YARMOUTH WATER DISTRICT

JANUARY 2021

Application for Site Plan Review

20451A

North Yarmouth Booster Pump Station

North Yarmouth, Maine

WRIGHT-PIERCE
Engineering a Better Environment

YARMOUTH WATER DISTRICT

NORTH YARMOUTH BOOSTER STATION

APPLICATION FOR SITE PLAN REVIEW

TABLE OF CONTENTS

TOWN OF NORTH YARMOUTH
PLANNING BOARD
REQUEST FOR HEARING

NAME OF APPLICANT: Yarmouth Water District (Eric Gagnon) PHONE #: (207) 846-5821
EMAIL: egagnon@yarmouthwaterdistrict.org ALT. PHONE#:
FULL ADDRESS: PO Box 419, 181 Sligo Road, Yarmouth, ME 04096
PROPERTY ADDRESS: Sweetser Road
MAP: 008 LOT: 29, 30, 31 ZONE: Farm/Forest, GW overlay

AGENT/REPRESENTATIVE (if other): Daniel J. Flaig, PE PHONE #: (207) 798-3776
EMAIL: daniel.flaig@wright-pierce.com
FULL ADDRESS: Wright-Pierce, 11 Bowdoin Mill Island, Suite 140, Topsham, ME 04086

The undersigned requests the North Yarmouth Planning Board consider the following application for:

- ☐ Pre-application Sketch Plan Review
- ☐ Minor Subdivision
- ☐ Contract Zoning
- ☐ Other (Specify):
- ☐ Major Subdivision
- ☑ Site Plan Review

NOTE TO APPLICANT:

1. This form and appropriate materials must be filed at the Code Enforcement Office no later than (fourteen) 14 days prior to the regular meeting of the Board (2nd Tuesday monthly). Applications shall be accompanied by all applications fee and materials required by the applicable ordinance(s), checklists and fee schedule.
2. All applications shall include all materials and copies as specified on the submittal requirements form.
3. All materials in color shall be copied in color.

Application Authorization

I hereby make application to the Town of North Yarmouth for the above-referenced property(ies) and the development as described. To the best of my knowledge, the information provided herein is accurate and is in accordance with the Zoning and Subdivision Ordinances of the Town, except where waivers are requested. The Town of North Yarmouth Planning Board and/or town employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at all meetings before the Planning Board.

Signature: Date: 1/22/2021
Printed Name: Eric Gagnon, Superintendent, Yarmouth Water District

Please identify yourself (check one): Agent*: ☐ Property Owner: ☑

TOWN OF NORTH YARMOUTH
PLANNING BOARD
SITE PLAN REVIEW AND CONDITIONAL USE APPLICATION
(See Article 4 pages 23 through 35 of the North Yarmouth Land Use Ordinance)

NAME OF APPLICANT: Yarmouth Water District (Eric Gagnon) PHONE #: (207) 846-5821
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FULL ADDRESS: Wright-Pierce, 11 Bowdoin Mill Island, Suite 140, Topsham, ME 04086

1. Names and Addresses of ALL property owners within 500' of any and all property boundaries **(use a separate sheet).**

2. Plan preparer information if other than property owner:
   Name: Wright-Pierce, Daniel J. Flaig, PE
   Address: 11 Bowdoin Mill Island, Suite 140, Topsham, ME 04086
   Phone Number: (207) 798-3776 Professional Lic. # PE11991
   Email: daniel.flaig@wright-pierce.com

3. Zoning Classification of the Property

☐ Village Center	☐ Village Residential	☑ Farm and Forest
☐ Shoreland Residential	☐ Resource Protection	☐ Royal River Overlay
☑ Groundwater Protection Overlay		

4. Provide a General Description of the proposed use or activity, including but not limited to the type of use, square footage involved, hours of operation, types and amount of traffic to be generated **(use separate sheet)**.

5. Historic Structures: Are there any historic structures or areas of historical importance on the property? ☐ YES ☑ NO

6. Complete List of all chemicals, pesticides, fuels, nutrients and other potentially toxic or hazardous materials to be used or stored on the premises, and the quantities of these materials **(use a separate sheet).**

7. List of Equipment to be used, parked or stored **(use a separate sheet).**

8. To the best of my knowledge, all the above-stated information, and all prepared submissions in this application are correct.

Signature of Applicant/Owner — Date: 1/22/2021

TOWN OF NORTH YARMOUTH

PLANNING BOARD

FEE CALCULATION SHEET

NAME OF APPLICANT: Yarmouth Water District (Eric Gagnon)

PROPERTY ADDRESS: Sweetser Road

MAP: 008 LOT: 29, 30, 31

SITE PLAN FEES

Description	Fees	Total
Preliminary Sketch Plan Review	$0	
Site Plan Review Permit	$250.00	$250.00
Amendment to Site Plan Review Permit	$75.00	

SUBDIVISION APPROVAL FEES

MINOR SUBDIVISION (4 lots or less)

Description	Fees	Total
Non-refundable Application Fee	$250.00	
Each Lot/Dwelling Unit	$100.00	
Technical Review	Cost + $25.00	

MAJOR SUBDIVISION (5 lots or more)

Description	Fees	Total
Non-refundable Application Fee	$350.00	
Each lot/Dwelling Unit	$100.00	
Technical Review	Cost + $25.00	

TOTAL FEES REQUIRED $250.00

NOTE: Certain Subdivisions will be required to complete a Site Plan Review Permit. Review fees are not typically refundable. If extenuating circumstances occur, the Board may consider a partial or full refund.

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REIVEW AND CONDITIONAL USE CHECKLIST

NAME OF APPLICANT: Yarmouth Water District (Eric Gagnon) DATE: 1/25/2021

This checklist has been prepared to assist applicants in developing their applications. It should be used as a guide in assembling the information necessary for a complete application. However, the checklist does not substitute for the statutory criteria or the requirements of Article IV. Site Plan Review & Conditional Use Procedures or Article X. Performance and Design Standards for Site Plan Review & Subdivision Review of the Land Use Ordinance. The Planning Board will use the checklist to make sure that your application is complete. The application need not contain separate plans as implied below. The perimeter survey, subdivision plan and engineering plans may be contained on the same drawing. However, detailed engineering drawings such as road profiles, drainage swales and erosion/sedimentation plans may best be presented on a separate sheet or sheets.

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
GENERAL REQUIREMENTS					
1. Request for Hearing Form		☑	☐	☐	☐
2. Fee Calculation Sheet		☑	☐	☐	☐
3. Waiver or N/A Request Form, if required		☐	☐	☐	☐
4. Abutter List & Notification Statement		☑	☐	☐	☐
5. DEP Approval, if required (Article 3 - 3.9b		☐	☐	☐	☑
6. Subdivision Approval, if required (Article 5)		☐	☐	☐	☑
7. Board of Zoning Appeal Approval, if required (Article 6 - 6.2)		☐	☐	☐	☑
8. MDOT Approval, if required (Article 8 – 4.j.2)		☐	☐	☐	☑
10-1 APPLICABILITY		☑	☐	☐	☐
10-2 GENERAL LAYOUT OF DEVELOPMENT					
A. Utilization of the Site		☑	☐	☐	☐
B. Lots					
B.1	Dimensional Requirements	☑	☐	☐	☐
B.2	Right of Way not included in Lot Area	☐	☐	☐	☑
B.3	Side Lot Lines perpendicular to Street	☐	☐	☐	☑
B.4	Lots Divided by Streams	☐	☐	☐	☑
B.5	Ratio of Lot Length to Lot Width	☐	☐	☐	☑
B.6	Provision or Preclusion of Future Subdivision	☐	☐	☐	☑

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
B.7	Interconnected Development	❑	❑	❑	☑
C. Blocks - Utility/Pedestrian Easement		❑	❑	❑	☑
D. Utilities - Underground		❑	❑	❑	☑
E. Monuments					
E.1	Stone Monuments at Intersections	☑	❑	❑	❑
E.2	Stone Monuments or Capped Iron Pipe at Corners	☑	❑	❑	❑
E.3	Stone Monuments Minimum 4 inch square	❑	❑	❑	☑
E.4	All Others Marked by Suitable Monumentation	☑	❑	❑	❑
10-3 BROOK, POND, VERNAL POOL AND WETLAND BUFFERS					
A. <u>Purpose and Applicability</u>					
A.1	Protect Areas not covered in Section 9-1	❑	❑	❑	☑
A.2	Distinguish between High and Low Value Wetlands	❑	❑	❑	☑
A.3	More Restrictive Requirements Apply	❑	❑	❑	☑
B. <u>Protected Resources</u>					
B.1	Stream	❑	❑	❑	☑
B.2	Pond	❑	❑	❑	☑
B.3	Vernal Pool	❑	❑	❑	☑
B.4	High Value Wetlands	❑	❑	❑	☑
B.4.a	Contain Pond or Vernal Pool	❑	❑	❑	☑
B.4.b	Within Floodplain of Stream or Pond	❑	❑	❑	☑
B.4.c	Wetland Plant Species	❑	❑	❑	☑
B.5	Low Value Wetland	❑	❑	❑	☑
C. <u>Standards</u>					
C.1	Vegetative Buffers	❑	❑	❑	☑
C.2	Location, Species, Height, Canopy	❑	❑	❑	☑
C.3	Buffer Width Related to Slope	❑	❑	❑	☑

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
C.4	Natural State to Greatest Extent Practical	❑	❑	❑	☑
C.5	Maintained in Natural State	❑	❑	❑	☑
C.5.a	Clearing of Dead and Diseased Trees	❑	❑	❑	☑
C.5.b	Underlying vegetation	❑	❑	❑	☑
C.6	Building and structure setback	❑	❑	❑	☑
C.7	Setback from low value wetland	❑	❑	❑	☑
C.8	Permanent markers	❑	❑	❑	☑
D. Plan Submittals					
D.1	Site plan	❑	❑	❑	☑
D.2	Existing vegetation	❑	❑	❑	☑
D.3	Buffer	❑	❑	❑	☑
D.4	Maintenance and restrictions	❑	❑	❑	☑
D.5	Deed restrictions and covenants	❑	❑	❑	☑
D.6	Plat	❑	❑	❑	☑
E. Exemptions					
E.1	Buffer and setbacks not required adjacent to	❑	❑	❑	☑
E.1.a	Swales and ditches	❑	❑	❑	☑
E.1.b	Artificial impoundments	❑	❑	❑	☑
E.1.c	Low value wetlands	❑	❑	❑	☑
E.2	Buffers and setbacks do not apply to	❑	❑	❑	☑
E.2.a	Storm water management facilities	❑	❑	❑	☑
E.2.b	Road crossings, bridges, culverts, utilities	❑	❑	❑	☑
E.2.c	Docks, boat ramps, direct access	❑	❑	❑	☑
10-4 BUILDING DESIGN STANDARDS					
A. Applicability		☑	❑	❑	❑
B. Standards					
B.1	Visibly integrated	☑	❑	❑	❑

