineers or whomsoever did a good job of reciting the road so it has

minimal impact and it really only touches core habitat up in the northern most sector.

Next slide. I will conclude only 8 acres of what we really consider prime area habitat or core habitat will be lost. I won't go into the breeding biology for Bicknell's Thrush because it's very complicated. It's interesting. But the home range of the female is roughly 8 to 14 acres. Females can have multiple partners, multiple males that attend the nest. Males go to different females. It's a -- it's a college scene.

But the loss of 8 acres is essentially equivalent to about one female territory. And in my mind, that's attributable. I mean, it's really inconsequential in terms of impact to the population of Bicknell's Thrush in this area. With regenerating clearcuts, there's probably more breeding habitat now than there was 100 years ago. So the impacts will be really of no consequence to Bicknell's Thrush in this region.

And for me, given my preoccupation or at least certainly my thought, that the issues on the wintering grounds are really the limiting -- or factor that's limiting Bicknell's Thrush. The contribution by TransCanada's conservation protection of Thrush habitat in the peripheral is really the most important benefit for this species in the entire equation. Thank you.

MS. FARRAND: Would you be able to supply some of the references that you've used in your presentation; Lambert 2005, Lambert 2008, McFarland 2008 Getz? If I'm saying that right.

MR. HUDSON: Yes. I had assumed that those would be part of whatever, you know, we filed, but if not, we can certainly get them to you.

MS. FARRAND: Thank you.

MS. HILTON: We are being very contentious of our time and our clock. And by my calculation we have until 9:47 and -- for this last remaining panel. If we could have an additional four minutes to make up for the colloquy on the objections, I think that would put us right on track.

MS. CARROLL: Juliet, I think you and I are more or less in agreement. My clock says that you have until 9:53.

MS. BROWNE: Thank you.

MS. CARROLL: And we will give you a 15-minute warning at 9:33.

MS. BROWNE: Perfect. Thank you.

MR. TITUS: Members of the Commission, good morning. My name is John Titus. I currently work for TRC Engineers in Augusta as an environmental specialist and I am here today in my capacity as a consultant with TRC. Previous to that I worked for the Bureau of Parks and Lands and retired in the fall of 2008 after 30 years of state service. From

1996 to 2008 I was a senior planner for the Bureau having direct responsibility for the development of management plans for the Bureau's public lands. I was also responsible for developing the initial draft of the Flagstaff Management Plan adopted in 2007, which included the Chain of Ponds unit. I also administered the Bureau's leasing program, which included the campground leased at Chain of Ponds.

In the brief time that I have this morning I would like to respond to a few statements made by Ms. Johnson in her pre-filed testimony with regards to the public lands at Chain of Ponds. And my -- in my comments I will be drawing from the collected experience of the staff resource managers involved in the Flagstaff area plan at that time.

Ms. Johnson stated in her testimony that recreation in the area is primarily primitive in character dependent on the natural scenic character of the surroundings. Our research back in 2005 clearly indicated that the vast majority of the uses the Chain of Ponds involved motorized recreation or some form of motorized recreation.

As part of the planned process, the Bureau later committed to managing four of those uses. It was also concluded that the Bigelow Preserve and Mt. Abram units, also within the region, provided far better opportunities for primitive recreational pursuits such as back country

hiking and camping banded Chain of Ponds unit.

Ms. Johnson also characterized the Chain of Ponds unit as being remote feeling and a place where people go for a sense of solitude and to get away from a human-built environment. While the Chain of Ponds area is most certainly scenic, it is not considered remote. The human-built environment is very evident throughout the Chain of Ponds including the presence of the State Highway Route 27, which runs along the entire length of the ponds and provides several drivethrough access points along the ponds as well. The -- of course, there is the developed campground facilities at Natanis Point. And then there's the presence of managed regional snowmobile and ATV trail systems for which the campground also plays a significant role.

This is not a place, as staff resource managers concluded at that time, where one would go to get away from it all. As I mentioned earlier, places like the Bigelow Preserve and Mt. Abram provide far better opportunities for those seeking solitude within this region of the state.

Ms. Johnson also stated that the section -- this section of the Arnold Trail is particularly noteworthy for its nearly pristine and unspoiled condition and that the wilderness -- and the wilderness experience that the soldiers faced in this region. The Arnold Trail was a

resource that during the planning process was recognized for its historic military significance, which we concluded at that time was most often experienced from those traveling on Route 27 and from the developed campground. Recommendations to better interpret the trail at these locations were included in the management plan.

The plan also called for placing under special protection the area of the expedition route along a 1-mile portion of the trail north of the campground and also along Horseshoe Stream in recognition of the more remote attributes within this section of the trail that were not found on other areas of the unit. And this is true the further you move away from the campground.

I would further add that a pristine or unspoiled condition is lacking at Natanis Point and other areas on the ponds as these places are either within sight of existing development or are subject to the road noise coming from State Highway 27. Having spent considerable time on the unit myself, the road noise on and along the ponds is quite evident most of the time.

In general, most users of the resource would not be impacted at all by the expansion because there would be no project visibility along Horseshoe Stream or from the Natanis Point and very little project visibility along Route 27. And for the few who do travel the ponds, there

would be some project visibility along the portions of the lower ponds, but in areas where there are -- where there are already impacts from Route 27.

And lastly, Ms. Johnson states that the management priorities for the Chain of Ponds unit includes insuring the scenic and primitive nature of the surroundings. This language appears in the management plan on Page 100 under the Recreation Management Issues section and on Page 169 under the Planned Recommendations for the unit. In both cases, this statement was in direct reference to the improvement at Natanis Point Campground.

The original concern here was for the campground's appearance as seen from Route 27 and from Natanis Pond, which had been an ongoing issue because of the past use of brightly colored parks and other accessory structures along the waterfront area that had detracted from the natural surroundings. This language was also used in reference to the overall operation of the campground out of concern that it also be in keeping with the natural surroundings.

MS. VISSERING: Good morning. I'm Jean Vissering and I prepared the visual assessment for the Kibby Expansion Project. Here you see the resources of the international significance which we identified within the 8 miles of the radius study area. There were four with no visibility. I'm going to briefly discuss Kibby Stream, Arnold Pond,

Crosby Pond and the Arnold Trail, which I believe to be very minimally impacted by the project. I will discuss Chain of Ponds in greater detail because of it's proximity and high scenic quality. However, I do not believe that the proposed project would result in any unreasonable aesthetic impacts to any of these resources.

Kibby Stream was raised by both Mr. Palmer and by Mr. Stearns. These are a two photographs of Kibby Stream. And you may recall passing by there yesterday. There is certainly considerable clearcutting that goes on around Kibby Stream. But if you look at aerial photos, it is obvious that there is a buffer -- a vegetative buffer along nearly the entire stream as is required by state law.

So I would not expect there to be any significant views from the stream with the exception of two areas that showed up on our view shed map. I think the fact that there were those larger areas of visibility on Mr. Palmer's map suggests that view shed mapping is kind of an initial tool that needs to be further understood with more investigation.

So -- but these are, as you saw yesterday as well, and they're more permanent open areas that are around the stream, but that have been long used by the landowner for equipment storage, log landing, some gravel extractions. So they're not areas where you would expect to experience

high visual quality.

The other area that we identified is in the very bottom here along a series of wetlands that are 7 to 8 miles from the project. And you can see in the foreground, if one was looking upstream from this area, there would be Kibby Range, Kibby Mountain and the -- the very northern turbines would be sort of peeking out behind Kibby Range. And I will say that these areas are probably the only areas where there would be visibility from the three different mountains, Kibby Expansion, Kibby Mountain and Kibby Range. But nevertheless, I don't think that the -- the -- any impacts would be significant.

The Arnold -- excuse me, Arnold Pond and Crosby Pond were both identified as -- in the National Wildlife Lands Lakes and Ponds Assessment as having outstanding scenic quality. Both of them are being 6 and a half and 8 miles away from the project. And you can see that in both cases Mt. Pisgah, which is over here as well, would -- stands in the foreground and it's a very prominent feature throughout this area.

The turbines are along this area. And it's -- what we're looking at here is the northern turbines. And there's -- there's up to ten of them visible. They -- because they appear both at a distance, but more importantly because Mt. Pisgah appears so much higher than

the -- than the turbines appear, this really diminishes any -- any visual impacts or prominence of the turbines.

The Arnold Trail is listed on the National Register of Historic Places. And along most of its lands there will be no visibility with the exception of the -- the two areas here on Long Pond and a little bit up on Arnold Trail -- I mean, Arnold Pond.

And to the extent that -- that scenic views may be important to the experience of history enthusiasts, I'd like to turn now to discussing the Chain of Ponds in more detail. First, the project will be visible from less than a third of the Chain of Ponds. It would not be visible from the Natanis Pond Overlook or the Natanis Point Campground, which we visited yesterday and probably the two areas from which the most people will experience the views of the pond. It would also not be visible from the state land or from any of the campsites, the more primitive campsites around the pond.

Now, if we take a little tour from the campground down the ponds, the project would not be visible at all from Natanis Pond except for a very small part down at the lower southeast and where you would see four turbines. There's two tops and two blades peeking over the -- the ridge. This is the length of Pisgah. As you move into the narrows between the two ponds, between heading to Long Pond, the

project completely disappears from -- from view. It would also not be visible along the northern shore. But it would be -- on the northern -- the western end, the southern shore of the western end of Long Pond you can see here on the -- behind the planks of Mt. Pisgah again, the turbines start to emerge. And continuing on they gradually emerge further. Here there are four turbines. The lighting here is not great for some of these turbines.

And then we get the highest visibility down at the -- a small area of the southeast end of Long Pond where nearly the entire project is visible, 14 turbines. And continuing on into Bag Pond, there is kind of a long stretch of sort of river-like section where there would be no visibility. There's almost no visibility at all on Bag Pond except for the extreme southwest little bay where you would get this visibility of 10 turbines. These are the northern turbines because right as we move south, the southern turbines are beginning to sort of hide behind Sisk Mountain in this case.

So -- and I wanted to make a couple of comments here on -- on this slide. First of all, we -- if you look at where our viewpoints were taken from, we have illustrated in our simulations the highest potential visibility from anywhere within these ponds. We've also illustrated photographs that are -- in good weather conditions the turbines are

shown as not blurred, but -- but clear. Also, I think importantly I have been seeing recently in applications panoramic views submitted in which tends to diminish the apparent size of the turbines. We've only submitted views which illustrate what is called a normal view or a 50 millimeter view. So there are really -- we're really showing what Mr. Palmer would refer to as the worst-case scenario.

Moving into Lower Pond, there would be no views of the expansion project in Lower Pond. However, we -- we did in -- in looking at cumulative impacts, we did provide a simulation showing the Kibby turbines from the very lower end of Lower Pond where they would be primarily visible. Here in this simulation you can see nine turbines, which includes some of it is -- are just tips of blades. But moving -- if you were moving west, that visibility would diminish significantly and with very minimal visibility in the other ponds.

Okay. So up to now I've been discussing visibility, but, of course, the state law notes that visibility is not the -- the major criteria in which you're judging the -- whether or not there are unreasonable impacts even from resources of state or national significance. Rather, what is important is the -- the context in which views are seen and the viewer's experience.

So if we could continue, I would like to just begin by talking a little bit about that context. The Wildlands Lake Assessment identifies as contributing elements of Chain of Ponds the immediate shoreline and the dramatic relief. And if you look at this map, you can see in the -- surrounding the pond are Mt. Pisgah, Sisk Mountain, Bag Pond Mountain and Indian Stream Mountain. And you see that topography dropping off dramatically into the pond creating a fjord-like setting that is mentioned in the Flagstaff Management Plan. You can also see that the project itself is set well back from these foreground features.

More importantly, from a human eye point of view, these mountains dominate the views around the pond. The foreground appears higher, closer to the viewer and in many cases they block all or part of the project from view. By contrast, the project ridge is not a distinct or dramatic feature in any views.

Now, as -- looking at viewer expectations, John Titus spoke a moment ago about the fact that Chain of Ponds is regarded more of a developed and nonremote landscape unit. Route 27 is very visible and always audible. The commercial campground, along with the RVs, private camps, the motor boats are certainly part of this setting. And they are -- will certainly influence the viewer expectation. This setting is indeed highly scenic, but it

is not remote, pristine or a wilderness.

Okay. I want to return here to Viewpoint 5, which is the problem discussed by Mr. Palmer, Ms. Johnson and other intervenors as being a very -- an indication of a very prominent view. Now, of course, this simulation focuses at this particular scene by -- and it is a normal view. What -- but remember that what we would be experiencing in the larger center -- in the larger sense is the context -- the surrounding context which will include peaks, which in this case, Pisgah and Sisk, which are significantly higher, closer and more prominent than the foreground ridge.

Now, also this is not an area which is a static -- we do not experience these views as static elements. That area that we were looking at is not a place where people necessarily stay, there are no camps right there. The experience on the pond generally is paddling along or motor boating along or moving along the pond. So it is a sequence of changing views. And some of the views that we would see -- the dominant views we would see around the pond would include Pisgah, Sisk, Indian Stream Mountain, Bag Pond Mountain, which is the planks that are on the right there, glimpses of the Bigelows, which you remember from yesterday, some of the dramatic cliffs that are specifically mentioned in the -- in the Lake Assessment, as well as the bouldery shorelines, also specifically

mentioned.

So although this is one point from which we might experience the -- the project, there are also many other points as well. There are also many other points, in fact, two-thirds of the pond, in which the project would not be visible and even more of the pond from which only a few turbines would be seen.

Okay. So there has been some suggestion of moving -- removing potentially the seven southern turbines, which, I think, would have very minimal overall benefits because, first of all, the -- if you recall, the only place where the southern seven are seen by themselves is that little bit of the northern shoreline at the western end of Long Pond where they are gradually coming into view. If you could switch --. They are visible really only in a relatively small part of just Long Pond, they are not visible in most of the rest of the -- at all in most of the rest of the lake. Remember, in Bag Pond we're only looking at the northern turbines, we're only looking at the northern turbines from Crosby and from Arnold.

So I do not think that -- that the project as proposed would be unreasonable, especially given the way in which these turbines are viewed.

Okay. Now, I'd like to look very briefly at the issue of cumulative impacts. There's a number of ways that that

can be addressed. And I listed a few of them. Numbers of turbines in the view. There -- looking at perhaps some maximum number of turbines one might see would be from two very small portions of Chain of Ponds where you would see the back -- a very small back bay of Bag Pond or the -- that little tiny area of Long Pond where you might see up to 16 turbines, which would include tips of blades. That would be the maximum number in two tiny areas.

So I think that -- that overall we're talking about a relatively small number. And, of course, more importantly is the opportunity to see unaffected views. The prominent foreground features, those features which are focal points in the landscape, are unaffected and they are the features which really dominate views around the pond.

Moreover, if you look at those simulations and you think of them in the larger context, they are -- the turbines will occupy a very small part of any views in that very narrow angle of view. There is nowhere -- they are also all oriented, because the projects are adjacent to each other, in a similar direction. There is nowhere where someone is going to be anywhere close to being surrounded by -- by turbines. There will be open and unaffected views all around the viewer.

And, finally, just looking at the sequence of views throughout the region, most people, of course, are going to

be experiencing this area by Route 27 or the campground, possibly some of the really spectacular and remote scenery in the Flagstaff area. But even on these lakes the views of the turbines are going to be subtle coming in and out of view and generally viewed from relatively few areas.

So I don't believe that there would be unreasonable impacts on the scenic character of the area. And I think that it will be -- one will be very much able to continue to enjoy the resources that have been identified.

MR. SELSER: My name is Jeff Selser, I'm an attorney at Verrill Dana in Portland, Maine where I practice land use natural resources and forest land law. My other qualifications are as stated in my pre-filed report. And I am going to talk very quickly because I understand I'm running out of time.

In my pre-filed testimony I analyzed the project's consistency with LURC's Comprehensive Land Use Plan and concluded that not only is it consistent with the CLUP, but from a policies standpoint, the project is ideally situated.

The consolidated parties have contended that this is not the case and have suggested that there are numerous areas across the state that could accommodate a wind power project with fewer impacts to public values. My comments today are in response to that suggestion, which I do not

believe is accurate.

Maine, as we know, is blessed with an abundance of natural resources, many of which define the distinctive character of LURC's jurisdiction and most of the rest of the state. Everything we do in our landscape, every use of land, will impact those resources, whether we're cutting a new hiking trail, building a nature observation blind, establishing a backwoods campsite or a developed campground, building a home, a chip mill or wind farm. Everything we do on the land has some level of impact to those natural resources.

The objective of the Comprehensive Land Use Plan and often Temporary Land Use Plan Policy is to guide these uses and the related impact to the areas most able to accommodate them. This frequently involves balancing multiple, sometimes repeated, goals in a manner that insures the separation of incompatible uses and the protection of important public values.

And further into this objective, the CLUP's energy resources goal, is to provide for the environmentally sound and socially beneficial utilization of the indigenous energy resources when there are no overriding public values that require protection. The CLUP discusses at length the Commission's commitment to addressing climate change and energy issues.

As noted earlier, Maine is blessed with significant natural resources, one of which is the substantial wind resource.

Next slide, please. This map shows the distribution of that resource across the state. The problem, of course -- the problem, of course, is that in many instances these locations also coincide with other natural resources of important public values. Of particular note are the Baxter State Park area and Acadia National Park where the balance is skewed very much against development of any appreciable nature and very much in favor of a high level of protection of those resources.

If you remove from this map those areas outside of the expedited permitting area, not because it is forbidden to develop wind there, but because on a macro level it is an indication of where the balance between development and protection of natural resources is more difficult and complicated, then we are left with substantially fewer location that have a high wind resource that might be appropriate for wind development.

Contrary to inference of the consolidated intervenors, most of these locations are in areas with high value of natural resources or other public values and considerations that would require a careful analysis of the impacts of these resources in connection with any wind power

development application in those areas.

And briefly I'll just highlight some of the considerations that have come into play with wind development in some of these other areas. For example, there are numerous recreation wildlife and scenic assets that are still in the expedited area, most notably, the Appalachian Trail, which runs generally along this corridor here and comes in and out of the expedited area, the Mahoosuc Unit and the Grafton Loop Trail, the Kennebec Highlands Public Reserve Unit, which is in this area here, the Mt. Blue and Tumbledown areas, which is this one resource here, the Donald Pond and Tunk Lake units here in the Down East area, the Cutler Pond public -- Cutler Lake public lands, which is over here, the Sunshine Conservation Easement and Fee Conservation areas, which are mostly covered by this large sloth of the nonexpedited area, but do peak out around the area where there is significant lake resources, Sugarloaf, Crocker Mountain and the other 4,000 footers in the region of the Bigelows, which also have large subalpine habitat, the Bald Mountain and Rangeley Lake region here, the boundary of Bald Mountain, which is tucked up in this area up here, as well as the Little Big Public Reserve unit and Misery Ridge and associated Plum Creek conservation area, which has a limited allowance for wind -- use of wind development.

We also have important bog areas such as the 1,000 acre bog here and the Great Heath down here in Hancock County, you've got Mt. Chase and Long Mountain, which is one of the areas here which are visible from the northern peaks of Baxter State Park. The important No. 9 Mountain cluster in Aroostook County, one of only two significant mountain hiking locations in the county, the other being Squapan Mountain, the ridge line, which is right up here, you also have an Eagle Lake public reserve lands up here in the north.

Other considerations that come into play when siting the wind power development are remote locations such as the -- the organized town of Allagash, which, although, is not in LURC's jurisdiction, shares many of the attributes of LURC's remote core. That is also along the Allagash northeast waterway.

And, finally, other considerations are distance from transmission infrastructure. Most of the northern part of the state here is very distant from transmission infrastructure and any wind power development in that area would necessarily entail considerable transmission corridor development as well. You also have some heavily populated areas here, 20 or 30,000 people that populate these areas in and around Presque Isle, Limestone, Caribou. And there are some considerations -- public policy considerations

sited in part of these areas.

The Commission has done an excellent job of accommodating wind development where it does make sense. Examples are Stetson and the initial Kibby project, which is right here, and not allowing wind development in areas with higher natural resources and other public values such as the Black Nubble project which was proposed in an area that is an immediate and prominent view shed of more than half of Maine's 4,000 foot peaks.

Like the initial Kibby wind project, the Kibby Expansion Project is relatively free from impacts to high public values and is in a location very well suited for wind development. It is uniquely situated far from residential development but close to service centers. It is not in a remote location of the jurisdiction. It is the fastest or second fastest, depending on how you measure it, growing section of the unorganized territories.

It is in very close proximity to existing transmission infrastructure, obviously, because of the original Kibby project, it allows for concentration of these uses into a single location. It is not in an area used for remote or primitive recreation. And, in fact, areas used for remote and primitive recreation are readily available nearby and most people will pass them on the way to this area, as you also learned on the trip yesterday as you drove by the

Bigelow Unit on your way to this area.

The recreational and scenic assets of the location are already compatible with and impacted by existing developments such as Route 27 and the developed campground and they depend on the immediate foreground of scenic features rather than on distant views. It is also not in an area with high or pressing conservation priorities. And as we've demonstrated in the testimony of the other parties in application materials, there is no unreasonable impact on natural communities, other environmental or scenic resources.

Simply put, the Kibby Expansion Project area does not possess overriding public values requiring protection that would outweigh the benefits of the project or which would otherwise cause the project to be inconsistent with the Comprehensive Land Use Plan or LURC's other regulation policies. And contrary to the suggestion of the consolidated parties, there do not appear to be many other areas in the state that have fewer public value considerations for accommodating wind power development. Thank you.

MS. HILTON: Okay. We're going to take a ten-minute recess and be back here at 10:07.

(Whereupon a recess was held at 9:58 a.m., and the hearing was resumed at 10:11 a.m. this date.)

MS. HILTON: I think that what we're going to start out is with commissioner questions for the panel here. Who of the commissioners wants to start off here?

Well, I have a question, so I'm going to get this going here. Mr. Vickery, when you were talking -- and I think I probably missed something here -- when you were talking about the value of regenerating clearcuts for Bicknell's Thrush habitat, does -- is altitude a factor there? I mean, is this a --? Because it's a subalpine.

MR. VICKERY: Altitude -- first of all, this is an area that hasn't been studied in great depth. There are a couple of research papers out from New Brunswick. Altitude probably is a contributing factor. So let's just say a clearcut at the lowest elevation in this area, which might -- I'm going to guess is 1,800 feet, Bicknell's Thrushes may not come down to that. But the amount of habitat that has been cut from close proximity to the 2,700 foot area, I -- and I don't -- I can't tell you the exact altitude where Bicknell's Thrushes have been found in this region. And Dana might be able to give you that answer.

But there's no doubt that what we saw yesterday is within the range of where Bicknell's Thrushes will go. I mean, there's no absolute about why they, you know, are -- wouldn't go down 300, 500 feet if the habitat is available in proximity to what exists within the area. And I would

just add that over 27,000 -- I think it's 22,000 acres of habitat has been cut over the 2,700-foot threshold in Maine. That's actually since 1974 from LURC records.

MS. HILTON: Okay. Do you want to -- do you want to comment on that?

MR. VALLEAU: I'm Dana Valleau and I work for TRC Engineers in Augusta, Maine. The -- we did do surveys at some lower elevations relating to the Kibby project and we found Bicknell's Thrush in relatively recent cuts, 12-year old cuts below 2,700 feet -- between 2,500 and 2,600 feet in elevation. And looking at the modeling done by the Vermont Center for Eco Studies, formally the Vermont Institute of Natural Sciences, their model is based somewhat on elevation and latitude.

So in this latitude their -- their model shows habitat potential from about 25 to 2,600 feet and up. So there's certainly potential and available habitat below 2,700 feet in this area. And as you go further north in the state, that elevation comes -- comes down.

MS. HILTON: All right. Thank you. Ed.

MR. LAVERTY: I also have a couple questions for Mr. Vickery. And, again, perhaps it's directed to the wrong person, but it was your testimony. You identified through a number of vistas photographs what you considered to be potential habitat based on clearcutting. Have you

actually surveyed that area to determine if there a presence of Bicknell's Thrush?

MR. VICKERY: Well, I know a few areas have been surveyed, but I'm going to pass --

MR. LAVERTY: So you didn't do the survey?

MR. VICKERY: TRC did actually do some surveys, yes.

MR. LAVERTY: The areas -- the areas of potential habitat you identified, the sweeping vistas, are in fact habitated by the Bicknell's Thrush.

MR. VICKERY: Let me pass that over to Dana.

MR. VALLEAU: As part of the Kibby project we looked at all of the areas that actually were in Peter's photos and we had breeding Bicknell's Thrush in one of those areas. And folks we were working with, Biodiversity Research Institute, actually did some misnetting and they did capture a female Thrush in breeding condition with -- with a brief patch in that cut. And it was a 12-year-old cut directly adjacent to Gold Brook Road.

MR. LAVERTY: As the -- as the cuts age, as new growth takes place, does the habitat move?

MR. VALLEAU: Yes. These birds are mostly in the very dense thick growths. So, you know, the higher elevations of the subalpine fir, they're in the -- the dense and stunted growth, which shifts and changes depending on natural events like ice damage and windthrow, similar to

how a clearcut will, you know, regenerate, the natural ice grows, eliminate tree growth, regeneration comes in, it becomes suitable for Bicknell's Thrush. And as it -- the density of the trees thins out, the density height increases, the Bicknell's Thrush will move into other areas of younger and smaller growth.

MR. LAVERTY: So as the land is cut over over time, the habitat of Bicknell's Thrush will diminish as well as increase; is that not correct?

MR. VALLEAU: Right. It's -- and that's kind of a natural paradigm for the bird, too, is the higher areas of subalpine habitat shift and change over time.

MR. LAVERTY: Okay. So the areas over which none of us have any control, we've identified them as potential habitat to reflect minimal impact of this project, may be a little speculative; is that not correct?

MR. VICKERY: Well, I think -- I think the way I would put it is that -- and I think I tried to explain this -- is that as the -- as the forestry practices shift one area is cut, you can see one area where there was snow covering up a more recent cut, that is not going to be habitat in the next 3 to 5 years, but 7 to 12 to 14 years down the road, it will be.

So -- so I think what I would say is that the high quality habitat of regenerating forest is shifting in space

and time. And really the -- the single quantitative study that was done on regenerating clearcuts was done in New Brunswick. And they found Bicknell's Thrush -- and I can't give you the elevation, but it was not terribly high. I think they found Bicknell's Thrushes 57 out of 90 point counts. You know, the point count is where you go and list them and then put them down. And so over 50 percent of the point counts in that study had Bicknell's Thrush in it. And I think, again, it's either 11- to 14-year old regenerating forests.

So there's pretty convincing evidence that these birds will use that for a period -- a range of time.

MR. LAVERTY: Assuming that current forest practices continue as presently necessary?

MR. VICKERY: Correct. And my point was that as of today, in 2010, there's more habitat -- or at least I think there's more habitat available now than there was 100 years ago.

MR. LAVERTY: So there could be less tomorrow?

MR. VICKERY: There could be less -- well, not tomorrow, but 50 years from now or some --. Yes, if forest practices change, then that structure of that regenerating forest is likely to change.

MR. LAVERTY: I also wanted to ask you a question -- this is more of, I think, a conceptual question. We get

lots of testimony regarding impact on resources. And you made an interesting sort of intellectual argument. And that is that because of wintering habitat, the loss of forest cover, there are fewer Bicknell's Thrush, that's the big issue. And because there are fewer Bicknell's Thrush, we probably don't need as much habitat and particularly for -- again, to get to the -- you referenced the New Hampshire study which indicates that the breeding area -- there's actually more of it because they're dying in the Caribbean and, therefore, we should be less concerned about affecting breeding area and also habitat.

It seems to me to be an interesting discussion, your discussion also of climate change. I mean, we also as a species went through the ice age and we rebounded. And, quite frankly, as -- we as a species, I question the extent to which we are going to be able to adapt readily to a major climate change. To assume somehow that because they've done it before and are going to do it again it won't stress the species seems to me to be a rather interesting way for a person who studies the Bicknell's Thrush. Do you get that?

MR. VICKERY: I'm certainly -- didn't indicate, I don't think, that climate change won't be a stressor. I think it will. And I think that the Bicknell's Thrush will move and its range will change in response to climate change. My

point is that it has -- this species has faced acute challenges in the past and has responded by moving in space and time. I have no doubt that they will do the same thing.

Will it be a stressor? Yes. Can they adapt to that? I think for sure. And the point is that if we -- the one image I showed with sort of the islands in the sky, the high subalpine areas where Bicknell's Thrush are known to breed, if those disappear or diminish because of climate change, the bird is out of luck. And I -- I think there's no evidence to suggest that.

And if you look at -- you can't look ahead in time in terms of what will happen, but you can certainly look back in time. And that's what I've done saying that that entire present breeding range was under ice, but the bird certainly managed and adapted to that situation.

So will climate change be a stressor? Yes. Do I think that the species has the flexibility to adjust to that? I think the answer to that, in my view, is yes.

Now, to get back to your first point about -- you know, removing 8 acres or so of prime habitat in this latitude in the present breeding range doesn't seem to be as important. And the answer is it is not as important. When 75 to 90 or 95 percent of the wintering range is gone, there is a lot of available habitat.

And I was, frankly, interested when I reviewed the point counts that TRC and others did that Bicknell's Thrush wasn't more widely distributed down in the Sisk range because of that subalpine habitat that continues further south. And in my experience, which goes back 30, 35 years ago, I think we probably would have seen some Bicknell's Thrushes in that kind of habitat. I mean, the population is declining not only in -- documented in New Hampshire studies, but I think in a number of other areas as well. That doesn't have to do with the habitat here.

MR. LAVERTY: Thank you.

MS. HILTON: Anybody else?

MS. KURTZ: I had some questions for Mr. Vickery as well. And they sort of parallel what Ed was saying. What is your background with Bicknell's Thrush? Is it more of an interest or have you actually conducted studies on your own, you know, at a Ph.D. level or --?

MR. VICKERY: No, I haven't -- I haven't done published research on Bicknell's Thrush. But starting, I think, about 35 years ago I spent time going -- visiting a number of different mountains and I have since then tried to figure out the distribution of Bicknell's Thrush. I've been to eastern Maine. They used to occur below stunted forests of Washington County right along the coast. They no longer do or at least it appears apparently they don't

any longer go there. But I spent time looking for them there.

So I haven't conducted fieldwork. And it's a remarkably challenging species to work with and I have to give enormous credit to the folks in Vermont who have carried this on. And, frankly, they're the -- one of the only groups that have really worked intensively on this. And that's -- I know Chris Rimmer very well and I appreciate -- appreciate and admire his fortitude, but I'm not sure I admire his good judgment, his sense of birds to work with.

So, no, I haven't done any, as I they, say published research or -- on Bicknell's Thrush.

MS. KURTZ: Now, the Bicknell's Thrush was identified as its own species not 35 years ago, but sometime in the fairly recent past, I understand.

MR. VICKERY: Yeah. It was -- it was -- there's a paper written by a Canadian, Holly Goulett, in, I think, 1993 that documented reasons why she thought Bicknell's Thrush should be separated from Gray Cheek Thrush. So when I was looking in the '70s, we called this bird Gray Cheek Thrush. I mean, it's the same bird, it's just got a new name. But what we knew of it was of interest because of it's restricted range in Maine and in the northeast way back then.

MS. KURTZ: We've been presented with information about the impacts of climate change on the forest of Maine. And, apparently, Wildlands suggests that there's going to be a tremendous reduction in the fir amount in the state within the next 70 to 100 years. And you keep talking about the Bicknell's Thrush being able to move somewhere else. And I'm just wondering where they could possibly go, where in -- you know, if we're in the northern corners of the country and --

MR. VICKERY: Well, we're in the northern --

MS. KURTZ: And then the other piece of it is -- and I think it gets back to what Ed was suggesting. He was talking about the ice age and -- and they've been able to rebound. But the human affects on the environment and potential habitat have changed dramatically, you know, in comparing to what I would say are apples to oranges, today their ability to adapt not only to climate change but a severe reduction in habitat and human activity.

I guess I -- I question some of your conclusions because they -- they're interesting, but I'm not sure -- and without having done a study yourself, I'm just -- is it conjecture or --?

MR. VICKERY: Well, it's interesting to think that we're at the northern end of the country. And we are in terms of the northeast in Maine. But, of course, we have

our neighbors to the north. And Bicknell's Thrush breed throughout the Gaspe Bay, they breed on the north shore of the St. Lawrence River in Quebec. And so they occupy those habitats already.

And as I think Don has pointed out, that the amount of the subalpine habitat further north is -- is abundant. Now, they don't presently breed in some of those areas, but there's no reason to think that they won't be able to adjust and to shift to that. It's not as if they're trapped on the Maine border and if the sites in Maine disappear, the game is over.

They breed north of us and in some substantial numbers. And there's no reason to think that they wouldn't continue to shift more given the loss of spruce fir that's there.

MS. HILTON: Anybody else? Steve.

MR. SCHAEFER: I would like to shift to the capacity -- the installed capacity and the projected capacity that probably maybe you followed the Commission where the first permits we granted were based on blind faith and we weren't even allowed access to the Met tower data because it was confidential and corporate -- kind of a corporate secret, but we were always looking forward to the time when we could find out that indeed the installed capacity was what it was presented to us. So I know the -- the A series hasn't been on line long, but there's a few things I'd like

to --.

Its installed capacity was advertised or repermitted at 132 and you said the production was 120. Am I missing something there or is that information where we have access to now?

MR. BENNETT: Sorry, just to clarify, the 120,000 megawatt hours is for the Kibby Expansion Project, the 45 megawatt project. The Kibby project itself, once fully operational, will produce about 350,000 megawatt hours a year. The number quoted on the bottom of the slide was 3 instead of 45 megawatts --.

MR. SCHAEFER: At Page 3 and 4 -- okay. The existing -- so it's approximate -- approximately it's going to be able to issue 132 megawatt the life of the Kibby project. But we still don't have -- or at least they're not online yet -- we still don't have the numbers for that sort of production, right?

MR. BENNETT: Well, we've got a few months of production data from the first phase of the Kibby project. And in that I think the numbers were producing roughly about 51,000 megawatt hours from November to the middle of April. If you adjust that to a certain capacity factor, that's a little over 29 percent. The long-term forecast for the Kibby project was just over 30 percent. So I think broadly speaking we're in line with the application.

MR. SCHAEFER: Secondly, to the taxation and the financial -- to the taxation and the financial benefits, the first project we were presented with property tax figures and that was later overwritten by a TIF which is beyond our control, obviously.

Are you going to request a TIF should this project be approved?

MR. BENNETT: My understanding is the moratorium of TIFs in this was --. (Inaudible)

MS. BROWNE: I would ask him to speak up.

MR. SCHAEFER: If you were able to, would you apply for a TIF?

MR. BENNETT: The reason we applied for the TIF on the Kibby project itself was because of the timing of -- of the approvals, our costs started to creep up significantly on the Kibby project. And so to help offset some of those costs we requested a TIF.

In the end -- the only part of that project that was for TIF -- or, actually, finalizing our assessed value for the Kibby today will actually pay more in property taxes than we projected back when -- when we were going through the Kibby project itself because of the cost increases even with the TIF. So, I mean, like I said, say -- you know, obviously, with the moratorium we're not planning on a TIF, but if cost increases, you know, happen on this project and

the moratorium gets lifted and we think we need that TIF to make the project, you know, financially stronger perhaps, but no immediate plans.

MR. SCHAEFER: I guess the -- in the interest of disclosure, that, I think, should be part of the financial implications. You know, instead of just pure property taxes, it should be qualified by the fact that a TIF may be offered and would you consider a TIF. That's just -- I don't know how the rest of the Commission feels, but I was taken by surprise by the first TIF.

