



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA AHO
COMMISSIONER

FINDING OF NO SIGNIFICANT IMPACT

To: All Interested Persons

Date: October 30, 2014

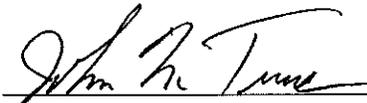
Pursuant to the State of Maine Revolving Loan Fund Rules, Chapter 595, Section C.5., the Maine Department of Environmental Protection (DEP) has prepared an Environmental Assessment (EA) for the following proposed project:

**Town of Kittery
Route 236 Sewer Extension Project**

The attached EA provides a detailed description of the project and summary of the Department's environmental review. The results of the review, when considering the mitigation measures that will be implemented during the project and monitored by the Town, reveals that no significant adverse impacts to natural and/ or cultural resources will result from the proposed action by itself. The project is expected to improve water quality issues and eliminate potential health hazards related to wastewater disposal. At the same time, development may occur in the foreseeable future as an indirect result of the installation of the sewer extension. Mitigation measures may be required as part of the planning, design, permitting, and construction of future development, to ensure that natural and/ or cultural resources existing in the development area will not be adversely impacted.

Comments relative to this decision may be submitted to the DEP for review. No administrative action will be taken for at least thirty (30) calendar days after issuance of this Finding.

Additional information is available for public review at the DEP address located at 25 Tyson Drive, Augusta, Maine, 04330.



John N. True, Engineering Services Manager
Division of Water Quality Management
Bureau of Land & Water Quality

October 30, 2014
Date

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**ENVIRONMENTAL ASSESSMENT for
the Town of Kittery
ROUTE 236 SEWER EXTENSION PROJECT**

A. PROJECT IDENTIFICATION

Project Name: Kittery Route 236 Sewer Extension Project
Address: Town of Kittery, 200 Rogers Road, Kittery, Maine 03904
Project Location: Town of Kittery, York County (see Figure 1)
Project Number: SRF #C230051-05 (loan pending)

B. SUMMARY OF ENVIRONMENTAL REVIEW

The applicant's Environmental Information Document (prepared by Kleinfelder), all other supporting documentation, and associated comments submitted in regard to this project have been reviewed, and in accordance with EPA regulations, the findings of our environmental review are summarized below.

1. Project Description

The Town of Kittery owns and operates a wastewater collection system and a treatment facility to process sanitary flows from Town. The collection system consists of twenty three miles of gravity sewer, six miles of force main, and twenty one sewer pumping stations. The wastewater treatment plant, named the Water Pollution Control Facility, is located on Dennett Road. (see Figure 2). The treated wastewater is discharged from the plant to the Piscataqua River.

The proposed project entails extension of the sewer collection system from the treatment plant to unsewered neighborhoods on the opposite side (northwest) of Interstate I-95. The project includes installation of a total of approximately three miles of underground gravity sewer pipe, one and a half miles of underground force main pipe, and three pumping systems. The proposed underground pipe will be installed along the existing Central Maine Power utility easement which runs from the treatment plant to Route 236. The easement is located on a former railroad bed (see Figure 2). In order to cross the interstate, the pipe will be installed underground using a trenchless method called horizontal directional drilling. Where the utility easement ends near Route 236, a new pump station will be constructed. Upstream of that pump station, the proposed underground pipe will be located below paved streets to provide sewer to the existing

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neighborhoods. The streets include: Martin Road, Stevenson Road, Manson Road, Dana Avenue and portions of Route 236. Two additional pump stations will be constructed in these neighborhood areas. See Figure 3 for the location of the pipe and pump stations as well as the outline of the area to be served by the proposed public sewer system.

The majority of the new sewer infrastructure will be installed in public right of ways and within the existing utility easement. However, there are locations where the Town must obtain easements from land owners. This effort will be completed before construction begins.

The work will be done in a single construction contract beginning in 2015 and will be completed in 2016.

The estimated cost of construction is approximately \$5,900,000.

2. Purpose and Need

The purpose of the proposed project is to bring public sewer to unsewered areas of Kittery, both undeveloped and developed, on the northwest side of Interstate 95. This action is needed in order to improve and protect water quality in the service area and to support the Town's economic development objectives.

