**#20180006 Kennebunk River Watershed-Based Plan Development Project**

York County Soil & Water Conservation District

1. **Watershed Information:**

**a. Background**

|  |  |
| --- | --- |
| Waterbody Name | Kennebunk River |
| Waterbody Size | 18 miles (main stem), 154 miles (perennial & intermittent tributaries) |
| Watershed Area | 59 square miles |
| Watershed Town(s) | Alfred (4%), Arundel (29%), Biddeford (<1%), Kennebunk (26%), Kennebunkport (6%), and Lyman (35%) |
| Comprehensive Plan Adoption | Alfred (expired), Arundel (consistent), Biddeford (expired), Kennebunk (expired), Kennebunkport (consistent), Lyman (inconsistent) |

1. **Waterbody and Watershed Physical Characteristics**

The Kennebunk River Watershed drains an area of 59 sq. mi. across 6 towns in York County. The River’s headwaters originate in Kennebunk Pond in Lyman where the pond’s eastern outlet (Lords Brook) converges with Carlisle Brook to form the Kennebunk River. In the upper reaches of the watershed the landscape is sparsely developed consisting mainly of mixed forest and agricultural lands. The river flows south through the towns of Arundel and Kennebunk where the landscape bordering the main stem of the River is characterized by heavy agricultural use with development increasing as the river nears the coast. Before discharging into the Atlantic Ocean at the eastern end of Gooch’s Beach, the river opens to create a wide tidal estuary and enters an area of high density development. The watershed contains the subdrainages of Kennebunk Pond and Alewife Pond among dozens of smaller ponds and wetlands. Major tributaries include Lords Brook, Ward Brook, Carlisle Brook, Duck Brook, Goff Mill Brook, Sunken Branch Brook, and the West Outlet.

1. **Description of Waterbody Uses and Value**

The Kennebunk River provides many uses including fishing, swimming, kayaking, and boating. Freshwater portions (upstream of Punky Swamp and all tributaries) sustain wild Brook and Brown Trout habitat. Striped Bass is popularly fished below head-of-tide and brings many anglers to the river each year. The tidal portion of the river, south of the Route 9 bridge, is a popular cruising destination and home to 13 marinas providing over 300 slips and 360’ of linear dock space open to recreational and commercial vessels. The Kennebunk’s are largely sustained by the tourism industry and dependent on a healthy river system. Restaurants, hotels, and event venues benefit from the rivers scenic and aesthetic qualities. Charter and commercial fishing vessels depend on the quality of the water and the health of the river’s fisheries.

Gooch’s Beach is a valuable recreational resource offering opportunities for swimming, surfing, sunbathing, kayaking, and paddle-boarding. The Kennebunk River estuary and inland marsh provide significant habitat for the Saltmarsh Sparrow, a rare species only found in 27 sites along the southern and mid-coast regions. The marsh also supports rare plant communities of Saltmarsh false-foxglove. The watershed surrounding Carlisle Brook includes parts of the USDA Massabesic Experimental Forest and is home to several rare species, White Cedar swamp communities, inland water fowl wading habitat, and large areas of deer wintering habitat. The Alewife Pond and Ward Brook watersheds are also home to significant wader and deer wintering habitats.

In addition to the direct recreational uses of the River, a network of trail systems, including the Eastern Trail (ET), are located within the Kennebunk River Watershed. The ET is a 65-mile scenic recreational greenway connecting Strawberry Banke in Portsmouth, NH to Casco Bay in South Portland, ME. The ET is part of the East Coast Greenway, a developing trail system that will ultimately connect 2,900 miles of trails between Calais, Maine and Key West, Florida. The Kennebunk River, Ward Brook, and Duck Brook intersect the ET at five locations.

While surface waters are of concern, there are also public water supply sources within the Kennebunk River Watershed. This includes residential private wells, and the KKW Water District’s Kennebunk River Well which yields an estimated 25% of the water supply for this service area.