Property taxes are borne -- the landowner transferred the property -- you're leasing the land?

MR. BENNETT: Yes.

MR. SCHAEFER: So that's under tree growth now. And if it's removed from tree growth, then the property taxes are transferred to TransCanada?

MR. BENNETT: Yes.

MR. SCHAEFER: All right. Thank you.

MS. KURTZ: I have a question that's kind similar to that. As you know, we -- in these hearings we get a lot of conflicting testimony. And -- and a number of times there's been an issue raised of, you know, the contribution and the benefits -- benefits provided by this project. And then we also get the testimony that says, yes, they're heavily subsidized by taxpayer dollars and it's coming out

of our pockets. And, you know, many people say the only entities that are benefitting financially really have been stockholders or the owners of the company.

So the same -- the same figure that Steve was just talking about, $40 million derived from state income taxes and local property taxes over 25 years. How much -- in terms of the subsidies or the taxpayer dollars that are making this project feasible, how does that compare to the 40 million that's coming back in property taxes?

Like, what is this really costing taxpayers versus how much is coming back to the taxpayers in property taxes? Do you know what I'm saying?

MR. BENNETT: So, you know, most of the programs that support renewal energy are the federal programs, not the state programs. So to the extent that we're getting -- if you want to call it, subsidies, it's federal subsidies. So I think Maine benefits when you build wind projects in Maine because you get everybody across the nation, you know, more are less paying for those subsidies, including TransCanada when it pays its taxes here. And then it goes to support -- the benefits stay in Maine. So it's a good deal for Maine to build wind power.

MS. KURTZ: Well, what is the good deal? I mean, what are the numbers? That's what I'm trying to get at because I pay federal and state taxes and so I'm paying -- I'm

helping to support -- or we're all sort of subsidizing in this particular industry. And it's great to get a number like $40 million that's coming back to Maine, but how much is it really costing?

When you look at the real cost of one of these projects to the people -- the working people, what's the real benefit?

MR. BENNETT: There's a temporary program as part of the stimulation bill that allows renewal projects to claim cash grants in lieu of the PTCs that were still available. And that's equal to 30 percent of the qualified property costs of the project, which is not the full cost of the project. So if this project was $100 million, you'd probably get like $25 million in -- in a grant back in federal aid.

MR. LAVERTY: I would just like to support the thrust of what both Rebecca and Steve are saying with regards to the financial package as it's presented. I'd like to see it defined a little bit better. Because, quite frankly, I as well -- I was -- I felt a little betrayed when I found out that Kibby, after presentations at public hearing and representation before the Commission, sought a TIF in order to support their project. In you demonstration of financial capacity and your demonstration of public benefit, there was discussion of what the -- the both gross

and net financial contributions would be. And it turned out that they were not accurate.

MR. BENNETT: Just to take issue with that. Again, we are paying more in property taxes than we stated in the Kibby hearing. We said we would pay roughly a million dollars in property taxes over the life. With the TIF today we're going to pay over a million dollars in property taxes.

MR. LAVERTY: But you also suggested that if your financial estimates, which you have presented to us as accurate, are variable and you have the opportunity, you may in fact seek another TIF. Wasn't that your testimony just a few minutes ago?

MR. BENNETT: I think it's a good thing for everybody, if the project is strong and economically viable, if cost increases that are beyond our control happen to us, we look for ways to mitigate those costs to make us financially strong. And that's exactly what happened on Kibby. You know, the capital cost of the project increased as a result of equipment cost increases.

You know, at the time of the hearing we didn't even know if a TIF was possible in unorganized territories. So there was no question -- it wasn't in our heads. But as a result of capital cost increases, you know, I have a duty as a TransCanada employee to look for ways of keeping that

-- keeping that project strong.

MR. LAVERTY: No, I --

MR. BENNETT: You know, we heard the announcement on the Stetson project about a TIF, we thought, well, this is a way to offset some of the capital costs and benefit the local community with a program.

MR. LAVERTY: We understand that -- certainly everybody understands that, you know, unforeseen costs, those types of things, obviously, modify calculations. But I think what we would like to know is when you present data to us, financial data, how confident are you in that data? I mean, to -- what might be some of the variables that would affect changes in those estimations?

And also, I mean, it -- the question of the TIF is also there are issues with regard to -- you know, to a shift in tax burdens in the state of Maine with regard to TIFs in general. I mean, there are larger issues that the public should have no control over -- shouldn't be held accountable, I don't mean that. But the issue of going -- seeking a TIF for a project like this is that if that's your intention, I think it would be -- it would -- we would feel better -- I would feel better and I'm assuming at least two other commissioners would feel better if we knew that.

MR. BENNETT: I can state very clearly today we have no

intention of seeking a TIF given the capital cost of the project that we project today. We don't order our equipment until we have the permit; there's, you know, a length of time between that and -- and -- you know, between today and then that time period. I mean, we have concessions with suppliers and our balance of plant contractors and everything else. We don't control their costs.

So if they change their prices between now and then to the point where the project becomes questionable from an economic standpoint, I mean I can't preclude every possibility going on in the future and say --. But standing here today, these capital costs, we think we've got them quantified fairly well as far as some unexpected moves, but I think we can -- you know, there's no intention today of seeking a TIF.

MR. DIDOMENICO: Nick DiDomenico. I would just like to add to that. Timing is very important to this project given the 30 percent ITC. It's our intent, should it be permitted, to, basically, start this project in August. And there's currently a moratorium on a TIF. The legislation doesn't sit -- I mean, for all practical -- it's a possibility to get a TIF in this project, end of discussion.

MS. KURTZ: Could I sort of get back to the Bicknell's

Thrush and the -- where -- the subalpine fir that Mr. Hudson had talked about. The notion of the -- of the habitat regenerating, now whether it's an impact from ice or a moose that overwinters in an area, the vegetation or it was cutting, that is fairly dramatic in terms of a short amount of time, but the revegetation takes quite a bit longer.

How is that going to affect the bird habitat? Do you know what I'm saying? You don't -- you don't grow trees and cut them as quickly -- it's not happening at the same pace. I'm just wondering if that has been taken into consideration.

And then also, Mr. Hudson, I'm wondering if you can help me with the inconsistency? People describe this particular congregation of trees as fragile -- rare, fragile. And yet you've described them as very sturdy and capable of accommodating a number of impacts. I mean, that inconsistency is really bothersome particularly in light of the assurances that we've been given, you know, something will revegetate and then rehab at that time and things have happened in the past and will continue into the future. So maybe a team approach to that --?

MR. VICKERY: I mean, I would say that -- I'll make an error and Don will correct me -- that these areas are dynamic habitats -- I think that's what Don was trying to

suggest -- that they're not static in time and they will be exactly the same. They are, obviously, habitats that face very harsh winter conditions. So whether there's ice storms, et cetera. So there are changes to the landscape.

And there's no doubt that, you know, if a Bicknell's Thrush had a nest three years ago right in the spot where the moose decided to bed down for the winter, the bird is not going to be able to put a nest in that spot again. And so it will presumably look for something in the surrounding area. That's just part of the -- you know, the changes that take place. Over some period of time that area will regenerate and presumably another Thrush -- another female would be putting a nest in there 10, 20, 30 years down the road. Does that help you?

MS. KURTZ: If Mr. Hudson could follow up on that?

MR. HUDSON: Don Hudson.

MS. HILTON: Could I just suggest everybody speak up.

MR. HUDSON: Obviously, the clearing of the forest to build a road is a different event than windthrow or a moose eating all the trees. And -- and yet in the grand scheme of things, the forest has survived similar events to road building over the thousands of years that it's been in these mountains. And when the ice retreated, the forest was at a lower elevation than it is now. And you've heard testimony -- or you've read testimony that as the climate

changes, the more temperate forests may move higher on the mountains and slowly but surely shrink the area available to fir and -- and the fir birch forest that we see there on -- today on -- on these mountains.

And -- and just as with the birds being able to move on the landscape, I think, actually, it's probably easier for the plants. The plants -- this plant community is one that is actually fairly widespread around the entire northern hemisphere and has been so for millions of years. And -- and it's quite capable of dealing with small patches of ground. And it has been fragmented by climate or by topography or by geological events or any number of different factors during its existence.

So when I look at the insult to that forest that this road might present, for example, it doesn't -- it doesn't strike me as something that is immediately drastically threatening to the existence of that forest. Far more important to me, as you know from my testimony, is the fact that we humans are changing the global climate in a way that impacts far -- impacts in ways that are dramatic.

I think I mentioned in my testimony the fact that -- that -- and if I didn't, I'll mention it to you right -- now that in the past -- even at Greenland three years in the past ten, people couldn't go out on the ice because it wasn't thick enough. And they couldn't conduct the way of

life that they've lived for thousands of years as a result of that change. And so that greatly influences how much I'm willing to tolerate as -- as someone who has a great affection for the mountains. Believe me, I've walked on most of the hills and mountains in this state and in New Brunswick and in Quebec and in Newfoundland and in Labrador where this forest type exists. I go there whenever I get a chance. I absolutely love it.

And, yet, I -- I think that the impacts here are well defined and limited and do not threaten the forest on that ridge overall. It will persist and persist nicely for the full life of this project and beyond.

MS. HILTON: As a follow-up to that, at what point -- what is the tipping point there? At what point do we know that it is starting to have an impact that -- that will be noticeable?

MR. HUDSON: Boy, that's a really good question because I have been to places where very small patches of subalpine forest exist. And so that I would imagine that you could get down to a handful of acres and -- and still find subalpine forests. I mean, is that an argument that we can therefore go ahead and alter conditions on a mountaintop and eliminate all, you know, 95 percent because we know at least we're going to have 5 percent?

For me -- I don't have -- I don't have an absolute

number. Here we're talking about an impact to -- to a small percentage on that mountain of, perhaps, a little more than 10 percent on that mountain, if I have the numbers correct in my head. And that's an acceptable limit to me. You know that -- that I don't -- I'm not asked to testify on lots of these projects and I do so here because I have a particular experience with the high mountain region.

And that's -- that's acceptable to me knowing that -- that there is -- there is an additional several thousand acres in the immediate surrounding area that has just simply not been mapped yet. It's probably close to 3,000 acres in the immediate area that won't have wind power development. And thus the forest has some hold there.

MS. HILTON: But how do we know TransCanada or somebody else isn't going to come back and want to develop? This is something I'm struggling a little bit with and that is -- is sort of at what point do we know that we've eroded something beyond say what the CLUP directs us, you know, our goal set? How do we know when we're there?

And that has to do with, you know, the primitive character of the area, that has to do with the wildlife habitat, that has to do with peoples' perception of the kind of recreation. And it kind of reminds me a little bit of a recreational spectrum that we were told about and how

-- you know, whether in the science that we have today whether we have a way of looking at that. And -- so that we have a little better idea of when do we actually reach a point where we've got to say, you know, just no more?

Anyway, I'm probably going to throw that out a couple of times today and I wanted to make sure that you folks had a chance to respond to that.

MR. HUDSON: I think Christine wants to say something on that.

MS. HILTON: Sure.

MS. CINNAMON: Christine Cinnamon with TransCanada. I'll just -- I would just like to respond to that. The -- the purpose of doing our studies, working closely with the agencies that are the regulators of habitat, they are the ones that guide us in -- in mapping these areas and in understanding what would be an undue adverse impact versus not. And so that's why that relationship is so important to us. It's important to us to have experts that guide us in that as well.

And -- and it's up to you, the Commission, to make decisions on what is acceptable and what isn't. And that, of course, is based on the -- the evidence that you hear from your experts, the agencies that we work with. And so taking that -- or answering you from a high level perspective, there -- very rarely do we see a threshold

number thrown out as to what is acceptable versus what is not. That is why we have the commitment to avoid and minimize to the greatest extent possible. That's why we take that as our first hut and -- and to present that to IF & W, to MNAP, to make sure they're comfortable with the results that we're showing.

Every one of these projects is taken on a case-by-case basis. And -- and that's why we present evidence specific to that case-by-case basis. And you have the ability to make the decision on a specific project. If new evidence is presented down the road on a new project that suggests that -- that there are differences, be it, related to climate change, be it, related to something else that hasn't previously been shown, that will be taken into account, I'm certain, in your decision.

MS. HILTON: Go ahead.

MR. HUDSON: When I first came to these mountains to -- with an eye for wind development, it was in 1993. And I was struck by the very dramatic industrial nature of the region. And though -- although remote, the -- these mountains have been quite aggressively managed for fiber for a long time. And so that was important to me.

And, therefore, I think that -- and that's different than a lot of mountain areas in Maine and the region.

MS. HILTON: So let me take this a little further. So

what does that mean? Does that mean that we should further industrialize the area?

MR. HUDSON: No. No. But I do think that with the -- with the review by state natural resource agencies and by the Commission of proposed projects, it's through your deliberations that -- that the balance is struck. And I would -- I don't have the map of the original Kenetech proposal in my head, but it was quite dramatic and included a number of other mountains and ridges that have been excluded through the back and forth with agencies and with the Commission over time. And I think that that's -- for me that's how the balance gets struck.

And I come in my written testimony and today simply to say that the -- the impact to those acres on Sisk aren't going to shift that balance dramatically. This forest is very resilient.

And if there are wind towers on those ridges in 25 years, if at the end of the life of the project we've shifted to some other means of generating power, then eventually those roads will disappear to subalpine forests again so long as the climate doesn't change dramatically and, you know, then they shift to something else than we more typically see on lower elevations.

But that -- that's the way I look at it and I can't -- I'm not in a position to determine how much wind

development you can -- you can make in this area.

MS. HILTON: That's our job, I guess. Jeff, one last question. Can you just -- I think I sort of missed the point of your -- and it's a little bit distracted here. You were going through a list of places in Maine where -- of state or national regional significance where wind power could not be easily be allowed within the expedited area.

What was the -- just briefly what was the point of that? That was the --

MR. SELSER: Sure. What I was trying to do was -- I was not trying to suggest that wind power would not be allowed there. But there had been a suggestion made by the consolidated parties that the Kibby Expansion Project area has a particularly high natural resource value and high public values that would weigh against wind power development and that there are many other areas in the expedited areas that don't have these -- these public resource valves.

And so what I was trying to demonstrate is that if you look at areas where wind exists, they -- where a high wind resource exists, it typically exists in an area that also has some significant public value. So I was just -- I was not meaning to imply that wind would not be permitted there. It's just that these are areas -- usually the things that the Commission would have to wrestle with in

those areas and that the Kibby Expansion area in particular had fewer significant public research values with which you could wrestle.

MS. HILTON: Okay. Thanks for that clarification.

MR. SCHAEFER: I have one more. This is really just, I think, for our information or my information. I live on the Canadian border in the Washington County area. And quite often the -- New Brunswick has a lot to say about what might go on on the border. Is there any -- and this is certainly not part of our application process or everything, but --.

Being this tight to the Canadian border, is there any discussions with Canada and -- I mean, you guys must have the inside edge talking to Canada. But, I mean, is that going to be an issue going forward? It's, obviously, not now, I just --.

MS. CINNAMON: We've looked across the border of what might be present there. There is nothing that would raise any issues. And we are very familiar with permitting wind in Quebec. So we do have experts that -- that we engage to make sure that that was the case. We're not aware of any issues.

MS. HILTON: We're behind, folks, but we're having a lot of good discussion here. And do commissioners -- I think we're going to learn more as we go through the day.

Do commissioners have any other questions they would like to ask at this point?

The way our schedule reads here, there's an opportunity now for staff, if the staff has any questions they'd like to ask, and then also any governmental agencies. And I know there's -- some of you folks out there.

Okay. I guess seeing none, we now move into the cross-examination by the consolidated parties and go right ahead.

(Discussions held off the record.)

DR. PUBLICOVER: All right. Starting off, Dave Publicover with the Appalachian Mountain Club. My first question is for Mr. DiDomenico.

EXAMINATION OF NICK DIDOMENICO

BY DR. PUBLICOVER:

Q All right. Nick, on Page 6 of your pre-filed you noted three reasons why this site is particularly well suited for wind power development. And that included the outstanding wind resource proximity to existing infrastructure and its location within the expedited permitting zone.

And on Page 10 you state: The Kibby Expansion -- and I'm quoting from your testimony -- the Kibby Expansion Project is located in the areas specifically designated by the task force and the Legislature as appropriate for wind power development. Now, I -- I question that statement.

And I'm going to read you a paragraph from the wind siting law. It's 35-A Section 3402.2.

And that paragraph states: The Legislature further finds that while wind energy may be developed at many sites with minimal site-specific environmental impacts, wind energy development may have, in addition to their beneficial environmental effects and potential scenic impacts, specific adverse environmental effects that must be addressed in state permitting decisions pursuant to approval criteria tailored to address issues presented by wind energy law. Nothing in this section is meant to diminish the importance of addressing, as appropriate, site-specific impacts on natural values, including, but not limited to, wildlife, wildlife habitats and other values.

Now, in light of this language, would you agree that the inclusion of a site within the expedited area does not create a determination that that site is appropriate for development?

A Yes, I would agree with that.

Q Okay. And that it's entirely reasonable that a site within the expedited area could be deemed to be inappropriate for development because of site-specific issues?

A I would agree with that also.

DR. PUBLICOVER: All right. Thank you. I would like to move on to Ms. Cinnamon.

EXAMINATION OF CHRISTINE CINNAMON

BY DR. PUBLICOVER:

Q And I'm going to be showing you a few pages. And Dylan is going to give those to the Commission as well as to Chris. The first page is from the application for the original Kibby project, it's Page 7-1, the first page of the natural resources section.

Do you have that? Could you read the --

MS. MILLS: Can we just stop for one second? Juliet, do you have any objection to this?

MS. BROWNE: No.

BY DR. PUBLICOVER:

Q All right. Could you read the sentence that's highlighted in yellow, please?

A Certainly. Note that its sensitive natural features have been identified through the course of the project field efforts, the project design has been adjusted to avoid impacts to such areas to the greatest extent possible.

Q Okay. And I'd like to -- to simply point out the language, to avoid impacts to such areas to the greatest extent possible.

Now, regarding imparts to the Fir-Heart-Leaved Birch subalpine community, in the original Kibby project your goal was to stay out of that community and you were successful in that and the impacts to that community were

negligible or minimal; is that correct?
A Correct.
DR. PUBLICOVER: Dillon, if you could give her the next page.
BY DR. PUBLICOVER:
Q All right. This is Page B15-1 of the current application. And if you could read the sentence that's highlighted in yellow, please?
A Note that as sensitive natural features have been identified through the course of project field efforts, the project design has been adjusted to avoid or minimize impacts to such areas to the extent possible given engineering and land constraints.
Q You would agree that the language of this sentence is different than the language of the equivalent sentence in the original Kibby application?
A I would agree that it is different. What I would like to add to that offer to clarify is that we didn't want to just cut and paste from the Kibby application. So despite the fact that the approach was identical, we thought it might be good to add some clarification for the commission's benefit so that they understood what other things had to be considered in minimizing and avoiding to the greatest extent possible.
And so as per my testimony, the approach is identical

to that on Kibby. This sentence does not indicate anything different. And that is the exact approach that we used on Kibby despite the clarification that was added in this application.

Q All right. And I would move on to the third page, this is Page B-66 of the current application. And it's from the section on road access and design.

And if you could read the sentence at the top that's highlighted in yellow?

A Grubbing of the crane roads was taken into consideration, the same physical and environmental consideration as the new access road with special emphasis based on totally avoiding any disturbance within the Bicknell's Thrush core habitat and Bog Lemming habitat and minimizing, to the maximum extent practical, impacts within the overall Bicknell's Thrush and subalpine fir habitat.

Q All right. So just looking at the plain -- plain language that's in the application -- in the original Kibby application, the standard was to avoid impacts to the greatest extent possible. In this application you use the language minimizing to the maximum extent practicable.

Would you agree that avoid to the greatest extent possible has a different meaning than minimizing to the maximum extent practicable?

A I would agree with that.

Q All right. And as a standard of environmental -- environmental protection, just -- again, just considering the plain meaning of the language, that minimizing to the greatest extent practicable would be considered a weaker standard than avoiding the greatest extent possible?

A I would agree if that was the only consideration. Again, I think we're getting a little bit hung up on words here. And with respect to our commitment and the approach that we took in sighting project elements, we did it the exact same way.

And I -- you know, I was involved in that, so I can tell you that that -- there was no difference in how we approached that. The outcome may be slightly different in what we were able to completely avoid on Kibby and what we were able to completely avoid on the Kibby Expansion Project.

Q All right. Well, even though you say the intent was the same, again, I think words have meanings and we will allow the Commission to draw their own conclusions.

But, again, given the impact to this community, on the Kibby project, you stayed out of it. Isn't it true that if you had applied that same standard to this project that there wouldn't be a project, there wouldn't be an expansion project?

A I would have to pass that over to my colleagues.

MR. BENNETT: I mean, I think Christine -- Terry Bennett, TransCanada. I think Christine has answered the question, we don't change out standards from project to project, whether its wind projects or any other project. Every single project that TransCanada takes is taken with the same standards.

BY DR. PUBLICOVER:

Q All right. And I have one more question. You state that at -- in the project design that impacts have been minimized to the greatest extent practicable.

Isn't it true that the -- that that's not the standard by which LURC should judge the project, but, in fact, they actually have to judge it on the actual impacts that remain?

A I would absolutely agree with that.

Q And that even though the impacts have been minimized to the greatest extent practicable, the remaining impacts could still be considered unacceptable?

A That's absolutely right. Minimizing and avoiding does not mean zero. It didn't mean zero on Kibby and it doesn't mean zero here. And that's why we seek the advice of the agencies and -- in understanding those impacts and presenting them until finally LURC can make the decision on what may be undue versus not.

DR. PUBLICOVER: All right. Thank you. And I'm going

to pass it over now to Jenn Gray.

MS. GRAY: I'm Jenn Gray with Maine Audubon, one of the consolidated parties. And I have some questions for Dana Valleau.

EXAMINATION OF DANA VALLEAU

BY MS. GRAY:

Q Hi. Are you familiar with the Evers breeding bird report TransCanada submitted last Thursday evening?

A Yes, I am.

Q I would like to direct you to the report at Pages 32 to 37. These pages address the spot mapping that was done. Do you have the report in front of you?

A I don't.

Q Okay.

MS. BROWNE: Do you have an extra copy?

A I can speak to the spot mapping without seeing the report.

BY MS. GRAY:

Q Those pages show the figures of the spot mapping.

A Sure.

Q That was conducted -- each point on the figure, I believe, represents a bird observation?

A Observation of the birds, right.

Q So these points --

MS. CINNAMON: I'm sorry, what page was that?

MS. GRAY: Pages 32 to 37.

BY MS. GRAY:

Q These points may represent one bird moving around and observed at different locations or it may be multiple birds; is that correct?

A That's correct.

Q Evers also makes a determination in the report that the Bicknell's Thrush density in the project area is .33 Thrush per half acre; is that correct? And I can refer you to Page 15 of the report, the first full paragraph. It's about the seventh line down.

Much lower than our -- it's estimated density is .33 Thrush --

A Yes. That's correct.

Q Doesn't Evers also say further down in the page that this estimate is conservative and that density could actually be much higher? It actually says: Estimates are conservative with density most likely lower than what they may actually be?

A Right. And that is due to the complex breeding system.

Q Right. But they could be higher --

A Correct.

Q -- than what -- likely higher?

A Correct.

Q The application identifies an area of core habitat. And this area that you've identified is consistent with the

results you found from the spot mapping; is that correct?
A That's right.
Q Bicknell's Thrush move around based on the habitat disturbance, correct?
A Correct.
Q So the location and the size of the core habitat could shift over time?
A That is right. Yeah.
Q On Page 7 of your testimony you assert that 8 acres of preferred Bicknell's Thrush habitat will be lost, correct?
A That is correct.
Q Does this estimate include the habitat degradation due to edge effects?
A No, that -- that is the direct project footprint. And -- but it also takes into account some work that's been done in Vermont regarding the use of edge habitat by Bicknell's Thrush.

So we -- we don't typically discount the edge effect for Bicknell's Thrush based on that work that was done by -- by Rimmer at all.

Q So the 8 acres includes the edge effects or is it just the direct?
A It's just the collective footprint.
Q Okay. Thank you. Wouldn't you expect the environment immediately around the clearings for the roads and turbine

paths to change as a result of a project?
A I don't expect the habitat that's not disturbed directly adjacent to the clearing to change significantly.
Q But the habitat directly adjacent to the clearings will change; the light levels will be higher, moisture levels will be lower, the --
A Correct. Correct. And that is similar to a natural disturbance such as a blow down which will also increase light levels, create edges.
Q So --
A It's going to have similar impacts.
Q -- so we were all at the site visit yesterday. So the area adjacent to the roads, that area is all similar to what a natural disturbance would look like?
A If it blew down, yeah, sure. If there's a blow down, you have stumps remaining, trees down. So areas adjacent to clearing, if they exhibit some sort of direct impact, like a blow down, then it's going to be similar to a natural blow down, correct. Because there hasn't been any project impact to that area directly; it hasn't been cut, it hasn't been filled, it hasn't been disturbed.
Q So just to summarize, the 8 acres, again, is the direct habitat impact, but you don't have an estimate of the total habitat degradation as a result of the project?
A Correct.

MS. GRAY: Thank you. I would like to move on to Dr. Vickery, if I might.

EXAMINATION OF PETER VICKERY

BY MS. GRAY:

Q Dr. Vickery, I would like to draw your attention to Page 10 of your testimony. At the bottom of the page you indicate that most passerines that performed flight displays do not conduct these displays in strong wind. Of course, we're not talking about most passerines, we're talking passerines that breed in a specifically named habitat, the Bicknell's Thrush, correct?

A Correct.

Q What studies support your assertion that the Bicknell's Thrush don't mate when it's windy?

A You said mate?

Q Correct.

A Bicknell's Thrush may mate when it's very windy. They mate on the ground. So conducting flight displays when it's windy is a different issue.

Q But do you have any studies to support that assertion?

A That Bicknell's Thrushes do not conduct flight displays in windy conditions?

Q Yes.

A No. The only -- this hasn't been studied in detail -- this is direct observations from the Vermont Center for Eco

Studies.

Q Okay. I'd like to move on, if I might. On Page 11 of your testimony you indicate that Drewett and Langston 2006 have reported that small passerines are able to protect and avoid moving wind turbine blades. Do you have that report in front of you?

A I can pull it up on my computer.

Q Okay. Well, here.

A If you've got one, that's fine.

Q I do. And if you wouldn't mind turning to the -- there's a yellow tag there.

A Yeah. In the middle somewhere?

Q And you'll see a highlighted area. You state that small passerines are able to detect and avoid moving wind turbine blades and you refer to that study. Could you find for me -- I'm going to suggest that that actually doesn't say that in the report.

Do you recall offhand where it might say that? Is it possible that you're misreferencing that and that actually the report says nocturnally migrating waterfowl are able to detect and avoid turbines?

A That's possible. I would like to look at this.

Q Okay. Well, I'll move on. That report on Page 40 also says: Where at all possible, developers should avoid areas supporting the following: Breeding, wintering or migrating

populations of less abundant species, particularly those of conservation concern which may be sensitive to increased mortality as a result of collision. Developers should avoid, wherever possible, concentrations of vulnerable species. Correct?

A Yes.

Q Thank you. I want to touch on this question of the available Bicknell's Thrush habitat. You indicate in your testimony on Page 4 that Bicknell's Thrush has been documented by -- in regenerating clearcuts and -- as we've seen this morning -- and that this may increase the amount of available habitat by an additional 98,000 acres.

What documented cases demonstrate Bicknell's Thrush breeding successfully in regenerating clearcuts in Maine?

A Bicknell's Thrush has not been carefully studied in regenerating forests in Maine, so there is no documentation of that.

Q Thank you. Do you -- does your estimate of the available habitat include clearcuts below 3,000 feet?

A Yes.

Q Isn't it likely that regenerating clearcuts below 3,000 feet are likely to be of lower quality?

A Well, since it hasn't been studied, I would have to say we don't know.

Q On Page 4 of your testimony you reference Lambert to

support your assertion that there may be 98,000 additional acres of Bicknell's Thrush habitat. Doesn't Lambert specifically advise using caution in the application of the model in areas north of 45 degrees latitude?

A Yes.

Q And is the 98,000 acres that you reference above the 45 degrees latitude?

A I'm not sure.

Q You're not sure. Doesn't the Lambert study actually go -- doesn't it actually go as far as to say that this is potential habitat, doesn't it?

A The Lambert study doesn't say that, but the study from New Brunswick certainly demonstrates that and our observations confirm that in Maine.

Q Okay. And in regards to New Brunswick and Quebec, Bicknell's Thrush are known to breed at lower elevations, but that's not surprising since Bicknell's Thrush follow a northern gradient so as they move northward, they do breed at lower elevations. But that wouldn't necessarily be the case in this particular site?

A Well, it isn't quite that simple in that Bicknell's Thrush have bred at sea level along the coast of Maine as well as further north. So on the Gasp Bay Peninsula and some of the adjoining islands at sea level they have nested at sea level here. That's true in relation to the -- the general

pitch of the mountaintop.
Q So the studies that you show -- the studies that you refer to are focusing on New Brunswick and Quebec; is that not true?
A Correct.
Q And -- and they -- and that -- and those locations they do tend to -- to be found at lower elevations?
A Correct.
Q On Page 12 of your testimony you have a figure -- or a graph showing extensive areas of clearcutting around the project area which captions: Many of these degenerating clearcuts provide potential habitat for Bicknell's Thrush.
In reality, only a small portion would be the right age, condition and high enough in elevation to be suitable, correct?
A A proportion. We don't know how much of that is.
Q Right. But certainly not all of it?
A Not all of it. And potential habitat doesn't mean that it's being used at this day and time. But it will -- it is something that will be available to birds over a period of time.
Q Okay. Now, you also referenced Rimmer as being somebody that you highly respected, is very knowledgeable in the area of Bicknell's Thrush?
A Correct.

Q Are you familiar with the Remmer's Bicknell's Thrush conservation strategy Susan Gallo referenced in her direct testimony?
A I think so.
Q Okay. Would you be surprised to know that in that study in the section referred to as minimization and mitigation of management impacts it says: Habitat alterations should be avoided in areas where natural disturbances, either chronic or random, could maintain suitable habitat for Bicknell's Thrushes, such areas including west facing slopes, ridge lines for waves and areas adjacent to waves?
A Yes.
Q You would be surprised to hear that?
A No.
Q So what -- so if Rimmer, the expert, is saying that we should stay away from west facing slopes --
A Rimmer is saying that those areas should be avoided under all possible circumstances, it would be preferable, yeah.
Q Thank you. Given this new information that you've presented about the availability of new potential habitat, have scientists, leading experts in the field started to pursue surveys in regenerating clearcuts in Maine? Have the VCE started surveys in those locations?
A To my knowledge, the Vermont Center for Eco Studies has not started studies in these areas. I do know that they are

very interested in them.
Q But they haven't started any?
A They have not started any.
Q I also wanted to -- you didn't touch on it in your direct, but I briefly wanted to touch on your discussion about the male flight patterns on Page 10 of your testimony. You suggested that during mating season male Bicknell's Thrush fly overhead to heights of 50 to 100 feet and possibly as high as possibly 150 feet -- and, again, this is based on personal conservation -- and then circle ahead giving their flight songs. You also come to the conclusion that because the turbine blades won't go any lower than 119 feet it is unlikely the males will interact with the turbine blades because the flight displays are usually beneath the heights of the blade; is that correct?
A Correct.
Q Doesn't the species count in Birds of North America, Rimmer and Al, referred to in Susan Gallo's testimony, say that flight songs typically consist of 10- to 15-second flights, 25 to 75 meters, or that's 82 to 246 feet above the ground, often in large circles?
A I think that's what the BNA count says, yep.
Q Okay. So -- and that's a reliable source?
A Well, it's no more reliable than the source that I cited because those are observational and not measured data. So

that -- that was a -- an educated guess.
Q Okay. Well -- so even if we're relying just only on the personal conversation you had with Rimmer, Rimmer has indicated that they do go as high as 150 feet?
A Correct.
Q So there's still -- that's still -- 150 feet is still above 119 feet?
A Correct.
Q And they fly around in large circles as great as 100 meters?
A Something like that, yeah.
Q So the chances of the Bicknell's Thrush interacting with the turbine blade is significantly greater than you apply in your testimony; is that not correct?
A No, I don't think -- I don't think so. I think unlikely is correct. That -- you can say that by area there is the -- there is the potential for interaction. The potential for mortality, I assert, is very small.
Q Despite the fact that they fly above 119 feet in a large circle at dusk when it's difficult to see?
A Yes, that's right.
Q I have one last question. In regards to the comments about the ice age in your summary of your direct and you indicated that they'll be stressed by climate change but they'll probably adapt, are you suggesting that any

migrating species around today that had made it through the ice age will be likely to adapt to severe climate change?

A Well, I'm -- I'm suggesting from my -- my reading and knowledge of Bicknell's Thrush that Bicknell's Thrush will adapt to climate change.

Q But I'm just trying to take that to another level. And so --

A Yeah. And I'm not willing to go there because I haven't thought carefully about every migratory species.

MS. GRAY: Thank you.

DR. PUBLICOVER: All right. This is Dave Publicover again and these questions are for Dr. Hudson.

EXAMINATION OF DON HUDSON

BY DR. PUBLICOVER:

Q All right. As I read your testimony it seemed to make three primary points, that this community is not particularly rare, the occurrence on Sisk is not particularly important and the impact of the project is not particularly significant. Would that be a fair characterization?

A Yes.

Q You stated in your testimony that as one moves north in Canada this forest type becomes more common and widespread in the mountains and significant alpine forests exist in Quebec, Newfoundland and Labrador. So there's lots of it

in Canada, we shouldn't care about what's down here?
A No, that's not what I said. Obviously, there's more as you go north, as you know. I was addressing the point -- and perhaps I didn't do it eloquently enough -- that there are lots of - there are a number of different ways to look at rarity, as you know. And there is a limited number of acres of available ground in the state of Maine where this forest type can grow. And in those spaces where this forest type can grow in the state of Maine, it grows quite well and has persisted for quite a long time.

And so I consider that a different -- when thinking about rarity, that a plant -- a single plant that is adapted to geomorphical -- geomorphological or geochemical conditions that limit where it can grow on the land, those kinds of rarity are different for me. And that's why when I look at this forest type in the mountains, I don't think of it as rare.

In fact, until I pointed out to the Critical Areas Program that it existed, it was completely overlooked by that program. And I encouraged them to allow me to map it in my reports because I thought that they should know about it and pay attention to it.
Q All right. But in terms of -- you could -- this statement you've made, you could also say the same thing about Canada lynx or loons, there's lots of Canada lynx and loons in

Canada, correct?
A Yes, there are.
Q And we do care about Canada lynx and loons in Maine?
A We do.
Q Okay. In terms of this community that's in Quebec, Newfoundland and Labrador, some of it would be on higher mountain areas such as the long range of the --
PARTICIPANT: We can't hear.
Q -- (inaudible), but much of it would be lower -- would be lower elevation?
A Yeah. Yeah, that's the experience I've had.
Q So in some ways it's somewhat different than these mountaintop examples that probably wouldn't be subject to the same type of wind disturbance ratio, correct?
A Yes. The wind effects in most of the places, although not in all of the places, decreases with elevation.
Q All right. Now, the Natural Areas Program, this 19 documented occurrences of this community -- you put that in your direct testimony. And you listed 15 additional areas where you say this community occurs. And you estimated that these additional areas might encompass approximately 1,000 acres or something?
A Yeah.
Q I think that's a fair estimate. So in addition to the 40,000 acres that's documented, we have an additional

8,000. That means that instead of making up two-tenths of one percent of the landscape, it makes up .24 percent of the landscape. Do you consider something that takes up one quarter of one percent of Maine's landscape to be common?