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
B.2	Window area	❑	☑	❑	❑
B.3	Minimum front yard building setback	☑	❑	❑	❑
B.4	Parking to side and rear of buildings	❑	❑	❑	☑
B.5	Drive-Through Facilities	❑	❑	❑	☑
10-5 COMMUNITY FACILITIES IMPACT ANALYSIS AND MITIGATION		☑	❑	❑	❑
10-6 EROSION AND SEDIMENTATION CONTROL					
A. Topography and Natural Surroundings		☑	❑	❑	❑
B. Best Management Practices					
B.1	Stripping, Removal, Re-Grading	☑	❑	❑	❑
B.2	Exposure to a Minimum	☑	❑	❑	❑
B.3	Temporary Measures	☑	❑	❑	❑
B.4	Permanent Measures	☑	❑	❑	❑
B.5	Sediment Basins or Silt Traps	☑	❑	❑	❑
B.6	Adjoining property and slope	☑	❑	❑	❑
B.7	Dust control	☑	❑	❑	❑
B.8	No grading or filling near water body	☑	❑	❑	❑
B.9	Measures monitored periodically	☑	❑	❑	❑
C. Soil Erosion and Control Plan		❑	❑	❑	☑
10-7 EMISSIONS		☑	❑	❑	❑
10-8 EXTERIOR LIGHTING					
A.	**Adequate for nighttime hours**	☑	❑	❑	❑
B.	**Street lighting**	❑	❑	❑	☑
C.	**Lighting does not produce deleterious effects**	☑	❑	❑	❑
D.	**Fixtures shielded or hooded**	☑	❑	❑	❑
E.	**Blinking lights prohibited**	☑	❑	❑	❑
F.	**Maximum height**	☑	❑	❑	❑
G.	**Spotlights prohibited**	☑	❑	❑	❑

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REIVEW AND CONDITIONAL USE CHECKLIST

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
10-9 FINANCIAL AND TECHNICAL CAPACITY					
A.	**Adequate financial resources**	☑	☐	☐	☐
B.	**Qualified contractors and consultants**	☑	☐	☐	☐
10-10 FLOODPLAIN MANAGEMENT					
A. Consistent with Floodplain Ordinance		☐	☐	☐	☑
B. Development/Subdivision Requirement		☐	☐	☐	☑
C. Building Prohibited on Floodplains					
C.1	Building prohibited in floodplain	☐	☐	☐	☑
C.2	Statement and restriction	☐	☐	☐	☑
C.3	Woodlands, grassland, pastureland, recreation	☐	☐	☐	☑
C.4	Piers, docks, wharves, bridges and boat ramps	☐	☐	☐	☑
10-11 HAZARDOUS, SPECIAL AND RADIOACTIVE MATERIALS					
A.	**Handling, storage and use per standards**	☑	☐	☐	☐
B.	**Reporting Requirement**	☐	☐	☐	☑
10-12 HISTORIC AND ARCHAEOLOGICAL SITES					
A.	**Protect resources**	☑	☐	☐	☐
B.	**Maine Historic Preservation Commission review**	☑	☐	☐	☐
10-13 LANDSCAPING, BUFFERS AND SCREENING					
A. Purpose		☑	☐	☐	☐
B. Standards					
B.1	Landscaping	☑	☐	☐	☐
B.1.a	Natural state	☑	☐	☐	☐
B.1.b	Public roads, areas, recreation sites, buildings	☐	☐	☐	☑
B.1.c	Deciduous trees	☐	☐	☐	☑
B.1.d	Part of overall plan	☐	☐	☐	☑
B.2	Buffers and Screening	☑	☐	☐	☐

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REIVEW AND CONDITIONAL USE CHECKLIST

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
B.2.a	Adjacent uses and screening	☑	☐	☐	☐
B.2.b	Year-round visual screen	☑	☐	☐	☐
B.2.c	Parking lots and areas	☐	☐	☐	☑
B.2.d	Garbage collection areas	☐	☐	☐	☑
B.2.e	Sufficient buffering	☐	☐	☐	☑
B.2.f	Width of buffer	☐	☐	☐	☑
10-14 NATURAL BEAUTY AND AESTHETICS IN THE FARM AND FOREST DISTRICT, RESIDENTIAL SHORELAND DISTRICT AND RESOURCE PROTECTION DISTRICT		☑	☐	☐	☐
10-15 NOISE					
A.	**Control Levels for Neighboring Properties**	☑	☐	☐	☐
B.	**Sound Pressure Level Limits**	☑	☐	☐	☐
C.	**Measured by a Meter**	☐	☐	☐	☑
10-16 SEWAGE DISPOSAL					
A. <u>Subsurface Sewage Disposal</u>					
A.1	State of Maine Rules	☑	☐	☐	☐
A.2	Hydrogeologic assessment	☑	☐	☐	☐
A.2.a	Suitable soils	☑	☐	☐	☐
A.2.b	Water supplies	☑	☐	☐	☐
A.2.c	Groundwater quality	☑	☐	☐	☐
A.2.d	Monitoring wells	☑	☐	☐	☐
A.2.e	Operation and maintenance manual	☑	☐	☐	☐
B. <u>Public Sewer System Disposal</u>					
B.1	Not allowed in Farm and Forest District, Residential Shoreland District or Resource Protection District	☑	☐	☐	☐
B.2	Sewer District statement of capacity	☑	☐	☐	☐

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REIVEW AND CONDITIONAL USE CHECKLIST

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
10-17 SIGNS					
A.	**General Requirements**	☑	☐	☐	☐
B.	**Village Center District**	☐	☐	☐	☑
C.	**Identify or Advertise Premises**	☑	☐	☐	☐
D.	**Sign Area**	☑	☐	☐	☐
E.	**Installation and Height**	☑	☐	☐	☐
F.	**Height and Location by Roads**	☐	☐	☐	☑
G.	**Attached to Structure**	☐	☐	☐	☑
H.	**Maintenance and Removal**	☑	☐	☐	☐
I.	**Illumination**	☐	☐	☐	☑
J.	**Nonconforming Signs**	☐	☐	☐	☑
K.	**Special Event Signs**	☐	☐	☐	☑
L.	**Home Occupation Signs**	☐	☐	☐	☑
M.	**Signs in the Resource Protection District and the Residential Shoreland District**	☐	☐	☐	☑
N.	**Municipal and Public Safety Signs**	☐	☐	☐	☑
10-18 SOIL SUITABILITY		☑	☐	☐	☐
10-19 SOLID WASTE DISPOSAL					
A.	**Disposal at Licensed Facility**	☑	☐	☐	☐
B.	**Alternative Arrangements**	☐	☐	☐	☑
10-20 STORAGE OF MATERIALS					
A.	**Sufficient Setbacks and Screening**	☑	☐	☐	☐
B.	**Dumpsters**	☐	☐	☐	☑
C.	**Physical Screening**	☐	☐	☐	☑
D.	**Buffers and Screening**	☑	☐	☐	☐
10-21 STORM WATER CONTROL					
A.	**Designed to Minimize Runoff**	☑	☐	☐	☐

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REIVEW AND CONDITIONAL USE CHECKLIST

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Applicant Requests Not Applicable
B. Requirements					
B.1	Design by Maine engineer	☑	☐	☐	☐
B.2	Easement width	☐	☐	☐	☑
B.3	Oil and grease traps	☐	☐	☐	☑
B.4	Designing engineer statement	☐	☐	☐	☑
B.5	Designed to Town Roadway Criteria	☐	☐	☐	☑
B.6	Maintenance Plan	☐	☐	☐	☑
10-23 WATER SUPPLY					
A. Public Water Supply					
A.1	Written statement from Yarmouth Water District	☐	☐	☐	☑
A.2	System approve by Yarmouth Water District and North Yarmouth Fire Chief	☑	☐	☐	☐
B. Required Connection to Public Water Supply		☐	☐	☐	☑
C. Individual Wells		☐	☐	☐	☑
D. Fire Protection					
D.1	Hydrant locations	☑	☐	☐	☐
D.2	Storage capacity	☐	☐	☐	☑
D.3	Hydrant specifications	☑	☐	☐	☐
D.4	Easement	☐	☐	☐	☑
10-24 WATER QUALITY					
A. Water Quality					
A.1	No discharge in surface or groundwater	☑	☐	☐	☐
A.2	Maine DEP and Fire Marshal's Office standards	☑	☐	☐	☐
A.3	License from Maine DEP	☐	☐	☐	☑
A.4	Discharge treated	☑	☐	☐	☐
B. Groundwater		☑	☐	☐	☐
C. Wellhead Protection		☑	☐	☐	☐

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
D. Requirements for Hydrogeologic Assessments					
D.1	Class A (high intensity) Soil Survey	❑	❑	❑	☑
D.2	Water table	❑	❑	❑	☑
D.3	Drainage conditions	❑	❑	❑	☑
D.4	Existing groundwater quality	❑	❑	❑	☑
D.5	Analysis and evaluation	❑	❑	❑	☑
D.6	Map of wastewater systems and wells	❑	❑	❑	☑
E. Projections of Groundwater Quality		❑	❑	❑	☑
F. Drinking Water Standards		❑	❑	❑	☑
G. Demonstrate Treatment		❑	❑	❑	☑
H. Contaminants		❑	❑	❑	☑
I. Construction Standards		❑	❑	❑	☑
J. System and Well Zones		❑	❑	❑	☑
10-25 PROTECTION OF SIGNIFICANT WILDLIFE HABITAT					
A. Designed to Protect		☑	❑	❑	❑
B. Identify and Map Wildlife Habitats		☑	❑	❑	❑
C. Consult and Obtain Written Report		❑	❑	❑	☑
D. Deer Wintering Areas		❑	❑	❑	☑
E. Deed Restrictions		❑	❑	❑	☑
10-26 PUBLIC ACCESS TO THE SHORELINE		❑	❑	❑	☑
10-27 BACK LOTS AND ACCESS					
A. Right-of-Way					
A.1	Width and frontage	❑	❑	❑	☑
A.2	Emergency vehicles	❑	❑	❑	☑
A.3	Existing lot and right-of-way	❑	❑	❑	☑
A.4	Backlots prohibited in subdivisions	❑	❑	❑	☑

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
A.5	Private Roads Serving Three or More Residential Units and/or Non-residential Uses	❑	❑	❑	☑
A.6	In the Farm and Forest District, Residential Shoreland District and Resource Protection District – lot size and width	❑	❑	❑	☑
A.7	In the Village Center District and Village Residential District – dimensional requirements	❑	❑	❑	☑
10-28 ACCESS MANAGEMENT STANDARDS					
A. Applicability		☑	❑	❑	❑
B. Adequacy of the Public Road System		☑	❑	❑	❑
C. Safe Sight Distances					
C.1.	Designed	☑	❑	❑	❑
C.2	Measurements	☑	❑	❑	❑
C.2.a	Sight distance	☑	❑	❑	❑
C.2.b	Height	☑	❑	❑	❑
C.2.c	Truck traffic	❑	❑	❑	☑
C.2.d	Recreational vehicle traffic	❑	❑	❑	☑
C.3	Placement	☑	❑	❑	❑
C.4	Site triangle	☑	❑	❑	❑
D. Access Management and Safety Standards					
D.1	Hazardous conflicts	☑	❑	❑	❑
D.2	Residential Lots	❑	❑	❑	☑
D.2.a	Farm and Forest District, Residential Shoreland District and Resource Protection District	❑	❑	❑	☑
D.2.b	Village Center District and Village Residential District	❑	❑	❑	☑
D.3	Commercial and Other Non-Residential Lots	☑	❑	❑	❑
D.3.a	Farm and Forest District, Residential Shoreland District and Resource Protection District	☑	❑	❑	❑