1. **NPS Pollution Problem / Need:**
	1. **Water Quality Listing**

|  |  |
| --- | --- |
| Is water quality listed as impaired? | Yes  |
| If impaired, what is the listed cause(s) and/or impaired use? | Elevated Indicator Bacteria, Aquatic Life Use |
| Name & date of any DEP TMDL report(s) for the waterbody: | -ME Statewide Bacteria TMDL, 09/2009  (Kennebunk River)-ME Statewide Bacteria TMDL Freshwater Addendum,  08/2014 (Duck Brook) |

* 1. **Water Quality Overview**

The freshwater portions of the Kennebunk River are classified as Class B. Below head of tide, the river is classified as Class SB. ME DEP has conducted biological monitoring in the river since 1995 and results at monitoring station S-270 show attainment in 1995, 2000 and 2010; meeting class B standards. However, in 2005 and 2015 results show the river attaining only class C standards. The Kennebunk River (segment ME0106000301\_622R04) is currently listed under Category 3 in the *2016 Integrated Water Quality Monitoring and Assessment Report* for streams and rivers with insignificant data or information to determine if designated uses are attained. However, this segment will likely be listed as impaired for aquatic life use (macroinvertebrates and algae bioassessments) in the next Integrated Report (2018).

The *2016 Integrated Report* also lists the Kennebunk River (segment ME0106000301\_622R01) and one of its tributaries, Duck Brook, as impaired under Category 4A – for Escherichia coli (E. coli) bacteria non-attainment. The Kennebunk River is included in the 2009 *Maine Statewide Bacteria TMDL*. Duck Brook (segment ME0106000301\_622R03) is included in the *Maine Statewide Bacteria TMDL 2014 Freshwater Addendum.*

Wells National Estuarine Research Reserve (WNERR) and volunteer water quality monitors have monitored the Kennebunk River since 2009. Data show increasing bacteria trends across all sampling locations. Until 2017, the monitoring program included 6 monitoring stations on the main stem of the river. In 2017, 5 new locations were added near the outlet of each major tributary and at the outlet of Kennebunk Pond. 2017 monitoring results at all freshwater tributaries and mainstem sites exceeded the geometric mean criterion of 64 MPN/100 ml for E. coli, except for one site at the outlet of Kennebunk Pond. All mainstem tidal sites also exceeded the geometric mean criterion for Enterococci of 8 MPN/100 ml.

Maine Healthy Beaches (MHB) has monitored Gooch’s Beach at the outlet of the Kennebunk River since 2003. MHB data reveal that Gooch’s Beach has had 111 beach advisory days, 4 rainfall advisory days, and 4 beach closure days since 2003. In 2007, MHB conducted a study of the *Microbial Pollution Levels and Transport Pathways at the Kennebunk River and Gooch’s Beach* revealing circulation of tidal waters just off shore at Gooch’s Beach brings contaminants and pollutants back into the beach area instead of flushing them away from the coastline and into the Gulf of Maine. This study listed the Kennebunk River as the most likely source of pollution at Gooch’s Beach and recommended an investigation of the Kennebunk River for potential upstream sources of bacteria. In 2011 MHB published the *Kennebunk River Watershed Water Quality Project* Report which provided an in-depth look at the bacteria problems throughout the Kennebunk River watershed and discussed the work by watershed leaders to address bacteria issues between 2007 and 2010.