A Well, again, you and I are looking at this differently. And -- and there -- as I made clear in my testimony, this forest type is limited to mountains and -- and that's where you're going to find them. And it has persisted there for thousands of years and the impacts of this project do not threaten them in this day.

Q All right. Of the 15 additional occurrences that you've listed, how many of them are smaller than Sisk?

A Half, I think.

Q I would -- I would agree with that. I did pretty much the same thing you did, looked at areas above 3,000 feet as kind of a cross for this community and I found eight of those 15 were smaller than Sisk.

So on the list of -- the list of occurrences that was in my testimony and you put up, Sisk is pretty much in the middle of the size range for these occurrences?

A Yes.

Q And these additional areas you've listed can still be pretty much in the middle?

A Yes.

Q And quite a few of the occurrences at the lower end of the

list are significantly smaller than Sisk, less than 100 acres, even in tens of acres?

A Yes.

Q All right. So do you think it's fair to say that even though Sisk may not be the best of the best in terms of occurrences of this community, it's certainly not the worst of the worst, it's in the middle of the size range, it's a good quality occurrence, it's essentially undisturbed and natural in its condition; would you say that's fair?

A Yeah, I'd say that's -- that's fair. And, again, I'm -- as you recall from my testimony, I'm referring to -- I'm thinking about the entirety of the -- of the vegetation type in the state in making that comment, not just the common ones.

Q All right. You stated that the vast majority of the forest type north and south of us in Maine and New England is permanently protected. How much of this community within the Boundary Mountains is protected as -- as natural area?

A I -- I don't have the information about what ridges may have been permanently excluded from wind development as per agreements between the state and -- and the developers. So I can't -- I can't answer that question.

Q I believe the answer to be none.

Now, the map that accompanies your testimony and also -- also other testimony indicates that about 30 percent --

almost 30 percent of this community occurrence would be either eliminated or directly -- or indirectly impacted by the project. And, again, I want to follow up on -- on what Commissioner Hilton was asking.

How much of this current -- community occurrence would have to be impacted before your testimony would change and you would consider it to have a significant undue adverse impact?

A I can't answer that question because I -- I haven't looked at the -- I haven't considered it. I considered this specific project and I looked at the -- at the information for a little more than -- a little less than a year as the layout has changed and people have shown me different maps. It's very -- my testimony is very specific to this proposal and not to a hypothetical proposal.

And I don't know where you're trying to get me there with that question, but I really can't answer it.

Q I mean, this is -- this is the question that the Commission is struggling with, where to draw the line. And, you know, we've made our case as to where we think the line should be drawn and I just wanted to know where you draw the line.

A Well --

Q I'm going to move on.

A -- for this project I've drawn the line where I've drawn it.

Q Okay. One last question. Dillon is going to show you a picture -- this was included with my pre-filed testimony -- it's a picture of one of the turbine pads at the Kibby project. Is it your testimony that this type of impact is equivalent to a moose thrashing around in the woods?

A Close.

DR. PUBLICOVER: All right. I'm going to pass the microphone on to Cathy Johnson, I believe.

MS. JOHNSON: Thank you. And I'll be asking some questions to Ms. Vissering. Are you all set?

MS. VISSERING: Yeah, I am.

EXAMINATION OF JEAN VISSERING

BY MS. JOHNSON:

Q Just to orient us about what we're talking about here, this is your photo simulation from Viewpoint 5A; is that correct?

A Yes.

Q Okay. And -- so Jenn is just going to be a human billboard here and hold this so we can refer to it when we need to.

Would you agree that the human eye is not just like a camera lens, that, in fact, the human eye when you're looking at a landscape is drawn to something that's incongruent in the landscape?

A I think the human -- the human eye is very sharp and certainly notices changes in the landscape or something --

something that does have a contrast.
Q Right. So if you're looking at an area and you see something like a wind tower, you're obviously going to be drawn to it, correct?
A Well, I would not characterize it necessarily as an encumbrance, that's your words, but because they're white, they do stand out they're -- they create a contrast in the landscape. And they will be -- they certainly will be seen and they will --
Q They will draw notice?
A Yes.
Q In your report on Page 10 -- if you have it, you can look at it, but I'm sure you know it -- you stated that the turbines would not be prominent features since they would be set behind dominant foreground land forms; is that correct?
A Yes, that's correct.
Q And I believe you testified in your summary today that you have read Mr. Palmer's report?
A Yes.
Q Mr. Palmer is the consultant for the Land Use Regulation Commission?
A Yes.
Q And in his report, referring to your statement that they would not be a dominant feature, he states, quote, the

voracity of this assertion is undermined by the simulation at Viewpoint 5 on Long Pond where the turbines are most certainly, quote, prominent by any -- close quote, by any definition and may be considered collectively, quote, dominant, close quote; is that correct?

A He did say that.

Q And are you also aware that he says on -- in his report that it seems reasonable to assert that the turbines in the photo simulations from Viewpoints 4 and 6 also are, quote, prominent, close quote?

A He did say that.

Q And are you further aware that Mr. Palmer noted that, quote, some would also consider the turbines in the simulations from Viewpoints 1 and 3 as, quote, prominent, close quote? That's on Page 8 of his report.

A Yes, he did say that.

Q Mr. Palmer in his report also critiqued your photo simulations. He stated that the contrast of the turbines in the photo simulations from Viewpoints 4, 5 and 6 is unacceptedly low. Having lower contrast would make the turbines harder to visualize, wouldn't it, because they would blend in?

A I do not agree that they -- that the -- I am with him on that, but -- the lower -- the lower -- having the lower contrast. The turbines are -- in those -- in those photo

simulations we tend to exaggerate the -- the turbines and how they appear because they're -- they -- in natural atmospheric conditions, if you match the background, they will not show up as well. So we try to make them look a little more prominent as they would if you mimicked the background in the photo simulation.

Q But Mr. Palmer, in looking at your photo simulation, did make the fact -- did make the observation that the contrast was lower and so, in fact, the turbines visible from this point would be more visible than your photo simulation would have us believe; isn't that correct?

A He did, but I do not agree with him.

Q Pisgah and Sisk Mountains are both pointed mountains, aren't they?

A Yes.

Q And the ridge that the wind towers are primarily proposed for is a long ridge that basically kind of stretches between them as -- as you're looking at it, let's say, from Chain of Ponds, correct?

A It's actually heading up to the north, it's not heading between them. It appears to be in that particular view, but it is -- it's a relatively flat ridge and slightly ungulating, yes.

Q So when you're, for instance, sitting in a canoe on Chain of Ponds and you're looking up to the northeast or whatever

the exact direction is, you'll see a pointed mountain Pisgah on the left and a pointed Sisk Mountain on the right and what appears to be between them is this flat ridge on which the towers will sit, correct?

A Yes, you would see -- see it -- from that particular vantage point, you would see that mountain in between, yes, the -- the two peaks.

Q And your eyes are going to be drawn to the turbines instead of the ospreys and the eagles and the falcons and so forth that are flying around because they stretch across the -- the field in front of you when you're looking to that direction, correct?

A I think there's a -- the turbines will certainly be noticeable, but I feel -- and as I pointed out in my testimony -- the eye is drawn to many things in the landscape and those mountains are as much a focal point as the turbines will be, as well as other things that one sees around the pond. Because one sees -- one is in the pond, not in one position looking, as we are right now, at this -- at this particular situation, but moving through that landscape.

And they will -- they will certainly be noticeable, but I don't think they are going to be the dominant element in the landscape. I think that those foreground peaks, because they are higher, closer, you can see the details in

them, they are going to be just as noticeable, if not more so, and -- and even --

Q Thank you.

A -- in the --

Q I think we've got the point. And there are five ponds that make up the Chain of Ponds, correct?

A That's right.

Q And Long Pond and Bag Pond are -- are in the middle, correct?

A Yes.

Q And it's actually -- so those are the most natural appearing of the ponds, the road doesn't come near the shore of either Long Pond or Bag Pond, correct?

A It's audible, but it's not visible from those ponds.

Q Now, your Viewpoint 5.8 here also purports to show what the roads associated with the proposal would look like, correct?

A Yes.

Q And have you seen the now constructed roads at Kibby?

A Yes.

Q And you've seen where they've had to blast significant bedrock to make the roads?

A Yes.

Q And you've seen where they had to fill significantly to -- to level the road out?

A Yes.
Q And the distance where the road would be visible in -- on Sisk Mountain is approximately 1 mile give or take what's shown on your -- from Chain of Ponds?
A It's -- it would -- it would -- in terms of the total length, I mean, it comes in and out of view depending on where the -- the fill slopes would be located. So it's -- it's not a -- you would be seeing some intermittent areas of --
Q Okay. Across a 1 mile stretch give or take, intermittently?
A It's probably about -- about that kind of distance, yes.
Q And are you aware that the slopes across which that road would travel are apparently 30- to 40-percent slopes?
A Yes. They're -- well, they're -- they are very steep slopes -- they vary in steepness from -- I think some of them are probably steeper than that.
Q And are you aware then that some of the cutting that may take place might go as high as 70 feet above the -- above the road surface and some of the fill might go down 30 feet give or take so we might have up to 100 feet of cut?
A There are a few places where that will occur, yes.
Q And that will make them very visible; isn't that right?
A Well, they won't be seen in the same way we saw them up at Kibby because we're going to be looking at a very different

vantage point.
Q But they're going to be -- you would agree they're significantly more visible than is apparent in this photo simulation, which doesn't simulate any cut and fill at all?
A Yes, it does. We -- we showed where the cut and fill -- we calculated based on a -- the grading plan that was -- that was proposed where the cut and fill -- are you looking at -- I can't see from here, but if that's the one that shows the roads in it.
Q Yeah. Take my word for it, you can't really visualize --.
Anyway, let's move on just for another couple questions. According to Appendix 2, which is the map that's included in your testimony, some number of the 15 turbines would be visible along the entire length of Long Pond; is that correct?
A I'm sorry, could you repeat that question?
Q Sure. In the map in your testimony showing where along the Chain of Ponds you would be able to get views of some number of turbines, you can see them along the entire length of Long Pond, correct, some number, one in -- two or three in some places going up to ten or so?
A The southern shore, yes. Most of the northern shore you cannot -- you would not see anything.
Q But if you're paddling down the length of the pond, if you're out on the water, you can see the turbines along the

entire length of the pond, correct?
A Well, if you were -- if you're paddling along the northern shore, no, you probably wouldn't see them at all. But if you were paddling along the southern shore, you would see along --
Q And if you were paddling in the middle of the pond, you would see them also?
A You would see some turbines, yes. Fewer than a nonsimulation, but yes.
Q And would you also see them from the western half of Bag Pond and from the southern end of Natanis Pond, correct?
A You would see them from the southwest little bay of Bag Pond and from Natanis you would see them, yes, from some -- this very small area along the southeast end of Natanis, yes.
Q And -- and I believe you stated that that -- you would see them then, approximately, I think you said, just up around a third of the distance of the Chain of Ponds?
A A little longer.
Q 31 percent, I think, is exactly what your testimony says.
A Yes.
Q If instead of -- if you actually were only looking for the northern eight turbines, you would see them from a small -- much smaller stretch of the Chain of Ponds; isn't that right?

A From the northern --
Q If you're only looking at the northern turbines.
A Northern turbines. You would be seeing them from probably about half of Long Pond and just the northern ones. You would also be seeing them in that section of Bag Pond. So, yeah, the only --
Q So would you agree with me that you would see -- if you were only looking at the northern eight turbines, you'd only see them for about 10 percent of the distance instead of 31 percent?
A No, I wouldn't agree.
Q How much of the distance do you believe you would see the northern turbines from?
A You would see the northern turbines for -- for most of that area on the view shed that is shown in the -- the red and the yellow. So that's -- that's a large section of Long Pond. And you would see them from -- you would see them entirely from the section -- you would see them from the section that was the Bag Pond section.

So the only place you really -- the only place that you would -- okay. We're focusing on just the -- so you would see the northern turbines from -- from quite a bit of Chain of Ponds.

MS. JOHNSON: Okay. I would like to move on now to Mr. Titus.

EXAMINATION OF JOHN TITUS

BY MS. JOHNSON:

Q Mr. Titus, you stated that you did the -- the scoping document and first draft of the plan for the Chain of Ponds unit; is that correct?

A Yes.

Q The first -- the so-called first draft that you did was actually something that the folks at BPL call a preplan document; isn't that correct?

A The scoping and preplan would have been the same -- the same thing. And then from there we had drafted -- I had begun or had created an initial draft or what we would call a first draft.

Q Isn't it more accurate to describe the preplan document that you prepared more like an inventory than any sort of a plan?

A And also in it included some management issues in regards to the Chain of Ponds unit and the other properties within the Flagstaff region.

Q In fact, the Bureau of Parks and Lands doesn't even do this stage of preplanned documents because they've found it wasn't useful; isn't that correct?

A I am not aware of that.

Q Okay. So the work that you did, it was prior to any advisory committee being set up; isn't that right?

A Yes, that's correct.
Q And there was no vision for the lands in the preplanned document?
A That's right.
Q And there are no conclusions about management priorities in the preplanned document?
A Right. That was saved for the initial draft, the first draft.
Q And, in fact, there were no -- there was no vision or conclusions about management priorities while you were working on the plan before you were -- handed it over to another staff person at BPL?
A Yeah. Like I had said from the scoping plan, I had drafted what we would call a first draft or an initial draft and at that point that's when it was handed to another individual to finish.
Q Now, I assume that you have reviewed the final plan --
A Yes.
Q -- that was prepared by other staff?
A Right.
Q And you're aware that the very first three words of the description Chain of Ponds is that it's a highly scenic area?
A Yes.
Q And that there is a quote in the very first paragraph that,

quote, there are few places in Maine with as rugged a landscape, mountain summits and ridges surrounding the narrow ribbon of water and create a fjord-like setting; that's correct, isn't it?

A Yes.

Q And in the recreation section of that plan, the very first sentence in the recreation section says, quote, recreational use of this area consists of camping at the bureau's primitive campsites on Long and Bag Pond, and at the commercial campground on Natanis Pond, canoeing and kayaking and fishing, correct?

A That's correct.

Q And they further go on to talk about, quote, carrying access to the two middle ponds within the Chain, correct?

A That's correct also.

Q And they also talk about, quote, primitive camping is available at several locations on the pond?

A That is also correct.

Q And when you get to management concerns and issues in the pond -- in the plan, it talks about, additional primitive campsites may be appropriate on Long and Bag Ponds?

A Yes.

Q And that's because, I believe as you said in your testimony, because these are campsites that very heavily used --

A They can be --
Q -- very popular --
A -- from time to time, yes.
Q -- very popular? And you -- I believe you also mentioned that one of the management issues is to work with the commercial campground lessee to ensure that the campground is, quote, in character with the scenic and primitive nature of the surroundings; is that correct?
A Yes.
Q Isn't it true that the management plan talks about the draw of this area for most recreationalists being its, quote, wild and scenic character, closed quote?
A I would -- I do not agree with that assessment, no.
Q Do you have that management plan handy?
A I do have one, yes.
Q Would you like to look at Page 31? Do you have Page 31 there? Here. Would you read the sentence that's highlighted in that plan?
A Certainly. Overall the draw of this area for most recreationalists is its wild and scenic character.
Q Thank you. And the vision in the management policies for this region as a whole, the Flagstaff region, of which Chain of Ponds is one begins, quote, the bureau lands are signature landscapes that draw visitors to the region in search of a remote recreational experience, close quote,

and it speaks specifically of camping on the sandy beaches of Chain of Ponds; is that correct?

A That's correct.

Q And the fact that BPL's management decision to add additional primitive campsites shows that they're managing this area for primitive recreation; isn't that right?

A I would not agree with that statement, no.

Q Okay. There are no recommendations in the management plan for management activities to increase intensive motorized uses, are there?

A That's correct.

Q So your assertion that there was a management decision to manage Chain of Ponds primarily -- that's your word -- for intensive motorized uses is not accurate, is it?

A I believe that it is accurate.

Q Have you ever paddled on Long or Bag Pond?

A I have not paddled, I have been out on the ponds, however.

Q Have you been on Long and Bag Pond?

A Yes, I have.

Q But you haven't paddled?

A No.

MS. JOHNSON: I have a couple questions for Mr. Selser.

MS. HILTON: Cathy, you have about four minutes left.

MS. JOHNSON: Yeah. I've got about four minutes worth.

MS. HILTON: All right. Very good.

MS. JOHNSON: Right on top of it. Thank you. I think we're going to come in just under the wire.

EXAMINATION OF JEFFREY SELSER

BY MS. JOHNSON:

Q Mr. Selser, in your testimony you extensively address LURC's Comprehensive Land Use Plan; is that correct?

A That's correct.

Q Are you aware that LURC's Comprehensive Land Use Plan is not a regulatory criterion in this development application?

A That's actually not correct, no. In all development applications the applicant must consider all of LURC's plans and regulations. And LURC's primarily planning document, upon which all of its regulations are based, is the CLUP.

Q And the CLUP that you refer to in your plan is the recently adopted CLUP which is not the one which actually applies to this proceeding; is that correct?

A It is our position that the 2010 CLUP applies to this proceeding, but as noted in my pre-filed testimony, both versions of the CLUP equally support this project. In fact, the energy resources goal from 1997 CLUP to the 2010 CLUP is virtually unchanged.

MS. JOHNSON: I have a few questions for Mr. Williamson. Thank you.

EXAMINATION OF TOBY WILLIAMSON

BY MS. JOHNSON:

Q Mr. Williamson, in your testimony you assert that the project won't adversely affect recreational users, correct?

A Yes, I do.

Q But all of the anecdotes in your testimony purportedly showing that the recreational users won't be impacted relate to the construction of Kibby 1; is that correct?

A I'm not sure if that's the case or not.

Q Would you agree -- would you take my word for it, I looked carefully and they all related to Kibby 1 as you represented them in your testimony?

A Well, the two projects are very closely related, so --.

Q Okay. In fact, I couldn't find any testimony with any specific information about the potential impacts of the Kibby Expansion Project on recreational users in the area; is that correct?

A Well, I guess what I would say is the information in my testimony -- I think it's important to the Commission as far as the people in the -- in the clubs that I have spoken to in the area and how they use the area.

Q But it doesn't directly relate to the potential impacts of this particular project?

A Well, I would say that the -- the original Kibby project and its expansion are very closely related. And the area

is, you know, very approximate, so it does actually relate to the Kibby Expansion.

Q In your testimony you also stated that there's been significant interest in viewing the Kibby wind project; is that correct?

A Absolutely.

Q Lots of folks going up there having a look?

A Absolutely.

Q But just because there's a lot of interest in the project doesn't suggest what people think about the project after they see it, does it?

A Well, I will tell you that when I bring people up there, they're very -- they think that it's attractive, including your board.

Q But the fact that some people, including our board members, because we are very supportive of wind power and supported the Kibby project, like the Kibby project, doesn't suggest for a second that all the people who go up there like the project?

A No, I -- sure, some people object to how wind power looks.

Q And I assume that you're not also suggesting that the fact that people who view the project and like what they see that that somehow substitutes for the -- the adverse impacts that this project might have on recreational users on Long Pond or Bag Pond who are looking for a natural

experience?
A Well, I don't think that there will be adverse impacts to -- to people enjoying the Chain of Ponds.
Q In your discussion of the recreational impacts of the Kibby project you mention the impacts on the snowmobile club trail system, the ATV trails, hunters and fishing and trapping opportunities, correct?
A That's correct.
Q In your testimony you failed to even mention the Chain of Ponds as a resource of statewide outstanding scenic importance; isn't that right?
A Well, I believe I mentioned that John Titus was focusing more on that.
Q But you didn't mention it in yours --
A I did not.
Q -- in terms of recreational impacts? And you failed in your testimony to even mention an entire set of recreational users, those families and individuals who come to the Chain of Ponds to paddle on the ponds, to fish, to watch wildlife or to camp in the primitive campsites; you didn't mention them, did you?
A Well, I -- I guess I did not mention them in my testimony, but I would say that I have spent quite a bit of time talking with Sharon and Ken Thomas and there won't be impacts from that part of Chain of Ponds where most people

experience the Chain of Ponds.

Q Are you aware that the Bureau of Parks and Lands in their management plan, as I was just discussing with Mr. Titus, focuses on improving opportunities for primitive recreation users on Chain of Ponds making more hand-carry launch sites, making primitive campsites? Are you aware of that?

A I have not reviewed that plan in detail.

MS. JOHNSON: Okay. I think we're done unless you guys --. We're done.

MS. HILTON: Good. Thank you very much. I do appreciate -- it seems like we're getting some good concise answers and questions here and that's great.

Next is cross-examination by the Friends of Boundary Mountains.

MS. HILTON: A three minutes recess?

(Whereupon a recess was held at 12:03 p.m., and the hearing was resumed at 12:09 p.m. this date.)

MS. HILTON: Okay. So now we're going to go to 12:50.

MR. WEINGARTEN: I am going to turn over cross-examination to Hilary Lister.

MS. LISTER: All right. I'm going to just begin here. My first question is for Christine Cinnamon.

EXAMINATION OF CHRISTINE CINNAMON

BY MS. LISTER:

Q Earlier you stated there were no Canadian issues --

MS. HILTON: Hey, Hillary, can you speak up a little louder?

MS. LISTER: Sure.

BY MS. LISTER:

Q For Christine Cinnamon. Earlier you stated there were no Canadian issues. I just wanted to ask, are you aware of the border trail -- I'm going to mess up the pronunciation -- Centierportalis (phonetic) which comes in close proximity to the proposed turbines?

A I am.

Q Have you heard any concern from representatives or people working with that group on the impact of hikers on that trail at all?

A Not directly, no, I have not.

Q All right. And also in your assessment of impacts on wildlife, did you consider at all the effects of electromagnetic fields on wildlife?

A Not with respect to wildlife in Canada, no.

Q Okay. Or in the U.S.?

A We have previously addressed the topic of electromagnetic frequency both on the Kibby project and other projects that I've worked on. And I am familiar with the -- with the topic and familiar with the recent documentation that this is not an issue that -- that rises to any significance and, therefore, it did not need to be assessed in great detail

related to this project.
Q So it was not assessed -- was it assessed at all in this specific situation?
A No, it was not.
MS. LISTER: Okay. Now, a few questions for Jeff Selser.

EXAMINATION OF JEFFREY SELSER

BY MS. LISTER:
Q Have you testified at hearings in favor of changing the CLUP over the past few years?
A I have testified -- I have presented testimony on my own behalf in connection with the process of amending the CLUP.
Q And what sort of changes were you advocating at that time?
A Well, I -- I have not been advocating for changes in the CLUP, I made comments relative to the staff drafts --
Q Okay.
A -- in the 2010 CLUP revision process.
Q And in that process were you employed by landowners who had interest in the CLUP in the unorganized territories?
A No. In that process I was acting entirely on my own capacity on my own time and at my own expense.
Q All right. And would you agree that the CLUP is designed to provide long-term planning for the unorganized territories?
A Yeah, that -- the purpose of the Comprehensive Land Use

Plan is to plan comprehensively for land base, yes, that's correct.

Q And if TransCanada enters into an agreement with LURC and people of Maine in this new plan, what guaranty do we have that the terms will not change at a later point?

A I'm not sure I understand your question. In terms of an agreement do you mean a binding legal agreement or a permit that's issued by the Commission or --?

Q Statements for the terms of the permit, yes. Is there -- do we have a guaranty that TransCanada will not come back at a later point seeking changes?

A Are you talking about we have a guaranty that TransCanada will not seek an amendment to its permits?

Q That or other changes such as with the -- changes to the conservation easement in the First Roach/Plum Creek deal, just any sort of changes that might --

A Right. You have to look at legal requirements sort of individually. As you mentioned, the conservation easement, the conservation easement has many parties. In particular, the Plum Creek easement has a significant number of parties. So TransCanada has no ability -- they are not a party to that agreement, so they have no ability to change the terms of that agreement. That agreement can only be changed -- that particular conservation agreement can only be changed by the holder of the easement --

Q I understand that.
A -- other parties of the easement and -- and state approval.
Q I understand a different example. Okay. Would you describe this project as a larger scale than what has historically occurred in this area for impact?
A This scale is consistent with the existing Kibby project that was permitted two years ago. If you're talking about over 1,000, years, I'm not --.
Q Or just that this is expanding a project that is of a larger scale than historical uses in this area.
A This is expanding a project approved two years ago that was different in nature than existing uses. The area, as Mr. Hudson has testified, was heavily cut over, it's been an industrial forest for well over 100 years, it's in an area that has been fairly aggressively harvested as an industrial forest. So we're talking about different types of impacts. But as I said in my testimony, every use we make of the land has impacts on the land.
Q And would you agree that the greater the scale of the development can result in a greater impact on the land?
A Again, as -- an assessment of that standpoint from a regulatory position, you know, that's not -- my testimony is limited specifically to the -- the regulatory environment. From a regulatory standpoint, the Commission's job is to look at each and every application

before it and weigh the impacts of that application against the specific land base and natural resources that are affected.

MS. LISTER: All right. Thanks. Questions for Toby Williamson.

EXAMINATION OF TOBY WILLIAMSON

BY MS. LISTER:

Q Now, has your role in this project been as a planner or as a public relations representative? What specifically have you been employed to do in this project?

A I've been employed to spend time in this area talking to local people about their opinions about wind power and to work with -- work with them on their questions about the project and to help -- to help TransCanada understand what that context is.

Q And would -- you work for a public relations firm, though; is that correct?

A I work for Barton & Gingold, we're a communications management firm.

Q All right.

A And I have a background in regional planning.

Q Okay. You state that there were a, quote, rare few who object to this project. Could you briefly describe how you encountered these people and what you heard from these rare few?

A Sure. I mean, there's -- there's some people that are opposed to a change of any kind, I would say; there's some people that just don't like the look of turbines. You come across these people in town at various meetings, times that I make presentations about the project.
Q Did you do a community survey of any sort?
A No.
Q All right. Have you testified at public hearings in favor of TransCanada's plans in this area?
A I guess -- I mean, I spoke on the last -- the original Kibby project.
Q Okay. And have you made an effort to ensure that other proponents of the plan spoke at those hearings?
A Well, I certainly speak with local people and there's a lot of people that support this project. And, absolutely, there's times that I've asked them to come and say things.

I never -- but let me clarify. I've never put words in anyone's mouth and I certainly encourage anybody that has anything to say about this project to come and speak about it to their commissioners.

Q Do you agree that there's already a local economy existing in this area that depends on the health of the fish and wildlife in the region?
A I'm sorry, could you repeat that question?
Q Do you agree that there's already a local economy existing

in this area in terms of hunting, fishing, camping, trapping that depends on the health of the fish and wildlife in this region?

A Sure.

Q Do you agree that people come from both sides of this border for those reasons?

A People -- well, sure.

Q And in determining community support, did you communicate with people who live in the Chain of Ponds area or was it primary Eustis and Stratton?

A No, I spoke with everybody that was along the Chain of Ponds that would return my phone calls or meet with me. Absolutely.

Q Have you communicated with wilderness guides in the area?

A Not extensively, no. Well, no, let me clarify. How do you define a wilderness guide? I've spoken with people that are registered Maine guides.

Q Registered Maine guides, wilderness guides.

A Sure. And, yes, I talked to some.

Q Okay. And have any of them raised concerns about the impact on this area?

A Not directly to me, no.

Q Would you say there are very old trails in the area?

A Sure, the -- the route that the -- the Arnold Expedition Trail was a route that native Americans used for centuries.

Q And would you say they used that for hunting and fishing as well?
A Sure.
Q Have any measures been taken to ensure the safety of people on foot or snowmobiles in the area to ensure they wouldn't be threatened from ice throw from the turbines?
A Yes, there's a policy that encourages people to stay, you know, a safe distance from the turbines.
Q What is that distance?
A Well, I would say roughly 1,000 feet.
Q Okay. And if a person is injured in proximity of a turbine, can a Life Flight helicopter reach that person?
A I believe that there are -- there's access up there for helicopters to land, absolutely.
Q Even in close proximity to turbines? Because I know in other areas that has been limited.
A There's definitely places helicopters can land.
Q And do local fire departments have the equipment and training to battle potential turbine fires and prevent the spread of forest fires from that?
A It's not a -- anything that I've discussed with them, but am --.

MS. LISTER: Okay. And I guess this is for any of the TransCanada representatives. Has that issue been addressed?

MR. SHELTON: Hi. I'm Greg Shelton. You know, the Eustis/Stratton fire department has taken part during the Kibby project in multiple hands-on exercises both highland, lowland both. You know, we've worked with them closely throughout the project and we'll continue to work with them, you know, throughout the life of Kibby and possibly the Kibby Expansion. We do have designated Life Flight areas that -- that people can be picked up. You know, in our equipment on the site we have rescue slants, we have, you know, the necessary equipment if needed to assist the local folks in getting people off.

MS. LISTER: Okay. Thank you. Back to Toby.

BY MS. LISTER:

Q Now, following the 2008 mudslide did you hear concerns of the effective erosion on local fisheries or any other concerns about that mudslide from people you were communicating with?

A People in the area were not concerned about it and it had no impact on -- on fisheries. That's my understanding. There's other people that are more appropriately able to answer that -- that question -- the details of that incident.

Q And you stated the project has just begun to do its work mitigating climate change. Now, were you involved -- or do you know how the impact on climate change from the project

was quantified in the first place in order to determine this mitigation?

A Sure. It was based on the -- the megawatt hours that were estimated for the project.

Q Okay. And was the loss of carbon sequestration due to the loss of trees considered in the impact of the project at all?

A It was not, but I --

Q Okay. Was the impact of the construction of the turbines or the construction equipment up there considered?

A It was a -- you know, we took the numbers from the megawatt hours and related that to how much that would reduce, you know, other generation facilities.

MS. LISTER: Great. Now Peter Vickery.

EXAMINATION OF PETER VICKERY

BY MS. LISTER:

Q You -- in terms of the impact of the noise from the turbines on birds in the area, are you aware of the recent study that was cited by Diane Boretos in her pre-filed testimony concerning the impact of noise on wildlife?

A No, I'm not.

Q Okay. Well, that study -- it's in her pre-filed testimony. It's from the Journal Friends in Ecology and Evolution. It's pretty recent. It showed that the noise levels as low as 10 decibels can have major impacts --

MS. BROWNE: If she's going to be relying upon a study, I ask that she provide a copy to the witness and also to counsel, particularly if she's going to be characterizing what it is the study concludes or says.

MS. MILLS: Do you have a copy of the study?

MS. LISTER: Can we have a copy here quick? And this is in the pre-filed study as well.

BY MS. LISTER:

Q Just for the interest of time, I'm just going to continue explaining it. That noise as low as 10 decibels can have major impacts on wildlife by reducing the listening area by 90 percent. And that listening area is necessary for animals to communicate with each for purposes of mating, sensing danger and other necessary communications.

Now, according to the TransCanada noise contour map in the back, there's a large region surrounding the turbines that shows a noise level of 30 decibels from the turbines. Was that area -- first, was that considered in your assessments of noise and do you know the acreage of that area?

A Hang on just a half a second. Is this the article you're talking about?

Q That looks --

A The Acoustic Ecology Institute.

Q I'm not sure. That's not what I recognize as the -- Diane

Boretos pre-filed testimony reference -- or is that the study that goes with your pre-filed testimony?

MS. BORETOS: That's a synopsis from the Acoustical -- Journal of Acoustical Science.

A So I just wanted to point out this isn't a referee citation, this is some sort of a summary. So I'm really not eager to comment on that.

MS. LISTER: Okay. We can pass on that right now.

A general question for TransCanada representatives here. In that map in the back showing the noise impacts, the 30 decibel range, does anybody know offhand what the acreage is of that region?

MS. CINNAMON: I don't have that exact acreage. I mean, we could calculate it. But I would like to point out that when a wind turbine is producing that noise, the wind is also blowing and you would have to factor that into the noise level.

MS. LISTER: All right. Thanks. Questions for Terry Bennett.

BY MS. LISTER:

Q So I think it came up earlier. Is this project slated to receive federal stimulus funding?

A If we can start construction this year, we will apply for federal stimulus funding.

Q So is that funding dependent on approval of this plan?

A It's dependent on the timing of the start of construction.
Q And what's the deadline for that?
A The end of this year.
Q All right. And -- let's see. Now, during the hearings on rulemaking, TransCanada representatives had testified they requested an expansion that they didn't mention earlier because they didn't know at the time of opportunities to put turbines on Sisk. And we had this same sort of issue with TransCanada deciding to pursue the TIF due to opportunities that they didn't know they'd previously have.

What guaranty do we have that TransCanada will not seek more changes that might be contrary to statements made in these hearings?

MS. BROWNE: I'm a little bit confused by the question. You're referring -- if you have specific prior testimony that you're asking him to look at --.

MS. LISTER: I'm just referring to statements made in prior hearings about plans from TransCanada that then changed at a later point due to TransCanada finding out about, quote, opportunities that they were not aware of at the time.

A Can you refer to specific testimony that we have?

MS. LISTER: I don't have that right now.

MR. WEINGARTEN: If I may interject. At the hearing that took place on the rulemaking, TransCanada's attorney

explained to the commissioners that they -- that she was not -- that TransCanada was not aware of the opportunity to put an expansion project on Sisk Mountain and that's why they needed to have the expansion of the expedited area. And we are referring to that.

MS. BROWNE: Since it's a statement I, apparently, made, can I clarify? The statement was in response to a question to TransCanada about future expansion plans during the Kibby hearings. TransCanada testified at that time that they didn't have future expansion plans. And the opportunity -- in talking about petition, the opportunity to development Sisk was not available to TransCanada when the Kibby project was being permitted.

MR. WEINGARTEN: Yes, precisely. That's why we're asking the question, what guaranty of anything that you say here will be followed through?

MS. MILLS: I think the objection from TransCanada is that it's a very broadly worded question. If there's a specific representation that's been made that you can specifically ask them about as to whether or not they anticipate seeking an alteration to that information or position that they've taken today, I think that they would be able to answer the question.

MS. LISTER: I'll skip that for now. A question for I'm not sure if -- if you'd be able to answer this or

someone from TransCanada, but how viable is the data from the met tower that blew over this winter?

MR. PATTERSON: Can you repeat the question? Tom Patterson, TransCanada.

EXAMINATION OF TOM PATTERSON

BY MS. LISTER:

Q I was just wondering, how viable is the data that we received from the met tower that blew over this?

A Viable in context?

Q Viable in terms of being able to provide a useable example of what the actual impact of these turbines of the weather up there, seeing as it was only operational for a shortened period of time than what was originally intended?

A We are measuring the wind at this point. We've had the met tower installed -- the original met tower installed since late September of 2009. And subsequent to that, it did fall early this year and we have reinstalled that and we are relying on core relations that we expect to establish between that data and the data collected on our TV screen.

Q Is that indicative at all of weather damage on turbines or towers, is this something that we could expect again or --?

A Met towers are temporary structures and they're not -- we're talking completely different structures as compared to wind turbines.

MS. LISTER: All right. Back to Bennett.

EXAMINATION OF TERRY BENNETT

BY MS. LISTER:

Q In your testimony you stated that during the development and permitting of the original project there was considerable focus on the fragile mountain environment in which roads and turbines would be erected. TransCanada implemented specialized construction techniques to ensure that the underlying hydrology of the area would be maintained and storm water would be properly managed.

My question is, how is the October 2008 mudslide able to occur in spite of this effort and what's changed since then?

A That's better directed towards the technical folks on our team.

UNIDENTIFIED SPEAKER: Would you please repeat the question?