Studies were conducted to evaluate the suitability of undeveloped lots in the service area for on-site wastewater disposal. The study looked at lot size and soil conditions. The soil conditions included permeability, depth to groundwater, presence of bedrock and ground slope. The results of the studies found that there is a substantial portion of land that exhibits unsuitable soil characteristics for on-site disposal systems. Without public sewer, the types of development that these lots could support would be limited.

The current method of wastewater disposal in the developed areas primarily consists of privately owned residential subsurface systems. There are over 100 lots that are one acre or less. Approximately one third of these lots have poor soils. The majority of the homes were built over fifty years ago and therefore it is likely that there are many septic systems that are nearing the end of their useful life. It is known that there are systems that are currently operating poorly and / or have potential to fail in the near future. There are approximately 150 buildings that will tie into the new sewer as soon as it is constructed.

Within the residential area is a mobile home park on Dana Ave that is served by a sand filter wastewater treatment system that discharges to Chickering Creek, which is a tributary to Spruce Creek. (For location of mobile home park see Figure 2 and for location of creek see Figure 5) This system is licensed by this Department as an overboard discharge (OBD). The system is operating poorly and in need of an expensive upgrade. The situation is so inadequate that at times it is necessary to haul the untreated wastewater to the treatment plant. A replacement subsurface system cannot be constructed on the owner's property due to poor soils and lack of land.

Also within the residential area is a school located on Stevenson Road. The school must operate and maintain a pump station on their property to pump the school's wastewater approximately one half mile to a pump station on Route One. Although this system is working fairly reliably at this time, there are considerable operating expenses associated with the pump station and, if it is not well maintained at all times, there is risk of sewer back up and overflows.

The installation of public sewers proposed by this project will correct these deficiencies and provide an immediate and long term environmental benefit to the Spruce Creek watershed by eliminating the need for subsurface septic systems or advanced wastewater treatment systems in the service area.

3. Discussion of Alternatives

In 1991 a Master Sewer Plan was created for the Town. This plan included a recommendation to provide sewers to the area of Town north and west of Interstate Route 95 in the area of Route 236. The Master Plan also recommended doubling the capacity of the wastewater treatment facility in order to meet the future needs of the Town. This recommended expansion of the treatment plant was completed in 1994. In 2004 and 2010, two more studies were done to further evaluate the most cost effective means for extending the municipal sewer service to the Route 236 area. Collectively these studies considered seven separate alternative concepts to provide public sewers to the project area from the treatment facility. It was determined that the most cost effective way to convey wastewater flows from the project area to the treatment plant is to install a sewer force main within an existing cross-country utility easement that is parallel to the Central Maine Power (CMP) easement located between Route 236 and the treatment plant.

The "no-action" alternative was not chosen because it would not support economic development within Kittery and it would not support betterment of the existing neighborhoods by installing public sewers that will allow failed and marginal septic systems to be decommissioned.

4. Direct Impacts of the Proposed Project on the Environment

The direct effects of the proposed project on the environment are determined based on the location of the proposed work and areas of associated disturbance only.

- A. Air Quality – The proposed project will have no long term impact on air quality.
- B. Water Quality - It is anticipated that after the completion of this project there will be an improvement in the water quality of the streams (Chickering Creek and Unnamed Stream) and the tributaries that are located in the sewer service area. These streams flow to Spruce Creek, which is currently impaired. Over time, improvement in the water quality of Spruce Creek may also be realized. (See Figure 5)
The Water Pollution Control Facility, which will receive and treat the wastewater from the project service area, is designed to handle the full built out flows. Therefore, the

project is not expected to impact the Piscataqua River, which receives the treated wastewater.

C. Socio-Economic Impacts / Environmental Justice - The proposed project will not significantly affect the pattern and type of land use or growth and distribution of population. The proposed project will have no significant or adverse environmental effects on low income or minority populations. The project will not displace population or significantly alter the characteristics of the existing residential areas.