* 1. **Summary of Past Watershed Assessments and Most Important Nonpoint Sources**
* The Kennebunk River Watershed NPS Survey (supported by EPA Clean Water Act grant funds) identified 88 sites as contributing NPS pollution to the Kennebunk River. Over half of these sites were considered high priority problems (2001).
* Gooch’s Beach Bacteria Monitoring by MHB (2003 – present).
* Intensified monitoring of the Kennebunk River by MHB. This project funded the analysis of 551 bacteria samples collected at 82 different locations throughout the watershed. Results indicate widespread bacterial contamination throughout all sites (2005-2010).
* The Oceanographic and Meteorological Study of Microbial Pollution Levels and Transport Pathways in the Kennebunk River by MHB & Maine Geological Survey. Potential sources of bacteria found in this study include septic systems, stormwater, boats, seaweed, waterfowl and pet waste (2007).
* An Optical brightener (OB) study by MHB and US EPA discretely measured OB concentrations at 82 sites. 42 sites had single sample OB concentrations above 200ug/L and bacteria concentrations exceeding safety limits. Flow-through OB monitoring was also conducted over a 5-day period. Higher concentrations were seen in the upper portions of the survey area (specifically between Durrell’s Bridge and Riverwynde) with decreasing concentrations approaching the coast (2008-2010).
* Kennebunk River Bacteria Monitoring by WNERR (2009 – present).
* A Watershed Risk Analysis by MHB developed a prioritized list of watershed properties to survey for malfunctioning septic systems. MHB and its partners conducted a sanitary survey of 31 properties considered a “tier 1 risk”. 16 properties were marked for follow-up due to surface sewage malfunctions, hydraulic malfunctions, no evidence of a septic system, suspicious drainage pipes, and other unknown malfunctions. Additional survey work is needed to determine the status of the remaining systems that have not been inspected (2009).
* The Statewide Bacteria TMDL for the Kennebunk River indicated that a reduction of 41.6% is needed to meet water quality standards. Recommended mitigation strategies presented in the report include comprehensive analysis of both public and private wastewater systems, sanitary surveys, and public outreach in agricultural areas to reduce fecal contamination of stormwater runoff from livestock, manure storage areas, and fertilized fields, and to keep farm animals away from surface waters (2009).
* The Kennebunk River Road Crossing Survey by WNERR surveyed 83 stream crossings and identified 21 severe fish barriers in the Kennebunk River. Road crossings on the main stem were all found to be adequate for fish passage. Crossings ranked as severe barriers were mostly located in the upper reaches of the watershed and on major tributaries (2010).
* The Kennebunk River Stream Barrier Survey by WNERR surveyed potential fish barriers in the Kennebunk River and 3 other rivers in Southern Maine. 66 potential barriers were documented within the Kennebunk River and its tributaries (2012).
* Duck Brook in Arundel is included in the Statewide Bacteria TMDL Freshwater Addendum and must see a 48% reduction in bacteria load concentrations to achieve attainment and meet the standards for Class B streams. The TMDL report recommends conducting systematic investigations in the areas surrounding contaminated sites to determine and remediate bacteria sources. This includes organizing sanitary surveys in residential and developed areas and assessing the impact of domestic animal waste from properties with livestock (2014).

**d. Description of Watershed Activities to Address NPS Sources**

For almost a decade, WNERR has monitored the Kennebunk River, collecting the vital data necessary to develop water quality trends and determine areas in need of focused effort. In 2017, monitoring locations were added on each tributary to expand the dataset. MHB has done a lot of work within the watershed with the goal of improving the water quality at Gooch’s Beach. In addition to the studies listed above, MHB and the Town of Kennebunk, with help from other local partners, completed a Sanitary Survey of high priority watershed parcels in 2009. The Town of Kennebunk also installed a free pump out barge on a mooring near Arundel Warf. The barge is available for use to all boaters and maintained by the Kennebunk River Committee in hopes to reduce illegal discharges of waste into the Kennebunk River.

Though water quality assessment continues in the Kennebunk River, until recently, it has focused on the main stem. Additionally, little work has been done in terms of land use and hotspot assessment, and in identifying and mitigating potential sources lending to the bacteria impairment. A thorough watershed assessment, and a thoughtful plan, is needed for the Kennebunk River so that stakeholders can begin the process of addressing this environmental problem. There are many key players within this large watershed. A Watershed-Based Management Plan will be a vital step toward meaningful effort by all groups involved. The plan will provide individualized guidance and establish the framework this watershed needs so that each Town and stakeholder group can work together across municipal and political boundaries toward the common goal of watershed restoration.

1. **Purpose:**

The purpose of this project is to develop a Watershed-Based Plan (WBP) for the Kennebunk River that includes EPA’s nine minimum elements of watershed-based plans. The project will collect information about the watershed’s natural resources, and specific NPS and bacteria problems, and will work with the community, town officials and regional partners to develop locally-supported watershed goals, objectives and action strategies for protecting the Kennebunk River and its tributaries. The project will incorporate this information into a formal, yet user-friendly, watershed management plan, which will be used to guide watershed protection, restoration, and enhancement efforts over the next 10 years.