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
D.3.b	Village Center District and Village Residential District	❑	❑	❑	☑
D.4	Shared Driveways	❑	❑	❑	☑
D.5	Road, Pedestrian and Bicycle Connections Between Developments	❑	❑	❑	☑
D.6	Subdivisions	❑	❑	❑	☑
D.7	Corner Lot Access	☑	❑	❑	❑
D.8	Access Ways to Non-Residential Developments or to Multiplex Developments	❑	❑	❑	☑
D.9	Driveway Turn-Around Area	☑	❑	❑	❑
D.10	Driveway Grades	☑	❑	❑	❑
D.11	Access Way Location and Spacing	☑	❑	❑	❑
D.11.a	Location from intersection	☑	❑	❑	❑
D.11.b	Existing private roads	☑	❑	❑	❑
D.11.c	Demonstration of No Alternative	❑	❑	❑	☑
B.2	Farm and Forest District and Residential Shoreland District, Resource Protection District	❑	❑	❑	☑
B.3	Sidewalks	❑	❑	❑	☑
B.4	Connect to existing	❑	❑	❑	☑
B.5	Site Plan	❑	❑	❑	☑
B.6	Parking Plans	❑	❑	❑	☑
B.6.a	Bicycle parking	❑	❑	❑	☑
B.6.b	Pedestrian ways	❑	❑	❑	☑
B.6.c	Village Center District and Village Residential District sidewalks on frontage	❑	❑	❑	☑
10-32 INTERNAL VEHICULAR CIRCULATION					
A. <u>Safe Movement</u>					
A.1	Clear route	☑	❑	❑	❑

TOWN OF NORTH YARMOUTH

PLANNING BOARD

SITE PLAN REIVEW AND CONDITIONAL USE CHECKLIST

SITE PLAN PERFORMANCE & DESIGN STANDARDS		Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
A.2	Emergency vehicles	❑	❑	❑	☑
A.3	Layout and design	❑	❑	❑	☑
A.4	Designed to harmonize with site	❑	❑	❑	☑
10-33 OFF STREET PARKING					
A. Applicability		❑	❑	❑	☑
B. General Requirements		❑	❑	❑	☑
C. Parking Layout and Design					
C.1	On lot or adjacent lot	❑	❑	❑	☑
C.2	Arranged so not necessary to back out on road	❑	❑	❑	☑
C.3	Located behind or to side of building	❑	❑	❑	☑
C.4	Landscaping plan	❑	❑	❑	☑
C.5	Joint use of parking area	❑	❑	❑	☑
C.6	Durable surface	❑	❑	❑	☑
C.7	Parking space size	❑	❑	❑	☑
C.8	Diagonal parking	❑	❑	❑	☑
D. Parking Space Requirements					
D.1	Sufficient to accommodate	❑	❑	❑	☑
D.2	Size of structure	❑	❑	❑	☑
D.3	Reduce structure for sufficient parking	❑	❑	❑	☑
D.4	On-street parking	❑	❑	❑	☑
D.5	Availability of parking	❑	❑	❑	☑
D.6	Pedestrian and bicycle safety	❑	❑	❑	☑
D.7	Other standards	❑	❑	❑	☑
E. Waivers		❑	❑	❑	☑

	SITE PLAN PERFORMANCE & DESIGN STANDARDS	Received by Planning Board	Applicant Requests to be Waived	Waiver Approved by Planning Board	Not Applicable
10-34 OFF STREET LOADING REQUIREMENTS					
A. <u>Specific Uses</u>					
A.1	Maximum number of trucks	❑	❑	❑	☑
A.2	Type of business	❑	❑	❑	☑
A.3	Location of loading facility	❑	❑	❑	☑
A.4	Screening	❑	❑	❑	☑
A.5	Desirability of service roads or alleys	❑	❑	❑	☑
A.6	Other characteristics	❑	❑	❑	☑
A.7	Traditional layout and historical character	❑	❑	❑	☑
A.8	Minimize noise impacts	❑	❑	❑	☑

TOWN OF NORTH YARMOUTH

PLANNING BOARD

WAIVER OR NOT APPLICABLE REQUEST

NAME OF APPLICANT: Yarmouth Water District (Eric Gagnon) PHONE #: (207) 846-5821

AGENT/REPRESENTATIVE (if other): Wright-Pierce (Daniel J. Flaig, PE) PHONE #: (207) 798-3776

PROPERTY ADDRESS: Sweetser Road

MAP: 008 LOT: 29, 30, 31 ZONE: Farm/Forest, GW Overlay

(CIRLE ONE) (WAIVER) NOT APPLICABLE

WAIVER OR N/A TYPE: SUBMITTAL ITEM (STANDARD)

(CIRCLE ONE)

ORDINANCE SECTION#: 10.4 Building Design Standards

ORDINANCE LANGUAGE:

No less than 20 percent of the front façade of any building shall be window area.

SUPPORTING EVIDENCE FOR WAIVER CONSIDERATION: (use separate sheet is necessary)

To maintain security of the facility and to provide protection of public water infrastructure, no windows are proposed in the Booster Pump Station building.

(CIRLE ONE) WAIVER (NOT APPLICABLE)

WAIVER OR N/A TYPE: (CIRCLE ONE) SUBMITTAL ITEM (STANDARD)

ORDINANCE SECTION#: 10.2.C and 10.2.D

ORDINANCE LANGUAGE:

C. Blocks - Utility/Pedestrian Easement (within Village Center District and Village Residential District)

D. Utilities - Utilities serving lots with a street frontage of 125 feet or less shall be installed underground

SUPPORTING EVIDENCE FOR WAIVER CONSIDERATION: (use separate sheet is necessary)

Refer to Performance & Design Standards narrative.

TOWN OF NORTH YARMOUTH

PLANNING BOARD

WAIVER OR NOT APPLICABLE REQUEST

(CIRLE ONE) WAIVER (NOT APPLICABLE)

WAIVER OR N/A TYPE: (CIRCLE ONE) SUBMITTAL ITEM (STANDARD)

ORDINANCE SECTION#: 10.3, 10.10, 10.16, 10.22, 10.26, 10.27, 10.29, 10.30, 10.31, 10.33, 10.34

ORDINANCE LANGUAGE:

The entire above referenced Ordinance sections are not applicable.

SUPPORTING EVIDENCE FOR WAIVER CONSIDERATION: (use separate sheet is necessary)

Refer to Performance & Design Standards narrative.

(CIRLE ONE) WAIVER (NOT APPLICABLE)

WAIVER OR N/A TYPE: (CIRCLE ONE) SUBMITTAL ITEM (STANDARD)

ORDINANCE SECTION#: 10.6.C and 10.21.B

ORDINANCE LANGUAGE:

10.6.C Soil Erosion and Control Plan
10.21.B Stormwater Management Plan

SUPPORTING EVIDENCE FOR WAIVER CONSIDERATION: (use separate sheet is necessary)

Refer to Performance & Design Standards narrative.

YARMOUTH WATER DISTRICT

NORTH YARMOUTH BOOSTER PUMP STATION

APPLICATION FOR SITE PLAN REVIEW

SUPPORTING INFORMATION

The numbers below correspond to information requested in the Site Plan Review Application.

1. Abutter List

The following are names and addresses of all property owners within 500 feet of the property boundary of which the proposed project is located on. A public notice was sent on January 22, 2021 via certified mail to all abutters. Evidence of public notice to those on the abutter list is included in Attachment A.

Parcel Number	Property Address	Abutter Name	Abutter Address
005-009	104 SWEETSER RD	ROBBINS, JENNIFER L	104 SWEETSER RD NORTH YARMOUTH ME 04097
005-010	74 SWEETSER RD	DRAPPI, PAUL GERARD & EMILY, TRUSTEES	74 SWEETSER RD NORTH YARMOUTH ME 04097
005-011	44 SWEETSER RD	MARGARET T. HANSEL LIVING TRUST	44 SWEETSER RD NORTH YARMOUTH ME 04097
007-085	120 MEMORIAL HIGHWAY	TOWN OF NORTH YARMOUTH	10 VILLAGE SQUARE ROAD NORTH YARMOUTH ME 04097
007-086-001	77 MEMORIAL HIGHWAY	PILLSBURY, ERIC	77 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
007-086	99 MEMORIAL HIGHWAY	SAPPINGTON, GERTRUDE G.	139 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
007-087	119 MEMORIAL HIGHWAY	WILES, PETER T.	119 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
007-088	133 MEMORIAL HIGHWAY	MCCONNELL, MARTHA	133 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
007-089	139 MEMORIAL HIGHWAY	Same as 007-086	
007-090	147 MEMORIAL HIGHWAY	FOWSKI, DIANA J.	147 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
007-091	140 MEMORIAL HIGHWAY	BRICE, KATHRYN & OLIVER, NATHANIEL	140 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
007-092-ON	40 PARSONAGE RD	MAINE RSA#1 INC C/O DUFF & PHELPS, LLC	PO BOX 2629 ADDISON, TX 75001
007-092	40 PUBLIC WORKS WAY	SAME AS 007-085	
007-094	15 SWEETSER RD	SMITH, PATRICIA L. & TURNER GAIL R.	15 SWEETSER RD NORTH YARMOUTH ME 04097
007-095	29 SWEETSER RD	FOURNIER, PHILIP L.	29 SWEETSER RD NORTH YARMOUTH ME 04097

Parcel Number	Property Address	Abutter Name	Abutter Address
007-096	47 SWEETSER RD	PECK, ELIZABETH KNOX	47 SWEETSER RD NORTH YARMOUTH ME 04097
007-097	67 SWEETSER RD	YOUNG, WILLIAM B.	67 SWEETSER RD NORTH YARMOUTH ME 04097
008-033-002	5 DUNN DR	MCGONAGLE, KATHLEEN D	5 DUNN DR NORTH YARMOUTH ME 04097
008-003	0 RAILROAD BED	SAME AS 007-085	
008-027	0 MEMORIAL HIGHWAY	SAME AS 007-085	
008-028	160 MEMORIAL HIGHWAY	GOODMAN, ELYSE & NICHOLAS	160 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
008-028-003	7 BOWDOIN COURT	DENHAM, MATTHEW S & KATI A	7 BOWDOIN COURT NORTH YARMOUTH ME 04097
008-028-002	3 BOWDOIN COURT	CIANCHETTE, TUCKER J	12 CROSS RD CUMBERLAND, ME 04021
008-028-001	2 BOWDOIN COURT	AMERICAN CLASSIC CHEVROLETS LLC	2 BOWDOIN CT NORTH YARMOUTH ME 04097
008-032	192 MEMORIAL HIGHWAY	SILVERMAN, BRENDA	192 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
008-033-001	6 DUNN DRIVE	MAYNARD, TERRI A.	237 GREELY RD NORTH YARMOUTH ME 04097
008-033-003	250 MEMORIAL HIGHWAY	PLUFF, JONATHAN D & SUSAN G	250 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
008-033-004	218 MEMORIAL HIGHWAY	RYBECK, CHRISOPHER & LANDRY TAYLOR	218 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
008-033-A	266 MEMORIAL HIGHWAY	HALL, WILLIAM R. & JODIE	266 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
008-033	180 MEMORIAL HIGHWAY	HIBBARD, HAROLD E. III	180 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
008-003-005	200 MEMORIAL HIGHWAY	LYON, WESLEY & PON, KIM N	200 MEMORIAL HIGHWAY NORTH YARMOUTH ME 04097
008-034	181 MEMORIAL HIGHWAY	SAME AS 007-085	

4. General description

The following provides a general description of the proposed use or activity, including but not limited to the type of use, square footage involved, hours of operation, and types and amount of traffic to be generated.