D. Environmentally Sensitive Areas

a. Floodplains - A small area of the proposed project is located within the floodplain. As can be seen on Figure 4, there are two locations where the floodplain appears to flood the road where underground sewer pipe will be installed. The underground pipe will have no impact on the floodplain. The pump stations are not located within the floodplain.

b. Wetlands and Vernal Pools - Portions of the project pass through and/or are adjacent to wetland and vernal pool areas. See Figure 5. There will be an unavoidable temporary impact to wetlands in the area of the Central Maine Power utility easement due to the limited area available to install the sewer line. The project will not result in any permanent impact to wetland areas and vernal pools. The Town has obtained a State of Maine Department of Environmental Protection Natural Resources Protection Act Permit by Rule, a U.S. Army Corps of Engineers General Permit, as well as a Town of Kittery Wetland Alteration permit for this project. The permits require construction mitigation measures including:

- the use of a strict erosion and sedimentation control plan,
- restoring the disturbed areas expeditiously with the original vegetative materials to pre-project conditions, and
- the use of crane mats for equipment traveling or working in vegetated wetland.

c. Birding Habitats - There are no critical or significant birding habitats in the project area.

d. River, Stream, or Brook - There are three locations where underground pipe will cross a stream. See Figure 5. At all locations, the stream flows through an existing culvert. The installation of the sewer pipes will occur underneath the culvert and will not require diversion of the stream or removal of the culvert. Strict erosion and control measures will be used during construction to mitigate temporary impacts to the stream.

e. Coastal Barrier Resources - There are no coastal barrier resources in or near the project area.

f. Coastal Zones - The project is located in a coastal zone but will have no impact to it.

g. Fish and Wildlife Habitat or Endangered and Threatened Species - The portion of the proposed project located between Route 236 and Interstate 95 may be located in or adjacent to areas of New England Cottontail Rabbit habitat. The presence of the New England Cottontail (NEC) could not be confirmed at the time of the field survey (month of June) by the state wildlife official. However, mitigation measures for the project were recommended to minimize potential disturbance to the NEC, should they actually exist in or adjacent to the area of concern. They include:

- During the design phase, the proposed sewer pipe, pump station and access road to serve the pump station have been positioned to minimize the amount of shrubs to be cleared or disturbed.
- During construction, mitigation measures include limiting the contractors work area in order to minimize clearing of shrubs and to help maintain a buffer from the possible habitat area. Additionally, no construction shall be performed during the time period between March 20 and June 20 in the Central Maine Power utility easement area north of Interstate 95.

h. Agricultural Lands - There are no Prime or Unique Farmlands in or near the project.

i. Drinking Water Sources and Aquifers - The project is not located near or adjacent to any drinking water sources or aquifers. See Figure 6.

j. Botanical Features - There are no rare or unique botanical features documented within or near the project area.

k. Historical Sites and Archaeological Resources - The proposed project will not affect any historic properties. There are no known archeological resources known to be present in the project area. In the event that an artifact is found during construction, the contractor will be required to stop work in that area and notify the proper local, state, and federal authorities.

l. Wild and Scenic Rivers - There are no designated wild or scenic rivers within or near the project area.

m. Public Lands - The project is not located within or near any parklands, preserves, public land or areas of recognized scenic, aesthetic, recreational value.

n. Indian or Tribal Lands - There are no known Indian or Tribal Lands in or near the project area.

5. Indirect Impacts of the Proposed Project on the Environment

The indirect impacts of the proposed project on the environment are determined based on the locations in the sewer service areas that are currently undeveloped but may be developed in the near future.

The proposed project is intended to support development and growth in the sewer service area. For the purposes of this project, it is assumed that any of the undeveloped areas may be developed in the foreseeable future. (See Figure 3 for location of service area). The impact of that growth could affect existing environmentally sensitive areas that are located in the sewer service area. However, the specifics of any planned development are not known at this time and therefore it is impossible to predict the impacts, specify mitigation measures, and commit to their implementation.

When more is known about pending development, action can be, and should be, taken by the Town, its residents, property owners, the developer(s), and / or any interested organizations to protect resources that could be adversely affected. Early involvement is important, especially in order to consider avoidance as a potential mitigation measure. Avoidance means keeping the proposed disturbance outside of the location of the resource. Generally speaking, avoidance can be addressed more easily during planning and design than it can be during construction. Property owners and developers and other involved or interested parties should contact the appropriate state and federal agencies early in the planning and design stage of the project to identify issues specific to their project, including necessary permitting and to understand what the conditions of the permits may entail.