1. **Project Duration:**

Project Start: October 2018

Project Completion: October 2020

1. **General Project Plan:**

The WBP will include the entire Kennebunk River watershed as the water quality impairment is a watershed-wide problem. YCSWCD will manage the overall project (Task 1), will organize and facilitate 3 steering committee (SC) meetings, and 3 Technical Advisory Committee (TAC) meetings (Task 2). The TAC will be comprised of technical partners and will oversee the development of and guide all aspects of the WBP (Task 6). YCSWCD will work with WNERR, who will serve as a subgrantee on the project, to develop a Sampling and Analysis Plan (SAP) (Task 3A). WNERR will coordinate water quality monitoring (Task 3B) and will work with KKW and WNERR summer interns to create an inventory of stormwater outfalls (Task 3C). WNERR will assist with the technical components of the project, support stakeholder engagement and outreach (Task 5 and Task 7) and will coordinate with town planning departments to conduct an ordinance review (Task 4C). YCSWCD will organize and facilitate a watershed survey (Task 4B) and will perform a secondary water quality data review (Task 4A), while WNERR provides QA/QC for this work. YCSWCD will also provide mapping support (Task 4E) and work with the TAC to develop the Watershed Stressor Analysis Summary (Task 4D). WNERR will organize and facilitate the Public Input Session with support from project staff to develop the Watershed Action Plan (Task 5).

YCSWCD will retain a qualified watershed management consultant to develop a draft and final watershed plan that follows the 9 elements required by the US EPA (Task 6), and will retain an additional consultant to provide engineering assistance under Task 4. YCSWCD will use appropriate competitive procurement procedures to secure assistance of qualified consultants. The project consultant will also serve on the SC and the TAC and will provide technical assistance during watershed reconnaissance efforts. YCSWCD and WNERR staff will present the plan to the watershed towns at project completion. Watershed education and outreach needs will be addressed by informing the public about the project and posting project updates on the Town’s websites, the WNERR website, and through press releases (Task 7). This project will be conducted to meet the applicable quality assurance procedures from the Maine Section 319 Nonpoint Source Management Program Quality Assurance Program Plan (ME DEP, 2011)

1. **Tasks, Schedules & Estimated Costs:**

**Task 1 – Project Management**

YCSWCD will administer the project according to the grant agreement with DEP. A sub-agreement between YCSWCD and WNERR will first be provided for DEP review and submitted as a deliverable. Consulting services paid for with grant funds will be arranged and carried out using procurement procedures as described under Section 4 of DEP’s Nonpoint Source Grant Administrative Guidelines and associated contracts will be shared with DEP for review and as project deliverables. The YCSWCD Project Manager will act as Project Coordinator to track progress, expenses, local match, and oversee the completion and submittal of semi-annual progress reports and one final project report.

|  |  |
| --- | --- |
| Start and Completion Dates: | October 2018 – October 2020 |
| Grant Cost: $5,120 | Match Cost: $519 | **Total Cost: $5,639** |
| Grant Budget Category Breakdown: $4,920 (salary/fringe), $200 (supplies) |
| Match Budget Category Breakdown: $519 (in-kind) |

**Task 2 – Steering Committee & Technical Advisory Committee (TAC)**

The Steering Committee (SC) provides general project oversight and will meet at least 3 times throughout the course of the project. The SC will consist of representatives from key watershed stakeholder groups including: YCSWCD, WNERR, the towns of Lyman, Arundel, Kennebunk and Kennebunkport, Kennebunk Pond Association (KPA), ME DEP, KKW, MHB and watershed residents and landowners. As such, YCSWCD and all project partners including citizen volunteers will have important roles in this task. YCSWCD will be responsible for meeting coordination, facilitation and summarization while project partners and citizen volunteers will be responsible for meeting participation and input. YCSWCD will also be responsible for facilitating communications with SC members that occur outside of scheduled meetings and provide the meeting agenda and minutes to members.