The proposed site is on property owned by the Yarmouth Water District located at the corner of Sweetser Road and Route 9 as shown in the Project Location Map in Attachment B. The proposed site is located in the Farm and Forest District as well as the Groundwater Overlay District. The Yarmouth Water District property includes Map 008, Lot 29, Lot 30, and Lot 31 as shown on the Tax Map included in Attachment B; however, the Yarmouth Water District is in the process of consolidating these three lots into one. The Yarmouth Water District's legal counsel has prepared

a deed consolidating several separately described parcels into one legal description based on the survey dated February 1986. The new deed encompasses Tax Map 008, Lots 29, 30, and 31, and contains reference to all six of the deeds that make up the source of the Yarmouth Water District's title. The signed deed and the 1986 survey are included in Attachment C. Once the deed is recorded in the Registry of deeds, a copy of the recorded deed will be provided to the Town.

The proposed booster pump station is a water pumping facility to provide a mechanical redundancy for the Hayes Well booster pumping station. The Yarmouth Water District has two primary service areas or pressure zones. The primary service area supplies public water to the entire community of Yarmouth and portions of North Yarmouth along sections of Sligo Road and North Road, and is referred to as the Yarmouth 267 zone. The other service area is in North Yarmouth; which is a boosted zone and provides service to the Route 9 corridor and village area, and is referred to as the North Yarmouth 407 zone. The proposed project includes construction of a new booster pump station to supply water from the Yarmouth 267 zone to the North Yarmouth 407 zone. Currently, the Yarmouth Water District maintains one booster pump, to supply water to the storage tank in the North Yarmouth service area.

The existing booster pump is located in the Hayes Well station, which is an undersized single pump that would require more costly and operationally disruptive renovations to accommodate a newer, higher capacity booster pump station combined with the current Hayes well facilities. The existing booster pump is an undersized to meet the recent peak summer demands and projected future demands with the growth of North Yarmouth development. The North Yarmouth Booster Pump Station will improve booster pumping resiliency for the North Yarmouth 407 zone, increase capacity to meet projected long-term demands, and improve service reliability to the North Yarmouth service area.

The proposed 0.36 MGD pump station will provide the capacity and redundancy needed to serve the rapidly expanding North Yarmouth village area. The pump station will include a generator room, two pumps for pumping redundancy, and a room for sodium hypochlorite addition, if the chlorine residual from the 267 zone is required to be boosted in concentration to meet the operational needs of the 407 zone. The proposed facility will improve energy efficiency by meeting modern energy code standards, include a heat pump and variable frequency drives to operate the booster pumps, and will be designed to be easily upgradable should demand changes

warrant an upgrade in the future. The proposed booster pump station will be constructed in conjunction with replacement of the Hayes transmission main proposed to be relocated within Sweetser Road and would allow complete abandonment of the existing Hayes transmission main, which is a significant system reliability vulnerability for water supply in North Yarmouth.

Site improvements include a 28-foot by 28-foot booster pump station, a gravel driveway, two 1,000-gallon propane tanks (to fuel the standby generator), pad-mounted transformer, and chain link fence with swing access gate (for security). The booster pump station building will be a masonry block building with a brick veneer and a metal roof. The booster pump station will be operated remotely; therefore, no office is proposed. It is anticipated that Yarmouth Water District staff will be onsite once per day (Monday through Friday) for a short period of time for routine daily checks and maintenance activities. The proposed facility is not anticipated to generate any traffic as only one or two vehicles will be at the facility at the same time. A rendering of the proposed pump station is included in Attachment H.

6. List of Potentially Toxic or Hazardous Materials

The following is a list of chemicals, pesticides, fuels, nutrients, and other potentially toxic of hazardous materials to be used or stored on the premises, and the quantities of these materials.

Material	Quantity Stored	Notes
Liquid Propane	2,000 Gallons	Two 1,000-gallon aboveground, horizontal tanks on concrete pad
Sodium Hypochlorite (disinfectant)	Less than 55 gallons	Only if sodium hypochlorite addition is needed in the future to boost chlorine residual from 267 zone water supply

7. List of Equipment

The following is a list of equipment to be used, parked, or stored:

- Standby generator (to be stored inside the building)
- Transformer (pad-mounted)

YARMOUTH WATER DISTRICT

NORTH YARMOUTH BOOSTER PUMP STATION

APPLICATION FOR SITE PLAN REVIEW

GROUNDWATER PROTECTION OVERLAY DISTRICT

BEST MANAGEMENT PRACTICES

SECTION 9.2 GROUNDWATER PROTECTION OVERLAY DISTRICT BEST MANAGEMENT PRACTICES

Article IX Special District Standards, Section 9.2 Groundwater Protection Overlay District: Best Management Practices indicates the essential operations of the Yarmouth Water District are exempt from the review portions of Section 9.2; however, they shall use best management practices to ensure pollutants do not get into the groundwater. The Yarmouth Water District's goal is to protect the water quality of the groundwater supply, and they implement best management practices at this site, including:

- Liquid propane used to fuel the standby generator, rather than diesel or gasoline
- No outdoor storage of material or equipment.
- No salt application (rely on plowing and occasional sand-only application for ice control).
- No generation of wastewater onsite (Pump Station will not be equipped with a subsurface wastewater disposal system).
- Chemicals, if used, will be stored in the Chemical Room with secondary containment provisions, which does not have floor drains.
- Stormwater will be controlled by a vegetated swale and level lip spreader.

YARMOUTH WATER DISTRICT

NORTH YARMOUTH BOOSTER PUMP STATION

APPLICATION FOR SITE PLAN REVIEW

PERFORMANCE & DESIGN STANDARDS

SECTION 10.1 APPLICABILITY

The following sections describe how the project conforms to Article X. Performance and Design Standards for Site Plan Review & Subdivision Review of the Land Use Ordinance. In relation to this project, the term "development" pertains to land use requiring Site Plan Review.

SECTION 10.2 GENERAL LAYOUT OF DEVELOPMENT

A. Utilization of the Site

The Booster Pump Station building is located on a portion of the site with suitable conditions for development and is not located in an environmental sensitive area. The location of the Booster Pump Station on the property was selected on gently sloping ground to minimize excavation and filling, facilitate natural drainage paths, and to maximize building setback and natural buffering to neighboring residential properties on Sweetser Road and Route 9. In addition, the development site does not impede on an existing snowmobile trail that traverses the property beginning at the corner of Sweetser Road and Route 9 and parallel to Route 9.

The Booster Pump Station building and driveway were situated to maximize offset for existing residential driveways and maintain adequate site distances. The building set back, driveway offset, and hammerhead driveway configuration were implemented to lessen visibility of the development from Sweetser Road.

Other considerations for project siting were to balance the distance from Route 9 for extension of 3-phase underground power from Route 9, while considering buffer preservation, topography, and wetland/low lying areas to the northeast of the old

abandoned railroad bed and toward Hayes Well . Additionally, the Booster Pump Station was not clustered with the existing Hayes Well Station to allow future improvements at the Hayes well facility, including a replacement well where hydrogeologic conditions are favorable for well development. The Hayes Well is approximately 70 years old.

B. Lots

There is an existing well building on the Yarmouth Water District property; therefore, after construction of the Booster Pump Station building, there will be more than one principal non-residential structures on the parcel. The structures are sited on the property, such that it would be feasible to create separate conforming lots for each building.

C. Blocks

This subsection is not applicable as it only applies to Village Center District and Village Residential District

D. Utilities – Underground

This subsection is not applicable, since the street frontage of the lot is greater than 125 feet; however, the site will be served by underground power. Overhead electric will be terminated at Route 9 and it will go underground, cross-country to a transformer at the pump station. The transformer will step down the voltage to the pump station. The final alignment and design layout of the proposed underground power will need to be approved by Central Maine Power prior to construction.

E. Monuments

The District will rely on the existing monuments found and/or set as part of the recorded 1987 survey.

SECTION 10.3 BROOK, POND, VERNAL POOL AND WETLAND BUFFERS

This standard is not applicable as there are no protected natural resources directly adjacent to the proposed project. A natural resource analysis for the project area was completed by Atlantic Environmental, LLC. No wetlands were identified within the project area; however a palustrine, forested wetland was identified further away within the property. There will be a significant length of undisturbed buffer of existing vegetation between the disturbed area development and wetlands.

SECTION 10.4 BUILDING DESIGN STANDARDS

The Booster Pump Station building will be visually integrated with existing building and features on the site and adjacent properties. The small building will be set back approximately 100 feet from the road, be screened by a wooded buffer strip, and have a brick veneer. No parking or drive-through facilities are proposed at the site. A waiver is requested for Section 10.4.B.2 (no less than 20 percent of the front façade of any building shall be window area). To maintain security of the facility and to provide protection of public water infrastructure, no windows are proposed in the Booster Pump Station building.

SECTION 10.5 COMMUNITY FACILITIES IMPACT ANALYSIS AND MITIGATION

The proposed facility will not result in a negative impact to the environmental or to the community facilities or services.

SECTION 10.6 EROSION AND SEDIMENTATION CONTROL

A. Topography and Natural Surroundings

Filling and excavation will be kept to a minimum by having proposed grading close to the existing grades.

B. Best Management Practices

Erosion and sedimentation control measures will be designed and implemented according to "Maine Erosion and Sediment Control Best Management Practices (BMP) Manual for Designers and Engineers" by the Maine Department of Environmental Protection, most current edition. Specific erosion and sedimentation control measures to be implemented on site include erosion control matting in the vegetated swale, level lip spreader at the end of the vegetated swale, and silt fence located down gradient of disturbed areas. Erosion and Sedimentation Control Notes and Details are included in the Booster Pump Station plan set.