MS. LISTER: Yes. There's the statement that in the original implementation of this project TransCanada implemented specialized construction techniques to ensure that the underlying hydrology of the area would be maintained and storm water would be properly managed. Yet, in spite of that, there was a major mudslide in 2008. I'm just wondering how that was able to occur in spite of this effort and what has changed since then?

UNIDENTIFIED SPEAKER: On a project of this nature

there will be inevitably occasions where measures which are in place will fail. We had an incident, we learned from the incident and no permanent damage -- permanent damage occurred and the area was restored, revegetation is taking place. And that's all I can say.

EXAMINATION OF CHRISTINE CINNAMON

BY MS. LISTER:

Q All right. And, finally, this question is for Christine Cinnamon regarding vernal pools.

What protocol specifically did you follow for surveying the vernal pools?

A I can just answer generally as per my testimony this morning that we followed the protocol by I F & W to identify potential vernal pools outside of the -- the typical spring season. That is a standard protocol. And I will turn it over to Dana Valleau who is the expert on this.

Q If I could just continue my questioning first. Isn't it true that the protocol for certified vernal pools is during the designated egg laying season when egg masses of salamanders and wood frogs are present?

A I'll pass it over to Dana to answer that question.

MR. VALLEAU: So that is correct that in order to certify a vernal pool as significant you need to do it during the accepted window. However, I F & W has

recognized that not every survey can take place during that window. And in those cases, what is accepted written guidance from I F & W is that you identify potential areas, apply a 250-foot buffer habitat area to those areas as if they were significant and assess impacts to those buffer areas.

And in this case we've done that. And all of the existing plus proposed development within those buffer areas falls below the threshold that requires any sort of mitigation to those buffer areas. So we're below it. And it's at 25 percent total disturbed area within that -- those 250-foot buffers.

EXAMINATION OF DANA VALLEAU

BY MS. LISTER:

Q And is it true that you had been doing fieldwork in the winter, though?

A No, that -- that's not necessarily true. We started our soil survey work and wetlands survey work in June, which was largely wrapped up by August. However, due to changes in layout through consultation with -- with agency folks and also reviewing field data, we did have to do some additional surveying in areas that we had not surveyed originally.

Q How far in advance did you know that these surveys for vernal pools would need to be done?

A How far in advance did we know? The project planning was in its very early stages in the spring of that year, so --. And it was before the vernal pool window. And I did have communication with folks on the Kibby site as to when the snow pack was going to leave the site. And, therefore, amphibian breeding would be taking place.

And the fact of the matter is, when the snow pack went, we went to look and we found tadpoles in potential vernal pool areas. And so what that means to me is we missed the window.

Q And --

A So that simply indicates we just missed the window. So then we applied the I F & W guidance for when you miss the window.

Q Isn't it true that the met -- met tower studies were submitted in March?

A Which met tower studies are you referring to?

Q The met tower application for Sisk.

A I'm not sure what -- what --

EXAMINATION OF DANA VALLEAU

BY MR. WEINGARTEN:

Q If I -- if I could clarify that. If I could clarify that question. The original application for a met tower on Sisk, which began in March, would have been before the window of opportunity to do a full complete vernal pool

study.

A Well, we did field surveys for siting a met tower outside of that window -- the survey window, correct. That's correct. But we did not -- we weren't looking at the entire site. We were only looking at a met tower and a trail for the met tower.

So, you know, we did wetland surveys related to the met tower trail, which included identifying potential wildlife habitats, including vernal pools, Bog Lemming habitat and things like that. And when we -- during those surveys, which was a limited field survey area, related just for the met tower and the trail, we didn't identify any potential vernal pools.

Q Isn't it not true that at that point you knew that you were planning to put a project on Sisk Mountain?

A Sure, but, you know, the first thing you do is put up a met tower. You don't create a layout for a project based on pure topography. And at this -- at that point it's like prospecting.

Q Isn't it true that -- that since there is a limited window for studying vernal pools that that should be planned for?

A Correct. However, there's no way we could have known where to survey and to focus our surveys into areas that are potentially affected by a proposed project. All we were looking at at that early stage was a met tower and a trail.

Q But then by knowing that you have to make a third quarter 2010 deadline for stimulus money, how would you expect to do a correct vernal pool survey?
A Well, the fact of the matter is we did do a correct vernal pool survey, we were outside of the window to have pools that we found certified --
Q But you only could -- but you only could survey and come up with potential pools, not real pools. And since vernal pools are an especially sensitive ecological situation, one would have thought differently?
A Well, by identifying a potential pool what -- what you're looking for is areas that contain tadpoles, salamander larvae and also areas of standing water that are potential breeding areas. So you inevitably include natural and manmade features.
Q But you did not -- well, it's true that you did not do a full vernal pool survey to actually verify where vernal pools are on Sisk Mountain in the footprint of the turbines?
A No, we did. That -- that's what I'm saying. We did the surveys and there is an approved protocol for doing it outside of the window where you certify significance.
MR. WEINGARTEN: Let's move on to the next question.
MS. LISTER: Okay. Just one last question. John Titus.

EXAMINATION OF JOHN TITUS

BY MS. LISTER:

Q In determining -- in evaluating the impacts of the project, was the impact of light pollution from the turbines on the night -- dark night sky in more remote areas such as Bigelow considered in that determination?

A No. No. In fact, at the time the plan was in formation, we weren't considering wind power projects at all in terms of those potential impacts. They weren't even in the mix during that time period.

Q So the impact of light pollution was not figured in any of these?

A It wasn't factored into any -- any of the discussions at that time that I'm aware of, I mean, as far as I went with the process. There may have been some discussions outside of my participation, but I am not aware of any.

MS. LISTER: Okay. That's all for me.

MR. WEINGARTEN: I would like to ask Ms. Vissering a question.

EXAMINATION OF JEAN VISSERING

BY MR. WEINGARTEN:

Q In your aesthetic and scenic analysis, did you take into account red lights at the campsite on -- on The Horns in Bigelow?

A We -- our study area was an 8-mile radius. And so, no, we

did not.
Q Are you aware that campers now at The Horns and other parts of the Bigelow Preserve are confronted with red lights at night?
A At the present time?
Q Yes. Right now.
A Oh, because -- from the Kibby project?
Q Correct.
A Yes --
Q Are you aware of that?
A Am I aware of it?
Q Yes.
A I guess I'm not surprised because --
Q But you're not --
A -- we did do a -- when we did the Kibby project, we did look -- we did a 15-mile radius for that project. So --
Q Are you --
A Yeah, we -- we were aware that there would be visibility there.
Q And did you do any studies in terms of potential lights on Sisk Mountain and where that would be impacted?
A We -- I'm trying to remember what I said in my report, but it was definitely something that I considered in my assessment.
Q And did you find anyplace where -- as to where it would be

visible --
A There will be lights visible in the -- generally in the area --
Q Can you tell us where, please?
A Yeah. In the areas that are shown on -- on the view shed analysis, wherever there is -- there is the potential visibility, there are -- there are likely to be lights that will be visible.
Q Was the visibility of lights when the Kibby project was considered in your analysis of the Kibby project?
A Could you repeat that question?
Q Yes. Was the potential of lights being seen by campers at night on -- on Bigelow or other places considered in your Kibby study?
A I don't remember getting -- because of the distance -- in fact, I think that Bigelow, except for Cranberry Mountain, was beyond the 15-mile radius that we looked at in that case. So I don't think we went into detail in that regard.
Q But you are aware that people who would be camping at The Horns, which is a major campsite in a highly wilderness area, would be able to be impacted by the -- the lights of a turbine?
A I'm assuming that the -- the lights at that distance would be quite -- quite faint, but, yes, I'm sure they are visible.

Q Are you aware that they go on and off all night?
A Yes.
MR. WEINGARTEN: Thank you. I guess that's it. Do we have time left over?
MS. HILTON: Maybe a little bit. I think the next is redirect by TransCanada.
MR. ANDERSON: Good afternoon. My name Scott Anderson for TransCanada. I just have a couple quick questions for Peter Vickery.

EXAMINATION OF PETER VICKERY

BY MR. ANDERSON:
Q Peter, I just want to make sure you have reviewed the application and are familiar with the impact to Bicknell's Thrush on the ridge line area of the project, correct?
A Correct.
Q And by that you mean that you're aware of the --
THE REPORTER: Can you speak into the mic, please? Thank you.
BY MR. ANDERSON:
Q You're aware of the fact that there will be 8 acres of impact to the 88 acres of Bicknell's Thrush habitat that's been mapped as well as approximately 39 acres of direct impacts to the subalpine fir forests in --
MS. JOHNSON: Excuse me. I object. I didn't ask Dr. Vickery about the 8 acres in direct.

MR. ANDERSON: Well, there was some discussion in both the questions from the Commission and on cross that had to do with the impacts on the ridge line and the use of regenerating fir forests. So these questions really go to that issue and their responses to that.

BY MR. ANDERSON:

Q So it's your conclusion that this project will not result in undue adverse affect on Bicknell's Thrush. Even if we set aside the potential habitat for regenerating clearcuts, your position is that the impacts --

MS. JOHNSON: I object. He's asking leading questions and this is his witness.

MR. ANDERSON: Well, this is on redirect so I'm just trying to make sure that I focus Mr. Vickery in responding to some of the questions that came up from the commissioners and --

MS. MILLS: Would you repeat your question? What's the question?

BY MR. ANDERSON:

Q So the question is, that even if we don't consider regenerating fir forests in the area, Mr. Vickery, your conclusion is still that the impacts on the ridge line are not significant, correct?

A That's absolutely -- yes, that's completely correct, that the loss of 8 acres is equivalent to the -- approximately

one range of one female and that's of no consequence.

Q And you -- also there was testimony, though, about the use of regenerating fir forests. And would you agree that if you're going to evaluate the impacts of this project, you do need to --

MS. JOHNSON: I'm going to object. Counsel is putting words in the witness's mouth.

MS. MILLS: I think this is a fair objection. Redirect is not an opportunity to ask leading questions, it's an opportunity to ask questions of the witness's testimony.

BY MR. ANDERSON:

Q Well, I guess I just want to make sure that I understand that -- Mr. Vickery, when you look at the impacts of this project and you're trying to evaluate the habitat, what do you need to consider in the area when you're trying to reach that kind of a conclusion?

A Well, from my point of view, it's certainly a landscape issue and that -- I mean, I know the project is limited to a small -- a relatively small footprint and -- and from my -- from Bicknell's Thrush point of view, 8 acres of loss of habitat, but really the issue is one of a landscape scale. Other mountaintops where it breeds and the forest used in the area is clearly having an affect on the population in this region.

Q And just one other question. You've gotten a question from

the Commission about the fact that you hadn't had any published works here. There's some information in your direct testimony about your experience with Bicknell's Thrush. I think it would be important just to remind the Commission and the parties of some of the work that you've done and the survey work that you've done that's on Page 2 of your testimony to fully explain the question.

A Well, it was so long ago. But I know that I started in the mid-1970s having hiked and been around Mt. Katahdin looking at Thrushes in that area, having led actually a number of Maine Audubon field trips to Baxter. As part of the Maine Breeding Bird Atlas Project in the late '70s and '80s, I've surveyed a number of mountain peaks including Mt. Blue, Grafton Notch, Baldpate. I've surveyed areas up near Rangeley, West Kennebago Mountain. I've been to areas looking for Bicknell's Thrush on the coastal Washington County. And I'm planning to go up again to another mountain site this summer specifically with this issue in mind. And I've been to the Dominican Republic, Jamaica and Cuba trying to gain insight into what the issues are for Bicknell's Thrush in the winter.

MR. ANDERSON: Great thank you very much.

MS. BROWNE: Thank you. Juliet Browne. Mr. Titus, I have a question for you.

EXAMINATION OF JOHN TITUS

BY MS. BROWNE:

Q You were asked by Ms. Johnson about your work at BPL and -- and background work on preparation of the inventory process for the management plan in that area. Can you describe for the Commission the body of data that you are familiar with either through that inventory process or otherwise that provides you information on the nature of the use that occurs in Chain of Ponds?

A Sure. Each of the resource managers working for the bureau or in conjunction with the bureau, which included the Maine Natural Areas Program, were responsible for inventorying their specific resource area for natural resources and ecology. So we had natural resource inventories, inventory work done by MNAP, historic site site specialists provided us with a report which, of course, included information about the Arnold Trail and the general usage and historic usage of the Chain of Ponds area.

We had a recreation survey done which was mostly by the regional management staff that had a lot of history with the area in regards to the existing uses. Our wildlife specialist provided information on -- on habitat-related resources throughout the plan area. And all of this and the, of course, my work in terms of the administrative issues was to get information on existing leases and other

administrative issues that may be present on the unit.

And so we took all of this and collectively put it together and -- and came up with the scoping or preplan document that Ms. Johnson referred to.

Q Right. Thank you. And either you or Ms. Vissering can answer this question. But she also -- Ms. Johnson also commented on primitive campsites in the Chain of Ponds unit. And are there any views of the project from those campsites?

A In our estimation, there would not be. And one of the things about qualifying the term primitive campsite, these are all drive-to campsites that have very primitive facilities attached to them all along the shoreline and this is where the -- the recreational use is concentrated is on the shoreline. And in our estimation, there would be no project view from those use areas.

EXAMINATION OF DANA VALLEAU

BY MS. BROWN:

Q Thank you. And at the risk of potential future further confusion, Mr. Valleau, on the question about surveys for vernal pools, could you help explain for the Commission the difference between identifying a potential vernal pool and determining whether a vernal pool is significant for regulatory purposes?

A Sure. Any vernal pool survey would include identifying all

potential pools. And to -- in order to determine significance under the Natural Resources Protection Act and what the state regulates for a significant pool, it needs to be a natural feature that has certain numbers of use by -- by different species of amphibians, such as wood frogs, spotted salamanders, blue spotted salamanders and fairy shrimp.

Q And just in the interest of time, I'm going to interrupt you and ask, is -- the time frame for determining significance is in the spring; is that right?

A Correct.

Q And can you determine the existence of a potential vernal pool outside of that window?

A Yes.

EXAMINATION OF TERRY BENNETT

BY MS. BROWNE:

Q Okay. Thank you. And then in the last minute remaining, Mr. Bennett, because this question has come up on several occasions and I think there's oftentimes confusion and there's -- could you explain for the Commission the concept of installed capacity and capacity factor and estimates on total megawatt hours of generation? Because I think it would be helpful for everybody to work off of the same assumptions and understanding.

A Sure. So just to -- we're talking about the Kibby project

itself. So it has a capacity in megawatts of 132 megawatts. That's based on the 66 transmissions, the full project. Based on that, we projected a total production of 356,000 megawatt hours per year of energy production. So that's energy versus capacity, that's the distinction there. That 356,000 megawatt hours translates into a capacity factor of 30.6 percent. So it's just, you know, how often the machine runs versus like 100 percent of the time -- or 100 percent of the time at 100 percent output.

For Sisk the capacity is 45 megawatts. We're projecting an energy production of that of 120,000 megawatt hours, which, again, 30.4 percent capacity factor is pretty much in line with what the Kibby project is.

When we looked at the production from the Kibby project Phase 1 and excluded the time where we took -- we took this farm offline for collector system issues, it has run at something over 29 percent capacity factor. So that 29.2 compared to the 30.6 percent, we're expecting, you know, longer term in the ballpark -- you should always keep it at -- it's a very, very short period of time, a few months here. But it's in line with what we would expect for the project at this point in time.

MS. BROWNE: Thank you. I have nothing further.

MS. HILTON: Okay. Thank you very much. I just wanted to ask a question -- there's been reference made to the

2007 Flagstaff regional management plan. Is that in the record? Has that been --? It isn't?

MS. JOHNSON: I submitted a portion of the plan, I believe TransCanada submitted the whole plan.

MR. WEINGARTEN: It's right here.

MS. HILTON: I guess I just want the staff to be sure that it is in there.

MS. JOHNSON: If it isn't, we'd be happy to --

MS. HILTON: Yeah. Okay. Thank you. And I guess we're going to take lunch now --

MS. MILLS: I just wanted to come back around and --. The issue with the photos that Gwen set aside, Juliet, I had a chance to look at the pictures and they were attached to what you've identified as TransCanada Figure 4. I can't figure out what that links up to. Some of your exhibits have been numbered.

MS. BROWNE: You're not the only one. And what I was going to do was identify the exhibits that I would like to move into the record. They're not numbered sequentially because there was additional exhibits that we thought might come in through redirect that didn't come up. So --

MS. MILLS: The only way the exhibits have been entered into this record is by attachment to direct testimony. So they haven't been numbered for purposes of this hearing, is my understanding. So what would be helpful for me, I guess

for the rest of the hearing, is if -- if any of the parties have exhibits that were not pre-filed, if they could distribute those separately and bring it to Gwen's attention before. These were sandwiched in with other things that I'm assuming were attached to the pre-filed testimony.

So I've had a chance to take a look at them and my recommendation, Gwen, is that that appears to be general photographs, not in direct response to direct testimony. And my recommendation is that they would not be helpful. The Commission is aware of the general conditions of the site and I would strike them because they're not pre-filed.

MS. HILTON: Okay. I will go with that.

MS. BROWNE: Can I just respond to this issue generally because it may come up through the rest of the day? First of all, the photographs are from the site, not -- not where the Commission went yesterday. So the Commission hasn't actually seen that subalpine community.

But the other broader question was I was going to move the Power Point presentations into the record as evidence. You can certainly exclude the two photographs, but I would like to have the Power Point presentations themselves in the record.

There's one further exhibit that I was going to hand out now. Attached to Dr. Hudson's Power Point was an

excerpt from a state document, the Comprehensive Wildlife Conservation Strategy. And I was just going to provide the more complete, but not the total document, just the version that shows the cover page. This is a document that was cited in Dr. Publicover's pre-filed testimony. But I would like to have the actual document in the record. So we've prenumbered that 5.

So what I was going to propose is that we move in Exhibits 1, 4, 6 and 19, which are the Power Point presentations, and Exhibit 5, which is the excerpt from the I F & W Comprehensive Wildlife Conservation Strategy.

MS. MILLS: Any objection?

MS. JOHNSON: I wonder if we could have until after the break just to give us a chance to look at them during the break and respond after the break. Is that possible?

MS. MILLS: That's fair.

MS. JOHNSON: Thank you.

MS. HILTON: So let's break for lunch and be back here at 1:30.

(Whereupon a recess was held at 12:57 p.m., and the hearing was resumed at 1:32 p.m. this date.)

MS. HILTON: What we've decided to do is we're going to get started and go -- move ahead with the schedule here. We need to, at 4 o'clock, no matter where we are in this schedule, have the cross-examination of the state agencies.

We have some of those folks here and they're not necessarily able to stay until later on.

So what we'll do is we'll, when we get to 4 o'clock, we'll stop, we'll do the cross-examination of state agencies and then recess for dinner from 5:15 to 6:00. And then at 6 o'clock we have to be back here for this evening's public hearing. And I wish -- we're thinking maybe we'll have fewer people than last night. And then we'll be able to pick up on whatever, if anything, we still need to do in the party testimony on the schedule here.

If anyone has any real concerns about that, I guess I'm giving you the head's up now and if you want to voice that at some point. I think we have been doing pretty well. We are a little bit behind and I know that -- my impression is everybody is doing their best with the schedule that we've got here. Okay. Is there anything else?

MS. MILLS: When we left we had an issue of the exhibits on the table. I'm assuming you guys worked that out?

MS. JOHNSON: We have no objection.

MS. MILLS: Okay. And so TransCanada has provided copies of those to Marcia, the ones that you --?

MS. BROWNE: Yes.

MS. HILTON: Okay. I have just one other request. Folks are having difficulty hearing. So if you're at the

mic, please speak up. And I'm going to be a little more insistent in asking you to do so.

So why don't we get going. I guess it's the testimony by the consolidated parties. 1:55. Okay. All right. Go ahead.

DR. PUBLICOVER: All right. Good afternoon, Commissioners. My name is David Publicover and I'm a senior staff scientist with the Appalachian Mountain Club where I've been employed since 1992.

The decision that LURC faces is an important one and will have significant precedential value in determining where the Commission draws the line between appropriate and inappropriate sites for wind power development.

One of the policies from mountain resources in -- in the CLUP is to protect high mountain resources with particularly high natural resource values or sensitivity which are not appropriate for most development. The question is, is Sisk such an area? And we believe that it clearly is.

The Fir-Heart-Leaved Birch subalpine forest community will be the focus of my testimony, which covers the southern half the project area and is classified by the Maine Natural Areas Program as S-3, defined as rare in Maine on the order of 20 to 100 occurrences, though not, to our knowledge, imminently imperiled. A list provided by

the Natural Areas Program included in my testimony lists 19 currently documented occurrences in the state. Even given that there are most likely other undocumented occurrences, this community is at the low end of the number of occurrences for this ranking.

Now, the applicant's environmental assessment states -- and I quote -- in western Maine, however, it is relatively common and is found on many of the ridges that are higher than 3,000 feet in elevation. I believe this statement is highly misleading. The 19 documented occurrences of this community encompass just 0.2 percent of the state's land use. And even including the potential additional area listed by Dr. Hudson, would increase this to less than 0.25 percent of the state, less than one quarter of one percent of the state.

And even within the western mountains' regions where it is concentrated, it makes up no more than 1 to 1 and a half percent of the landscape. This cannot be considered common by any reasonable understanding of the word.

This rare natural community is an important component of the state's biological heritage. It provides the core breeding habitat for the Bicknell's Thrush, one of the state's highest conservation priority species, it is recognized as a distinct and high priority habitat in a range of conservation plans, including the state's

Comprehensive Wildlife Conservation Strategy, it is also likely to have important adaptive values in the face of future climate change by maintaining spruce fir habitat on the landscape when this habitat has been greatly reduced or eliminated at lower elevations.

The occurrence of this community on Sisk Mountain lies in the middle of the size range for occurrences documented by the Natural Areas Program and is typical for occurrences outside the state's largest mountain ranges. It was rated as good, or B ranked, for B ranked occurrence.

Now, of the three factors that go into this rating, which are condition, size and landscape context, this occurrence received the highest rating for its undisturbed and natural condition. It is essentially pristine. While this occurrence may not be considered the best of the best, it certainly cannot be considered a minor or insignificant occurrence.

One of the two policies pertaining to mountain resources in the CLUP is to regulate high mountain areas to, among other things, preserve scenic value, vegetative communities, unique wildlife communities and low impact recreational opportunities. The Sisk Ridge line is clearly significant regarding scenic value, vegetative communities and unique wildlife communities.

Now, based on the map included with TransCanada's

pre-filed testimony, the project would eliminate or indirectly impact nearly 30 percent of this community occurrence. It would create over a mile of permanent artifical edge exposed to strong prevailing winds creating the potential for extensive blow down and changes to the microclimate in the remaining area. This is far beyond what can legitimately be considered a minimal impact.

While the applicant has stated that they have minimized the potential for impact, this is not the standard by which this project should be judged. The project must be judged on the impact that will actually occur. We believe that this level of impact to a significant occurrence of a rare natural community constitutes an undue adverse impact and is grounds for rejection of the application.

To date no wind power project in the state has been permitted that would have such a considerable impact on a documented occurrence of a rare natural community. Approval of this project would set an unfortunate precedent, a considerably lower threshold of what types of impacts are considered acceptable and would be contrary for LURC's mandate to protect the important natural resource value of the jurisdiction.

I am going to pass it over to Susan Gallo.

MS. GALLO: Hi. My name is Susan Gallo and I'm a wildlife biologist at Maine Audubon. And I have worked

there for 12 years working broadly on bird conservation issues and forest ecology issues across the state. I'm presenting an extremely brief summary of the undue adverse impacts this project poses on Bicknell's Thrush.

So to start with, these are points I'm going to cover, but I'm just going to the heart of it here. The first point I want to make is that you can see and this map demonstrates how rare Bicknell's Thrush breeding habitat is in the U.S. These are the only places in the U.S. where this bird occurs. Of course, it does occur in Canada and to the north and east of us, but this is it for this bird. You've heard repeatedly that this bird is a habitat specialist on stunted high elevation spruce fir forest.

Next slide. With it's limited breeding range and similarly limited habitat, as previous folks have mentioned, is one of the main factors making this bird one of the highest conservation priorities in our region. So the lack of threatened or endangered listing for this species in no way diminishes the value of the species need of conservation. Multiple conservation agencies and organizations from state, national and international groups are in agreement that the Bicknell's Thrush is a species of global conservation concern, a very high priority, a species of continental concern facing multiple threats.

The next point I want to make is that there are

multiple threats facing this species. There's no consensus for any top threats. If you look across these multiple organizations, there are many threats and this is just a sample of the kinds of threats they face on both breeding and wintering grounds. And it's important to consider our role in preventing undue adverse impacts from threats to this species that we control here on its breeding ground.

So the next slide. In terms of what we can control is breeding habitat, how much we have and how -- to what measures we go to protect it. So you've seen this slide before. The red is the core habitat that was designated, the red hatch. The red outline is the suitable Bicknell's Thrush habitat that was delineated. And then these yellow -- these are from Peter Vickery's pre-filed testimony -- these are the -- this is the 8 acres that was -- the applicant has said is affected by this project.

So one of our main points is we believe that the 8 acres is a gross underestimate of the habitat that will be affected by this project.

The next slide. This is taken from the Folsom/Evers report that we got late last week. And just to set the stage -- I don't want to take too much time on technical details, but I do think it's important to look at where the applicant looked for Bicknell's Thrush. So these black points are where they did ten-minute point counts

throughout the summer of 2009 and then these black circles are roughly plots where the -- where folks searched for birds, the spot mapping technique that's mentioned in the application.

So to the next slide. Just one more quick piece of background information, as Dana Valleau already talked about, these dots. This core habitat was delineated based on actual Bicknell's Thrush observations. So this is sort of a connect the dots approach where these outer -- these are the birds on the outer level of observations. And that's how that core habitat was designated. And that's part of the problem, we believe, in the designation of this core habitat.

So taking this figure from -- the next slide. So one -- I just wanted to illustrate really quickly an example of why we think this is an underestimate. So this blue dot here is a Bicknell's Thrush that was observed.

Next slide. If you overlay habitat, this is roughly an 8-acre circle. It's -- as Peter Vickery pointed out, that's a minimum size for a female Bicknell's Thrush. And one of the pieces of information we don't have about the work that was done was where a bird's territory is relative to where it was observed. So it could have been in the center of the territory like this -- next slide -- it could have been on the outer edge, which would have put the --

that habitat on the inside of that corridor.

And, finally, it also could have been -- next slide -- it could have been on the inside edge of this territory. So there's not really anything saying -- in the information that we have, there's nothing telling us where this bird's territory is, this area wasn't searched. Where this bird's territory falls relative to the point where it was observed changes the amount of habitat impacted by this project. And we believe that we need to interpret the data that was collected more literally than it has been.

And just to show you -- to extrapolate -- next slide -- if you do this in multiple points -- and I'm not saying every point necessarily, but just a sample of theoretically what could -- what could actually be impacted, so these circles are just extrapolating a couple of different territories. This is an 8-acre circle. The next slide shows a 13.4-acre circle -- which, again, as Peter pointed out -- Peter Vickery pointed out, is the larger edge of the range for territory sizes. So the way data -- the data was collected for this bird was not precluded in this interpretation as results.

And as also mentioned earlier by the earlier panel, these birds move -- Bicknell's Thrush move around based on what happens in their habitat from year to year. Combine the dynamic habitat with a different interpretation of the

data and -- we believe that much more than 8 acres of habitat will be lost in that project.

In addition to the direct impacts, the direct losses of habitat, we think it's an error to say there are no edge effects to this project. So that there -- we believe there are changes to the habitat beyond the project footprint that will result in indirect habitat loss.

For example, the edges of roads in the project. We don't believe that this is -- is similar to a logging road or to a natural disturbance, this is a dramatic edge effect on a very different habitat.

Finally, the last point I want to make quickly is that we believe LURC should evaluate the adverse impacts from collisions. Bicknell's Thrush are unusual for a forest song bird. When using aerial flight displays, the flights, as we mentioned, can go up to more than 200 feet and putting them well into the corridor of the road or swept area at dusk in the project area.

And, no, we do not know the risk of collision for Bicknell's Thrush. What we do know is that birds making aerial flight displays in grasslands, we know, are more susceptible to mortality from collision. These are three species that are common grasslands, common mortality events for -- for these species.

So we have reasons to be concerned that the project,

with turbines in core Bicknell's Thrush habitat, will result in undue impacts from collisions.

So just to summarize, the points we would like to make -- that I would like to make for Bicknell's Thrush is that the burden of proof for undue adverse impacts to these natural resources have not been met in this project. We believe there's much more than 8 acres of habitat that will be affected, especially habitat beyond the identified core.

We think the search areas were limited and so we feel that the data they present must be interpreted with caution. And, finally, that risk of collisions are unknown, but the behavior makes this bird susceptible and other birds in other habitats who have experienced collisions we believe raises a red flag of caution.

Now Cathy Johnson.

MS. JOHNSON: Thank you. Good afternoon. My name is Cathy Johnson, I've been the North Woods project director at the Natural Resources Council of Maine for 20 years and I've been hiking, camping and paddling in Maine's north woods for 40 years.

The Sisk area has multiple scenic resources of state and national significance. It has seven ponds rated outstanding for scenic values by the Maine Wildlands Lakes Assessment, including the five ponds that make up the Chain of Ponds plus Arnold and Crosby Ponds. And it also has the

Benedict Arnold Trail to Quebec's historic district, which is listed on the National Register of Historic Places.

In addition, a scenic byway, one of only 12 in Maine, winds up the valley. The byway is noted for -- and I quote -- its outstanding, closed quote, scenery.

While NRCM and Maine Audubon and AMC have been and continue to be strong supporters of wind development, we believe that in this case the major adverse impacts that the seven southern turbines would have on these beautiful resources along with the adverse impacts that Dave and Susan spoke about to ecological and wildlife resources cause an unreasonably adverse impact and tip the scales against approval of this project as it is currently configured.

The most severe impacts to scenic resources and related uses would be on the ponds that make up the Chain of Ponds. As is apparent from the applicant's photo simulation Viewpoint 5 that we looked at this morning, the most significant impacts would be on Long Pond, the middle of the five ponds. BPL maintains a primitive campsite and hand-carry boat launch onto the south end of Long Pond. The campsite is beautiful with views to the marshes and mountains to the west away from the proposed wind project.

From this campsite and hand-carry site you can paddle around and up Long Pond towards points leading into Natanis

Pond or down into Bag Pond which would also be significantly adversely impacted by the turbines. BPL maintains another primitive campsite on Bag Pond.

When you're out on the water -- and I realize you didn't have a chance to do that yesterday and I'm sorry that you didn't. Because from the water in the middle of these ponds as you look to the east, the view that you see is the Sisk Ridge framed on the right-hand side by Sisk Mountain and on the left side -- other way around from your view -- on the left-hand side by Sisk Ridge on the right-hand side by Sisk Mountain.

This is a ridge several miles long on which the turbines would sit in plain view of any person who's out on the water of Long Pond. While the bird life on the ponds, eagles, osprey, loons, pileated woodpeckers is abundant, your view would inevitably be drawn to these large wind turbines, the closest of which is less than 3 miles away.

As LURC consultant Jim Palmer noted in his report, the view of the turbines from the lower part of Long Pond is, quote, most certainly prominent by any definition and may be considered collectively dominant. I completely agree. Chain of Ponds has a special attraction because of its location. Being extremely accessible to the scenic byway, it provides an opportunity for families, recreationists and visitors to camp and paddle in gorgeous natural undeveloped

surroundings without having to venture onto unpaved and unmarked logging roads, something that's daunting to folks unfamiliar with Maine's north woods.

The Bureau of Parks and Land in its management plan has recognized the scenic beauty and the unusual recreational nitch of this region in its management plan and has designated significant portions of the unit for special scenic management, and has proposed to add additional primitive campsites. BPL has also identified a growing interest in the region for back country ATV touring and camping. BPL notes in its management plan that the draw for most recreationists of all types is the region's, quote, wild and scenic, close quote, character.

The photo simulations prepared by Gene Vissering show that 14 turbines would be visible from Viewpoint 5 on Long Pond. We have taken the liberty of identifying which of those turbines would be -- the southern turbines, which would be the seven southern, ones and then the northern ones.

If you only look at the northern turbines, the adverse impacts on the Chain of Ponds would be significantly lessened but not gone altogether. So that's what it would look like if you only looked at the northern turbines. Paddlers who choose to paddle the length of the Chain of Ponds under the proposed project would see turbines along

almost one-third of the distance of the ponds, 31 percent is what Gene Vissering testified to. And about half of that distance they would see nine or more turbines.

And this is the map from Gene Vissering's testimony. And I realize it's hard to see so I'll just encourage you to go look at it when you're reviewing the data. But the colors in the middle of that map show how many -- how many turbines would be visible and from where. So -- let's see if I can hold my hand still. So you would see turbines from Natanis Pond down the whole length of Long Pond and into the western side of Bag Pond.

If we only consider the impacts from the eight northern turbines, if you didn't see the seven southern turbines, you would only see impacts in this much smaller area, only about ten percent of the ponds in the southern end of Long Pond and a piece of the western side of Bag Pond. We believe that the impacts of the southern seven turbines on the scenic resources and related uses so significantly compromise these resources and related uses that they cause an unreasonable adverse impact and no permit should be granted for those southern seven turbines.

The northern eight turbines are a little bit different. There will still be significant adverse scenic impacts on Chain of Ponds, Arnold and Crosby Pond and Kibby Stream. And we believe that LURC should require, as a condition of

any permit that LURC may issue, measures to mitigate those impacts.

The conditions on the permit to mitigate for the adverse impacts of the turbines on scenic resources would be different from, and in addition to, those measures that the applicant is required in order to provide tangible benefits. Tangible benefits are required regardless of whether there are adverse impacts and should be in addition to any actions required as a condition of a permit to mitigate for adverse impacts.

One other point I wanted to make is that in addition -- if the -- if you were only looking at the northern eight turbines, all of the adverse impacts that would result from the road that was discussed this morning with Gene Vissering, that road that's visible from Long Pond is servicing the seven southern turbines, so that road would not be there if the seven southern turbines were not there. And as -- in some places it's our understanding that the slope on that road will be 30 to 40 percent, very steep.

And as a gentleman testified last night mentioned, the roads can have as big a scenic impact from the ponds as the -- as the turbines themselves. So thank you very much.

MS. HILTON: All right. Questions by commissioners?

MS. FARRAND: I have a question for Ms. Gallo. Briefly, you know, without a dissertation level, we've

spent a lot of time talking about the female Bicknell's Thrush and her 8-acre required zone of protection. What do we know about the male and his larger -- his larger area of activity requirements? And do we know that, in fact, he is not more sensitive than, in fact, the female to disruption of his habitat?

MS. GALLO: Well, that's a really good question. One of the complexities of Bicknell's Thrush is -- and I think the panel earlier eluded to -- is multiple males, multiple females. And one of the interesting things about males versus females is that the females have sort of excluded territories that they tend not to overlap. And one of the reasons I didn't get into the male territories that are bigger is they do overlap each other.

So I think the female -- the illustration with the female territories is more clarified because they're not going to overlap; whereas, the males have bigger territories, but they do overlap. So it does get very difficult to estimate density and it is a hard thing to do in this room. And if that's enough information, I can --

MS. FARRAND: Right. So we don't know the degree to which the male would be affected by any habitat disruption because of that, but the fact is we don't know?

MS. GALLO: We don't know. But it's good to acknowledge that, yes, they do have bigger territories than

females.

MS. FARRAND: Thanks.