The SC will develop a sub-committee known as the Technical Advisory Committee (TAC). The TAC will provide guidance and technical oversight during the development of the key elements of the watershed plan. TAC members are expected to include YCSWCD, WNERR, the project consultant, a representative of the planning and/or engineering department from each watershed municipality, ME DEP, MHB, KKW and any interested landowners or citizens with technical expertise beneficial to project tasks. YCSWCD will organize and facilitate 3 TAC meetings over the course of the project.

|  |  |
| --- | --- |
| Start and Completion Dates: | October 2018 – September 2020 |
| Grant Cost: $5,088 | Match Cost: $2,787 | **Total Cost: $7,875** |
| Grant Budget Category Breakdown: $2,160 (salary/fringe), $900 (contractual), $1,530 (consultant), $300 (supplies), $198 (travel) |
| Match Budget Category Breakdown: $2,787 (in-kind) |

**Task 3 – Water Quality Monitoring**

YCSWCD and WNERR will work together to develop a Sampling and Analysis Plan (Task 3A) for each year’s field work under the guidelines of the approved YCSWCD *Quality Assurance Project Plan for Monitoring Rivers and Stream in Maine* (2017). The SAP will be developed and submitted to Maine DEP for approval. Baseline monitoring of the Kennebunk River will continue outside of this project. As such, this project will fund bracketing efforts (Task 3B) in two Kennebunk River tributaries. Monitoring staff will be responsible for following YCSWCD’s DEP-approved Quality Assurance Project Plan (QAPP) along with the project SAP developed under subtask 3A. A summary of monitoring results will be drafted by WNERR following each field season.

YCSWCD, WNERR, and KKW will coordinate to collect stormwater outfall data (Task 3C). Currently, mapped stormwater infrastructure does not exist in any of the watershed towns. Stormwater being a significant source of bacterial contamination to the river, the project team will work to identify, document, and sample outfalls on the main stem of the river. The focus of this effort will be on the developed portions of the river. Interns will document the location and condition of each outfall, take photographs, and collect a water quality sample to be sent to a local laboratory for bacteria analysis. WNERR interns will complete the survey utilizing ESRI data collection software and tablets provided by KKW’s GIS Coordinator. KKW will provide training and assist with preliminary and post-survey data management for this task. KKW has committed to contributing $5,000 in cash and in-kind match to cover all laboratory costs and to assist with the outfall inventory task.

|  |  |
| --- | --- |
| Start and Completion Dates: | May 2019 – September 2019  |
| Grant Cost: $8,668 | Match Cost: $9,514 | **Total Cost: $18,183** |
| Grant Budget Category Breakdown: $2,640 (salary/fringe), $5,900 (contractual), $128 (travel) |
| Match Budget Category Breakdown: $3,982 (KKW match), $5,532 (volunteer in-kind) |

**Task 4 – Watershed Inventory & Assessment**

In addition to utilizing newly collected water quality data (Task 3), preexisting data (secondary data) will be utilized and included in the watershed plan. YCSWCD and WNERR staff will conduct a review of all preexisting water quality data available for the Kennebunk River and its tributaries (Task 4A). Prior to the water quality analysis, and with assistance from ME DEP, YCSWCD will develop a Secondary Data Quality Assurance Guide to ensure that secondary data are acceptable for use in the analysis and will sufficiently support project recommendations and conclusions. A thorough water quality analysis will then be conducted, and results will be summarized in a report generated by YCSWCD.

The TAC will evaluate water quality data to determine the best approach for assessing potential NPS sources in the watershed. YCSWCD will organize and facilitate a targeted watershed and/or stream corridor survey to create an inventory of potential hotspots contributing to the water quality impairments in the Kennebunk River (Task 4B). This survey will focus on the biggest pollutants of concern for the river (likely bacteria and nutrients) and will follow an abbreviated method and approach that has been utilized in other successful watershed planning projects and follow the guidance provided in Unit 6 of the *ME DEP Stream Survey Manual Vol. 1* for Stream Watershed Surveys. The TAC will help guide the plan for the survey and a Survey Implementation Plan (SIP) will be approved by DEP prior to survey work. The field reconnaissance will include an assessment of all land uses throughout the watershed (agricultural, developed, and residential areas) and will focus on the mainstem, all tributaries, and any predetermined and newly identified hotspots. The survey will address the impact, cost and feasibility of recommended best management practices (both structural and non-structural), and a summary of the survey results will be generated by YCSWCD. YCSWCD will establish an NPS Site Tracker spreadsheet to efficiently accumulate and record information about NPS sites observed during this project to enable continued activity in future years to maintain existing BMPs and address new NPS sites. A thorough local ordinance review will be conducted by town planning departments and coordinated by WNERR (Task 4C).