Below is the list of the existing environmentally sensitive areas that are currently located in the sewer service area and have the potential to be impacted. The approximate location of the areas are shown in the referenced figures. Also provided is the contact information for the recommended state and federal agency (or organization) that should be consulted. Depending on the timing of the future development, the accuracy of this information may need to be verified.

A. Floodplains - See Figure 4 for locations in the sewer service area.

Susan Baker
Floodplain Management Program
Maine Department of Agriculture, Conservation, and Forestry
93 State House Station
Augusta, Maine 04333

B. Wetlands, Streams and Brooks, and Vernal Pools - See Figure 5 for locations in the sewer service area.

Mike Mullen
Natural Resources Protection Act Program
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333

Jay Clement
US Army Corps of Engineers
675 Western Ave #3
Manchester, Maine 04351

- C. Fish and Wildlife Habitat or Endangered or Threatened Species - New England Cottontail Rabbit habitat may exist in some of the undeveloped areas in the sewer service area . A survey to confirm whether or not the state endangered rabbit is actually present will be performed over the winter (2014-2015) by the Maine Department of Inland Fisheries and Wildlife. The purpose of a winter survey is to allow the wildlife officials to examine animal tracks made in fresh snow to identify the exact species. The outcome of this survey will become public information which can be found on the Town of Kittery's website.

Cory Stearns (state official leading the winter survey)
Maine Department of Inland Fisheries & Wildlife
358 Shaker Road
Gray, Maine 04039

Maine Department of Inland Fisheries & Wildlife (main office)
41 State House Station
Augusta, Maine 04333

Mark McCollough
U.S. Fish & Wildlife
17 Godfrey Drive, Suite #2
Orono, Maine 04473

- D. Public Lands - There are no parklands, preserves, public land or areas of recognized scenic, aesthetic, recreational value in the service area. However, an undeveloped Town-owned parcel that is located in the sewer service areas abuts a preserve named Remick Preserve. See Figure 7.

Kittery Land Trust
P.O. Box 467
Kittery, Maine

6. Cumulative Impacts

Cumulative impacts are possible when the sewer is continued north along Route 236 and connects with Eliot's sewer in the vicinity of the town line. At this time there is no sewer in place in Eliot at that location and therefore no plan for Kittery to extend their sewer. However, it is possible it could occur in the foreseeable future. The impacts from this scenario of extending public sewer and connecting the two Towns may include development and growth in Eliot. The identification of natural and cultural resources that could be impacted by Eliot growth is beyond the scope of this environmental review.

7. Mitigation of Direct Environmental Impacts

The overall, long term goal of the project is to improve water quality while supporting development on the north side of Interstate 95. However the project's proximity to wetlands,

vernal pools, streams and possibly New England Cottontail habitat will require mitigation measures to insure no adverse impact to these resources. All construction mitigation measures will be incorporated into the construction contract documents. Construction inspectors will be on the project site daily to monitor and verify that the requirements are implemented properly.

The Department finds that the applicant has avoided and minimized impacts to the greatest extent practicable and that the proposed project presents no significant adverse impacts.

8. Summary of Agency & Public Consultation

The Town held public meetings to discuss the Town's proposed projects on January 31, 2013, February 12, 2013, March 25, 2013 and May 13, 2013. The Town has addressed public comments and concerns to the extent possible while still meeting the goals of the project. The public voted in favor of the project in a town wide vote on June 11, 2013.

The Town worked with applicable federal, state, and local agencies to address their concerns and comments and to incorporate them into the design where necessary. No agencies objected to the project.

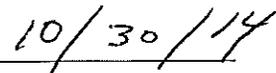
9. List of Agencies and Groups Consulted

Maine Department of Environmental Protection
Maine Historic Preservation Commission
Maine Department of Conservation, Agriculture and Forestry
Maine Department of Inland Fisheries and Wildlife
Maine Department of Marine Resources
United States Fish and Wildlife Services
United States Department of Agriculture, NRCS
United States Army Corps of Engineers
Kittery Water District

C. SIGNATURE



Karen L. Hefler, P.E.
Division of Water Quality Management
Bureau of Land & Water Quality



Date