MS. KURTZ: I've got a couple questions for Ms. Gallo and they're all related to each other and I apologize for asking them all at once, but it helps me with my train of thought. The Bicknell's Thrush has been spoken about as a bird of conservation concern. So the questions are, why isn't it an endangered species, what would trigger that designation, not the sort of the political process, but what would have to happen to raise it to that level? And then in terms of the costs to the public and the taxpayers or -- you know, the public, the cost of preventing a bird or any species from being added to a list -- an endangered species list versus the cost of adding it, trying to protect it, trying to bring it back and what -- what is the success rate? So, again, I apologize for asking them so many at a time.

MS. GALLO: No, I wrote them down. So why isn't it on the endangered threatened list? And that's -- on the federal level there is a huge list of species waiting to be put on the list and they're all species that we don't have enough information on, we don't have enough money to fund getting the information we need and it's also political that certain species, you know, take some arm twisting for the federal agencies. So there's a lot of reasons why it

isn't listed federally.

On the state level, one of the problems with Bicknell's Thrush is because of where -- because it is restricted -- it was restricted to these states in the northeast, no individual state, the population hasn't dropped. We don't want to see it drop to a level that qualifies state listing. So for all the other -- most of the other birds we have or probably all the other birds we have, there are other states throughout the northeast or throughout the -- throughout North America that have the bird. So that's not the case with this bird.

Does that make sense? Where -- endangered species legislation is designed to protect species when they get to very low numbers in our state.

What would trigger -- what would trigger the listing was one of your questions. And it would be a significant drop in numbers. And it does lead to your next question. And I don't have, off the top of my head, what the numbers are for the state in terms of triggering a listing for the state. Certainly its listing as a special concern species is a precursor to listing it. And it is on the special concern list for the state.

If it would drop below a certain number, either a certain number of sites or a certain number of individuals -- and that gets to the next point -- which at

that point it's going to cost a lot more money, there's going to be a lot more regulations. One of the good things about keeping a species off the list is avoiding regulations, especially in light of developers and the things that they need to plan. They don't want to see their species listed either. So our goal is to keep it off the list and save money and save time and make processes like this easier.

MR. LAVERTY: Madam Chair, I have questions of all three. Maybe I'll start with Dr. Publicover. You're the first person at least today to talk about this section of the CLUP that addresses high mountain resources. Other people have spent a lot of time talking about energy and wind power, but -- I know it's been addressed in pre-filed testimony, but --.

And you're suggesting that this -- this will set a precedent, if we were to approve this project, it will be the first wind project, if I understand you, that would allow for adverse impact on documented national communities in high mountain areas; is that --?

DR. PUBLICOVER: This is the first project that we have this degree of impact not only, I think, in this rare natural communities, but any documented rare natural communities where it significantly impacts such a large percentage of occurrence, the only other wind projects that

have been proposed in these habitats. One, was Redington Black Nubble, which was denied, the other is the Kibby project which has very minimal impacts on this community, a very small edge.

But certainly there's been no wind project -- certainly there's been no wind project that has had this degree of impact on -- on documented occurrence of a rare natural community.

MR. LAVERTY: And just so I'm clear, this documented impact surrounds the seven southern turbines and does not occur with regard to the eight northern turbines?

DR. PUBLICOVER: Yes, the community as it was mapped by the Natural Areas Program does not -- actually, Turbine 8 gets into a little bit of the northern fringe. So it just gets into it. The southern sort of -- the northern seven are outside of the map for the natural community.

MR. LAVERTY: Thank you. Ms. Gallo, I -- we were presented with testimony that the -- the female range of the Bicknell's Thrush is approximately 8 acres and then you introduced 13 acres, I believe. Could you talk about that a little bit? Like, where does the 8 acres come from, where does the 13 acres come from?

MS. GALLO: Both come from Peter Vickery's pre-filed testimony where -- and he sites a source in there, I don't have it off the top of my head and I don't have the page.

But he refers to a range of 8 -- the range for female territories varies from 8 to 13.4 on -- I believe it was in a study area in Vermont. So I was using those two as kind of the two extremes, smaller to the larger for --

MR. LAVERTY: Given the significance of the Bicknell's Thrush, it would seem -- it seems that -- 13.4, is that unreasonable, do you think?

MS. GALLO: I don't think that's unreasonable, no. In my opinion, it -- with this species and given the conservation concerns, I think we should be as liberal as we can on the conservation side.

MR. LAVERTY: But that 13.4 is supported in the literature --

MS. GALLO: Yes, it is.

MR. LAVERTY: -- it's not just speculation or --

MS. GALLO: Correct.

MR. LAVERTY: -- or visual experience or things like that, it's based on the literature?

MS. GALLO: Yes.

MR. LAVERTY: Thank you. Also, the -- this notion of edge effect, I understand the concept certainly, but how far is the edge effect extent? Could you talk about a little bit more about what constitutes this edge effect and how it relates to the identification of habitat impact as presented by TransCanada?

MS. GALLO: Sure, I can do a little bit and Dr. Publicover might want to jump in, too, because some of his testimony referred to that point.

So we believe that the size of the roads that are created by the project and the paths themselves are different from a natural occurrence and a natural edge that would be created in the -- in the project area in the absence of the project.

So the edge effects when you get an opening -- a road like that, you get a long linear opening through the -- through the habitat, you get light levels that penetrate into the -- into the forest. That changes -- and also changes the moisture level, you get invasive species -- species that can grow up on the road and then move into that area alongside the road. And all of those sort of small pieces add up to a change in habitat. It makes it more -- the habitat different than it would be.

MR. LAVERTY: Is there any literature based metrics to determine how far that extends under certain circumstances or is this just --

MS. GALLO: Well, I'll tell you what I refer to in my testimony, which was up to -- you know, I think there's some general reviews that say up to something like 400 feet for a bird, not more than 400 feet. But I don't know --

MR. LAVERTY: I'm sorry, 400 feet per bird? I don't

understand.

MS. GALLO: For the bird literature that there are documented edge effects up to 400 feet from the edge.

MR. LAVERTY: Have you done any calculations to determine what that would -- how that might amend or modify TransCanada's determination of habitat limits.

MS. GALLO: We have not been able to do that, no. That just -- out of lack of time and --

MR. LAVERTY: Would you care to speculate at all on what that might -- percentage wise?

MS. GALLO: I would -- I would easily say it would double it and probably more than that. Would you like to add something?

DR. PUBLICOVER: Yeah. Well, the -- the map that -- well, first let me say, yeah, determination of edge effects is one of those things that quickly gets very complex. How you measure the edge effect depends on what you're measuring, whether you're measuring the penetration of blight, which may not go in as far as wind. Wind will go in further, you know, if the edge is facing a prevailing wind as opposed to the wind coming from the forest side.

But generally, you know, ranges are for, you know, sort of the physical effect of edge effect is generally two to three -- sometimes two to three tree heights oftentimes. I know Nature Conservancy in a lot of their studies of

mapping unfragmented forest blocks uses a buffer of about 100 meters around the road, which is 300 feet. Some of that has to do with how far sort of general edged predators like a raccoon might go into an interior forest.

So it's highly dependent on, you know, what specific feature you're measuring. But assume it was --

MR. LAVERTY: What species are most critical for survival of healthy habitat of the Bicknell's Thrush?

DR. PUBLICOVER: Probably -- probably the blow down.

MR. LAVERTY: Wind?

DR. PUBLICOVER: Wind, which is going to -- again, the trees that are exposed -- and -- and much of this is going to be exposed to the strongest prevailing winds, which will, you know, likely cause increased blow down. It's tough with Bicknell's because -- and, again, I can pass that to Susan, but in creating blow down areas, it actually creates -- in some sense it creates the type of habitat that Bicknell's may prefer. So they may actually be attracted to the edge, but, in fact, that edge is going to be closer to the turbines. So by attracting the birds near the turbines, you also may be putting them at more risk of collision when they do their breedings. So it's fairly complex.

MR. LAVERTY: Given that the breeding display and the mortalities -- the potential mortality, wouldn't that exist

with the northern turbines as well as the southern turbines or do Bicknell's Thrush in the southern range not travel north?

MS. GALLO: Well, the vegetation surveys that TransCanada did for the areas where the northern turbines are going to be -- would be, there's just a couple -- I believe there's two very small patches of suitable Bicknell's Thrush habitat in that area. That doesn't mean if the problem conditions come along, a windthrow or an ice storm, that habitat wouldn't change.

And the same goes for the -- the southern part of the project area, you know, past the seven turbines where --. I believe Peter Vickery mentioned earlier today that -- you know, that there's all this abundant habitat down there. Well -- and there's no birds. Well, there's habitat down there, but TransCanada certainly has to show us bigger trees, taller trees that are spaced wider apart. So there's no habitat there at the moment.

You're right, both the -- where the northern turbines are and south of the project area is going to likely evolve over time because of its dynamic nature and become habitat. But for us it's drawing a line. And it -- and because we support wind power, we do want to see these turbines on the landscape in the right places. And in our minds the -- the habitat up there qualifies as not creating undue adverse

impacts for the species.

MR. LAVERTY: This is approaching putting the ponds in a dilemma.

MS. GALLO: It does.

MR. LAVERTY: I mean, undue adverse impact on the southern seven, but no adverse on the northern eight, even though you've now testified that there will be some loss of Bicknell's Thrush with the eight towers as well -- the eight turbines.

DR. PUBLICOVER: I think the critical point is that the edge effect -- you'll have the same types of edge effects for the northern eight turbines as you would for the southern, but the northern eight turbines are in a somewhat different community type. It's a -- it's not the subalpine -- true subalpine fir that's the true habitat for Bicknell's Thrush, it's more of just an upper slope spruce forest. It may -- could potentially contain some Bicknell's, but it's not as -- you know, it's not really considered a critical habitat for the species. But certainly the edge effects are going to be there, but the species that might be affected are not as many.

MR. LAVERTY: Well, do you agree with Mr. Vickery's statement that -- I think the terminology that he used was that the loss of -- there was no consequence for the loss of 8 acres of Bicknell's Thrush habitat because that's the

habitat that would be capitulated, I guess, by a female -- mating females?

MS. GALLO: Right. Now, I disagree with that statement. I think the -- those 8 acres lost to one bird is not accurate. As you saw, those three -- where the habitat is lost is in there -- the 8 acres within three slices. I don't know of any bird that has a habitat that's -- territory that's three slices along the edge. I think it's very likely -- you know, I can't speculate, but if I was to speculate, it would be more than one for sure, it would probably be three with the data we have, it could be five, it could be eight.

I disagree strongly with that statement and I -- and I don't believe the standard of that statement is for -- for LURC or this project is an impact on the population.

MR. LAVERTY: Thank you. Ms. Johnson, again, I find your testimony about the same, undue adverse impact, scenic impact for the southern seven, but not for the northern eight even though they will be impacted.

MS. JOHNSON: Yes.

MR. LAVERTY: And I guess I'm having a little bit of difficulty. And then you go on to suggest that were we to approve the northern eight, you would still suggest we attach permit conditions to mitigate for visual impact. And I'm not sure what that means.

I mean, do we put up sheets in front of -- I mean, I'm not sure what you're trying to imply. Are you talking about -- please, just explain what you mean by mitigate. What could you see as a condition requiring mitigation for scenic impact?

MS. JOHNSON: Well, we believe that the adverse impact from the eight northern turbines -- that there would be some adverse impacts, but we don't believe that they rise to the level of undue. But because there will be adverse impacts, to avoid -- to mitigate for those or as a condition of the permit, we would suggest that some other scenic areas be protected as a way of insuring that similar types of scenic areas be -- in my written testimony I suggest a couple of places, Pisgah Mountain or Sisk Mountain itself, the peak and part of the ridge that -- the southern part of the ridge could potentially be appropriate areas where that --

MR. LAVERTY: So offsite, in kind, mitigation?

MS. JOHNSON: To protect the similar kinds of values is what we would be looking for. So to the extent that we're losing scenic values -- some scenic values as a result of the eight towers, protect similar kinds of scenic value.

MR. LAVERTY: Okay. Thank you.

MS. HILTON: Anybody else have any questions?

MR. SCHAEFER: Gwen, I have just one quick one about

artifical edge. In the critical habitat that you're referring to, the Bicknell's Thrush habitat, to your knowledge have there been any woods operations, woods roads that would have created artifical edge in the past or have they been off limits? I can't tell from --.

MS. GALLO: I'm not getting the question. Are there --?

MR. SCHAEFFER: There's a clearcut very close to the area, I don't think it's in it, and there's woods roads maybe in the past, I can't tell whether there have been or not, but if you created the artificial edge you're saying it is not the same as a natural artificial edge. So I just wonder if that area has been subjected to that before?

MS. GALLO: My understanding is -- is that area near the project area? Yes. Any time there's logging operations, yes, they're creating -- with either logging roads or the cutting itself, you are creating edge effects. Absolutely.

MR. SCHAEFER: Okay. All right. Thank you.

MS. HILTON: Okay. I just I have a question, too, for you. Mr. Vickery commented about the Bicknell's Thrush and the use of regenerated forest areas for habitat, green habitat. What is your reaction to that or your experience to that?

MS. GALLO: I think that that -- that that is

speculative and that it has not been borne out in documentation. I think if there was this habitat that we would hear about it from the state, we would hear about it from folks in Vermont. I understand that -- and I agree that there are Bicknell's Thrush using lower elevation clearcuts in Nova Scotia and -- and northeast of us and Canada, they do use lower elevations force up there. I think there are occasional observations of Bicknell's Thrush in clearcuts here and there in the state of Maine. I wouldn't deny that it's an occasional occurrence.

I don't believe that there is a vast acreage out there of uncapped Bicknell's Thrush that there -- I think it would be much easier if that were the case. And I don't believe it is the case.

MS. HILTON: Thank you. One other question I have for Dr. Publicover. I think -- something that you just said a few minutes ago about -- that if we were to approve this project, we would be setting the bar too low with respect to -- or setting a precedent. And I'm wondering, have you -- and I know you -- I think that you probably have looked at other areas -- I mean, if we set that bar a little bit lower, I mean, what is the -- how many viable wind power projects are out there? Has anybody actually looked at that? Viable where we -- we don't impact some of the things, you know, what we're proposing here that we should

not impact?

DR. PUBLICOVER: We've certainly looked -- done a fair bit of looking at this map ridge lines with Class 4 wind across the state, figured out how much of that is in the expedited area, how much is not. There's a relatively small number of places within the expedited area that are above 3,000 feet. You know, this is one of them, Coburn Mountain, which is actually part of -- which is within the area that would probably be allowed under the Plum Creek Easement. And if you look at satellite photos of Coburn Mountain, it's pretty much picked out all the way to the top, perhaps west of Tempaga.

But in terms of areas within the expedited -- and then other areas that may be potentially close to the Appalachian Trail in an unorganized town like Carrabassett Valley, which would have their own set of impacts. So in terms of the amount of wind resource that's in the expedited area, the amount that's above 3,000 feet is pretty limited. Most of the high mountain areas are outside of the expedited, much of the -- in the northern part of the Boundary Mountains, in the Tempaga Divide area, much of the high -- the western high mountains.

So -- and another point is that when we looked at our -- the areas we mapped -- and we did this four or five years ago when it was thought that a class 4 wind resource

was really what you needed -- sites that did not -- we did not pick out and did not even evaluate, Stetson, Mars Hill, we did include Rawlings, Oakfield. None of those showed up because they didn't show in the wind resource maps. But those are proving to be viable wind resource sites.

So I think the wind resource data that people presented and looking at, I think people are finding that some of these lower elevation ridge lines may be Class 3 winds, you know, are economically viable and certainly have -- you know, they're much more likely to have second growth, cut over forests, growth on them. And I think there's probably more viable sites out there then are thought, but they're -- but they're lower elevation.

They may not have the wind resource. It may take -- it may be that a Stetson-type project only generates a third of the energy per turbine as this type of project. But I would much rather see 10 acres of second growth young common hardwood forests used for a wind power project as opposed to 1 acre of a rare high elevation subalpine.

MS. HILTON: Okay. Thank you. Anything else? Any questions by staff, government agencies? TransCanada?

MS. BROWNE: Madam Chair, we have one procedural request, which is since the consolidated parties and the Friends of the Boundary Mountains didn't testify one right after another, we would like to reallocate -- we have 20

minutes for cross for each. We would like to do 35 minutes cross for the consolidated parties and reserve five minutes for the Friends of the Boundary Mountains.

MR. ANDERSON: Scott Anderson for TransCanada. What I'm asking Kelly to do is hand out some copies of some items that we are likely to ask Susan Gallo to comment on during cross-examination so that you all have them --

MS. HILTON: Thank you. Juliet, can you just repeat what you asked.

MS. BROWNE: Yes. We were allocated 20 minutes cross for Friends of the Boundary Mountains and 20 minutes cross for the consolidated parties. We request 35 minutes cross for the consolidated parties and reserve 5 minutes for the Friends of the Boundary Mountains.

MS. HILTON: Okay.

MS. BROWNE: Thank you.

EXAMINATION OF SUSAN GALLO

BY MR. ANDERSON:

Q Good afternoon, Ms. Gallo. My name is Scott Anderson. And on behalf of TransCanada I have some questions to ask you about your testimony that you provided today.

A Sure.

Q So you provided your testimony today on behalf of the three consolidated intervenors including Maine Audubon and NRCM; is that correct?

A Correct.
Q And you have cited some papers in your testimony and some of these names have come up. So I just want to walk through a couple of names of folks that you cite in your testimony. Some of these folks have also provided testimony before this Commission on the Bicknell's Thrush recently. And we're trying to understand who the universe of experts are on this issue.

Certainly I think you would agree that both Chris Limerick and McFarland at the Vermont Center for Ecostudies are widely considered as experts on Bicknell's Thrush; is that correct?
A Absolutely.
Q And are you familiar with the work of David Evers at the Biodiversity Research Institute and some of the work he's done on mapping and surveying on Bicknell's Thrush?
A Only just recently we just received -- I'm assuming you're referring to the recent study he did for TransCanada?
Q Well, both that and generally the work that Mr. Evers has done. You would agree that he is someone who is competent to talk about Bicknell issues? It's okay, if you're not familiar with his work, that's fine.
A I'm very familiar with Dave Evers. I would not consider his work a -- I would not consider him a Bicknell's Thrush expert. I would consider him a toxics in -- a Bicknell's

toxics expert. Yes.
Q Okay. And, also, you may be familiar with Jeff Wells and some of the work that he's done on Bicknell's Thrush. Are you familiar with his work and would you consider him someone qualified to testify on issues surrounding of Bicknell's?
A Yes, because of his experience with the boreal forests.
Q Sure. And are you aware of the fact that Mr. Wells provided testimony on behalf of the NRCM as an expert on Bicknell's at the Black Nubble proceeding?
A Yes.
Q And were you -- in preparing for your testimony, were you able to review some of the testimony that Maine Audubon and NRCM has provided to this Commission recently on the issues of Bicknell's Thrush?
A Are you talking about specifically Redington and Black Nubble --
Q Or the Kibby project as well.
A Yeah, I tried. I tried the best I could.
Q Excellent. Great. Thanks. And in your work have you actually engaged in any surveying work or specific study or published papers regarding Bicknell's Thrush?
A No.
Q So is it fair to say that the testimony that you're presenting to us today is based on your review of work that

has been done by a number of other individuals?
A That's correct.
Q And then finally I think Tom Hodgman's name comes up as one of the coauthors of one of the sites. And I think you will probably agree that with his working with I F & W that he's certainly familiar with the Bicknell's Thrush, the current struggles its dealing with and his ability to comment on Bicknell's Thrush issues as well, right?
A Yes, within the constraints of a state agency, yes, he is.
Q Okay. Hopefully he's not here to hear that.
A He would -- I don't think he'd have a problem with that.
Q Great. And as you had heard from Mr. Vickery's testimony and reading Mr. Vickery's testimony, Peter has suggested that regenerating fir and spruce forests provide a suitable habitat. My understanding from some recent back and forth with the Commission is that you don't agree that -- that that has been proven yet or that it's widely understood that Bicknell's Thrush's will use regenerated forests?
A In Maine? Are we talking Maine specifically?
Q Or anywhere within the, you know, breeding range.
A I think there are places in their breeding range, yes, where they will use that more than in other places.
Q And is this area Maine specific in some way that you would think that it wouldn't be the type of area that regenerating fir forests would provide potential habitat?

A Well, it's -- Bicknells follow a latitude form of migrating to the southern end of the range to the northern end of the range. So they move down in latitude as they move north. So in Quebec and New Brunswick where there's logging in those lower elevations where they are, there's going to be more of that habitat.

Q So -- I'm sorry, just because we have very little time. I just -- is there something about the regenerating forests in the area of the project that would cause you to conclude that it doesn't kind of fit the model for that type of habitat for breeding Bicknell's Thrush?

A It would have to -- in my opinion, in that portion based on the latitude of where we are in the Bicknell's range it would have to be higher elevation regenerating forests.

Q And I believe that you had testified that there really aren't any studies out there that kind of address the use of regenerating forest by Bicknell's Thrush; is that true, in response it a question a moment ago?

A In Maine -- correct for Maine.

Q And I would like to bring your attention to the watch list -- the 2007 watch list, which I think is at the top of your pile. This was the watch list that you referred to in your testimony, correct?

A Right.

Q And I just want to bring your attention down on the first

page to an area that I've highlighted and I would just ask you to read that to the Commission.

A Sure. More recently Bicknell's Thrush has taken advantage of areas disturbed by timber harvesting, ski trails and road construction and other human activities.

Q So certainly it's the position of National Audubon when they're identifying threats to this that Bicknell's Thrush are utilizing these kinds of areas?

A I assume if that's what taken advantage of means, I would say, yes.

Q Okay. And if I could have you turn to the third page -- the third page in that. Isn't it also true -- and there's been some significant work done by Rimmer on the ski trail and the impacts of ski trails on Bicknell's Thrush, correct?

A Correct.

Q And isn't it true that Rimmer has actually concluded that when you've got that kind of human disturbance that not only, under certain circumstances, could those provide habitat, but the edges along those ski trails you will find a greater density of nesting sites than deeper into the forest; isn't that true?

A I believe that's true for ski trails. I wouldn't jump from ski trails to wind turbine development, especially given the time of year when ski trails are full of people and the

weekly sort of maintenance and disturbance that a wind turbine site will have.

Q But there's been some extensive discussion here about the edge effects and Dr. Publicover has also weighed in on it. And although edge effect as a general rule is something that you look at when it effects habitat and the -- and the critters that are in that habitat, for Bicknell's Thrush the edge effect is slightly different, correct, because there's some benefits to Bicknell's Thrush due to that edge effect?

A Yes, you could say that.

Q And, also, if I can turn your attention to this third page, I just want to point out down towards the bottom of the third page that -- the paragraph that starts since 2003.

A Yeah.

Q In this part National Audubon is talking about some of the conservation strategies and the challenges with helping to preserve this species. I'm just going to read from the second sentence. Conservation efforts and research are difficult to conduct for this species under natural conditions. With power lines and regular power cuts, commercial ski activities, the wind power stations may provide access and significant opportunities for habitat management. Do you see that?

A I do.

Q And do you -- do you agree with Nation Audubon that actually some of these human disturbed areas can provide those kind of opportunities?
A On a small scale, yes.
Q Okay. Also, just kind of going back to this issue of do we have any evidence that Bicknell's are using these regenerating fir forests. And I think you mentioned that there's very little study on that.

What I would like to do is draw your attention to a document that's been labeled TransCanada Exhibit 13. And this is the testimony of Jeffery Wells on behalf of NRCM in the Black Nubble proceeding, which you said you had reviewed in preparation for providing testimony for this matter.

A Is this in the packet you gave me or not?
Q Yes, it should be. It might be the last. And it says on the top pre-filed Pete Didisheim because Dr. Wells' testimony was attached to Mr. Didisheim's testimony. And if I could draw your attention to Tab No. 2, what I have marked as No. 2, which is on Page 7 of Dr. Wells' testimony.
A Yeah.
Q So down -- again, this is Dr. Wells testifying on behalf of NRCM and Black Nubble. He was asked to testify on Bicknell's Thrush within the impacts of that project on

Bicknell's Thrush. And he's noting here on the bottom of this page that in Maine and adjacent Canadian provinces Bicknell's Thrush has been found in increasing frequency in regenerating clearcuts typically dominated by balsam fir or a significant component of balsam fir. And he cites some studies including the mention of Rimmer that have found that's the case, correct?

A I believe this is focusing on Canada. He's probably referring to his personal observations because as you can see, there's a list of references following that sentence. That would be my guess.

Q So this goes to this issue of whether or not these regenerating fir in this area somehow are less suitable than regenerating fir in other locations?

A Correct.

Q But Mr. Wells in his testimony here has actually found that when you consider the amount of what is considered traditional habitat, you can see on the bottom of Page 7 he's noting there's about 83,000 acres of traditional subalpine habitat in Maine for Bicknell's Thrush. Do you see that?

A Yeah.

Q And then we kind of flip over and onto Page 8 and he notes that, well, when you incorporate this regenerating fir forest in the state of Maine, that there may be as much as

98,000 additional acres that falls within this category. Do you see that?

A I do. But I --

Q So -- so is it fair to say that NRCM's position in this prior proceeding and Jeff Wells, who we kind of concluded is someone who knows something about Bicknell's Thrush, has identified that in Maine there's extensive habitat that's available for Bicknell's Thrush?

A No, I disagree with that statement. I believe you're correct, 83,000 of predicted Bicknell's Thrush habitat, that 98,000 acres occurs to regenerating spruce fir; there is no statement in that paper that says that that 98,000 of additional acres is potential Bicknell's Thrush habitat.

Q But Dr. Wells concluded that it was potential habitat in his testimony?

A Yes. And I would consider --

Q That's fine. And one other thing. You testified in your pre-filed testimony that impacts to all Bicknell's Thrush must be avoided. And I think what you're talking about is both the existing, which is this 88 acres, and some of the potential Bicknell's Thrush in the ridge line, correct?

A Correct.

Q So I guess the question is, you're not suggesting that you can't impact a single acre of this habitat, are you?

A I am not. And I -- you know, I think everybody reads their

testimony after they've read it and -- and I caught that and I -- and, no, I don't believe that every acre of ground is sacred for Bicknell's Thrush.

Q And in your testimony in the conclusions where you have concluded there is an undue adverse effects, you're only looking at the habitat on the ridge line, correct, you're not factoring in what potential regenerating fir forest habitat may be available for the species, correct?

A Correct. Since we don't know how much regenerating forest is around for this project area is suitable, I don't think that it's possible to assess that.

Q All right. And -- but on the site visit and in Mr. Vickery's testimony you've seen some evidence of the different stages of regenerated forest extensively in the project area, correct?

A Yes. I disagree with several of the exhibits that Dr. Vickery showed. The low elevations of clearcuts, I think that's stretching it very far to say that those -- down at the bottom regenerating clearcuts are Bicknell's Thrush habitats.

Q And, finally, you're familiar with Dr. Wells testimony on behalf of NRCM. And the -- the situation we had in that case, NRCM was supporting the project, there were approximately 64 acres of direct impacts as compared to the 8 that we're talking about here. And isn't it true that in

the -- that Black Nubble proceeding Dr. Wells concluded that 64 acres would be inconsequential to the breeding Bicknell's?

A I believes that was his conclusion.

Q So -- and today you're providing testimony on behalf of NRCM to this Commission and you concluded that the impact of 8 acres is -- necessitates a denial of the project?

A Yes, I think that there are a lot of things that went along with that Redington Black Nubble project that were in cooperation that --

Q I appreciate that, but you disagree with Dr. Wells?

A I do disagree with Dr. Wells, yes.

MR. ANDERSON: Okay. Thank you very much.

MS. BROWNE: I have some questions for Dr. Publicover on your testimony. And, again, we're having -- we're passing out some exhibits that we'll be referring to and asking you to take a look at in your testimony.

EXAMINATION OF DAVE PUBLICOVER

BY MS. BROWNE:

Q I want to just start with a couple of numbers. You gave some figures during your testimony about the percentage of this subalpine community that exists in the state of Maine. In your percentages you were looking at the entire landscape in the state of Maine, right?

A In terms of the 0.2 percent?

Q Right.
A Yes, that was of the entire state.
Q And do you agree that there are 40,000 acres of mapped habitat and even if you take -- assume 102 acres of impact from this project, which would both direct and indirect, there would remain 39,898 of mapped habitat, correct?
A Well, assuming your math is correct, yes.
Q And that would equate to less than one quarter of 1 percent of the mapped community in the state, right?
A Not using a calculator, I'll trust your math.
Q Okay. And that percentage would go down if you took into account the unmapped community that everybody agrees exists in the state, correct?
A It would go down a bit.
Q Okay. You agree that from a landscape level this is an appropriate place for wind power development, correct?
A At a landscape level?
Q Yes. Well, let me --
A In terms of being --
Q Let me just make it simple. You supported the Kibby project, which is 2 and a half miles away, correct?
A Yeah.
Q You support the northern eight turbines which are immediately adjacent to the seven southern turbines, correct?

A Yeah.
Q You participated in the Wind Power Task Force, which specifically identified areas in the state of Maine that from a landscape level were appropriate for wind power development, correct?
A Yes.
Q You participated in that process, right?
A I will grant that at a landscape level, yes.
Q And the outcome of that process was to encourage the siting of wind energy projects in the expedited permitting area, correct?
A Yes.
Q This project doesn't implicate any of the hiking interests of AMC, does it?
A No.
Q Okay.
A So AMC has broader interests, we also happen to have an interest.
Q Okay. And you would agree that some level of impact to the subalpine forest is acceptable, right?
A Some level, yes.
Q You're certainly not suggesting to this Commission that this community is en violet and it's so special that you cannot have any level of impact?
A We even accept some impact on this project that Turbine 8

would -- would impact this project. There's probably an unmapped patch of this community on the top of Kibby range of tens of acres. We were not concerned about that.

Q And you've also supported projects that are considerably greater level of impact to subalpine community, correct?

A No.

Q Are you familiar with the Granite Reliable Project?

A I am.

Q You submitted testimony in that project?

A Yes.

Q And that included turbines proposed for a location on something referred to as Mt. Kelsey?

A Yes.

Q And that project ultimately included 37 acres of direct clearing impacts to a forest community the size -- about 226 acres in size, right?

A Yes.

Q And that forest community, as described in your testimony -- which I've provided to you as TransCanada Exhibit 9; you can turn to Page 4 if you want; that's one of the areas you describe it -- it included old growth?

A Yes.

Q A rare pristine old growth subalpine forest?

A Yes.

Q Included expansive area of high elevation spruce fir?

A Yes.
Q It constituted high quality habitat for three species of high conservation concern?
A Yes.
Q Including the Bicknell's Thrush?
A Yes.
Q Including two species that were state listed?
A Yes.
Q You would agree it was a higher value forest community than the one present on Sisk?
A I would.
Q And ultimately you concluded in that project that the development would not constitute an unreasonable adverse effects on the natural environment, didn't you?
A Yes, but I think you need to point out two things. We did not actually support that project, we withdrew our opposition. And that was following the negotiation of a settlement agreement with the applicant that was worth approximately 2 and a half million dollars in conservation value, would permanently conserve about 1,700 acres from both wind power development and timber harvesting and would also provide, I believe, an additional $750,000 for additional land conservation. And even at that, that was not our preferred solution.
Q But you ultimately concluded that -- and this is just

direct -- direct impacts -- 37 acres of direct impact was not an unreasonable -- and I'm quoting. You can actually turn to your updated testimony, which is where that conclusion is stated on Page 1 of your updated testimony. You concluded -- and I'm quoting -- it would not constitute an unreasonable adverse effects on the natural environment.

A That's because in combination with the -- we believe that the benefits provided by the mitigation settlement agreement outweighed the impacts.

Q Okay. So then returning to my point, it's not such a rare community that if the price is right you can't have an impact to it?

A If you want to protect 1,000 acres as mitigation for this, we'll -- we'll reconsider our position.

Q Well, that's good to know. I guess, you know, turning to that, you would agree then that as part of an assessment of whether an impact is reasonable or unreasonable, like AMC, the Commission must undertake a balance of the benefits and the impacts?

A Yes.

Q Okay. And it would be appropriate for them to do that here?

A Yes.

Q And they would consider the significance of the community being impacted?

A Yes.
Q And -- and you agree that the community here is not in as high value as the community impacted by Granite Reliable?
A I would agree with that, yes.
Q And you would agree with Dr. Hudson's testimony that the community present on Sisk doesn't share the level of diversity that's present in other higher elevation subalpine communities, correct?
A What do you mean by the first one?
Q Where you have using of the alpine and subalpine plant communities.
A I would agree it's not as valuable as a mountaintop that also has subalpine on it, but that's an accepted community.
Q But this community is not as diverse as other examples of --
A Again, what do you mean by diverse? Are you talking about number of species?
Q Plants. I'm talking plants, not animals.
A I have no idea. I haven't seen plant lists for this.
Q So you don't have an opinion on that?
A It could very well be that this community has more mosses than the one on Mt. Abram. I have no idea.
Q There is a map attached to Dr. Hudson's pre-filed testimony that gives the acreage impact to the subalpine community and shows the remaining unfragmented portions. Are you

familiar with that?
A Are you referring to this map right here?
Q Yes. Does that give the acreage impact?
A Yes.
Q And you would agree that the -- just bear with me while I get it -- that there is a 73-acre contiguous area and a 183-acre contiguous area?
A That's what the map says, yes.
Q And you would agree that those two areas would continue to function as valuable subalpine communities, correct?
A To some extent, especially the northern one, I think, a significant part would be impacted by edge effect, which would not occur if the project did not take place. So I think those 73 acres -- parts of it will be different than it would be if the project wasn't there. So -- but I don't think because of the project that subalpine fir forest is going to disappear from that location.
Q Okay. Thank you. And you were asked by the Commission about a -- you know, the concern of setting the bar too low. And you said there are few areas in the expedited area located over 3,000 feet, correct?
A I think there's a relatively limited number yes.
Q So you would agree then that approving this project wouldn't set a significant precedent for potential other wind power projects being approved in high elevation areas,

correct?
A No, but it could set a precedent for other types of rare natural communities.
Q And you -- you were also asked about other wind power projects that may have impacted subalpine communities. You're aware that forest harvesting activities often impact subalpine communities, correct?
A Unfortunately, yes.
Q And you also asked a question of Dr. Hudson about how much -- you asked him how much of the subalpine forest in the Boundary Mountains was protected?
A Yes.
Q If this project did not go forward, that would not impact how much of the area was protected, correct?
A That's correct.
Q Because this area wouldn't be protected, correct?
A That's correct.
Q And you would agree that it's a result of, in part, your work on the Wind Power Task Force that wind power is an allowed use in this area, correct?
A Yes.
MS. BROWNE: Okay. Nothing further for Dr. Publicover. I'm going to switch over now to Ms. Johnson.

EXAMINATION OF CATHY JOHNSON

BY MS. BROWN:

Q Ms. Johnson, you asked Mr. Titus -- you read him a quote from the Flagstaff management plan. And at the time I didn't have a copy of it in front of me. And I'm not sure whether he did as well. But it was Page 31. And do you have that still in front of you? You asked him to read language from Page 31 --

A Yep.

Q -- that referred to overall, the draw of this area for most recreationists is its wild and scenic character. Do you recall that?

A Yep.

Q Do you understand that this description in the wildlife management plan refers to the entirety of the area that's subject to the plan, correct?

A I do. It mentions Chain of Ponds specifically also in that paragraph.

Q And it also mentions specifically the Bigelows and Mt. Abram and the Appalachian Trail, correct?

A Right, it's whole Flagstaff region which includes the Chain of Ponds. Correct.

Q But this was not a statement directed to the character of Chain of Ponds, correct?