C. Soil Erosion and Control Plan

A written soil erosion and sedimentation control plan is not applicable, as the disturbed area is less than 20,000 square feet.

SECTION 10.7 EMISSIONS

No emissions of dust, ash, smoke or other particulate matter are anticipated other than dust during construction, which will be controlled using erosion and sedimentation controls. The standby emergency generator fuel source will be propane, which is clean burning.

SECTION 10.8 EXTERIOR LIGHTING

Exterior lighting will be adequate for security and potential operational needs during nighttime hours. Downward facing, fixed mount, LED full cutoff fixtures are proposed to limit deleterious effects and unnecessarily lighting the night sky. There will be no blinking lights or spot-light type fixtures. Light fixtures will be attached to the building façade. A cutsheet of the proposed fixtures is included in Attachment D.

SECTION 10.9 FINANCIAL AND TECHNICAL CAPACITY

The Yarmouth Water District has adequate financial resources to construct the proposed improvements to meet the standards of the Land Use Ordinance. Evidence of financial capacity is included in Attachment E. The Yarmouth Water District will retain qualified contractors and consultants to supervise, construct, and inspect the proposed facility. The contractor will be selected through a competitive bidding process and construction administration and inspection will be conducted by the Yarmouth Water District personnel and/or through a contract with Wright-Pierce. A Wright-Pierce Drinking Water brochure demonstrating technical capacity is also included in Attachment E.

SECTION 10.10 FLOODPLAIN MANAGEMENT

This standard is not applicable. No portion of the site is located within a 100-year floodplain as identified by the Federal Emergency Management Agency on the Flood Insurance Rate map as shown in Attachment B.

SECTION 10.11 HAZARDOUS, SPECIAL, AND RADIOACTIVE MATERIALS

Propane will be stored in two, 1,000 gallon, horizontal, aboveground tanks on a concrete pad. The tanks will be located more than 75 feet from any lot line. Additionally, the tanks will be located more than 25 feet from the building. No “reportable” quantities of hazardous or toxic materials will be utilized, stored, or disposed of at the facility.

SECTION 10.12 HISTORIC AND ARCHEOLOGICAL SITES

The site does not contain any known historic or archaeological resources listed on the National Register of Historic Places or preliminarily determined to be eligible for listing on the Register. A response from the Maine Historic Preservation Commission dated November 3, 2020, included in Attachment F, indicates no historic properties will be affected by the proposed project.

SECTION 10.13 LANDSCAPING, BUFFERS AND SCREENING

Existing trees and vegetation will be preserved where possible, and clearing will be limited to areas necessary for development of the site (stormwater management, driveway, building, and other site improvements). No plantings are proposed. The building is set back from the road and offset from the driveway to limit exposure to Sweetser Road. The propane tanks and transformer are screened from the road by the building. The driveway is proposed as gravel, matching the gravel portion of Sweetser Road at this location.

SECTION 10.14 NATURAL BEAUTY AND AESTHETICS IN THE FARM AND FOREST DISTRICT, RESIDENTIAL SHORELAND DISTRICT AND RESOURCE PROTECTION DISTRICT

Development in which the land cover type at the time of application is forested, shall maintain a wooded buffer strip no less than 50 feet in width along all existing public roads. The project will maintain a wooded buffer strip of approximately 60 feet located in front of the building between the fence and Sweetser Road; however, to manage stormwater runoff from Sweetser Road and divert it away from the building, a vegetated swale (approximately 6 feet wide) is proposed within the wooded buffer strip, and will result in a cleared opening of approximately 10-feet along the length of the swale. The wooded buffer strip will also be broken by the driveway and associated 25-foot site triangle at the driveway entrance (per Section 10.28.C.4). Refer to the Site Layout and Grading Plan included in the Booster Pump Station plan set to see the extent of the wooded buffer.

SECTION 10.15 NOISE

Nuisance noise will be minimized by locating the standby generator inside the Booster Pump Station building. The generator will be used during power outages at the facility and will also be exercised on a regular basis (i.e. once per week for several minutes) as is routine with other Yarmouth Water District well stations. The Yarmouth Water District hired Bodwell EnviroAcoustics to conduct a noise evaluation of the standby generator. See Attachment G for a letter from Bodwell EnvrioAcoustics.

SECTION 10.16 SEWAGE DISPOSAL

This standard is not applicable as no bathrooms or plumbing is proposed; therefore, no sewage disposal is required. There will be a 4-inch clear water drain in the pump room for collection and disposal of condensation, which will discharge overland as shown on the Piping Plan included in the Booster Pump Station plan set.

SECTION 10.17 SIGNS

No exterior signs or outdoor advertising structures or features are proposed other than a placard attached flat to the building. The placard will be cast bronze, approximately 1.5 feet by 3 feet in size, and will include the pump station name and Yarmouth Water District.

SECTION 10.18 SOIL SUITABILITY

A geotechnical investigation for the site was conducted on October 15, 2020 with the excavation of three test pits. Soil at the site generally consists of topsoil over a sandy glacial marine deposit. A Geotechnical Report was prepared for the project by Summit Geoengineering Services, dated December 18, 2020. The Geotechnical Report indicates that based on the proposed finished grade, the building slab elevation, and recommended front protection depth, the footings for the building will be supported directly on the glacial marine silt and sand soil.

SECTION 10.19 SOLID WASTE DISPOSAL

Very limited solid waste is anticipated to be produced at the facility. Provision for solid waste disposal during construction will be included in the construction contract, and it will be disposed of at a state approved landfill or transfer station.

SECTION 10.20 STORAGE OF MATERIALS

No outdoor storage areas are proposed, other than the propane tanks for the generator, which will be located behind the building and be screened from the road.

SECTION 10.21 STORMWATER CONTROL

Stormwater on site will be managed by diverting stormwater flows from Sweetser Road away from the Booster Pump Station building by means of a vegetated swale and a level lip spreader to disperse the flow. Onsite stormwater will sheet flow across the gravel drives and vegetated areas to an existing low spot located to the northeast of the site, which will act as a natural detention area and promote runoff to recharge into the groundwater. A stormwater management plan is not required for the development, as less than 20,000 square feet of land is to be disturbed.

SECTION 10.22 RECREATION AND OPEN SPACE LAND IN DEVELOPMENTS

This standard is not applicable as the site is not located in the Village Center District or the Village Residential District.

SECTION 10.23 WATER SUPPLY

The Booster Pump Station will inherently be connected to the public water system; however, there will be no potable water fixtures, sanitary facilities, nor sprinklers in the building. There will be adequate water supply and pressure for hydrant flows on Sweetser Road for fire-fighting purposes. The complete design and construction of the system will be reviewed and approved by the Yarmouth Water District and the North Yarmouth Fire Chief. A fire hydrant connected to a public water system will be located within 500 feet from the building. The Yarmouth Water District has been in coordination with the North Yarmouth Fire Chief. As far as hydrant specifications, the make and model will be the responsibility of Yarmouth Water District to determine and the location of hydrants was discussed with the Fire Chief early in the design process.

SECTION 10.24 WATER QUALITY

The site is located on property owned by the Yarmouth Water District, which includes the Hayes Well. The District's goal is to protect the water quality of the groundwater supply, and therefore, the proposed development will not contribute to contamination of groundwater or surface water.

SECTION 10.25 PROTECTION OF SIGNIFICANT WILDLIFE HABITAT

According to a letter from the Maine Department of Inland Fisheries & Wildlife, there are no significant wildlife habitats mapped by the Maine Department of Inland Fisheries & Wildlife within the project area. As shown in Figure 2 included in Attachment F, a deer wintering area has been mapped within the property owned by Yarmouth Water District; however, it is outside of the project area. The project area is listed as habitat for the threatened Northern Long-eared Bat, as is the entire state of Maine; however, no known hibernacula or roosting trees exist within the site. According to the Maine Natural Areas Program, there are no rare botanical features documented specifically within the project area. Agency review letters are included in Attachment F.

SECTION 10.26 PUBLIC ACCESS TO THE SHORELINE

This standard is not applicable as there are no existing public right-of-access to the shoreline.

SECTION 10.27 BACK LOTS AND ACCESS

This standard is not applicable as the development is not proposed on a back lot.

SECTION 10.28 ACCESS MANAGEMENT STANDARDS

One driveway is proposed for the Booster Pump Station, and it is located on Sweetser Road, which has adequate capacity to accommodate the additional, minimal traffic generated by the development. The driveway has been designed with adequate site distance for this location, and a 25-foot site triangle is proposed on either side of the intersection of the driveway and Sweetser Road as shown on the Site Layout and Grading Plan included in the Booster Pump Station plan set. The driveway is designed with a sufficient turn-around area, and has a grade of three percent (plus or minus) for a minimum of 40 feet from Sweetser Road. The driveway is located more than 50 feet from the closest unsignalized intersection. The Yarmouth Water District will obtain a Driveway/Road Entrance Permit from the Code Enforcement Officer prior to constructing the driveway.

SECTION 10.29 SUBDIVISION STREET CONNECTIVITY REQUIRED IN THE VILLAGE CENTER AND VILLAGE RESIDENTIAL DISTRICTS

This standard is not applicable as the proposed development is not a Subdivision nor located in the Village Center and Village Residential Districts.

SECTION 10.30 SUBDIVISION STREET LENGTH AND CONNECTION REQUIREMENTS IN THE FARM AND FOREST DISTRICT AND RESIDENTIAL SHORELAND DISTRICT

This standard is not applicable as the proposed development is not a Subdivision.

SECTION 10.31 PEDESTRIAN WAYS AND BICYCLE ACCESS, CIRCULATION AND FACILITIES

This standard is not applicable as it is not necessary to link the Booster Pump Station with residential, recreational, and other facilities.

SECTION 10-32 INTERNAL VEHICULAR CIRCULATION

The layout of the site provides for safe movement of passenger, service, and emergency vehicles in and out of the site with a 12-foot wide driveway and a turn-around area. The largest delivery vehicle anticipated is a propane delivery vehicle; the driveway should be adequate to allow turning and backing for the propane delivery vehicle and other such trucks. As requested by the North Yarmouth Fire Chief, a Knox Box will be attached to the front of the building to allow access to the facility by emergency personnel.

SECTION 10.33 OFF STREET PARKING

This standard is not applicable given the use of the Booster Pump Station. It is anticipated that only one or two vehicles will be at the facility at the same time on an infrequent basis; therefore, dedicated spaces for parking are not needed. There is adequate room for vehicles to park along the driveway.

SECTION 10.34 OFF STREET LOADING REQUIREMENTS

This standard is not applicable as there are no loading facilities at the site. Off-street loading will only include off-loading of propane (propane deliveries) and will be limited to one truck at a time. Trucks will park on the driveway to unload, which is adjacent to the building, and trucks will be able to turn around, if necessary, in the driveway turn-around area.