The deliverables from the above subtasks will be used by the TAC in the watershed stressor analysis and summary (Task 4D). This task also includes a GIS mapping component (Task 4E) providing various customized and thematic watershed maps to summarize survey and stressor analysis findings, aid discussions during SC and TAC meetings, and to ultimately be presented in the watershed plan. This subtask is paid for using a $2,500 cash contribution from the Town of Arundel. Engineering services will be retained following the stressor analysis to provide cost estimates for priority sites. If greater need exists following watershed assessment activities, YCSWCD and DEP may agree to use these funds to retain a stream geomorphologist to provide recommendations at select in-stream locations.

|  |  |
| --- | --- |
| Start and Completion Dates: | November 2018 – May 2020 |
| Grant Cost: $14,239 | Match Cost: $5,635 | **Total Cost: $19,874** |
| Grant Budget Category Breakdown: $6,267 (salary/fringe), $2,600 (contractual), $1,700 (consultant), $3,120 (contractual engineer or geomorphologist), $300 (supplies), $252 (travel) |
| Match Budget Category Breakdown: $2,500 (Town of Arundel cash), 1,018 (KKW cash), $2,117 (volunteer in-kind) |

**Task 5 – Action Plan Development & Public Input Session**

WNERR will take the lead to organize and facilitate a public forum to develop the components of the Watershed Action Plan (Task 5). WNERR and YCSWCD, and the project consultant will co-facilitate the public forum. A presentation will be shown to meeting attendees, action plan items will be brainstormed and then prioritized by the group. This step in the watershed planning process is crucial, as the action items proposed in the management plan will be created and prioritized by watershed stakeholders themselves. This is imperative as plan implementation is most successful when the watershed stakeholders are active participants in the decision-making process. The Action Plan will include prioritized and scheduled action items as well as identify the responsible parties for implementing said action items, available funding strategies, and estimated costs.

|  |  |
| --- | --- |
| Start and Completion Dates: | August 2020 |
| Grant Cost: $4,364 | Match Cost: $1,292 | **Total Cost: $5,656** |
| Grant Budget Category Breakdown: $1,080 (salary/fringe), $2,500 (contractual), $340 (consultant), $400 (supplies), $44 (travel) |
| Match Budget Category Breakdown: $1,292 (volunteer in-kind) |

**Task 6 – Development of Draft and Final Watershed-Based Management Plan**

The project consultant will be responsible for writing a draft and final Watershed Management Plan that clearly lays out a dynamic strategy for river restoration and presents the basis for that strategy over a ten-year period. The plan will guide stakeholders in addressing NPS contamination (specifically bacteria) in the Kennebunk River Watershed and will include the Watershed Action Plan (Task 5). The plan will be developed to meet US EPA’s 9 minimum elements of watershed planning and will include estimated current pollutant loads and the necessary pollutant load reductions needed for the river to comply with ME DEP bacteria standards. Recommendations will include provisions for adaptive management to provide the flexibility needed to ensure efficient and successful plan implementation.

Once the Draft Watershed Management Plan has been completed, it will be reviewed by ME DEP, the project SC and TAC, and any other stakeholder groups or interested parties for refinement and revision. The draft plan will be submitted for DEP and EPA review at least three months prior to the project completion date. DEP and EPA comments need to be addressed for the plan to be accepted. Additionally, the key findings and recommendations from the plan will be presented to the councils and other relevant committees from the watershed community for consideration and feedback. The project consultant will incorporate all relevant comments and suggestions to produce the final version of the Watershed Management Plan. Cash match contributions from the Towns of Kennebunk ($5,000) and Kennebunkport ($3,000) will be utilized for this task.