A The Chain of Ponds is one of the areas that this -- this

characterization addresses.
Q But it's not directed to Chain of Ponds, it's the entirety which includes the Bigelows, the AT?
A It's the entirety including Chain of Ponds.
Q Okay. You're not a visual expert, right?
A No, I'm not.
Q Okay. And so your testimony regarding visual impacts is just your personal opinion, right?
A It's my opinion, but I was interested in Jim Palmer's statement in the Plum Creek proceeding that the limited evidence that they have of the accuracy of the visual assessments that have been done show that, in fact, they are similar to those done by laypersons.
Q And you would agree -- you reference in your testimony the expectation of typical users, right?
A That's right.
Q And you would agree that in evaluating the acceptability of a visual impact, it's important for the Commission to consider the expectation of actual users, not hypothetical users, right?
A I think typical users are actual users and I think BPL speaks to that in their management plan when they talk about most recreationists looking for the kind of experience of primitive recreation experiences there, the scenic.

Q Scenic, right. You would agree this is not a remote wilderness area?
A I would agree it is not a remote wilderness area.
Q And you would also agree that this is not a priority for land conservation for environmental organizations in the state, right?
A I would not pretend to know what the priority for our land conservation was in the state. I do know that there's, obviously, public land at Chain of Ponds and that public land is often a magnet for further land conservation. And I know that the Arnold Trail folks are looking to do additional land conservation between the Chain of Ponds unit and -- and north to the Canadian border.

So I think there is -- I know of those couple of limited things and there may be much more that I don't know about.

Q Okay. I am going to ask you to take a look at NRCM pre-filed testimony in the Kibby project. And I direct you to Page 5 of that testimony. Have you had a chance to find that?
A I'm on Page 5.
Q All right. And NRCM's testimony in that case was that large portions of Kibby Township has been actively cut over for timber leaving a large -- leaving the landscape largely fragmented. In part because of these factors, the area is

not a known priority for land conservation organizations.
A Well, that's different than Chain of Ponds Township that I was talking about.
Q Okay. So you differentiate Chain of Ponds Township from Kibby Township?
A At the time that we did this, we were not aware of land conservation in that immediate area, which is what I think this testimony is referring to. I was answering your question relating to Chain of Ponds. There is a different area of impact between the Kibby project and the Sisk project, which is one of the reasons that we have a different position on the Kibby project and the Sisk project.
Q You are aware that the Kibby project at its closest location is approximately 2 miles from Chain of Ponds?
A When the Kibby project was done, the applicant, unfortunately, did not do any photo simulations, so --
Q Just because I have really limited time, I'm just going to ask you to have yes or no answers. And if your counsel wants to have you elaborate, she can on redirect.
So --
A So what was the question?
Q You're aware that the Kibby project is within 2 miles of Chain of Ponds Township?
A I don't know exactly.

Q Excuse me, Chain of Ponds.
A I don't know exactly.
Q Okay. NRCM also participated in the Wind Power Task Force, right?
A Yes, Pete Didisheim of our staff participated in that.
Q And you would agree that this area, the Sisk Ridge, is an appropriate area from a landscape level for location of wind power, right?
A Generally it is appropriate, yes. That's why --. But that does not mean that every site within the expedited area is appropriate. It's just from a --
Q From a landscape level.
A From a landscape level.
Q From a broad planning level it's an appropriate place for wind power?
A Yes.
Q And NRCM has supported projects with greater visual impacts to scenic resources than the visual impacts that occurred at Chain of Ponds, correct?
A Well, it's -- I'm not sure what you're referring to when you say the number of projects.
Q Let me be very specific. NRCM supported the Black Nubble project, correct?
A That's right, we did.
Q And you should have the testimony from NRCM in the Black

Nubble proceeding in front of you. In that proceeding that project included 18 turbines located between 3.31 miles and 3.96 miles of the AT, correct?

A I was not involved in that project directly and I'm not seeing that testimony.

Q It's Exhibit G of the Redington testimony.

A Could someone give me a copy of the Redington testimony? I believe I only have the Kibby wind farm testimony. Sorry, what was your question?

Q Exhibit G identifies that that project included 18 turbines within 4 miles of the AT?

A Exhibit G? I don't have an Exhibit G.

Q Well, let me -- let me move on while we try to get you the right exhibit. You would agree with NRCM's testimony in that case -- and this is in the -- the testimony in the Redington proceeding at Page 5, that this area is, quote, one of the most rugged and cherished stretches of the entire AT providing a sense of remoteness and wilderness that is increasingly difficult to find east of the Mississippi. That was NRCM's testimony in the Redington case.

And then if you look at that time their testimony in the Black Nubble proceeding at Page 17, NRCM concluded that Black Nubble would not cause, quote, undue adverse, close quote, visual impacts, correct?

A Are you on Page 17? There is no Page 17 in this testimony that I can see here.

MR. LAVERTY: And this is an interesting colloquy because we don't have that either.

(A discussion was held off the record.)

BY MS. BROWNE:

Q Do you have it now, Cathy?

A Could you tell me again what it is? Is it Exhibit 13, Page 17 you're directing me to?

Q In the Redington testimony at Page 5 is NRCM's characterization of the resource.

A Is that TransCanada Exhibit B? I have three different things here that all --.

Q The Redington testimony is No. 17 and the Black Nubble testimony is 13.

A Okay. So what page are you asking me to look at?

Q If you look at Exhibit 17, which is the testimony of Redington, and you look at Page 5, it's NRCM's characterization of that visual scenic resource. Exhibit 17 at Page 5.

A Exhibit 17, Page 5.

Q Is it on your copy, Cathy?

A I have Exhibit 17, Page 5.

Q In which NRCM characterizes that area as the most rugged and cherished stretch of the entire AT providing a sense of

remoteness and wilderness that is increasingly difficult to find?

A Yes.

Q And then NRCM subsequently testified in Black Nubble, which is TransCanada Exhibit 13 at Page 17, that the project would not cause undue adverse visual impact, correct?

A Yes.

Q So as I understand NRCM's position, 18 turbines located within 4 miles from the most scenic portion of the Appalachian Trail meets their visual standards but 15 turbines located within 4 miles of Chain of Ponds does not, correct?

A I think this illustrates how difficult it is to evaluate visual impacts. It's not a --

Q But that's your testimony, right? That's your position that 18 within 4 miles of the most scenic portion of the AT meets the review standards, but 15 within 4 miles of Chain of Ponds does not meet the visual impact?

A Part of the -- part of the Black Nubble proceeding included permanent protection of the top of Redington Mountain, which provided very high quality habitat. And so -- and also had very significant impacts -- would have had very significant impact on the Appalachian Trail. So that was also a factor. So there were multiple factors.

Q But the reality is that the 18 turbines within 4 miles

meets -- NRCM's position is it meets the scenic impact standard?

A Combined with the permanent protection of the top of Redington Mountain. But I believe it was --

Q So your only objection here then is with respect to mitigation, right?

A No, that's not true. As I said, different resources are different and you have to analyze them separately. The AT is undoubtedly a very important resource of scenic and recreational importance to the state.

Also, our seven lakes that have been designated outstanding for their scenic character by the Maine Wildlife Lakes Assessment as well as the Arnold Trail, we also have the scenic highway. So there's a different grouping of scenic resources. So I don't think it's appropriate to measure one against the other. I think the question in each case is, do they meet the standard that LURC -- or the Legislature has set for scenic impact? That's the question.

MS. BROWNE: Yes. And I think we understand your testimony on -- in both projects. Thank you.

MS. HILTON: How close are you?

MS. BROWNE: I'm done. Thank you.

MS. HILTON: Oh, okay. Thank you.

MS. BROWNE: I'm sorry, for the confusion on the

exhibits.

MS. HILTON: All right. I guess we're ready for cross-examination by the Friends of the Boundary Mountains.

MR. SIBULKIN: Good afternoon. My name is Lauri Sibulkin, I'm with the Friends of the Boundary Mountains. Pleased to meet you all.

EXAMINATION OF DAVE PUBLICOVER

BY MR. SIBULKIN:

Q Dr. Publicover, will Maine warm up in the decades to come?

A I think that's pretty well -- pretty well established by climate science, yes.

Q Thank you. Your testimony -- your testimony notes that Maine's highest regions, including these Boundary Mountains, have values specifically as -- and I hope I got this right -- climatically stable places, correct?

A The evidence, you know, is -- from both paleoclimate and current research is that the higher elevations of alpine forests of the northeast mountains were particularly stable during past former periods and are likely to remain stable to some extent in future warming periods.

Q I'll take that as very close to a yes.

A At some point its going to get -- might get so warm that it might not be true.

Q There have been so many good questions already, I'm going to skip quite a few to save repetition. But I'm going to

repeat this one. Is it likely that in a stunted forest -- and in your description what we are dealing with in this hearing is a stunted forest -- edge effect will be more profound than an identical type of construction down in the lowland?

A I think edge effect would be more significant up here not because it's a stunted forest. All things being equal, I think that a stunted forest would probably be less impacted by edge effect. But up at this area, and particularly the high wind regime and the exposure caused by a wide slope, would make this more significant than something of lower elevation. So I think it's the high wind regime, not so much the stunted forest.

Q All right. Well, then I'm going to take that as a yes because whether we label it stunted forest or just a short forest in a high place with a lot of wind -- I'm going to take your answer as, yes, edge effect will be pretty profound.

Do you agree that when we include edge effect in our plotting in the disruption of the natural environment up on the ridge we are creating a disturbed zone that can be as much as 4,000 feet long, one end of this project up through to the other -- and it's only 3,000, but it's a mile or more --

A Yeah, I think it's more than 4,000.

Q -- by several hundred feet wide?
A To some effects potentially, yeah.
Q Okay.
A One on the upwind side, it probably will be less on the downwind side.
Q Can the construction of specifically the access road coming up from Kibby Stream that intersects this project about in the middle and this mile or more by potentially a few hundred feet wide area of disturbance plus edge effect result in something that we could call a fracturing or -- of a forest community?
A That's not a term I would use. I know that's a term that Chris used in a book called Fragmentation, but I'm not sure I would use that term because I'm not sure what you mean by it.
Q Well, earlier in your -- I was going to skip this, but you said -- your testimony states that larger examples of forest types have greater resilience and are more likely to persist while -- than smaller parcels or parcels that have been significantly fragmented.
A Yes.
Q So I'm accusing this project of fragmenting this chunk of fir birch forest by running a road up through one side of it and then cracking it across the top with a turbine string.

A (Nods head affirmatively.)
Q Thank you. Does this particular Fir-Heart-Leaved Birch community have a connection at high elevation to the high grounds of the north as compared to the Kibby Range where you go down into a deep valley and there's no high ground connection specifically to the north?
A I haven't looked in detail at the topography, but I think it's fairly continuously above 2,700 feet up towards the Caribou Mountain area.
Q Thank you. Now, in the -- the Land Use Planning Document Policy No. 13, I'm going to take part of one sentence. And I admit that a lot of people don't like it when you take things out of context. But this says, if I understand correctly, one of the purposes is to regulate high mountain areas to preserve the natural equilibrium of vegetation and geology and then a good deal more.

Am I correct in this interpretation, equilibrium of any community or any kind of equilibrium can only be maintained if the system remains in a somewhat fluid state? We're talking about the adjustability of the system to cope with change around it. Is this accurate? Don't know is a very good answer.

A Yeah, I'm not sure I -- I mean, I think I understand the ability of something to respond to disturbance is a manner in which things adjust and maintain stability. And if you

take away the ability to respond, you take away the resilience, yeah.

Q Okay. If we cut off or sever this connection -- let's pretend this table is the ridge of Sisk Mountain and the folks down at the TransCanada table are the summit -- the southern summit of Sisk and that's Canada and you have any species -- specifically nonflying, any species of creature or to a much, much lesser degree, plant species, if we cut off a connection with a -- with a mile long by several hundred feet right at the steepest narrowest part of this ridge, are we not threatening to restrict the adjustability, the very -- the possibility of maintaining an environmental equilibrium, it's a choke hold; is that -- could that be correct?

A I think there are probably some species whose ability to migrate from this community to the forest to the north would be compromised, they'd probably be a somewhat smaller species, they're not going to be bird species. Some types of ground dwelling insects, some types of potentially small mammals, some types of plant species that don't migrate --

Q So you're going to give me some --

A I'm going to give you a qualified, yes.

Q Thank you. In your testimony you discussed what you called refuges. And I'm going to paraphrase you terribly. The world warms up, the lowlands are affected, the fir forests

begin to die back and evolve, change or whatever comes next, et cetera.

If we -- to be very specific to this mountain spring from Sisk up north through the high ground, if we put a choke point on that, are we potentially destroying one of these refuges that you're talking about where to a small degree plant communities, but more importantly animal communities trying to get up into a climate that they're bred, evolved to survive in, all of a sudden they're stuck because we have -- we were up there yesterday. We have these roads, we have hard, hard surfaces, we have wide open spaces where predators can get you and we have noise and commotion and human intervention.

And I'm not saying this week, this month or next year. I'm talking 25 years or potentially 50 years down the road as the world changes and warms up, might we be destroying or really limiting one of these refuges?

A I think, you know, the impacts of this project will potentially affect the ability of this area to serve as a refuge, but not for necessarily the reasons you're stating. I don't think it's so much because species won't be able to move into and out of, but the fact that so much of it is exposed to edge, you know, you're imposing a -- an enhancement of somewhat artificial disturbance regime on it which will lead to a -- a different community structure

than we had that may occur maybe to less of that area developing into mature -- you know, maybe sort of more mature subalpine forest maintaining more of the younger condition, more of it may dry out and that may impact its ability to maintain itself in the future.

Q Once again, it's a qualified yes?

A Yeah, it's a -- yes, coming at it from a right angle.

Q Is there a point at which local cumulative impact becomes an extremely important factor? I'm thinking Kibby A series, which is essentially done, and from yesterday's examination, quite professionally, B series is going to be done here at the end of the year, now this and then who knows what's next? Relative to this area, are we there yet?

A Are we there for what?

Q Is there a point at which local cumulative impact becomes an extremely important factor that would cause you to say no more?

A Well, that tipping point is going to come at a different place for different species. The Bicknell's Thrush --

Q No, no, your support in this project, have we got there yet? Maybe at Tower 8 or maybe I could convince you to say we're already there, no more wind on this ridge?

A I would say Turbine 8 is -- you know, the eight northern turbines are about all we would want to see on that

northern mountain range. We may be unlikely to support additional.

MR. SIBULKIN: I'm going to pick on Ms. Johnson next.

EXAMINATION OF CATHY JOHNSON

BY MR. SIBULKIN:

Q First, I think you know this. When -- you and I both wear glasses. Are you nearsighted or farsighted?

A You know, I'm getting old and whatever it is when you get old, that's what it is. I have only worn glasses for a few years, so what does that mean?

Q Take them off, can you see a mile away or do you need them to see a mile away?

A I can see a mile away.

Q Okay. Thank you. Very good. From how far away can you see the light on a cell tower?

A I don't know.

Q Miles at night?

A I would presume so.

Q Okay. I can tell you folks I'm a ski patrolman here. Up on top the snowmakers can see the lights on the Kibby project well enough that they can count them, individual lights on the towers.

When you personally are in a truly remote place and you look down at a highway, you're hiking up on who knows what, you look down on a highway, can you see one tractor-trailer

moving down a highway?

A It depends on how far away you are.

Q Okay. Call it 3 miles.

A You know, I don't really think in those terms when I'm on top of a mountain. So I'm not sure I'm that good at estimating distance. So I would think probably, but I'm not sure.

Q Then I'll get away from numbers. If you're standing in a high quiet place and you look down in the valley, does it take very much motion to capture your attention? Trucks, cars, equipment does it take very much commotion?

A No, it doesn't, if it's something that's not normally found there.

Q In your testimony on Page 5 you commented that Maine residents and visitors visit this remote feeling place, referring to Chain of Ponds, remote feeling but accessible area specifically to enjoy the scenic views and to participate in recreational cultural activities, the high quality of which is dependent on that specific high scenic setting.

How much stimulation -- visual stimulation can you take on a pond on one of these -- in a canoe on one of these ponds before you're no longer in that highly scenic setting and instead you are actually now stuck on a turbine or two turbines or some turbines? How much does it take before

your attention is grasped?

A Well, I'm not exactly sure how you would measure it. I think our conclusion in this case is that these seven southern turbines are close enough and that, as Jim Palmer said, dominant that they would -- in fact, I think he said collectively dominant, that they would dominate your view if you're on Chain of Ponds.

MR. SIBULKIN: Do I have permission to make a statement instead of a fake question? I submit that when I'm there and I look at the mountain --

MS. HILTON: No.

MR. SIBULKIN: No. Okay.

BY MR. SIBULKIN:

Q You were clear in your testimony that just because there is development -- wind energy development in an area does not mean that a green light has been given to keep developing the next ridge and the next ridge.

Let's jump over to the Kibby Stream side. Is it okay to surround a Class A waterway, which is Kibby Stream, with industrial development on three sides of that watershed? This will be the third side. Is that acceptable?

A Kibby Stream is one of the resources of state significance that would be impacted by turbines on Sisk.

Q So we got it on the south, more or less, and the east, more or less, or will have in one year. Is it going to be

acceptable to put them on the west side now because all of those turbines are above that watershed? I would really like a no, it's not acceptable.

A Our conclusion is that the -- while there will be -- that there will be impacts from the eight northern turbines on Kibby Stream, Arnold Pond, Crosby Pond and some portion of Chain of Ponds, that those adverse impacts if we ignore them, do not rise to the level of being undue adverse impacts requiring denial of the permit.

Q You -- in your testimony you advise us that if the southern seven turbines are built, efforts to get funding for future conservation efforts, easements and so on in the Chain of Ponds region will be more challenging.

Unless this application is denied in its entirety, will not funders view this area as, quote, essentially open to development?

A Well, it's hard to know how funders will view it, but it is my opinion that a project will not score as highly -- a potential conservation project in, let's say, the Chain of Ponds region would not score as highly as most of the scoring systems score public money if the seven southern turbines, which are so in-your-face, on Chain of Ponds are constructed.

Q Just a few minutes ago you very stoically withstood a series of grilling by TransCanada's attorney. What I -- is

this correct, the industry got a little bit of support from the environmental organizations and now because they got a little bit of support, they're upset because you're saying, no, no more? You gave them support for Black Nubble, now you're at least 50 percent saying, no, we don't want that here. And she's saying, well, we got it last time, I want it back. Is this a -- please explain why you're not going to get drug over the coals again?

MS. BROWNE: Madam Chair, it seems to me this is the quintessential example of friendly cross. And I think this is intended to be cross, not friendly cross.

MR. WEINGARTEN: Excuse me.

MS. JOHNSON: I would humbly suggest this is not friendly.

MR. SIBULKIN: Well, my job here is not to make them look good. I want them to say no to all of these.

MR. WEINGARTEN: If I could speak a little bit. This is not friendly cross because we feel strongly about these eight turbines.

MS. HILTON: In the mic.

MR. WEINGARTEN: We understood that we were questioning the consolidated intervenors who have announced that they are against the project, but they're also in favor of eight turbines. And it's not friendly to us at all. And we don't feel friendly to them. So I -- I reject that

objection there.

MS. MILLS: Based on the questioning so far, it does appear that you have been directing your questions towards distinguishing between the two sections of the project, but I guess I would just suggest that in your questioning you try to make it clear which section of the turbines you're questioning about so that it's clear that your questions are focused on the issues at which you differ.

MR. SIBULKIN: All right.

MS. HILTON: I just want to let you know you have about five minutes.

MR. WEINGARTEN: Is that with our extra time?

BY MR. SIBULKIN:

Q You recommend a mitigation payment be made, perhaps, to the Public Land Bureau as a payment of good measure, correct?

A Yes.

Q How much -- and you gave us a number. I realize it wasn't a rock solid number, but you picked one, so I'll use it. $100,000. How much lynx habitat is a 100 grand going to buy?

A I have no idea.

Q Neither do I, but it's not much. You and your group are trying to preserve the experience of being in a wilderness and of remoteness. Am I not correct that even one or two or three of the northern turbines -- if I'm on a lake and

I'm from the city and I'm expecting silence and maybe a moose, that's going to grab me; am I right?

A I think that this is an area where it's important to be precise in our language. In my testimony I did not say this was wilderness or it was remote, I did say it was a remote feeling, but accessible place. To me there's a big difference in those two things and I want to make sure that that distinction is clear.

I do think that people who are from the city who are coming down and camping on the shores of Long Pond and paddling or fishing out on the pond will have a remote-feeling experience that will be significantly adversely impacted by the southern seven turbines.

MR. SIBULKIN: I should have known that if she couldn't beat you up, I certainly couldn't.

I would like to ask you one or two questions.

(Directed to Ms. Gallo.)

BY MR. SIBULKIN:

Q And instead of being --. In this big bird survey it mentioned that the Biodiversity Research Institute counted, if I've got it right, 21 birds in this location?

A That's what I read, too.

Q Plus or minus half of them are males. Can you or we afford to place a wind turbine complex this close to a proven nesting ground when just one young male bird can reduce his

population by 10 percent because he's doing his mating flight? Can we afford that loss?

A I would say no.

Q Do you give enough credence to the map -- you know the map I'm talking about?

A I think so.

Q That one.

A Oh, the model, yeah.

Q That shows the nesting ground of this bird. On the other hand, the big chart that shows the core zone and the -- and the possible zone, do they agree with one another?

A You're asking if that Figure 3 in the model agrees with the --?

Q Hm-hmm.

A No, I think they're two different -- that's a computer model based on simulation satellites and GIS. The other piece that I presented earlier is on the ground, somebody walking in the woods and counting.

Q Given that disagreement, does the applicant know for sure where this bird species nests versus for sure where it doesn't nest? I have two questions now.

A I think that's -- what I tried to say in my testimony is that the data has to be interpreted with caution. So, yes, I would agree with you that --

Q In your data it talks about -- that these birds move around

considerably and they don't necessarily show up in the same counting location.

A Right.

Q Much more lively than once in five years. Would you be more comfortable before we permit something like this if we said, we need five years of counting? Because we're supposed to be protecting this special creature. Would you like, professionally, five years to figure out where it is or isn't specific to the northern string of turbines? How do we know they're not there?

A I think there's a balance between promoting wind power and getting as much information as you can. I don't have a -- I would leave it up to I F & W or other agencies to determine the number of years. You're right that one year is the minimum that you would have to do.

Q I would submit that we don't have the data. Would your organizations, all three of them, be willing to ask maybe not for five years, but ask for some more time? I recognize that there are financial considerations and stimulus moneys and this and that, but respectfully, I don't care.

From our side of the argument, would your groups find it to be reasonable to say, we want two years of bird studies, two years of watching the climate change, two years of monitoring tourists down in Chain of Ponds in

Eustis and so forth?

A I think the more information you collect, the more time you spend collecting it, the more effort that goes into it -- we don't know the effort that went into the 2009 data. We don't know how many people, we don't know how many hours. We know the days because they recorded the days. It is true that the more we have effort that goes into collecting data about a project, the more -- sort of the more useful the data is in terms of your results and how you interpret that in relation to a project.

MR. SIBULKIN: Where I'm going with all these questions is, if we guess wrong, we've tore the top of this mountain and stove up an awful lot of terrain. I would like some time to make sure it's not a wrong guess, but an evaluated data-supported decision. Thank you.

MS. HILTON: Okay. I would like to take a ten-minute break and then come back and do the redirect.

(Whereupon a recess was held at 3:29 p.m., and the hearing was resumed at 3:37 p.m. this date.)

MS. HILTON: Okay. I guess we're all set for redirect by the consolidated parties.

MS. GRAY: Great. Thank you. Jenn Gray with Maine Audubon of the consolidated intervenors.

EXAMINATION OF SUSAN GALLO

BY MS. GRAY:

Q Susan, you were asked some questions about the impact to the 8 core acres of the proposed project. Again, is the impact limited to that 8 acres?

A No, the impact will go well beyond 8 acres. That's a gross underestimation.

Q And that 8 acres is identified, again, as the core. Is it important to only protect what's core habitat?

A No, because of the way that -- the nest that Bicknell's Thrush moves around within that habitat, we believe that that sort of red hatched smaller area is really -- it should be expanded to the whole area that's designated suitable. So core versus suitable is an artificial delineation of the habitat because of the dynamic nature of that habitat.

Q Commissioner Schaeffer was asking you about the edge effect of logging roads. Could you distinguish for me or give some insight into the difference between the edge effects of logging roads versus the proposed turbine roads' impacts?

A Sure. And I apologize if I missed that question earlier on, but the really big difference is logging roads are much smaller in weight, they are temporary so they're built with a different standard and they tend not to last long and

unless the area has been logged, they revert back and, of course, they're different and it's not -- no longer -- it's not a pristine natural community, but it's a much different impact on the habitat.

Q And also you were asked about Jeff Wells' testimony. In your opinion, what does a personal observation of a Bicknell's Thrush in a clearcut tell us about the breeding success of Bicknell's Thrush in that clearcut area?

A It doesn't tell us anything about success. And success is really the key for a lot of bird -- all of the bird species. It doesn't matter if you're in a habitat, it matters if you're breeding successful.

MR. VOORHEES: Thank you. My name is Dillon Voorhees for the consolidated parties. Two questions for Ms. Johnson.

EXAMINATION OF CATHY JOHNSON

BY MR. VOORHEES:

Q First, you were asked some questions about NRCM's testimony on Redington and Black Nubble. Can you clarify, was -- with regard to views on the Appalachian Trail, was NRCM's concern with development on Redington or Black Nubble?

A Our concern was primarily with Redington. As the Commission knows, we support wind power, we support recreation in wild areas. We struggled to find the right balance. We review each project individually and -- and

it's a challenge to find the right balance. But in that particular case, that was the balance that we found because we were primarily concerned about the impacts of Redington and AT.

Q And you were also asked by Friends of the Boundary Mountains about the acceptability of impacts to Kibby Stream given there's already impacts from the first Kibby project. Can you clarify for the Commission your -- your position or the relevance of cumulative impacts in this context?

A I think cumulative impacts is something that I really encourage the Commission to think about in this context. Clearly the Kibby project has had some impacts, not only on Kibby Stream, but also on the -- on the south end of Chain of Ponds. And this Sisk Mountain project is posing additional impacts. And I think it's important for the Commission to -- to think about both of those. At some point cumulative impacts -- at some point we need to draw the line and say, this is too much impact, it becomes unduly adverse.

And in this case we believe that that -- that that line was drawn between the northern half and the southern half of this project. And that is related to cumulative impacts.

MR. KIMBALL: Kenneth Kimball with the consolidated

parties. Dave, I have two questions relative to the questioning of you on the Granite Reliable Project, which is Exhibit No. 9, and submitted by TransCanada.

EXAMINATION OF DAVE PUBLICOVER

BY MR. KIMBALL:

Q The first question is, is a legal review process of wind projects and level of environmental protection the same or different in New Hampshire versus Maine?

A No, it's quite a bit different.

Q Second question. Did those differences come into play in AMC's decision in the end to not support the Granite Reliable Project, but also not to oppose it as long as there was the $2.5 million in environmental protection to offset the environmental impacts?

A These differences certainly did. Again, as I said, we initially strongly opposed the construction of turbines on Mt. Kelsey. But in the end we made the decision that we thought would be the best possible outcome given the regulatory framework in which we were operating. And even so, as I said, it was not our preferred solution. Our preferred solution would have been to have no turbines on Mt. Kelsey.

MS. GRAY: Madam Chair, I move Susan Gallo's Power Point presentation into the record as consolidated intervenor Exhibit 1.

MS. BROWNE: We do not have a copy?

MS. GRAY: We do not have printed copies of that. I am happy to give you an electronic version that you can review.

MS. BROWNE: I would like to review it before a decision is made. I don't -- we don't have a position until we look at it.

MS. MILLS: Did you have a printed one for Marcia? Did you provide one --

MS. GRAY: I don't have a printed one. Because so much of our Power Point was based on Evers' report that was submitted Thursday evening, we've been trying to develop our Power Point presentation to reflect that so we didn't have an opportunity. I can give Marcia an electronic version.

MS. MILLS: Yeah, why don't you circulate it electronically and we'll give TransCanada a reasonable amount of time to object. And, otherwise, it will be entered into the record at that point.

MS. GRAY: Thank you.

MS. MILLS: And that would go for Friends as well, of course, if you have any objection.

MS. BROWNE: While we're on the topic of -- are you done with your redirect?

MS. GRAY: Yes.

MS. BROWN: I would also like to move into evidence the exhibits that we used during cross, which was Exhibit 9, which was the AMC testimony of Granite Reliable; Exhibit 10, the AMC testimony in Granite Reliable, their update; Exhibit 12, which is the Audubon watch list; Exhibit 13, which was NRCM's testimony in Black Nubble; Exhibit 17, NRCM's testimony in Redington; and Exhibit 18, which was their testimony at Kibby.

MS. MILLS: There being no objections to those, they can be entered. And I'm assuming that Marcia got copies?

MS. BROWNE: Yes.

MS. HILTON: Okay. I guess Friends of Boundary Mountains.

MR. WEINGARTEN: Time for our witnesses? I would like to present -- I would like to present three witnesses.

MS. HILTON: Did I swear you all?

PARTICIPANTS: No.

MS. HILTON: Can you raise your right hand? Do you solemnly swear to tell the whole truth and nothing but the truth?

PARTICIPANTS: Yes.

MS. HILTON: Thank you.

MR. WEINGARTEN: Our first set of witnesses is Bert Lambert, civil engineer, and his associate Nancy O'Toole, and then that will be followed by Diane Boretos who is a

professional -- a professional wetland scientist.

MR. LAMBERT: Good afternoon, Madam Chairperson, members of the Commission, staff and all interested parties. My name is Bert Lambert and I'm speaking on behalf of the Friends of the Boundary Mountains. My associate is Nancy O'Toole who will be speaking after me.

I'm a licensed professional engineer, a licensed professional forester and a licensed professional land surveyor. And I would like to touch on some of the main points in the text of our pre-filed testimony.

Huge earth disturbing construction projects such as the proposed Kibby Sisk expansion that runs along these far and high elevation mountaintops in northwestern Maine are highly complex and a unique in nature due to the amount of blasting of rocks, steep slopes, rare and protected botanical as well as zoological life. Severe weather conditions have eroded the fragile red soils and shallow rooted trees and plants.

This proposed site is also impacted by a protected national historic site that is rooted in the founding of our nation during the Revolutionary War, in particular, Cornell Benedict Arnold's march through Quebec in November of 1775. This area is also a rare one of rare scenic beauty and important and unique recreation area.

Permanent damage, the damage caused to the earth

throughout this disturbance will be -- will be permanent in nature. Large areas will go into the minus column with the number of remaining undisturbed high peak mountaintops. This will include rare plants and animals in habitat. So we're going to have less of these areas if this project goes through and it won't be coming back.

Mitigation, mitigation will not restore the permanent loss. Mitigation is paying of the fine before doing the damage instead of after. No money buys anything added to it.

Construction design, there are many areas in the preliminary site exploration that were done in an untimely fashion. Vernal pools are an example and have been spoken about today. Other site explorations, exploration was done in a cursory manner; we're left with the toolbox approach to fix later, such as acid rock. Many particulars were not included in the application, but I think a thoroughly designed project would have had included it.

This design approach saves preliminary design costs to the developer. Construction methodology, the way the -- the developers are a for-profit corporation and their number one goal is to make a profit, in and of itself, the same for all profit corporations -- for-profit corporations and to be expected. But this has an affect on the construction methodology when that profit comes before

environmental concerns.

A good example of this is expanding fill areas to accommodate waste rock in areas that will be permanently damaged beyond what is necessary to build a road or a pad, but it's cheaper than hauling the rock to a rehabitable proper waste area at a lower elevation. Of course, the spin on this is that it uses less fuel and it saves money and produces less exhaust fumes, all of which is supposedly greener.

The construction inspection, this is controlled from the top down by the developer to his project manager, then to the resident engineer, who gives orders to the contractor. The third-party inspector, who's suppose to represent the public, really has minimal authority. First off, he is picked by the developer and receives his paycheck directly from the developer. Now, without intent to impinge the reputation of any third-party engineer, this arrangement does give color to your conflict of interest. But surprisingly, the above arrangement is all sanctioned by state law. However, the end result is a weakened third-party inspection method.

Toolbox approach is a method that -- an engineering concept that is proposed to be used on this project. A glaring example is the toolbox approach being done in the Gulf of Mexico by the BP Corporation. It appears it was a

money saver to eliminate an automatic shut off switch as it was too expensive. Well, we all know to -- how that toolbox is now working down on the gulf.

A national register of historical places, as was previously mentioned, this Chain of Ponds site is a nationally protected site having been so designated on October 1, 1969. Our pre-filed testimony doesn't mention this because the re-information of this was not received until May 6, 2010 when the Maine Historic Preservation Commission, in a letter from Deputy Director Kirk F. Moody, reaffirmed his February 2 decision. He stated that the Commission, quote -- that the Commission's opposition -- quote, the Commission reaffirms its prior conclusion that the proposed undertaking will have an adverse effects on this historic property, end quote. We wholeheartedly endorse this letter and agree with the conclusion.

Some of this impact has been minimized by proponents. And what isn't really mentioned enough is the noise that these windmills can create and the powerful red glowing off and on lights in the night's sky which would show -- you couldn't see the windmills themselves.

It is understandable that a foreign-owned corporation may not have any sensitivity to the importance of this site in the history of the foundation of the United States of America. We don't know anyone who would be content with

putting windmills on the mountaintop of the national preserve in Gettysburg.

When LURC denied the Redington Black Nubble project, they had good reason. Many of those same good reasons now exist at the proposed Kibby/Sisk expansion. When Arnold passed through this Chain of Ponds in 1775, there was no industrial plan. This has been the case since 6,000 years before Christ until Kibby 1. Of course -- let's not continue with more of the same.

We ask the Commission to deny this project application. Thank you very much.

MS. O'TOOLE: Madam Chair and commissioners, my name is Nancy O'Toole and I'm here on behalf of the Friends of the Boundary Mountains. In the CLUP under an evaluation of adverse impacts it states: Some adverse impacts are easy to identify and to avoid or mitigate, others are difficult to recognize or prevent. Full consideration of adverse impacts requires keeping abreast the scientific research and documentation while recognizing that many -- many impacts are subtle and incremental. Sometimes by the time degradation of a value is clearly detected, the value may be lost or remedial action is infeasible. The Commission, therefore, will approach the identification of potential adverse impacts with the balance of good science and reasonable foresight.

In the CLUP with respect to industrial wind development it appears that the guidelines in the Comprehensive Land Use Plan are sometimes in the conflict with the Legislature's expedited rules and the streamlining of the permitting process. The purpose of the CLUP should be to guide and control development such that the overall mission is not compromised. New development, whether it be industrial or residential, should not cause undue adverse impact. Extended development should not result in undurable cumulative impact on the existing resources and the users. Cluster development of industrial wind is brand-new to LURC jurisdiction.

In the original project -- Kibby project certain noteworthy comments and conditions were part of the permit. We have commented on the permit in our pre-filed testimony and would like to restate our concerns again. 2,367 acres were rezoned to planned development subdistrict just for the original Kibby project. Except for the upgrading to the Mile 5 Road, the Kibby Expansion will all be above 2,700 feet with cumulative impacts to the subdistrict, the general management, mountain, shore land and wetland protection.

The Kibby Expansion has extreme terrain, hybrid soils, wetlands, vernal pools and proportionally greater cuts and fills than the original complex of turbines. For the Kibby

A and B series 50,000 cubic yards per turbine of material was disturbed, either cut or filled, compared to the estimated 93,000 cubic yards per turbine for the Kibby Expansion, combined approximately 35 miles or so of road will be constructed in and around the mountain ranges.