Attachment A
Abutter Notification

January 22, 2021

Subject: North Yarmouth Booster Pump Station
Abutter Notification

Dear Abutter:

This notice letter is to inform you that Yarmouth Water District is filing an application for Site Plan Review approval with the North Yarmouth Planning Board for a proposed Booster Pump Station to be located on property owned by the Yarmouth Water District at the corner of Sweetser Road and Route 9 in North Yarmouth (see attached Project Location Map).

The proposed Booster Pump Station is a water pumping facility to provide a mechanical redundancy for the Hayes Well booster pumping station, and will be constructed in conjunction with replacement of the Hayes transmission main proposed to be relocated within Sweetser Road to allow complete abandonment of the existing Hayes transmission main, which is a significant system reliability vulnerability. Site improvements include a 28-foot by 28-foot booster pump station building, a gravel driveway, two 1,000-gallon propane tanks, and chain link fence with an access gate.

The Planning Board is expected to consider the application at the Planning Board's regularly scheduled meeting on Tuesday, February 9, 2021 at 7:00 p.m. The Planning Board Meeting will be held remotely (see attached Remote Planning Board Meetings Public Participation/Public Hearing Process document). The application will be available for review under the Planning Board Calendar Event accessed on the Planning Board webpage on the Town of North Yarmouth's website.

If you have any questions regarding this notice letter, please contact me at (207) 798-3776.

Sincerely,

WRIGHT-PIERCE

Daniel J. Flaig, PE
Project Manager

Well
Tank
Proposed Water Main
Water Main
Proposed Booster Pump Station

Reinsborough Well Pump Station

Hayes Well Pump Station

Proposed Booster Pump Station

Memorial Hwy

Oak Hill Rd

Sweetser Rd

The Lane

Heather Loch

Baston Rd

Conifer Ln

Parsonage Rd

N

0 300 600 1,200 Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, U

North Yarmouth Booster Pump Station
Project Location Map

Yarmouth Water District

PROJ NO:	DATE:
20451	10/22/2020

WRIGHT-PIERCE
Engineering a Better Environment

FIGURE: 1

CLM W:\GIS_Development\Projects\ME\Yarmouth\20451_NorthYarmouthBoosterPS\MXDs\NY_Booster_PS_Loc_11x17.mxd

TOWN OF NORTH YARMOUTH
REMOTE PLANNING BOARD MEETINGS
PUBLIC PARTICIPATION/PUBLIC HEARING PROCESS

Members of the public may be afforded the opportunity to view the meetings live online or cable tv. Due to the constraints of the virtual environment, the public comment portion of Planning Board meetings, where live comments must be considered for inclusion in the public record, the following procedures shall apply:

- Application files will be posted online under the Planning Board Calendar Event with all public comments that have been received to date so that people can receive them that way.

- Written comments submitted prior to the meeting for inclusion in the record must be submitted to the Town's Code Enforcement office codeoffice@northyarmouth.org or 829-3705 option 1 and must be received by noon of the Monday before the scheduled Planning Board Meeting to guarantee inclusion in the record. Such comments will be read by the Chairperson and must be limited to 3 minutes in length. (Name and address must be included with comment.)

Instructions for meeting participants:

The Planning Board will conduct remote access meetings using the Zoom Application. To learn more about Zoom, find tutorials and sign up for a free account, please go to https://zoom.us/.

To view a Planning Board meeting you have the following options:

1) You can watch the live meeting via Town Hall Streams, please to go to town website click meetings on demand button on the left side of the screen and select Town Hall Steam then enter North Yarmouth, ME in the drop down.

2) Channel 1301 on Spectrum cable is now available for live viewing.

3) The Zoom meeting link will be provided 1 hour prior to the start of the meeting in the calendar information accessed on the Planning Board page of the town website. Enter first name, last name and address when joining

To comment in the meeting:

- Live comments by attendees will be accepted during the public hearing time designated by the Chair. All comments will be limited to 3 minutes.
    - If you are participating by video, please enter "I have a comment" into chat box and you will be called upon by the Chair.
    - If you are participating by phone, you can let us know you have a comment by pressing *9.

We still highly suggest that advanced written comments are the best way to provide feedback to the Planning Board on applications.

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11923276

06250012913642

USPS CERTIFIED MAIL

9407 1118 9876 5892 9691 71

RESIDENCE
DRAPPI, PAUL GERARD & EMILY, TRUSTEES
74 SWEETSER RD
NORTH YARMOUTH ME 04097-6426

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11923276

06250012913642

USPS CERTIFIED MAIL

9407 1118 9876 5892 9691 33

RESIDENCE
ROBBINS, JENNIFER L
104 SWEETSER RD
NORTH YARMOUTH ME 04097-6427

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11923276

06250012913642

USPS CERTIFIED MAIL

9407 1118 9876 5892 9693 55

TOWN OF NORTH YARMOUTH
TOWN OF NORTH YARMOUTH
120 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6331

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11923276

06250012913642

USPS CERTIFIED MAIL

9407 1118 9876 5892 9693 17

RESIDENCE
MARGARET T. HANSEL LIVING TRUST
44 SWEETSER RD
NORTH YARMOUTH ME 04097-6426

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

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FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11923276

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USPS CERTIFIED MAIL

9407 1118 9876 5892 9693 24

RESIDENCE
SAPPINGTON, GERTRUDE G.
99 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6327

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

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FIRST-CLASS
Jan 22 2021
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1 oz First-Class Mail Letter

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USPS CERTIFIED MAIL

9407 1118 9876 5892 9693 62

RESIDENCE
PILLSBURY, ERIC
77 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6327

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
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1 oz First-Class Mail Letter

11803375

0825001291354 2

RESIDENCE
MCDONNELL, MARTHA
133 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6326

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
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1 oz First-Class Mail Letter

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RESIDENCE
WILES, PETER T.
119 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6326

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

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RESIDENCE
BRICE, KATHRYN & OLIVER, NATHANIEL
140 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6331

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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Jan 22 2021
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1 oz First-Class Mail Letter

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RESIDENCE
FOWSKI, DIANA J.
147 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6328

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
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1 oz First-Class Mail Letter

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0825001291354 2

RESIDENCE
SMITH, PATRICIA L. & TURNER GAIL R.
19 SWEETSER RD
NORTH YARMOUTH ME 04097-6420

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

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MAINE RSA NO 1 INC C/O DUFF & PHELPS, LLC
MAINE RSA NO 1 INC C/O DUFF & PHELPS, LLC
40 PARSONAGE RD
ADDISON TX 75001-6000

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

9407 1118 9876 5892 9690 58

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11803375

0525001291304 2

RESIDENCE
PECK, ELIZABETH KNOX
47 SWEETSER RD
NORTH YARMOUTH ME 04097-6420

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

9407 1118 9876 5892 9690 10

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11803375

0525001291304 2

RESIDENCE
FOURNIER, PHILIP L
29 SWEETSER RD
NORTH YARMOUTH ME 04097-6420

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11803375

0525001291304 2

RESIDENCE
MCDONAGLE, KATHLEEN D
5 DUNN DR
NORTH YARMOUTH ME 04097-6252

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

9407 1118 9876 5892 9690 65

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11803375

0525001291304 2

RESIDENCE
YOUNG, WILLIAM B
87 SWEETSER RD
NORTH YARMOUTH ME 04097-6420

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
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1 oz First-Class Mail Letter

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RESIDENCE
DENHAM, MATTHEW S & KATI A
7 BOWDOIN CT
NORTH YARMOUTH ME 04097-6257

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
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1 oz First-Class Mail Letter

11803375

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RESIDENCE
GOODMAN, ELYSE & NICHOLAS
160 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6234

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

9407 1118 9876 5892 9690 89

$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
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1 oz First-Class Mail Letter

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AMERICAN CLASSIC CHEVROLETS LLC
AMERICAN CLASSIC CHEVROLETS LLC
2 BOWDOIN CT
NORTH YARMOUTH ME 04097-6257

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

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RESIDENCE
CIANCHETTE, TUCKER J
3 BOWDOIN CT
NORTH YARMOUTH ME 04097-6257

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

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RESIDENCE
MAYNARD, TERRI A
6 DUNN DR
NORTH YARMOUTH ME 04097-6253

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11803375

0525001291354 2

RESIDENCE
SILVERMAN, BRENDA
192 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6234

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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1 oz First-Class Mail Letter

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RESIDENCE
RYBECK, CHRISOPHER A LANDRY TAYLOR
218 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6235

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11803375

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RESIDENCE
PLUFF, JONATHAN D & SUSAN G
250 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6235

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

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RESIDENCE
HIBBARD, HAROLD E. III
180 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6234

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11903375

0525001291354 2

RESIDENCE
HALL, WILLIAM R. & JODIE
266 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6235

Wright-Pierce
11 BOWDOIN MILL IS STE 140
TOPSHAM ME 04086-1241

USPS CERTIFIED MAIL

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$4.05 US POSTAGE
FIRST-CLASS
Jan 22 2021
Mailed from ZIP 04086
1 oz First-Class Mail Letter

11903375

0525001291354 2

RESIDENCE
LYON, WESLEY & PON, KIM N
200 MEMORIAL HWY
NORTH YARMOUTH ME 04097-6235

UNITED STATES POSTAL SERVICE®

Shipment Confirmation Acceptance Notice

A. Mailer Action

Note To Mailer: The labels and volume associated to this form online must match the labeled packages being presented to the USPS® employee with this form.

Shipment Date: 01/22/2021

Shipped From:

Name: Wright-Pierce

Address: 11 Bowdoin Mill Island

City: Topsham

State: ME Zip+4®: 04086

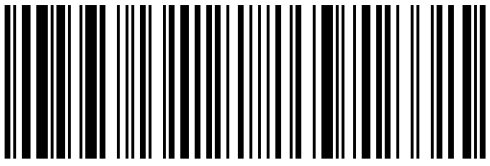
Type of Mail	Volume
Priority Mail Service®	0
Priority Mail Express Service®	0
Library Mail Service®	0
International Mail®	0
First-Class Package Service®	27
Parcel Select®	0
Other	0
Total Volume	27

*Start time for products with service guarantees will begin when mail arrives at the local Post Office™ and items receive individual processing and acceptance scans.

B. USPS Action

USPS EMPLOYEE: Please scan upon pickup or receipt of mail. Leave form with customer or in customer's mail receptacle.