|  |  |
| --- | --- |
| Start and Completion Dates: | May 2020 – October 2020; Draft WMP September 2019 |
| Grant Cost: $2,710 | Match Cost: $8,000 | **Total Cost: $10,710** |
| Grant Budget Category Breakdown: $480 (salary/fringe), $400 (contractual), $330 (consultant), $1500 (supplies) |
| Match Budget Category Breakdown: $5,000 (Town of Kennebunk), $3,000 (Town of Kennebunkport) |

**Task 7 – Outreach & Education**

In addition to the public engagement outlined in Task 5, project partners will keep the public informed of the grant project through postings on town websites and the WNERR website. Press releases (minimum two per year) will be disbursed to local news outlets, and the project team will host a public presentation to the necessary board and council members in the Towns of Kennebunk, Kennebunkport, Arundel and Lyman at the completion of the project. All press releases, outreach materials, project signs, and plans will acknowledge that the project is funded in part by the United States Environmental Protection Agency under Section 604(b) of the Clean Water Act. EPA’s logo will not be included on materials unless the Grantee receives prior instruction and approval from EPA. Refer to Grant Agreement, Rider A. Section III. F. Acknowledgement.

|  |  |
| --- | --- |
| Start and Completion Dates: | June 2019 – October 2020 |
| Grant Cost: $1,410 | Match Cost: $1,085 | **Total Cost: $2,495** |
| Grant Budget Category Breakdown: $720 (salary/fringe), $600 (contractual), $90 (travel) |
| Match Budget Category Breakdown: $1,085 (in-kind) |

1. **Deliverables**

Two copies of each deliverable will be provided to the DEP Agreement Administrator (AA). The DEP AA will forward a copy of all deliverables to EPA. Each deliverable will be labeled according to procedures described in the DEP Grant Administrative Guidelines ([www.maine.gov/dep/water/grants/319-documents/2016GrantAdminGuidelinesFinal2.docx](http://www.maine.gov/dep/water/grants/319-documents/2016GrantAdminGuidelinesFinal2.docx) ).

1. Progress Reports, Final Project Report, sub-contracts (Task 1)
2. Steering committee and TAC meeting minutes & attendance (Task 2)
3. Annual SAPs, monitoring summary (Task 3)
4. Secondary Data Q.A. Guide, WQ data analysis summary & database, Survey Implementation Plan, watershed reconnaissance inventory tables, NPS Site Tracker, watershed stressor analysis summary (Task 4)
5. Final Watershed Management Plan (Task 6)
6. Four press releases and two web or newspaper articles (Task 7)
.
7. **Interagency Coordination, Roles, and Responsibilities:**
* **York County SWCD** will serve as the project coordinator and be responsible for the coordination and implementation of all project activities.
* **Wells National Estuarine Research Reserve** will lead the monitoring task (Task 3), serve as a key member on the SC and TAC (Task 2), be responsible for ordinance review (Task 4C), assist with watershed reconnaissance efforts (Task 4B), organize and facilitate the public stakeholder forum (Task 5), and present the WBP following completion of the project (Task 7).
* The **Towns of Kennebunk**, **Kennebunkport, Arundel** **and Lyman** will serve as key stakeholders and be active participants on the SC and TAC. Town planning departments will assist in the ordinance review task (Task 4C). Cash contributions total $10,500.
* **Kennebunk, Kennebunkport and Wells Water District** will assist and support the outfall inventory and monitoring task and provide cash match to cover laboratory costs under Task 3. In-kind and cash match contributions across all tasks totals $5,000.
* The **Maine Department of Environmental Protection** will administer project funding, serve as the project advisor, participate on the SC and TAC committee, and provide review and comment on all deliverables.
* **Maine Healthy Beaches (MHB)** will serve as technical expert of the SC and TAC.
* **Natural Resource Conservation Service (NRCS)** will serve as a technical expert on the SC.
* The **US Environmental Protection Agency** will provide project funding through section 604(b) of the Clean Water Act and provide project guidance.
1. **Project Coordinator:**

|  |  |
| --- | --- |
| Name | Whitney Baker |
| Organization | York County Soil & Water Conservation District |
| Mailing Address | 21 Bradeen Street, Suite 104, Springvale, Maine 04083 |
| Telephone Number | 207-324-0888 x208 |
| Email Address | wbaker@yorkswcd.org |
| Federal DUNS # | 969768717 |