It is estimated that the combined operations will cross, divert or alter streams to some degree 100 times. Will the diversion of culverts, plunge pools, ditch turnouts and rock sandwiches maintain the hydrology over time? The U.S. Army Corps of Engineers requested that a discussion of potential indirect, secondary, or cumulative impacts from the project should be included in TransCanada's application for the Kibby 1 project. This reenforces our concerns even more than ever that cumulative impact, either initially or collectively, from all projects in the Kibby watershed be examined. Will these collective impacts meet or exceed the criteria of no undue adverse impacts to the resources and quality of place to the area?

Last I would like to paraphrase from the 2010 CLUP under Mountain and Soil Resources. One of the greatest threats to the fragile environment above 2,700 feet is the impact of erosion from road construction. Beginning with initial clearing and grubbing, every step of an industrial construction project can loosen soil particles. Blasting, excavating and placement of road and pad material, even if

construction is engineering controlled, yields more soil particles.

The rain runoff patterns, which are changed in a place of high rainfall, result in the alteration of localized hydrology, which in turn impacts wetlands, streams and vernal pools that house the many species of concern here in Maine. In order to maintain a natural historic character and quality of place, there needs to be a limit on cluster industrial and development in mountain areas.

And, last, stated under the mountain resource: Some of the jurisdiction's areas have excellent wind energy resources. However, wind turbines and associated infrastructure have the potential to compromise the resource the PAMA subdistrict is designed to protect. Given the finite number of high mountain areas and value of their scenic recreational and natural resources, it is unlikely that a Commission will consider all mountain areas in the jurisdiction suitable for wind power development.

We, the Friends of the Boundary Mountains, believe that the Kibby Expansion is such a place. We recommend that the Commission do not permit application from TransCanada. Thank you for allowing me to address the Commission.

MS. BORETOS: You all look as tired as I feel. Diane Boretos, Call of the Wild Consulting. I'm here on behalf of Friends of the Boundary Mountains. And what I'm going

to do, not to repeat what has just been said by these two colleagues and others, is give you a synopsis of what I focused on in my testimony. But before I do that, I would just like to make a couple of comments about discussions that have occurred before.

One of which, animals don't read the same literature we do. And as a professional wildlife tracker, somebody that studies from the books and then spent years out in the field, I've come to look at things in literature with an astute eye. Also, natural disturbances are very different and very different processes than manmade disturbances. I've been in tornados and I've been in hurricanes and I've looked at openings created both on coastal areas and in forested areas. And they are very much different from a clearcut from a roadway from a turbine area.

One of my focuses was on wildlife impacts. The proposed project will increase adverse impacts particularly above the 2,700 foot elevation to interior forest species by creating additional linear edges all along the service roads, transmission line connecters and turbine footprints.

In Exhibit B 15-15, the applicant has dismissed this impact by stating that forestry harvesting has already fragmented the area. This begs the question of addressing the impacts of the additional edge effect that will be created by the project and not just on birds. For example,

pine martin, pine martin isn't going to be denning next to an edge that's got particularly human disturbances of noise and access by -- easier access by predators.

The environmental assessment does not address potential noise impacts from a wind turbine to wildlife. This is really a new area of science. There has been very little scientific research that's been done on the impacts of the noise on wildlife.

However, a recent study published in the journal of Friends of Ecology and Evolution this past year is the result of a research project from the National Parks Service National Sounds Program. This study shows that human background noise, including wind turbines, can have major impacts to animals by impacting their, quote, effected listening area.

The effected listening area is defined as -- and I quote -- the area over which animals can communicate with each other or hear other animals' calls or movement. As might be expected, animals' focus especially on listening for sounds at the very edges of audibility so that even a small increase in background noise, say, from a road, wind farm or a regular passing of airplanes can drown out sounds that need to be heard by these animals.

This study found that an increase as low as 10 decibels in background noise can reduce the listening area for

animals by 90 percent. If you look at the -- one of the exhibits in the back, you'll see a very large area that goes out to, I think, 50 decibels. You're talking about a much greater area than we've talked about in the past three or four, say, for Bicknell's Thrush or for the rare plant community.

Animals are constantly communicating with one another. And it is especially important for pray to be able to hear predators in the landscape. It's important for birds to hear breeding calls. I would ask LURC to ask for more information about how this project is going to impact not just the Bicknell, but all the animals that are within that 50-decibel delineation that is on that plan, please.

I've talked about this at other hearings, but mountain ridges are used as corridors by large roaming animals. This area was identified a number of years ago by a gray wolf expert from the west. And he came out and he specifically identified this area to a group of trackers and also to some state officials. And it wasn't in a report. They took them up to this area and he identified this region of the western Boundary Mountains as being very potentially desirable habitat for a wolf.

Black bears will use these areas as well as large felines. Mountain lions have been sighted in the state, not documented, as having a breeding population. But

nonetheless, that kind of investigation of a four season track and science survey wasn't done with this project.

Wetland impacts -- wetland biologists and -- have worked for both states, Vermont and Massachusetts, as well as for municipalities in the area of wetland conservation. And this is a huge, huge amount of alteration to wetland. And I can look at you straight in the face and tell you after 25 years in the field of looking at wetlands restoration projects, very few of them work. And so I would ask you to look at the impact for wetland alterations in this project. Not for all of the wetland alterations, not just for the wetlands that's identified as lost, but also for the wetlands that are going to be mitigated.

It's unrealistic for any issuing authority to think that in this -- on this scale and in this topography there isn't going to be severe erosion and interruption of exotic species. That is intensive, intensive monitoring that I doubt very seriously will occur here as it hasn't occurred elsewhere.

The last thing I'll speak about is -- and hope I can bring some clarification to this -- vernal pools. I've certified over 200 vernal pools in the state of Massachusetts. It's one of my specialties as a wetland biologist.

MS. HILTON: Can I ask you to -- you're kind of at time

so --.

MS. BORETOS: Okay. This -- I maintain that because there was not a survey done at this site during the vernal pool mating season for the wood frog and the spotted salamander, which is in the spring, that not all of certifiable significant vernal pools have been identified on this site. A potential pool does not have the regulatory strength of having a 250-foot buffer. But a vernal pool that has been identified as significant because of the number of egg masses found for the wood frog and the spotted salamander that gives it the, quote, label as a significant vernal pool, which affords that 250-foot buffer. That was not done on this project.

And I, frankly, don't understand. There was fieldwork being conducted prior to the July and -- summer and fall vernal pool survey. And I don't understand why there wasn't a complete full breeding vernal pool season survey done.

My conclusion is that this project, I think, has not met its burden of proof to this issue and authority about protecting some very valuable resources. Thank you.

MS. HILTON: Thank you. At this point in time we're going to have cross-examination of the state agencies. So we're going to take it out of order. So those folks who were scheduled to be at 4:00, we're going to go through

that, and then come back and finish up with the questions from the commissioners, Friends of the Boundary Mountains and the cross-examination and redirect.

All right. So I guess the best way to do this is if the state agency folks would come forward. I want to thank you all for coming today.

Before you sit down, I would like to swear you in. Do you solemnly swear to tell the whole truth and nothing but the truth?

PARTICIPANTS: I do.

MS. HILTON: Thank you.

The way we set this up, I think, was that the commissioners were going to have an opportunity to ask questions. And I don't know whether anybody wants to start that out?

I've made a suggestion about how we go about doing this. If -- what I was wondering is if -- if each of you might take just a few moments to state what your -- your greatest concerns are, perhaps, about this project or things that you think we should be most aware of from your perspective and we will just highlight those. Are the commissioners comfortable with that approach to get us going? And that might help us come up with some questions. Who wants to start? Alan, would you?

MR. STEARNS: Sure. My name Alan Stearns, I'm the

deputy director of Bureau of Parks and Lands within the Development of Conservation. My primary interest is in establishing precedent or the ground rules for the expectations for future wind projects.

As I stated in my initial agency comments, the bureau is starting to see more wind applications, both DEP and LURC, which start to present more significant scenic impacts than we have seen in -- in the past few years. I would -- I am fully respectful of precedent and law. And my concern is that the precedent and law is murky with respect to scenic impacts. And I want to ask some of the really tough questions on these early projects -- or on this project so that things only get more clear for applicants as well as the public in the future in terms of what the ground rules are. So my primary interest is to establish the ground rules.

MS. HILTON: And this is with -- in particular with regard to BPL?

MR. STEARNS: Scenic impact is all that I have commented on from a substantive level. And then the related issues are tangible benefits and/or mitigation to the extent that those may be viewed as a -- as a tool to consider in the same breath as scenic impact.

I should say that there are some recreational comments that may come up on future projects. I haven't looked for

comments on recreational standards, per se, on this project and don't plan to today, rather the scenic impact, perhaps, for some recreation is the approach I'm taking.

MR. TIMPANO: I'm Steve Timpano, environmental coordinator with the Maine Department of Inland Fisheries & Wildlife. And I think our department's overall interest certainly is, you know, adequate evaluation -- or assessment and then evaluation of developmental impacts on fisheries and wildlife resources. And I think that that's pretty well documented in the -- in the application. As far as the remaining concerns, we believe the applicant has addressed -- has done the appropriate studies and has addressed the concerns to the extent that you see in the application.

There may be some additional questions related to that and some clarifications that we'd be able to give in terms of some of the questions that have been raised about significance of vernal pools, when surveys were done, that kind of thing.

MS. HILTON: Do you want to wait until the end or ask questions now? Commissioners, anybody have any --?

MR. LAVERTY: Why don't we ask questions as we go along.

MS. HILTON: That's what I was thinking of. Then we can go back. The one thing that we have heard a good bit

of discussion about is the identification of vernal pools and the protocols and spring versus fall. And, I guess, would you maybe just clarify what that's all about from your perspective?

MR. CORDES: I'm Bob Cordes, I'm an assistant marine biologist --

MS. HILTON: And speak up a little bit.

MR. CORDES: All right. In the protocol it gives a little latitude. Like TransCanada had illustrated in their discussions, that if they can't survey during that window for significance -- it comes down to a matter of significance for potential vernal pools. So they identify vernal pools that have potential significance, they submitted their data forms to us, all those potential vernal pools are manmade and they don't reach that level.

MS. HILTON: So do you -- is that verified in the spring? I mean, if they're identified in the fall, are they required to go back and --

MR. CORDES: Well, the idea of a potential vernal pool is that it's an area that has potential and in lieu of formal significant surveys in the spring, they're treated as significant. But in this case when they submitted the forms to us, they were manmade and thus don't fall under our jurisdiction.

MS. HILTON: How do you know that you identified them

all if you're identifying them in the fall?

MR. TIMPANO: We need to take it back to -- maybe even back a step as to, number one, I mean, vernal pools are a subset of wetlands that have been identified as significant wildlife habitats under the Natural Resources Protection Act. Significant vernal pools are the ones that have high numbers of egg masses from wood frogs, salamanders, whatever, fairy shrimp. And to make that determination, to make that count, you have to do the surveys during the appropriate breeding season. If you do not do the surveys during the breeding season, you can still identify the location of the vernal pool and then after the location is identified do all the rest of the documentation and to -- including photographs. And at that point if it's identified as a vernal pool, a potential significant vernal pool, okay, and you treat it as a significant vernal pool until such time as a survey would be done during the breeding season to document whether or not it actually had the appropriate number of egg masses or fairy shrimp qualifications.

So I think -- if that helps maybe interpret a little bit of the discussion which you've heard. These pools were surveyed out of -- outside of the breeding season. So there was no egg mass counts. They are treated as potential significant vernal pools. Further evaluation by

our vernal pool specialists, our experts, can make a determination based on our factors, i.e., from the photographs is it a wheel rut from a logging operation type of a thing, is it a manmade feature on the ground?

And if it is, then it is automatically disqualified as to significance. It will not be a significant vernal pool regardless of egg mass counts, if egg mass counts had been done. So that's -- that's part of what you're hearing. Does that help?

MS. KURTZ: I think I understand your explanation, but if the -- the existence of egg mass pools is what -- egg masses is what makes something significant, what difference does it make if they're manmade or not? I mean, I don't think the salamander and the frogs know the difference. I mean, I know there must be some regulatory piece to it, but if the egg masses are there or if that's the criterion that determines significance and we're trying to evaluate the impacts and there happen to be a lot of egg masses in a manmade pool where there are going to be impacts, it seems to me that they ought to be considered.

MR. TIMPANO: Well, we're going under the regulatory authority of the Natural Resources Protection Act, which is, of course, administered by the Department of Environmental Protection. And we treat them all the same as to whether they're DEP or LURC permit -- projects

permitting that we review. So excuse us, but we do use the same protocols and everything as we would under the Natural Resources Protection Act.

So under the Natural Resources Protection Act there is that distinction made that significant vernal pools -- significant wildlife habitats under NRPA includes the subset of significant vernal pools. Significant vernal pools are only those that are naturally occurring. Manmade pools, regardless of whether they have the -- the actual use, the egg mass numbers, don't qualify under NRPA.

And so we utilize that distinction. The U.S. Army Corps of Engineers does not make that distinction. There a number of reasons behind it, I won't get into it -- you know, won't belabor it at this time, but that's -- that was the way NRPA was set up.

MS. HILTON: Anybody else on this topic?

MR. LAVERTY: I have a question of Alan Stearns. I don't want you to feel like you're neglected, Alan.

In your review that you submitted, your pre-filed testimony from your review, you state that the -- with reference to the applicant's analysis you state: The entirety of the analysis and submission by the applicant is absent any expert analysis, conclusive facts, mere facts, depth of reasoning, or rational or objective standard upon which to base a precedent or finding.

And I want to put those very specific words in context. As compared to other scenic analyses that you have had the opportunity to review is this indicative, in your view, of most scenic analysis or is this specific to this scenic analysis?

MR. STEARNS: Let me start with an explanation and/or an apology on that particular clause. I wrote that clause in the context of Kibby Stream, which was the first one that I looked at. And as I was doing my final editing, I moved that clause up to the introductory paragraph. My intent when I was drafting it was to have it apply to Kibby Stream.

My recollection was that at the time that the -- in the application, the analysis of Kibby Stream -- new statutory standard designated scenic resource, the analysis of the impact on Kibby Stream was, frankly, a few sentences. So the -- my frustration reviewing the application was that some scenic assets at the point of application were analyzed with a few sentences rather than more rigor.

So my apologies to Ms. Vissering that the blanket accusation was first drafted not toward the entirety of her work product, but rather toward Kibby Stream. I do think that since those comments were drafted, I have been impressed by the quality and quantity of additional information submitted. And I'm -- and I think that -- when

I talk about precedent, I think my expectation is that if the Legislature is going to list some assets as scenic, then the applicant has the burden to describe with some level of appropriate rigor the impact on those assets.

And I think the applicant has come a long way in recent submissions in giving you a lot more material for you to review for you to make your ultimate conclusion.

MR. LAVERTY: So at this point as far as the information stands in the record, how would you characterize this analysis -- this scenic analysis?

MR. STEARNS: I think that others have characterized it and I'm not sure that I want to give a summary characterization. I think that there is a lot more quality information for you to review. I think there are still some factual errors, some of which are important, both by Ms. Vissering and others, that -- that somebody needs to sort through because it can get confusing.

I think that LURC's consultant made some characterizations of some of the material that was on the record at the time, some of those characterizations -- I'll let you look at his wording, but I think that -- I think that -- again, through this process --.

There's actually two things. I think you're putting the applicant in an unfair position because there's a new law and it's not really clear what LURC wants. There isn't

much guidance for applicants in terms of whether -- what the methodology should be, let alone the rigor of the methodology. So that's some of what I want to put people through their paces, including this Commission, to say what do you want. Because I don't want to characterize it negatively if you're getting something that you feel is sufficient.

MR. LAVERTY: Would you suggest that we halt this proceeding and move to rulemaking on scenic character?

MR. STEARNS: No. I -- well, that's not my position to make that suggestion and I defer to others. I think that LURC staff suggested to me -- I'm just blanking on the consultant's name. Jim Palmer. LURC staff suggested to me that Jim Palmer's work product was their goal to start to set the stage of expectation, start to set the stage of methodology.

And my guess is that if Jim Palmer's work product been available to this applicant when the applicant filed, then they would have said, oh, that's what LURC's consultant is look looking for, let's meet his expectations rather than some other undefined expectations.

I need to be blunt. A lot of this -- LURC reminds me that you as a Commission have struggled with this for years. So I don't want to presume that I have the answers when you have struggled with this for years. But just when

I'm starting to look at other -- you know, DEP sees as -- well, there's some similar, if not identical, issues with DEP. But I don't want to -- as I said, I don't want to create issues where DEP or LURC are comfortable. But if I don't know what the precedent is, then I don't know how to help you.

MR. LAVERTY: Have you had an opportunity -- I know you've had the opportunity -- specifically I'm talking about the Plum Creek decision and specifically the scenic character analysis that was undertaken there. It was a long process of collaboration between LURC staff, LURC consultants, Plum Creek staff and Plum Creek consultants as well as a number of intervenors that resulted in a -- in what we, at least at the time, this was in November, felt was a fairly clear statement of how we would approach scenic standard -- scenic vista analysis.

And I was just wondering if you had any specific comments on that document?

MR. STEARNS: I did not review that in detail because I was up to my neck in other issues with Plum Creek. So I took a pass on scenic. And, also, I think your staff is rigorously engaged in that process. And that's one question I -- you know, I -- frankly, I was very impressed with the staff's engagement in the Plum Creek process and the Commission's engagement. And -- and I think that that

level of dialogue can bring a lot of clarity to the wind power process.

MR. LAVERTY: Thank you.

MS. HILTON: I think this is a topic we could spend a lot of time on. And, I guess, what would be most helpful -- and I'm very concerned and I think we're all concerned about it particularly from your perspective. And I think what would be most helpful for us maybe is to know what other questions did you have or what are the concerns that you had? Because I'm assuming that your concerns have to do primarily with lands that are under your ownership, BPL's ownership, water bodies, parks. Am I correct or --?

MR. STEARNS: Yeah, but it's really hard to go landowner by landowner in terms of scenic impacts. So at some level I want to know what the law is for everybody or what the law is for the applicant.

MS. HILTON: Well, in this -- in the Wind Power Act we're particularly interested in state and federal significant sites and water bodies, the Arnold Trail.

MR. STEARNS: The reason -- you know, I've taken a pass on many wind power applications even if they've had some level of jurisdictional visibility from a bureau asset or from other assets. I have just taken a pass because in my mind I wasn't worried about the precedent of LURC taking a pass, so to speak, on those assets, those impacts.

This application, this project, the combination of the internationally significant Arnold Trail on just about the exact same geography as the scenic byway, on just about the same geography as Bureau of Lands, on just about the same geography as an outstanding scenic pond, that collision of four scenic assets listed in the statute all together in one place of geography, I -- I don't think you should be comfortable doing this to figure out whether it's reasonable or unreasonable. I think there should be some level of -- oh, this is a big one, four significant assets all in the same parcel, how do we approach it? And that's what I tried to ask is, okay, how do I approach it, can I make a conclusion or how can I help you make a conclusion?

MS. HILTON: I think what -- and I'm maybe speaking out of turn, but for me I'm looking for some guidance from you as a state agency that oversees --

MR. STEARNS: So my most significant thing, I think if I could summarize my -- where I am right now, I've watched the back and forth between Maine Historic Preservation Commission, the Maine Arnold Trail; we have historic sites, we think of ourselves as to a certain extent a guardian of the -- of the Arnold Trail.

The Maine Historic Preservation Commission said, adverse effects. Jean Vissering said, quote, no evidence to suggest compromise of historic experience. I went back,

Maine Historic Preservation again said, no adverse effects. Jim Palmer said, this resource is not designated for visual purposes. Maine Historic Preservation cites chapter and verse the federal law on why the visual impact from a historic trail is very important to them.

So that back and forth in the testimony of the Arnold Trail -- the Arnold Trail being clearly nationally significant, if not internationally significant. And I would say in this application the primary sort of you can't deal -- or deal with the Arnold Trail first and the other scenic issues come second. So that back and forth of factual analysis or legal analysis or historic analysis, I think that the record has a lot of mixed messages from different parties.

My plan was to sort out my own thoughts in writing before today. I had other matters this weekend, so I didn't get to that. But at some point I do plan to give the LURC staff sort of what I just gave you in terms of my effort to follow the back and forth.

Then on the legal matter, Maine Historic Preservation says adverse effects. It's on the record, it's in your record, it's Maine Historic Preservation, I'll -- you know, it's our trail to a certain extent in some places that we're managing. Your legal standard is unreasonable adverse effects. So good luck, you have to decide whether

a finding of adverse effects in fact is an unreasonable adverse effects. And we can play with words forever to help you make that determination.

And then the thing that I've been frustrated with from the beginning is I like mitigation, I used to do mitigation, I don't think there needs to be black and white decisions of dancing on the head of unreasonableness. The federal government allows mitigation. A finding of adverse effects is not a rejection, it is a starting point for discussion of mitigation. The attorney general and I have had some discussions. And good luck with that.

And then we bring tangible benefits. Let's look frankly at tangible benefits, that if that's the sort of hear no evil, see no evil mitigation, then let's really look at tangible benefits and say, are the people of Maine being made whole, are the -- are the impacts being quasi mitigated through your decision, your guidance on tangible benefits, not whatever checks the applicant can put on the table for you to -- for you to respond to or not.

MS. HILTON: That was helpful. Anybody else? We'll move on. Molly, I guess -- I'm not skipping over anybody here, am I?

MS. DOCHERTY: Hi. I'm Molly Docherty, I'm the director of the Maine Natural Areas Program. Our program has jurisdiction over rare, threatened and endangered

plants in the state of Maine as well as rare and temporary natural communities and ecosystems, we track the status and trends. We're here today because of our concerns regarding the proposed development impacts on our features.

And there was one other concern I wanted to bring to the table, which is that since we were asked to comment on the proposed project, we've also been asked to comment on the proposed expansion of the expedited area that actually abuts this project. And I just have a little bit of a concern that we're not kind of doing things piecemeal, but that we actually have a vision for whether the project will be on this ridge top or not. So that's another concern.

MR. LAVERTY: What specific concerns might you have with the -- this particular project?

MS. DOCHERTY: With this particular project as filed, there is an impact to a rare natural community, a subalpine community up on the mountaintop.

MR. LAVERTY: Do you believe it's an undue adverse effects on that community?

MS. DOCHERTY: I think there's no question there's an adverse impact. You know, it's been -- today I actually heard 102 acres, which I think we calculated less. But that would be about a 28-percent reduction in the natural community that's up on top of the ridge.

For me when I start thinking about your terminology

with unreasonable, I don't know if you want to take each natural feature independently, but be looking a little bit more collectively. And so there's a natural community up there, there's also Bicknell's Thrush and there may be other biological values as well. And so I would say I can't -- I'm not going to speak just to that natural community, but there's definitely adverse impact. This question of unreasonable is really up to you to determine what that test is.

MR. CLEMENT: I'm Jay Clement with the Army Corps of Engineers. I'm here at Marcia's request, not to express concerns for the project, we have an independent process for that, but to answer any questions that you may have regarding my process and specifically the Historic Preservation Act.

MS. HILTON: Did staff have any specific questions? I'm trying to think if we had a conversation.

MS. SPENCER-FAMOUS: Actually, I was just -- I was going to simply ask Jay to explain the nature of the process between the corps and the Historic Preservation Commission so that you would have the benefit of understanding.

I think Alan did a good segue into that when he talked about there being the finding of diverse impact and then that leads into a mitigation process. I thought Jay -- he

explained to me last November how that process works and I felt that might be helpful for you to understand that that is going on, too. So perhaps Jay could just give you a brief summary.

MS. HILTON: Yeah.

MR. CLEMENT: Sure. Just as general background, the National Environmental Policy Act requires that federal action agencies, be permitting agencies or funding agencies, to comply with a host of core laws including Endangered Species Act, Historic Preservation Act, Wetlands and Rivers Act, et cetera, et cetera. And we as a permitting agency here are that action agency, so we have to coordinate directly with the Maine Historic Preservation office pursuant to Section 106 of the Historic Preservation Act.

The way that that works is much like the Clean Water Act or the Natural Resources Protection Act, the wetlands regulations, if you will. We look at avoiding and minimizing impacts to historic resources. And if those -- if there are unavoidable impacts to historic resources, then we look to guidance from MHPC and Maine's Indian tribes to tell us whether there are adverse impacts or potentially adverse impacts.

But regardless, if there are unavoidable impacts, then we move to compensation or mitigation. And at that point

it essentially becomes an open book as to what forum that mitigation may take. There are some precise things in regulations that speak to, say, the recording, the importance and the value of the resource in perpetuity. For example, if a bridge is scheduled to be removed or demolished by Maine DOT, then there may be a photo recordation session of that bridge or of a dam that has to be removed or what have you. And then there are very precise regulations and requirements that have to be -- by which that recordation occurs. And then the record is maintained by MHPC in perpetuity or by the archives or whoever in perpetuity.

But it can be many other things, too. We have a precedent for this in the form of the Oakfield wind project where, again, MHPC has determined that there will be adverse impacts to a series of historic farmsteads that are several miles away from that particular project.

And MHPC is advocating for a very broad documentation or itemization of historic properties in and around that area of Aroostook County. It's a very wide search that the applicant is prepared to commit to and provide documentation. It's, if you will, a -- I guess, again, a categorization of where these sites are located, what their -- what they -- the photo documentation that goes with it and various narratives.

So, again, it could be an open book as to what constitutes suitable mitigation. In the rare event, at least in my experience, that MHPC determines that the impacts cannot be mitigated, then the Corps, as the decision agency, makes a decision do we issue a permit above and beyond those concerns or do we deny the permit? In most cases, we are reluctant to go against what our -- what we believe is the expert for that particular resource, MHPC, and by association the advisory council on historic preservation in Washington. So it would be -- I think the expectation would be that we'd have difficulty issuing a permit if there were unmitigatable impacts.

The other thing I'll mention, you know, we have mitigation, but we can also have project modification. Some -- you've heard today proposals to reduce the size of the project in order to address A, B, C concerns. Well, similar things can be applied to historic resources. Perhaps as a way to modify the project to reduce the impact to an acceptable level with MHPC, but we haven't gone there yet.

And so at this point in our process we are aware of the coordination that's gone on between the applicant and MHPC, we've sanctioned it, in fact, we've requested it. And at some point in the very near future we will be stepping in to work with MHPC and the applicant to hopefully mediate a

-- an option for mitigation or figure out what the next steps are from there.

So if you have any questions about that process, I'll answer them now.

MS. HILTON: I think that's good.

MR. CLEMENT: One other point on -- because I know Marcia brought this up. What does the -- what does the Commission do with regards to this particular aspect of things? Well, I can only point you to the example that I know and that's the DEP, they deal with similar issues regularly. And quite often I find that they will defer to the Corps process. I'm not saying that's the easy way out, but it seems to answer their obligations. And I'm not suggesting you do the same, but it may be an option for you.

Our process will continue, we will bring resolution to it in one way or another. And -- and I can't tell you what the timetable is relative to decisions that you have to make, but we -- we do have a process and we will see it through to the end.

MS. HILTON: Okay. Thank you. I guess Jim.

MR. PALMER: My major concerns --

MS. HILTON: Can you just state your name? I've been forgetting to have everybody do that, but --.

MR. PALMER: James Palmer. And I'm LURC's scenic

consultant. My major concern has been to make sense out of the Wind Power Act, a lot of which deals with new ways of thinking about the scenic impacts and scenic impacts that are no longer relevant.

So, for instance, whether or not you can see the lights from the Bigelow Range is irrelevant now by statute, it's past 8 miles. We have a new criteria, unreasonable. I couldn't find anything in Maine's court record that seemed to relate to help define what unreasonable means compared to undue.

I'm interested in the specific scenic resources that the act has defined and how we actually interpret that and things that either don't make sense to me in those designations. For instance, why it's only pullouts on scenic roads? It's not the pullouts that are designated, it's the road. So we've been talking about a scenic byway. That's irrelevant, according to the act, the only thing that's relevant is the two pullouts. That doesn't make a lot of sense to me, but that is what the act says.

I'm concerned about some of the evaluation criteria. The act talks to us about significant scenic resources and then, I assume, everything else is a nonsignificant resource whether it's scenic or not. And one of the evaluation criterion is significance. At one level the answer to that is yes or no, but at another level there may

be lots of levels of significance and the act doesn't give us any indication of that. And I think in my report I review -- I gave some suggestions of what that might be.

So, for instance, the Arnold Trail doesn't really talk about scenic quality. And I can't believe that the Arnold Expedition is really worried a whole lot about scenic quality as they were making an extremely important military event occur. Just because we need to designate it historically as a major battle event and it's worthy of recognition for that, doesn't mean it's scenic. However, we, by the act, have said everything on the list is going to be a scenic resource. Well, maybe it's a low quality scenic resource even though it's a scenic resource simply because scenery is not a part of its designation. I don't know. That's got to be worked out.

I'm very concerned about cumulative impacts. This project highlights that and I talked to you about Plum Creek about cumulative impacts. In that case I came down on the side that we should concentrate impacts on a few lakes. Try to get impacts off of lakes, but if we're going to do it on lakes -- on a few lakes, keep as many lakes untouched as we possibly can.

I haven't had an opportunity to work that through for wind power projects, but in some ways the logic holds. Rather than distribute projects throughout the state, it

seems to me that it would be from a scenic point of view a whole lot better if we concentrated those projects in places where we're going to have the least impact. But if we do this incrementally, we're never going to know. You know, it basically means who comes up first, who gets in line first. And that may not be the best place.

I'm also concerned that -- that we don't get into a sort of bidding war with DEP jurisdiction, that, you know, rather than look at where are the best places for wind projects, developers look at where's the easiest place to get your project permitted. That would be a horrible situation and it would have long lasting effects. And so it seems to me that it would be really helpful as we clarify all these questions from the Wind Power Act that we coordinate that with DEP and come to a common understanding because they have exactly the same criteria. It's not like other development where the criteria is different between the two groups.

I'd really like to see visual mitigation be visual. Typically visual mitigation -- well, frequently visual mitigation isn't visual, it's spending money on something else like protecting habitat for another species. If we can accept the visual impact, then let's just accept it. If it's important enough to do something about it, then let's do something about it. That's probably not --.

MR. LAVERTY: Jim, would you recommend that we halt, we place a moratorium on wind power projects until we've addressed -- either go into a regulation development mode regarding scenic impacts or -- and/or seek sort of legislative clarification?

MR. PALMER: That's a really difficult question for me to answer. The reason is I'm not from Maine. I love working here and I love working with you.

It's pretty clear the Legislature -- I mean, it's an emergency act. They said, let's get going, guys. And you're already behind as a state, you're sort of behind their targets.

I don't have a clear understanding, actually, of the relationship between the independence of the LURC board and the Legislature and how that tension might play out. Maybe it just all happened together. Somehow, though, I think we have to start working now on clarifying these issues so that we don't wind up, you know, permitting a dozen projects or more under one set of criteria and then say, oh, again we're going to change the rules on you guys. That's just not fair. I mean, maybe it is appropriate, but we're -- you know --.

MR. LAVERTY: Let's turn, if we might, to the specific application before us as well. I mean, Alan Stearns characterized your report as being based on partial

information, that the total information was not available to you as it was not available to him as he has seen about that information. Since his initial review he's changed his mind.

I'm wondering do you want to amend your report that you submitted in your pretrial testimony in any way to reflect changes that have come before you?

MR. PALMER: I really haven't seen much update. I made, actually, a note to ask Marcia about what the updates really were. I saw a response from Jean Vissering, I think, to Alan's comments, but other than that I'm not quite sure what this additional information is. I'm certainly --

MR. LAVERTY: I'm sure Alan can tell you at some point. Perhaps not in today's hearing setting.

MR. PALMER: There certainly was incomplete information. As far as I know, there's still incomplete information. And I suspect for a long time there will be incomplete information because the act wants us to focus on how scenic -- the scenic environment affects different kinds of users, to pay attention to what their expectation is, to pay attention to the numbers of users and the duration of the exposure.

There aren't very many impact assessments that I've ever seen that do that. You know, those are -- those are

all recognized as logical important parts of what should be considered, but it's -- there's not existing data on that. It's not like a digital elevation like you can put it in GIS. You would have to develop that each time. You will --

MR. LAVERTY: I didn't see that as a conclusion in your report, though. Is that -- did I miss that?

MR. PALMER: Maybe. I can't say for sure.

MR. LAVERTY: Could you summarize the conclusion of your report with regard to scenic impacts on this project?

MR. PALMER: I think that -- in relation to this project? I think that, actually, Jean did a reasonable job. The most important parts are the simulation. I think they give you a good sense of what these turbines are going to look like. I think that they're accurate. I disagree a little bit with their visibility analysis, but in the bottom line it's not going to be important.

So, I mean, I would use -- use those. I mean, what's important is there's a large part of Chain of Ponds where you're going to see wind turbines. So those sort of technical aspects, I don't have a big problem with what she did. I think that the information could have been presented better. I certainly have seen work that -- Jean writes well. And I've seen work written better, more clearly. But I'm assuming that it's because we don't know

how to handle all these new criteria and stuff and she struggled like I did.

MR. SCHAEFER: Real quick. What would be your idea of visual mitigation?

MR. PALMER: Well, one visual mitigation is getting rid of some of the towers. I mean, that would help. Relocation, screening, changing behavior. I mean, it's a -- if I'm upset by these wind towers, for instance, then I would just paddle along the eastern shore of Chain of Ponds. I mean, this is not a big decision. My expectation is that, actually, the behavior is that as you're paddling or fishing, you're not going to be looking 90 degrees at these wind turbines a whole lot, especially if they bother you. You're going to redirect your behavior so that you can have the kind of experience you have.

I also think a lot of people are going to be fascinated by them and -- and how they come into and out of view. But that's not to say there aren't people who are going to be really upset and angry.

So, yeah, I mean, you have -- on top of that -- I'll just add one thing that, you know, maybe you shouldn't consider. But this is a gateway into the state and country. And the presence of these turbines is a statement about that on a scenic byway. And I -- you know, even though the act doesn't talk in that kind of language,

that's important. Going both ways, I could argue that either way.

I'd say let's -- I guess if I was to do one more, if I was to have you asking me a question, it would resolve around this -- this quote of mine where I say that the turbines are prominent. And that was asked of Jean, too, I think.

By prominent I mean they're really visible, you can really see them, you can distinguish -- you'll be able to see those blades turn at this distance. You know, at the 6, 8 miles the blades are going to start to disappear, it's just going to be a tick mark. At the further distance you'll see a project and the project will be important. They may be dominant, but in my mind on Chain of Ponds it's -- it's marginal in the level of dominance.

I agree with Jean that what's going to be dominant is you're going to have these high peaks surround you and that sense of sort of a broad enclosure is what the dominant visual effect is going to be. But are they prominent? Yeah, there's a bunch of them. And you'll see -- and if you're moving, if you're paddling, you're going to see them kind of rise up and fall down, you know, which could be interesting or not.

MR. LAVERTY: Your report was quoted earlier as saying not only dominant, but possibly predominant. Is that --

MR. PALMER: I think that --

MR. LAVERTY: Predominant and possibly --

MR. PALMER: Yeah. Predominant, though, just means that -- that they're very visual, that it's not something that you can really hide, there's no contention that it's something else. I've been with people looking at clearcuts wondering if those are natural openings or not, if they're well designed.

There's -- none of that is happening, right. Everybody understands that this is a constructed manmade, not natural feature. It would have to be -- they have to be white. We don't have really much choice of that unless you want more lights on them.