USPS SCAN AT ACCEPTANCE



9475 7112 0108 0370 9717 61

Attachment B
Maps

Well
Tank
Proposed Water Main
Water Main
Proposed Booster Pump Station

Reinsborough Well Pump Station

Hayes Well Pump Station

Proposed Booster Pump Station

Memorial Hwy

Oak Hill Rd

Sweetser Rd

The Lane

Heather Loch

Baston Rd

Conifer Ln

Parsonage Rd

N

0 300 600 1,200 Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, U

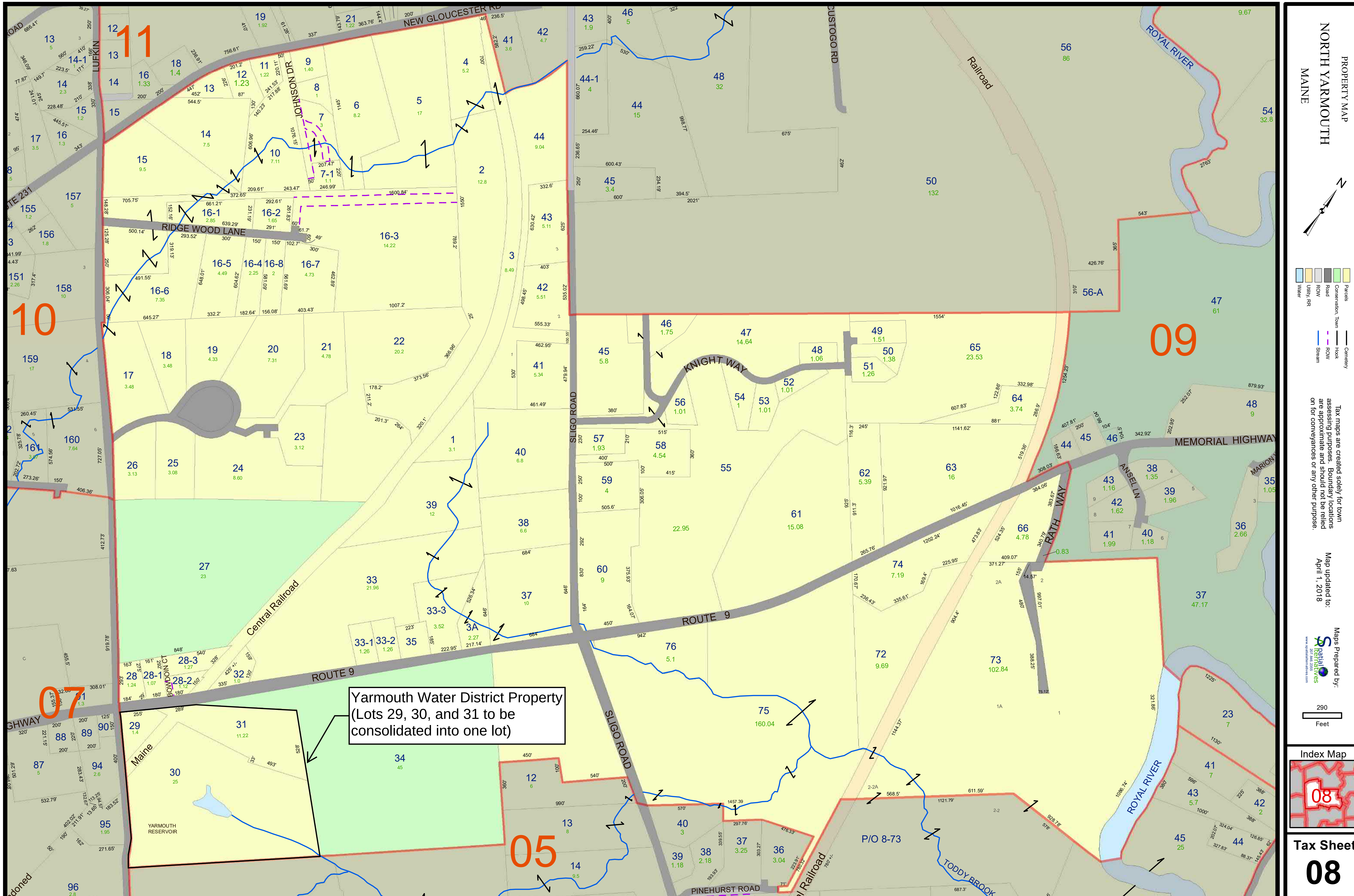
North Yarmouth Booster Pump Station
Project Location Map

Yarmouth Water District

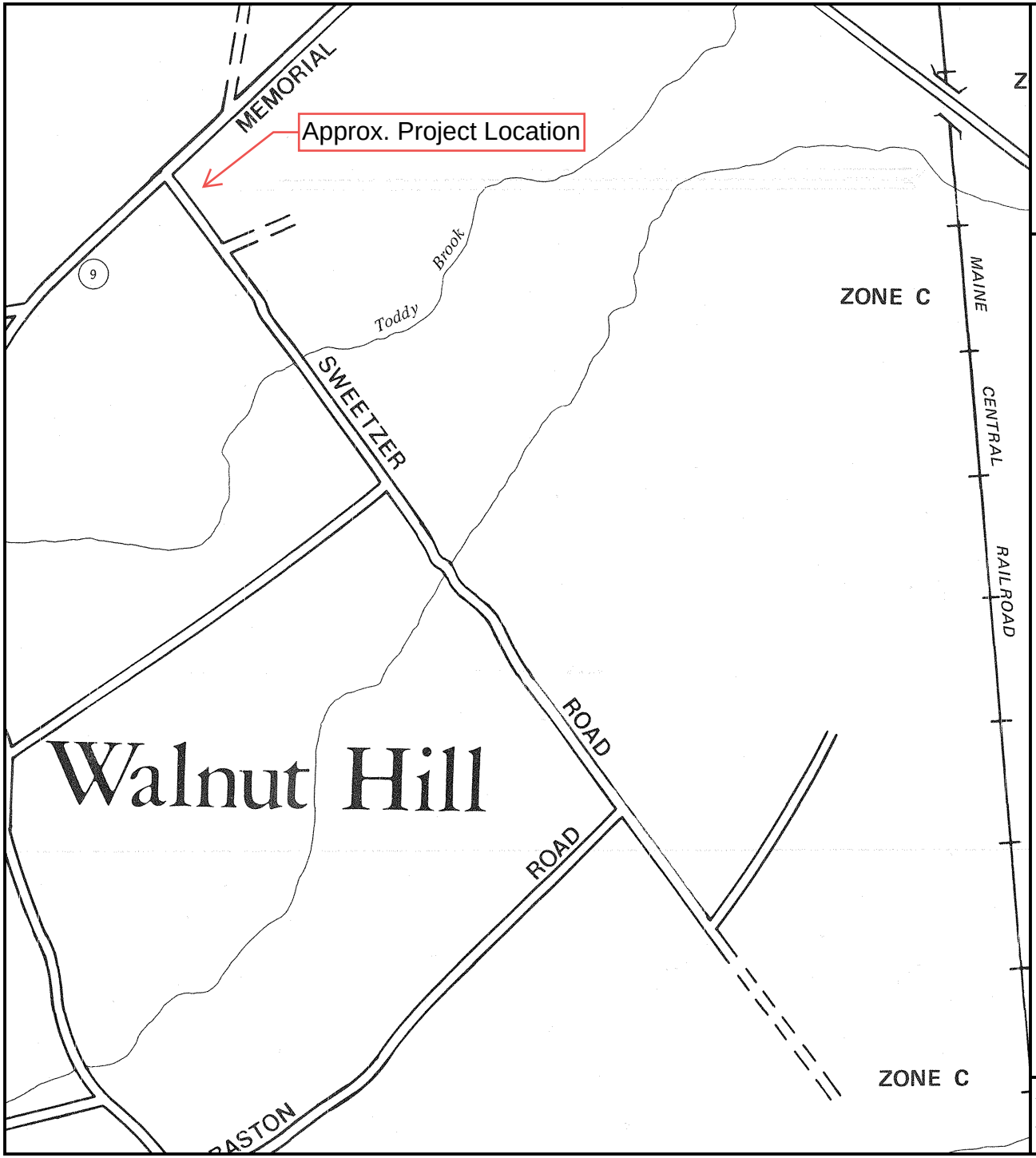
PROJ NO:	DATE:	FIGURE:
20451	10/22/2020	1

WRIGHT-PIERCE
Engineering a Better Environment

CLM W:\GIS_Development\Projects\ME\Yarmouth\20451_NorthYarmouthBoosterPS\MXDs\NY_Booster_PS_Loc_11x17.mxd



Yarmouth Water District Property
(Lots 29, 30, and 31 to be consolidated into one lot)
NEW GLOUCESTER RD
JOHNSON DR
LUFKIN
RIDGE WOOD LANE
KNIGHT WAY
SLIGO ROAD
ROUTE 9
MEMORIAL HIGHWAY
ANSEL LN
RATH WAY
CUSTOGO RD
Railroad
Central Railroad
ROYAL RIVER
TODDY BROOK
PINEHURST ROAD
YARMOUTH RESERVOIR
Maine
11
10
09
07
05
PROPERTY MAP
NORTH YARMOUTH
MAINE
Legend
Parcels
Conservation, Town
ROW
Road
Utility, RR
Water
Cemetery
Hook
ROW
Stream
Tax maps are created solely for town assessing purposes. Boundary locations are approximate and should not be relied on for conveyances or any other purpose.
Map updated to: April 1, 2018
Maps Prepared by:
290
Feet
Index Map
08
Tax Sheet
08



APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

230202

TOWN OF
NORTH YARMOUTH,
MAINE
CUMBERLAND COUNTY

PANEL 10 OF 10
(SEE MAP INDEX FOR PANELS NOT PRINTED)

P10

COMMUNITY-PANEL NUMBER
230202 0010 B

EFFECTIVE DATE:
JULY 16, 1981

N90

federal emergency management agency
federal insurance administration

Attachment C
Title, Right, or Interest

QUITCLAIM DEED WITHOUT COVENANT

(Maine Statutory Short Form)

KNOW ALL BY THESE PRESENTS, that **YARMOUTH WATER DISTRICT**, a Maine quasi-municipal corporation with a mailing address of PO Box 419, Yarmouth, ME 04096, RELEASES to **YARMOUTH WATER DISTRICT**, a Maine quasi-municipal corporation with a mailing address of PO Box 419, Yarmouth, ME 04096, certain real estate located in North Yarmouth, County of Cumberland and State of Maine, which is more particularly described in Exhibit A attached hereto and made a part hereof.

This conveyance is made SUBJECT, HOWEVER, to real estate taxes which are not yet due and payable, which, by acceptance hereof, Grantee assumes and agrees to pay.

The purpose of this conveyance is to consolidate several separately described parcels of real estate into one legal description.

IN WITNESS WHEREOF, **YARMOUTH WATER DISTRICT** has caused this instrument to be executed by its duly authorized undersigned representative on this 22 day of January, 2021.

YARMOUTH WATER DISTRICT

Witness

By: _____
Printed Name: Eric Gagnon
Its: Superintendent

STATE OF MAINE
County of Cumberland, SS.

January 22, 2021

Then personally appeared the above-named Eric Gagnon, in his capacity as Superintendent of **YARMOUTH WATER DISTRICT** and acknowledged the foregoing instrument to be his/her free act and deed in his said capacity, and the free act and deed of said **YARMOUTH WATER DISTRICT**.