**X. Budget Information**

|  |  |
| --- | --- |
| **Federal Funds Section 604(b)** | **$41,600** |
| **Non-Federal Match:** | **$28,832** |
| **Total Cost:** | **$70,432** |

**Part 1. Estimated Personnel Expenses: (Grantee staff only)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Position Name & Title** | **Hourly****Rate** | **Number of Hours** | **Salary & Fringe** | **Total Grantee****Personnel Expenses** |
| Grant Coordinator, YCSWCD Project Manager | $60/hr. | ~304 |  | $18,267 |
| **Totals** |  |  |  | **$18,267** |

**Part 2. Budget Estimates by Cost Category**

|  |  |  |  |
| --- | --- | --- | --- |
| **Cost Category** | **Federal Funds Section 604(b)** | **Non-Federal Match** | **Total Cost** |
| Salary & Fringe (from Part 1) | $18,267(1) | $3,518(2) | $21,785 |
| Subaward (WNERR) | $12,900(3) |  | $12,900 |
| Contractual (Consultant) | $3,900 | $8,000(4) | $11,900(5) |
| Contractual (Engineer) | $3,120(6) |  | $3,120 |
| Donated Services – Labor |  | $17,314(7) | $17,314 |
| Travel (mileage total) | $713(8) |  | $713 |
| Supplies | $2,700(9) |  | $2,700 |
| Other (specify) |  |  |  |
| **Totals** | **$41,600** | **$28,832** | **$70,432** |

|  |
| --- |
| **Part 2 Notes:**1. YCSWCD Project Manager ~304 hours @ $60/hour.
2. Match includes $2,500 cash match (Town of Arundel) for mapping (Task 4E), and $1,018 cash match (KKW) to help with watershed survey work (Task 4B).
3. WNERR staff – 258 hours @ $50/hour.
4. Match includes $5,000 cash match from Town of Kennebunk and $3,000 cash match from Town of Kennebunkport to offset writing of the plan.
5. Total consultant time – 140 hours @ $85/hour (98 hours to write plan, 18 hours on SC and TAC, 4 hours at the Public Input Session, and 20 hours for watershed reconnaissance).
6. Engineering Assistance – 24 hours @ $130/hour (10 hours field, and 14 hours preliminary design & cost estimates for select sites).
7. Includes all volunteer hours: $10,027 (464 hours @ 21.61/hr.) for general public participation across all tasks; $2,580 (86 hours @ $30.00/hr.) for Town representative participation in SC and TAC, watershed survey, and outreach tasks; $600 (24 hours @ $25.00/hr.) for Town planning staff assistance with Local Ordinance Review; $1,062 (19 hours @ 55.89/hr.) in-kind match from KKW in Task 3; $2,920 KKW cash match to cover laboratory costs, and $125 donated room fee for public forum (Task 5).).
8. 1,616 miles of travel by YCSWCD, WNERR and project consultant @ $0.44/mile rate.
9. Includes $200 for printing/postage (Task 1), $300 for printing/supplies for SC & TAC meetings (Task 2), $300 for printing/supplies for the watershed survey (Task 4), $400 for printing/supplies needed for the Public Forum (Task 5), $1,500 for printing of the WBP and associated outreach materials at presentations (Task 6).
 |

**Part 3. Sources of Non-federal Match and Estimated Amounts**

|  |  |
| --- | --- |
| **Sources of Non-federal Match** | **Amount** |
| Town of Kennebunk (cash match) | $5,000 |
| Town of Kennebunkport (cash match) | $3,000 |
| Town of Arundel (cash match) | $2,500 |
| Kennebunk, Kennebunkport, & Wells Water District (cash match) | $3,938 |
| Kennebunk, Kennebunkport, & Wells Water District (in-kind match) | $1,062 |
| Volunteer time & stakeholder participation | $13,332 |
| **Total** | **$28,832** |