You know, so they're -- they're there and clear, but that doesn't mean that -- it's like when we talked about it in Plum Creek, as you start developing the hillside, when does it change from a forested hillside to some kind of residential development? I'm not saying that this number of turbines visible changes that ridge line in the minds of whoever is looking at it into a power plant. I think it's still a -- a force that is there and the area is predominantly forested hillside.

I don't think that changes, but it's also big. I mean, there's no denying that. And the -- and the act tells us that it's going to be big. I mean, they warned you right

up front, there's no question these things are big, when you see them, they're going to have a big presence.

MS. HILTON: Can I interject here? We're running into scheduling issues. And I guess let's move on and have Dave Rocque --.

MR. ROCQUE: I am Dave Rocque, I'm a state soil scientist. My number one concern is protecting the natural hydrology. And the reason I focused there is I don't think -- I think it's one of the issues that's not been looked at or concentrated on much in the past. And, obviously, the natural hydrology effects everything downgrade. So that's where I've concentrated a lot of time.

Number two would be erosion and sediment control. But that concern has been minimized by the use of blasted rock for the fill material because there's not much that moves there.

And number three would be minimizing impacts on protected natural resources such as streams, wetlands, vernal pools, ponds. And the reason that's down on the list for me is because there's a lot of other people keeping an eye on those things. And I tend to concentrate on the indirect impacts, again, like the hydrology impacts from upslope and those --.

As you all know, this is -- building roads up in high mountain areas is kind of uncharted territory. They were

not -- nobody allowed roads to be built up in those areas, so --. A lot of ideas were proposed and some of the techniques were used that -- that turned out to work fairly well, such as the blasted rock in the -- the rock sandwiches, which maybe you have some idea about now.

I think the toolbox approach is very, very important for construction in these areas. One of the reasons is because unlike lower elevations, you can't predict by vegetation land forms where some of these measures are needed. You can do a very good job of predicting it in lower elevations, you can't in the mountains. So what's most important is the right thing gets used in the right place, not that it's shown in a plan and you put it in because the plan says it goes there.

I've worked very closely with the third-party inspectors and -- and the contractors to help educate them as to what kinds of measures are needed where. I try to go look at projects before they're developed and then as the development takes place so that everybody can sit around and discuss these issues and the right things can be done in the right places.

And I think that's worked very well because I -- I try to look at them as a neutral source just technically. And I think it's worked, so far, fairly well. I've had three projects that I've done, I've got two for DEP I'm working

on now and they've worked fairly well.

MS. HILTON: Any questions? I think what we would like to do next is the -- TransCanada. Is there cross-examination of the -- of these folks, the agency folks?

MS. BROWNE: Yes. Thank you.

MS. HILTON: Now, we also have the consolidated parties and Friends of the Boundary Mountains.

MS. MILLS: Friends did not request --

MS. HILTON: Oh, did not request.

MR. WEINGARTEN: Excuse me. We would like to cross-examine. I did not request it, I was not aware that --

PARTICIPANT: We can't hear.

MR. WEINGARTEN: Friends of the Boundary Mountains would like to cross-examine for a few minutes some of the people from the state agencies. I guess because of my inexperience I was not aware that we could just request it. I didn't realize they were going to be here. I did ask at times if they were going to be here or not. It wasn't clear to me. But I would really appreciate some time to cross-examine.

MS. HILTON: Okay. Let me just --. Juliet, how much time do you need?

MS. BROWNE: I'm assuming you want something less than

the 30 minutes allocated?

MS. HILTON: Well, if you could do that.

MS. BROWNE: Yes, I'll try to keep it to 20.

MS. HILTON: Okay.

MS. MILLS: The question is how long can -- my understanding was that the state employees had some prior engagements, that some people needed to leave. Is that true? I mean, how long are you guys available?

MR. STEARNS: I had a previous engagement, so that was --.

MS. MILLS: Well, we have -- I mean, the time that's been allocated is 30 minutes for TransCanada, 25 for consolidated parties.

EXAMINATION OF ALAN STEARNS

BY MS. BROWNE:

Q Mr. Stearns, just a few questions. And I don't mean any disrespect by this, but you're not a -- you don't consider yourself a visual expert, do you?

A Page 1 in my initial comments, my --

Q I can't hear you.

A -- my answer is, no. Page 1 in my initial comments, no, I am not a visual expert.

Q And you don't think this project will impact BPL's conservation for acquisition priorities or programs, right, in this area? I think that's on Page 6 of your comments.

A Well, frankly, I think that TransCanada has, since my comments, put some money on the table with partners that we've worked with. So I think you're bringing stuff to the table that will impact our conservation strategies and that may be a good thing.

Q Okay. I probably should have said, you don't think it will adversely effect conservation strategy?

A I think at this point -- you know, people aren't going to rally to buy a mountaintop if it's immediately next to wind turbines. The question is, are any people currently rallying for those mountaintops in this particular region? And the answer is no.

So, no, there isn't a lot of conservation activity in that immediate vicinity. So, no, it's hard to negatively impact it if it currently is not actively organized.

Q And I just -- I think on Page 5 of your comments -- and just to be clear for the Commission, BPL does not oppose the Kibby Expansion, correct?

A I have been very careful not to say that I find that there is an unreasonable adverse impact. I have said that I think that that was a very difficult question for the Commission to answer, God bless them, they get paid so much.

Q And is it fair to say that the real thrust of your comments address your desire to shape future policy in this area?

A Correct. And I think the one area that we haven't spent much time talking about tonight is tangible benefits. Since my comments, TransCanada has put some additional tangible benefits on the table. And that is something that I flagged in my comments predicting that would happen. That seems to be what happens when applicants start putting tangible benefits on the table. Sure enough, that's what's happening and at some point we should discuss some of those conservation-oriented tangible benefits and look for the Commission's response on how they view the structure of the -- of the offer.

MS. BROWNE: Thank you. And in the interest of time, I'm going to move on to Mr. Palmer, some questions on your -- your report that you've done.

EXAMINATION OF JAMES PALMER

BY MS. BROWNE:

Q Just a --a technical matter, you assumed a turbine height of 90 meters or 2 -- 295 feet. In fact, the turbine hubs are 80 meters, 262 feet. And I assume the mistake is because there was a typo in Ms. Vissering's report.

But you would agree that the substantially lower turbine height than you assumed would impact your evaluation of where the turbines could be seen from, correct?

A Yes.

Q And that might -- in your comments on Page 17 you noted that the turbines appeared to look a little bit shorter in Ms. Vissering's simulations than you would have expected. And, again, that would be explained by your mistaken assumption that the turbine height was 90 meters, correct?
A That's correct. It also explains why I'm adding more vegetation, sort of my perspective in the back --
Q Okay. Thank you. And on the Arnold Trail your understanding is that that was designated primarily for nonscenic reasons, right?
A In my reading of -- of the mountain region form and the battlefield form materials, correct.
Q Yes. And I think that you stated in your report that to describe the Arnold Trail as being experienced as a, quote, vast possible wilderness, close quote, seems to be a bit of a hyperbole, right?
A Yes.
Q I think in terms of technique you identified the view shed -- view shed maps are a tool and are best considered a preliminary analysis of potential visibility, right?
A Absolutely.
Q And that the -- really most important is to have visual simulation so that you can really understand, particularly if you have criteria that are a little bit fuzzy, so the decision-maker can understand what the visual impact of the

project is, right?
A That's right. And so we should be making simulations that at least cover the worst-case situation. And I think that that's been done here.
Q Right. So you agree that Ms. Vissering has really provided the worst-case visual simulations for the Commission to review, right?
A That's right. And there will be places where you can't see them at all.
Q And with respect to those simulations, you agree that they were done appropriately and in accordance with the best professional practices, right?
A Yes. And I observed Dana taking pictures and following field procedures that are at least as good as anything I do.
Q And just so we're clear, because there's been discussion about the number of resources, you agree that the following scenic resources will have no views of the project, Round Pond, Lower Pond, Spencer Stream, Natanis Pond Overlook and the Sarampus Falls rest area, right?
A Yes, Sarampus Falls apparently had views of the existing Kibby, but not the expansion.
Q Okay. And then on your discussion of cumulative impacts, you identify the greatest potential for serious cumulative impacts is on Kibby Stream, right?

A Yeah. And you should underline potential. I agree with that.
Q And I assume you heard Ms. Vissering's presentation and the discussion of the fact that there is -- and you acknowledge that there could be a vegetative buffer along Kibby Stream that would potentially eliminate the cumulative impact concern?
A Yes. But whenever she talks about that, it's clear that there's some places where that doesn't exist and I don't know where that is. So I would have to go look, but it's not going to be extensive.
Q Okay. So you'd agree that cumulative impact from Kibby Stream is not a significant concern?
A Only because I don't think that there's going to be very much visibility from Kibby Stream and I don't know where the visibility will actually occur because you have to get out there and look.
Q Which Ms. Vissering has done?
A Actually, has she really walked that whole stretch?
Q Well, I think she's looked at aerial photographs which give an indication of where there's vegetation.
A Right. And so there's -- and when she presents this information, she says that there's some places where you may be able to see it, they're just not very big. And I don't -- I don't get the sense that she's been there. I

know I have not been there, so --.
Q Well, you went to the one area she identified, which was the cleared opening that has a gravel pit and a parking logging area, right?
A That's correct, yes.
Q And that doesn't raise cumulative impact concerns to you, does it?
A No. And I would agree that, you know, as far as the stream goes, that's one of the least scenic potential areas, right.
Q Okay. And then also on cumulative impacts, you -- in your comments you -- you reference some work that you've done and the suggestion that the first impact is the most significant and subsequent additions contribute to overall scenic impact, but never as much as the first impact, right?
A Within a particular view, yes, that's -- that's accurate.
Q Okay. And that your -- the implication for wind power was it's concentrating wind energy development -- development may have a lower overall impact on the state and distributing it throughout the state, right?
A Yes, I'm very confident that that's accurate.
Q And that once an area is deemed appropriate for wind development -- and this is quoting from your report at Page 20 -- then it makes the most sense to fully develop its

potential rather than to move onto another area, right?
A That's -- that would be my judgment, that it makes more sense to fully develop one area once we've really looked at what the impact to that area is going to be rather than develop half of it and then half develop another area somewhere else in the state.

But the difficulty, though, is we never did the build-out analysis here. What we're doing is making this decision one piece at a time and we know there's more potential here -- or we know you think there's more potential here because you're asking to expand the expedited zone.

MS. BROWNE: Thank you. I appreciate that.

EXAMINATION OF JAY CLEMENT

BY MS. BROWNE:

Q Mr. Clement, just a couple of questions for you. You referenced another wind power project that had a finding of adversity, they worked out mitigation and your understanding is that project was permitted both by the state and the Army Corps, right?

A I did not say that. I said that an adverse impact had been identified and I wasn't clear, but the Corps and MHPC and applicant are work on mitigation. We do have another example out there that is more in line with what you just suggested and that's the Record Hill project where a

potential adverse impact -- or an adverse impact was noted to two properties that were potentially eligible for listing or eligible for listing on the historic register.

There, again, we put together mitigation, put together a memorandum of agreement to commemorate that mitigation and ultimately the permit was issued with a condition that they implement the various provisions of the MOA and -- but the -- the Oakfield permit has not been issued yet.

Q The state permit has, though, right?

A Yes, that's correct.

Q So just so the Commission appreciates that the finding of adversity under the Federal Review Program, which is what we're talking about, is not a determination a project should not proceed, but, as I think that you've characterized it, it's to go to the next step to work out appropriate mitigation?

A Correct.

Q And which happens in many projects in the state of Maine?

A Correct.

MS. BROWNE: Okay. Thank you. Mr. Cordes, a few questions either for you or Mr. Timpano, I'm not sure which.

EXAMINATION OF BOB CORDES

BY MS. BROWNE:

Q In follow-up on Commissioner Kurtz' question about

shouldn't we be concerned about nonjurisdictional vernal pools, in fact the applicant here is meeting the standards for these nonjurisdictional vernal pools as if they were jurisdictional significant vernal pools, correct?

A Correct.

Q And we heard testimony earlier today about Bicknell's Thrush. And I just want to get your feedback on -- there was a question about the scope of the preconstruction surveys that had been done. And my understanding is that I F & W feels that they used appropriate scope and methodology, right?

A Yeah, that's correct.

Q Okay. And that species was -- in 2007 the state went through a process of reviewing whether to add the Bicknell's Thrush to -- as a listed species, right?

A Say that again.

Q In 2007 didn't I F & W evaluate whether to add the Bicknell's to the list of the state listed threatened or endangered species?

A In 2007 there was an update to the endangered species list.

Q And the state didn't add the Bicknell's Thrush at that time, right?

A No.

Q Okay. Just give me one minute so I can be focused.

Also on the Bicknell's, I think that you've seen what

the determinations are with respect to impact to the habitat that would result from the project. And is it your opinion that the impact will put the species at risk in the state of Maine, the impact of the habitat that's proposed as part of this project?

A I would say that, you know, we had our initial concerns with that Turbine 11 and now that that Turbine 11 has been moved outside the core area, on the fringe of that, occupied habitat won't find any unreasonable impact.

MS. BROWNE: Thank you.

MS. HILTON: Thank you. The consolidated parties, I believe, are next.

MS. GRAY: Since we left off with Mr. Cordes and Mr. Timpano, I will just follow along that line.

EXAMINATION OF BOB CORDES

BY MS. GRAY:

Q In I F & W's comments submitted on March 3rd you indicated that your greatest concern was for Turbine 11, but you also identified four additional turbines that you had some concerns about.

Could you -- you didn't describe what those concerns were. I wonder if you could do that at this time.

A Well, I think those -- those other -- all those turbines were located within Bicknell's Thrush habitat. So there would be direct habitat loss impacts from that. But that

Turbine 11 was our greatest concern because it would bisect that occupied habitat.

Q So in addition to the direct habitat loss caused by the project, will there be edge effects or habitat degradation along the edge of the road -- of both the turbine road and the paths?

A Is your question will there be effects?

Q Yes.

A Sure.

Q That will degrade the habitat in addition to the direct impacts?

A At some level, sure.

MS. GRAY: Thank you.

DR. PUBLICOVER: Dave Publicover again for the Appalachian Mountain Club. I have a few questions for Ms. Docherty.

EXAMINATION OF HOLLY DOCHERTY

BY DR. PUBLICOVER:

Q You stated in previous questioning that this project would have an adverse impact on the community, but you left it to the Commission to determine whether it goes to the level of adverse.

A Unreasonable.

Q Unreasonable. Undue unreasonable. But it would be fair to say that this -- the level of impact created by this

project would certainly not be considered minimal?
A Yes.
Q Okay. Now, assume you -- Dillon is going to give you a map. This is the map that was attached to the pre-filed testimony of Don Hudson. We've seen this several times.

In both the comments submitted by the Natural Areas Program and on this map there was an assumption of essentially an edge effect area. And you used 50 feet to determine the indirect impact area.

Your -- the Natural Areas Program is a partner -- Beginning With Habitat Partnership, correct?
A That's correct.
Q And that partnership was developed and used by towns and other folks of particular wildlife habitat features and values, I believe, in the organized parts of the state?
A Yes, that's correct.
Q And one of those maps that's provided is undeveloped habitat blocks. Isn't it true in -- in developing those maps, the Beginning With Habitat Program uses a minimum buffer of 250 feet around the roads?
A Yes, it does.
Q All right. So it's fair to say that the -- the 50-foot impact area -- indirect impact area is fairly conservative in terms of estimating potential edge effects?
A It is conservative. Beginning With Habitat right now on

the Kibby committee is actually starting to try to -- has modeling projects going where they're trying to model the different roads differently in terms of impacts. So 50 feet would probably be a minimum.

Q Okay. So there's potential that the actual indirect impact area as shown on this map is even a bit greater than the 102 acres?

A Yes.

Q But even assuming that, that comes to approximately --. Okay.

Looking at this map again, in your comments on the project application, the Natural Areas Program requested that Turbine 11 be removed because it fragments the remaining core of the northern portion of Fir-Heart-Leaved Birch subalpine forest into two smaller areas. And the applicant has done that.

Looking at the map, doesn't the road to the southern most four turbines and, say, Turbine 14 have a similar impact in terms of breaking this community into two smaller patches?

A It does.

Q Okay. Now your comments also express concern about fragmentation of this community stating: Clearing will also create unnatural edges within the natural community that will alter the habitat immediately adjacent expected

impacts to the edge including increased light and wind that will likely change the habitat by removing moisture and damaging trees.

Again, looking at this map and looking at the road between, say, Turbine 11 and Turbine 14 and, actually, even further north, this road pretty much runs -- the edge -- it will create a long -- a long edge along the -- the western side of that 73 contiguous acres. But mostly that edge is exposed to the west and the southwest, correct?

A Correct.

Q All right. So it would be exposed, essentially, to the strongest sunlight of the day, the afternoon sunlight when the sun is in the southwest?

A Yes.

Q It would also be exposed to the strongest prevailing winds which are primarily from the west?

A I'm not sure where the prevailing winds are from.

Q Okay. Well, I've looked through those diagrams from the Kibby project and it's pretty much the west -- west to northwest.

And also, again, since this -- since this road is on the upper part of a fairly steep west facing slope, any screening from the other side of the road is going to be downhill. So there's not much to block the wind hitting that edge, correct?

A Feasibly, yes.
Q So would -- would you say the orientation of this road creates, essentially, a worst-case scenario for its effects into the interior of that community?
A I don't know if I would -- I'm not going to conclude that because I don't know what the alternative road would be. It would easier for me to do a comparison, but I can't say this is definitely the worst-case scenario of a road up on a mountain.
Q But the edge effects on the western side of that 72 contiguous acres are certainly worse with this than if the road were oriented, say, east to west, perhaps?
A But if it were oriented east to west, then it would be bisecting the community which would create interior -- you know, eliminate the interior biodiversity.

DR. PUBLICOVER: All right. Fair enough. No further questions.

MS. JOHNSON: I just have a couple questions for Alan Stearns.

EXAMINATION OF ALAN STEARNS

BY MS. JOHNSON:
Q Mr. Stearns, as deputy director at the Bureau of Parks and Lands, are you familiar with BPL's process for developing management plans?
A Yes.

Q And in the past BPL used to prepare what they called pre-planned documents before beginning to prepare an actual management plan; is that correct?
A Correct.
Q BPL no longer prepares pre-planned documents, do they?
A Correct.
Q Why not?
A I guess I don't want to answer that to the extent that my familiarity with the planning process isn't that intimate. I did -- Kathy Eickenberg, who is our chief of planning, did prepare an analysis based on some of the other comments in the record just about our management planning process and different staff roles and responsibilities and conclusions in that.

I think one -- so -- so I would rather -- you know, if I were to answer some of this, I would just be reading verbatim what -- from what I asked her to write. I think one of the important things, though -- and this isn't where you were going -- I don't want our management planning process for our lands to be a primary reason to extrapolate on the private land next door. When we prepare these plans, we are not planning for it to be a regional planning document, rather, a planning document for our lands.

So I was -- I think it's a bit unfortunate that the applicant put a bunch of stuff into the record trying to do

that extrapolation. I mean, in fact, I think the extrapolation would work against the applicant because I don't -- I don't think the applicant's testimony was -- was the same as -- as what Cathy Ikenberg has laid out.

But I just -- I'm really careful that we do these management plans all the time and I don't want to have private landowners showing up thinking that our visual assessment of our land will be used against them as abutters, so --. That wasn't where you were going, but --.

Q That's okay. That's good.

A I don't know -- since I referenced this, I made 40, 50 copies. I don't know -- I can send it electronically to Marcia in the morning or just leave copies here if anybody wants them, Cathy Ikenberg's memo.

Q Okay. I just have one other question. Are you familiar with the High Peaks Alliance, the group that TransCanada is proposing to --

A I am.

Q They're not a nongovernmental 5013C organization, are they, they're more of an informal group of folks?

A I saw the offer of tangible benefits to the High Peak Alliance. I work with them frequently and have a lot of respect for them. Just as I was coming in today, I asked -- and I understand they will be testifying later -- that they may now have corporate status and they may be looking

for nonprofit status, but I think of them as a very effective advocacy group and a very effective partner, as I had previously understood them, as an informal coalition.

It raises the issue on tangible benefits of, how do you want to spend your money? I think that it is the Commission's responsibility to direct the extent and the nature of these tangible benefits. You may or may not disagree with that being within your purview. So one question is, how much money, and then to whom and for what purposes?

I think the High Peaks Alliance is working with the bureau and with others on some very exciting projects, but I -- you know, again, going back to the Plum Creek days, the issue of the credibility of the beneficiary of conservation funding was a heated discussion from this Commission. And I would expect you to have concerns about giving conservation money to an entity that has not yet convinced the IRS that they're charitable.

Regulatory exactions as the first deposit in a nonprofit's bank account is an interesting thing. That being said -- and I emphasize, again, the High Peaks Alliance is part of the balance of the western mountains that we are building. And -- and I think that their ideas for the money are probably identical to those of many other conservation groups in the region. But you're -- if money

is flying around, I think you, as a Commission, would like to know that it's going to be well spent.

MS. JOHNSON: Thank you very much. I think we're done with our cross-examination.

MS. HILTON: Good. Thank you. Friends of the Boundary Mountains.

MR. WEINGARTEN: Thank you. I would like to start off with some questions for Bob Cordes or Mr. Timpano.

EXAMINATION OF MR. TIMPANO

BY MR. WEINGARTEN:

Q I would like to go back to our friend the vernal pools for a minute, please. Can you explain to me, when a developer comes to you and says that they're going to build a development in an area that might be forested and there might be vernal pools there and they go on a survey to find vernal pools, what is the purpose of that survey? What's the purpose of it? Can you explain that to me?

A The purpose would be to ascertain whether or not there were actually any vernal pools, and if the survey is done at the appropriate season of the year, to determine whether or not those pools are used by breeding amphibians and how many -- whether it becomes a significant vernal pool or not. Does that help?

Q Yes, that's -- that's very helpful. So I assume the reason they want to identify the pools is to avoid them in their

construction or forestry operations; is that correct?
A If they did not do the survey and then at some later point vernal pools were identified and they had not avoided them, then that would cause all kinds of problems with its continuing development.
Q So if you do not do the survey in the time of the year that's called for when the -- when the species are breeding, can you possibly miss vernal pools, miss -- miss finding them?
A You mean just plain not discover any evidence of vernal pools at all?
Q That's my question, yes.

EXAMINATION OF BOB CORDES

A I don't know if you can answer that directly, but, you know, during that time that they're doing vernal pool surveys, they're also identifying wetlands. So those vernal pools will have wetland characteristics. It's not necessarily just a --
Q But it's --
A -- the evidence of those amphibians, those breeding amphibians.
Q If they don't do the survey or look for vernal pools specifically during that season of the year when it's prime to do it, is there an opportunity to miss vernal pools completely?

A It would be identified as a wetland.
Q Was a comprehensive vernal pool survey done for this project?
A Yes, we believe so.
Q Even though it was not done at the right time of year?
A Yes.
Q So why does it matter if they do it in the right time of the year if you're saying that they'll always identifying something because there will be a wetland? I don't see -- why is there a protocol that says to do it in the spring if you can always identify them and be sure that you can have them and no construction will ever interfere with them?
A The survey protocol that we approve allows for surveys outside of that window and identify potential vernal pools. And that survey window is to identify significance. So they could identify in that window several vernal pools that don't meet the level of significance --
Q Right.
A -- and still would not be regulated by us.
Q Could they miss -- but if they don't do it during the window, can they miss significant vernal pools?
A I guess that's out of my expertise and I would rely on our specialist in Bangor to answer that.

MR. WEINGARTEN: Thank you very much for your specialist in Bangor. I would like to ask a question of

Mr. Stearns, please.

EXAMINATION OF ALAN STEARNS

BY MR. WEINGARTEN:

Q Are you familiar with the Friends of the Boundary Mountains before this particular project and possibly becoming intervenors?

A I've read the newspapers, that might be the extent.

Q Are you familiar -- I assume you might be -- with Mr. Ralph Knowles?

A Ralph is my predecessor at the bureau.

Q Were you advised by Mr. Knowles that Friends of the Boundary Mountains had submitted an extensive conservation plan for the Boundary Mountains during his tenure in the Bureau of Parks and Lands?

A Not aware. I think that gets to the issue of conservation partners. And, again, I think -- I think it's exciting when conservationists deliver results and have a track record of acquisition. So I'm not -- I guess my question back to you is, has the Friends of Boundary Mountains conserved any land?

Q Well, we're too busy trying to save it from industrialization. But I heard you say that there was no interest in conservation of the Boundary Mountains.

A I certainly did not say that there was no interest in conservation --

Q I thought that's what I heard you say.
A -- of the Boundary Mountains.
Q Can I ask another question? In your statement you said that -- that this project presents a collision of four scenic elements of state significance and you name those four. My question is, if there's four scenic elements of state significance in this project, why is it so hard to say that this project does not meet the level that it should meet in terms of protecting the scenic resources?
A I think that Mr. Palmer outlined most clearly the lack of precedent on some of the terminology that we're using. So -- so that is one issue. I think we have, essentially, a new law and certainly, in my view, the most tangible application of being new scenic standards. So I think we are targeting to a certain extent new ground. You may -- you all have -- you on the Commission have been through more application reviews than I have.
Q But, sir, are you aware that there is a project right now in front of LURC that despite maybe the haziness of the law that LURC has to make a decision on this particular application and, therefore, everyone has to take a position on this application?
A And I think the one thing -- and I got to this earlier in terms of the back and forth especially on the Arnold Trail in my comments. I've found it hard to distinguish the

Arnold Trail from the Chain of Ponds or distinguish the Arnold Trail from the bureau's ownership because they are so overlapping.

I think one thing I heard, you know, listening to Jim Palmer's comments, I just -- I'm looking at a May 6 memo from the Historic Preservation Commission, very recent. I, again, haven't had a chance to -- this is what I would want for you to have, but the Maine Historic Preservation Commission is going beyond the 1969 nomination, Maine Historic Preservation is saying that federal guidance has evolved since --

Q I'm not sure -- I'm not sure you're answering my question, sir.

A And -- and I think I'm helping you -- trying to help you by saying that the most recent memo from the Maine Historic Preservation Commission says that the mountains, water, landscapes, quote, are among the most important aspects of integrity the Arnold Trail possess.

There was earlier discussion of the -- Mr. Palmer agreeing with a hyperbole of the term vast possible wilderness, but I'm looking at a document paid for and produced and proudly by TransCanada where Chain of Ponds is described as stunning scenery and, if I recall, the best -- let me see this. The most pristine, rugged and beautiful wilderness remaining along the expedition's march route.

So Chain of Ponds is singled out by this document as the most pristine, rugged and beautiful wilderness along the route.

So I don't think -- you know, I think we're getting into a position of saying, not significant, significant, almost yelling at each other in terms of hyperbole or not hyperbole. The simple fact is the Arnold Trail, the Chain of Ponds it's beautiful, it's wonderful, we're struggling with it, we're not all wrong, we're not all right. And it's -- it's an absolutely wonderful place in the face of Maine and we all struggle to come to a conclusion and I don't claim to have the answer.

MR. WEINGARTEN: Thank you. Mr. Rocque, I have a few questions I would like to ask you.

EXAMINATION OF DAVE ROCQUE

BY MR. WEINGARTEN:

Q In your comments did you suggest that the blasted rock is a good method of building roads?

A Yes.

Q And how will the unleashing of this blasted rock effect downstream ecology?

A That's -- as far as I know from the geologist -- I'm not a geologist, but if the rock has acid in it, then there are mitigation measures. The blasted rock they're using is tested to not have a -- an effect on the ph, so, therefore,

it should not have an impact on the ecology.
Q And that's the case where all the rock will be blasted in this project?
A They are supposed to test -- they don't know for sure yet, but if they find acid rock, that's not to be used in the roads for road building material or it's going to be mitigated, from what I gather. That was -- in my comments I had raised a concern about how that proposal was going to be taking place. But what I would prefer to see is that the only rock used to build roads would be rock that does not affect the ph of the water.
Q So if they encounter rock that does affect the ph, you would not recommend using that rock; is that correct?
A That's correct.
Q Thank you. You also -- I want to ask you if you had suggested that the toolbox approach is a good construction in mountain areas?
A Yes.
Q And --
MS. HILTON: Can I just mention you're over your ten minutes. So if you could --
MR. WEINGARTEN: Can I have a few more minutes?
MS. HILTON: I think it would be good if you wrap things up.
BY MR. WEINGARTEN:

Q If I could ask Mr. Rocque one final question. How sure are you that these -- that the toolbox construction method will not have future adverse impacts?

A I guess there are very few things in this world that we are absolutely positively sure of, but from what I've seen of the three projects that have been built so far, plus a number of other projects that are not high mountain, but they're in higher elevation areas, the techniques appear to work quite well and I have not seen any other kinds of alterations that standard construction oftentimes results in.

MR. WEINGARTEN: I see. Mr. Clement, if I could ask you a question.

EXAMINATION OF JAY CLEMENT

BY MR. WEINGARTEN:

Q Do I gather from your comments that the Army Corps does not differentiate between manmade or natural vernal pools?

A Well, I did not make any comments relative to vernal pools, but I F & W did mention something to that effect. So the answer to your question is, yes, we do not make any distinction or, no, we don't make any distinction.

Q You don't make any distinction?

A That is correct.

MS. HILTON: Thank you. Okay. We're going to -- sorry, but you got some time there that you didn't ask for

up front.

Okay. What I'd like to do is take a recess. Actually, the public hearing starts at 6 o'clock and then as soon as we finish that, we're going to go back and pick up on where we left off.

(Whereupon a recess was held at 5:46 p.m., and the hearing was resumed at 6:15 p.m. this date.)

MS. HILTON: What I would like to do first is finish up from this afternoon. It's only going to take a few minutes, so we're going to do this. So if we could have Friends of the Boundary Mountain. Are you folks all set? TransCanada has waived their cross-examination, which means that there's no redirect. And I don't know whether commissioners have any questions for you at this point or not.

MS. KURTZ: I just have one.

MS. HILTON: Okay.

MS. KURTZ: This is for Diane -- is it -- Boretos.

MS. BORETOS: That's correct.

Ms. KURTZ: We had a discussion prior to dinner about vernal pools and I understand that the state has to attend certain regulations and in terms of what they can evaluate or what's significant and what is not. And I understand they're tied to those regulations.

But in your mind, the vernal pool assessments that have

been done, do they -- because some of them, I think -- and I am not sure that I understand what Juliet had said. Does the assessment paint an accurate picture of the potential impacts, in your mind, of whether -- because it was done later in the season or -- some of them --

MS. BORETOS: The short answer is, no, it doesn't. And I'll explain to you why. One of the main reasons vernal pools are ecologically significant is they're breeding -- they are breeding areas for Amstoid salamanders, spotted and blue salamanders, as well as wood frogs and Eubranchipus, which is a fairy shrimp. These guys don't breed anywhere else but vernal pools. And oftentimes with the spotted salamander they will only go back to the pool in which they hatch. If that pool is destroyed, those individuals may very well not reproduce.

The other part of the significance of vernal pools is they are the supermarket for upland species. The numbers of animals that hatch out in vernal pools and then leave the pool, go into the uplands and they feed upland animals. Everything from ravens to mink to otter to raccoons, long tail weasel. They are a very, very significant ecological resource.

And this -- what the applicant did was not look for vernal pools during the spring season in which one can find the egg masses of wood frog, the spotted salamander or the

invertebrate Eubranchipus fairy shrimp. Those species weren't -- those egg masses and that one species of fairy shrimp was not in the field at the time that they did their surveys.

And in my testimony I have attached the proper time in which -- this is the Inland Fish & Wildlife regulations 335 -- have asked people to do the surveys for the egg masses. And for northern -- this part of the state is considered northern, the wood frog, the survey should be conducted for the wood frog egg masses from May 5th to May 20th; for the salamanders it should be from May 15th to June 5th. That window is gone again.

So even though they identify, quote, some -- some -- and I underline some -- some of the potential vernal pools, you can have a vernal pool that has -- its an open area in which evaporation occurs faster. And so these animals are incredible. The wood frog and the spotted salamander will increase their development and they leave the pool sooner.

So coming back in July, coming back in August and September, you may very well not see those two species or the fairy shrimp.

So that's why I believe this was a grossly inadequate survey of potentially significant ecological areas. When I look at the map, I look at the wetland types there, those animals -- those species that they found in those, quote,

manmade pools, they had to have come from a nearby real natural pool.

MS. KURTZ: So I think there -- I'm trying to think this through. I think there are two issues here. One is that the vernal pool, as I understand it, is a temporary thing, they don't last for every.

MS. BORETOS: Some of them are a femoral.

MS. KURTZ: So you may -- so if you wait until the later part of the year, you're going to miss something, so you won't be able to avoid impacts to them.

MS. BORETOS: Absolutely.

MS. KURTZ: But that is also -- I think, if I understood this correctly, there's no way to evaluate the number of species and the types of species if you're not there when they're breeding and hatching out. Is that -- have I --

MS. BORETOS: For the -- that's exactly correct.

MS. KURTZ: There's two reasons to be doing this.

MS. BORETOS: For the wood frog and the spotted salamander, the criteria for it to become a significant vernal pool is that you have to have a certain number of egg masses. If you do it in the fall, if you're looking at -- at vernal pools in terms of significance in the fall, you have to find rare species. And let me tell you, it's much more easier to count egg masses than it is to find,

you know, a rare salamander underneath some -- some duff.

And the statement that was made by the Inland -- one of the Inland Fish & Wildlife people about, well, we can -- someone can identify the potential vernal pools by wetlands is not true. Vernal pools can be a femoral -- a femoral pond, temporary pond that are only -- they don't have wetland vegetation. So looking at just wetland types does not necessarily mean that you have identified the vernal pools on site.

MS. HILTON: Anything else? Anybody else have anything? We're finished. Thank you. Thank you very much. That concludes our technical session. For those of you who aren't sure what's going on because you just arrived for the public session, we're finishing out the day's technical session. So I have a closing statement for that.

I wish to remind everyone that the record of this hearing will remain open for a period of ten days until Monday, May 24th, to receive written statements from interested persons and for an additional seven days until Tuesday, June 1st to receive written statements filed in rebuttal of those filed during the previous ten-day period.

No additional evidence or testimony will be allowed into the record after the closing of the record. There will now -- let's see. So we're now going to open up the

public hearing. Yes.

MR. WEINGARTEN: I would like to ask for a clarification. The period of rebuttal --

PARTICIPANT: You need a mic.

MR. WEINGARTEN: Madam Chairman, the period of rebuttal that's allowed after the record closes, that is only for comments that are received from tomorrow through the 24th; is that correct?

MS. MILLS: There's a general -- what Gwen just stated was that there's a comment period that the record remains open for until May 24th. And then there's an additional rebuttal period, yes, to respond to additional comments that come in.

MR. WEINGARTEN: Is there a rebuttal period for testimony that was delivered today?

MS. MILLS: Responses to things that have gone into the record today, yes, can come in until May 24th.

MR. WEINGARTEN: Until May 24th. Thank you very much.

MS. HILTON: All right. We'll now open up the public session.

(Concluded this portion of the hearing at 6:52 p.m. this date.)

CERTIFICATE

I, Angella D. Clukey, a Notary Public in and for the State of Maine, hereby certify that on May 12, 2010, a hearing was held regarding Development Permit DP 4860; and that this hearing was stenographically reported by me and later reduced to typewritten form with the aid of computer-aided transcription; and the foregoing is a full and true record of the testimony given by the witnesses.

I further certify that I am a disinterested person in the event or outcome of the above-named cause of action.

IN WITNESS WHEREOF, I subscribe my hand and affix my seal this 19th day of May, 2010.

_____
ANGELLA D. CLUKEY, NOTARY PUBLIC
Court Reporter

My commission expires: March 17, 2017

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