Before me,

Alison S. Purinton
Notary Public/Maine Attorney-at-Law
Printed Name: Alison S. Purinton
My Commission Expires: 9-2-2022

ALISON S. PURINTON
NOTARY PUBLIC
CUMBERLAND COUNTY
MAINE
MY COMMISSION EXPIRES SEPTEMBER 2, 2022

EXHIBIT A

A certain lot or parcel of land located in North Yarmouth, County of Cumberland and State of Maine and shown on the plan titled "Survey Plan, Hayes Spring Lot, North Yarmouth, Maine" for Yarmouth Water District, dated February 1986, by Berry Huff McDonald Milligan, Inc. and recorded in the Cumberland County Registry of Deeds in Plan Book 160, Page 31; and- being more particularly described as follows:

Beginning at an iron rod set on the southerly sideline of Route 9, so-called, and the easterly sideline of Sweetser Road, so-called, at the intersection of said Route 9 and Sweetser Road;

Thence N 62° 53' 11" E along said southerly sideline of said Route 9 a distance of 543.76 feet to an iron rod set at the northwesterly corner of land now or formerly of the Town of North Yarmouth;

Thence S 78° 05' 50" E along said land now or formerly of the Town of North Yarmouth a distance of 911.62 feet to an iron rod set;

Thence S 4° 03' 34" W continuing along land now or formerly of the Town of North Yarmouth a distance of 489.90 feet to an iron rod set;

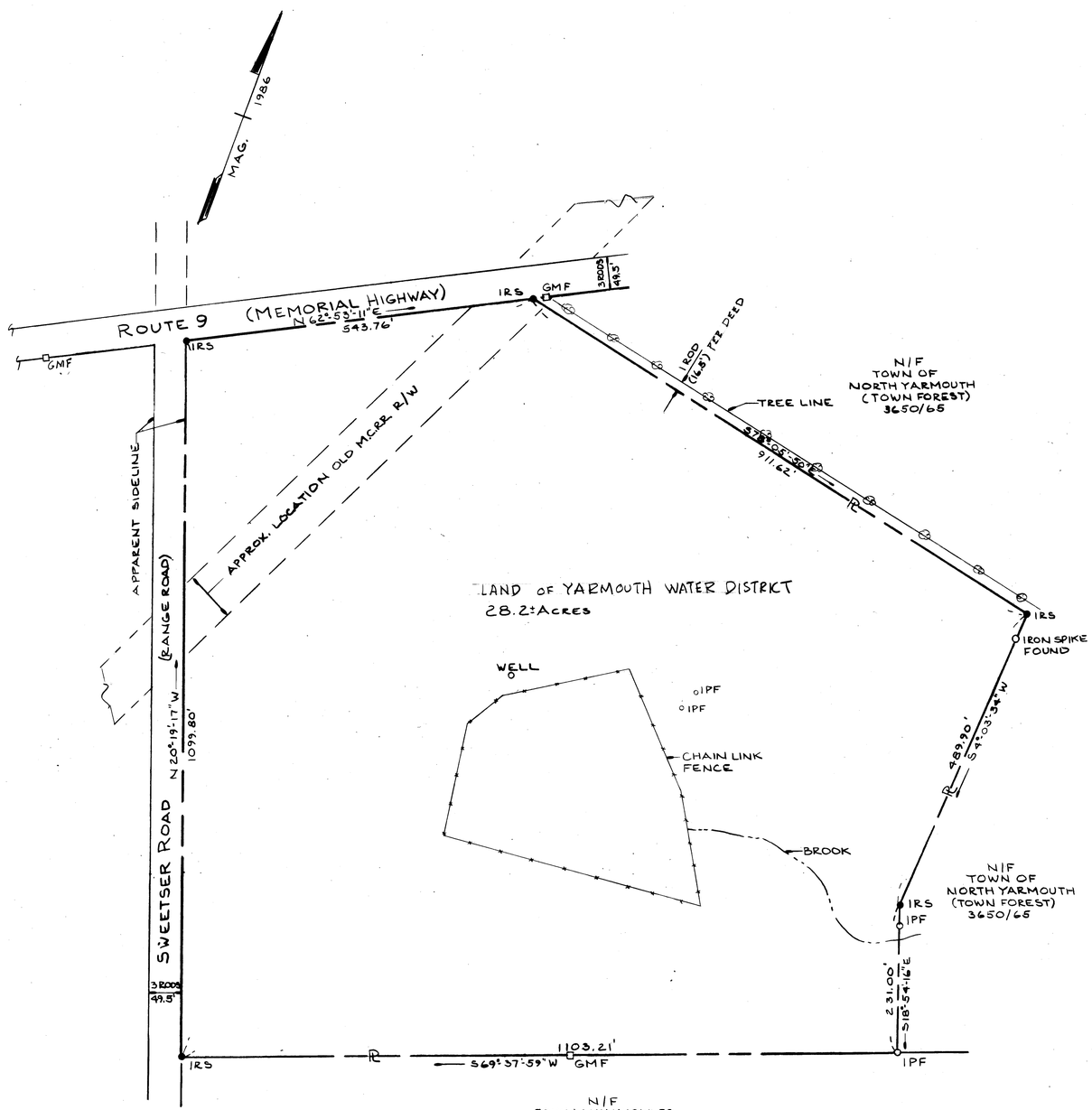
Thence S 18° 54' 16" E continuing along land now or formerly of the Town of North Yarmouth a distance of 231.00 feet to an iron pipe found;

Thence S 69° 37' 16" W along land now or formerly of John and Ann Knowles a distance of 1103.21 feet to an iron rod set and the easterly sideline of said Sweetser Road;

Thence N 20° 19' 17" W along the easterly sideline of said Sweetser Road a distance of 1099.80 feet to the point of beginning.

Meaning and intending to describe the same premises described in those certain deeds of Edward G. Hayes dated October 4, 1905 and recorded in the Cumberland County Registry of Deeds in Book 773, Page 393; of Gertrude L. Cole dated November 22, 1905 and recorded in the Cumberland County Registry of Deeds in Book 776, Page 337; of Edward G. Hayes dated March 11, 1907 and recorded in the Cumberland County Registry of Deeds in Book 821, Page 433; and of Gertrude L. Cole dated October 24, 1922 and recorded in the Cumberland County Registry of Deeds in Book 1118, Page 412; of Eleanor H. Hayes dated December 26, 1942 and recorded in the Cumberland County Registry of Deeds in Book 1704, Page 368; and of Robert R. Curry dated April 11, 1986 and recorded in the Cumberland County Registry of Deeds in Book 7132, Page 20.

Yarmouth Water District was formerly known as Yarmouth Water Company prior to the issuance of its Charter in 1923. The parcels described in the above referenced deeds conveyed to the Inhabitants of the Town of Yarmouth vested in the Yarmouth Water District pursuant to P & SL 1923, c. 72.



PLAN

100 50 0 100 200

SCALE 1"=100'

REFERENCE DEEDS

BOOK		PAGE	
444	—	246	
773	—	393	
821	—	433	
776	—	337	
1118	—	412	
1704	—	348	
3650	—	65	
2645	—	185	
6416	—	25	
3763	—	260	MCRR

LEGEND

- ○ IPF IRON PIPE FOUND
- □ GMF GRANITE MONUMENT FOUND
- ● IRS IRON ROD SET

I HEREBY CERTIFY THAT THIS IS A STANDARD BOUNDARY SURVEY AND CONFORMS TO THE MAINE BOARD OF REGISTRATION FOR LAND SURVEYORS STANDARDS CATEGORY I CONDITION II

James R. McDonald
RLS # 408

State of Maine, Cumberland ss.
Registry of Deeds
Received January 23, 1987
at 2h 13m PM and recorded in
Plan Book 160 Page 31
Attest James S. Walsh
Register

REVISION	DATE

STATE OF MAINE · JAMES R. McDONALD 408 · REGISTERED LAND SURVEYOR

DESIGNED BY	DRAWN BY	CHECKED BY
—	GFB	JRM

JOB NO. 85-245
DATE FEB. 1986
SCALE 1"=100'

SURVEY PLAN
HAYES SPRING LOT
NORTH YARMOUTH, MAINE
FOR
YARMOUTH WATER DISTRICT
YARMOUTH, MAINE

BH2M
BERRY · HUFF · McDONALD · MILLIGAN · INC.
ENGINEERS · SURVEYORS · PLANNERS
28 STATE STREET
GORHAM, MAINE 04038

SHEET NO.

160/31

Attachment D
Light Fixture Cutsheet

Lumark

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaries provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

Catalog #		**Type**
Project		
Comments		**Date**
Prepared by		

SPECIFICATION FEATURES

Construction
Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and medium design. The small housing is available in 12W, 18W and 26W. The medium housing is available in the 38W model. Patented secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three half-inch, NPT threaded conduit entry points. The universal back box supports both the small and medium forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical
Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Available in seven lumen packages; 5000K, 4000K and 3000K CCT.

Electrical
LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 12W, 18W, 26W and 38W series operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Three half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

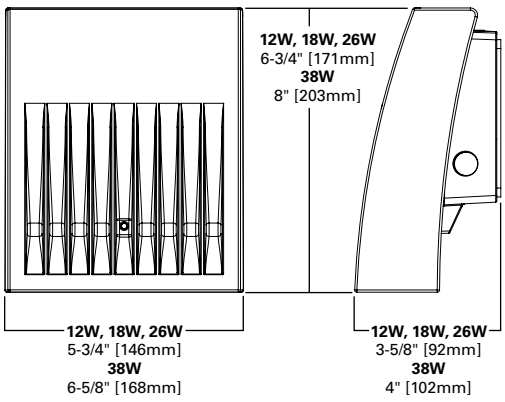
Finish
Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty
Five-year warranty.

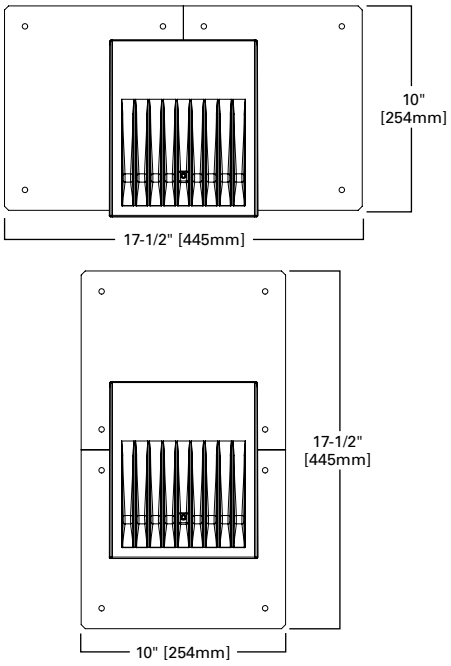
XTOR
CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA
Dark Sky Approved (Fixed mount, Full cutoff, and 3000K CCT only)
UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingressed Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA
40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA
Effective Projected Area (Sq. Ft.):
XTOR1B, XT0R2B, XT0R3B=0.34
XTOR4B=0.45

SHIPPING DATA:
Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

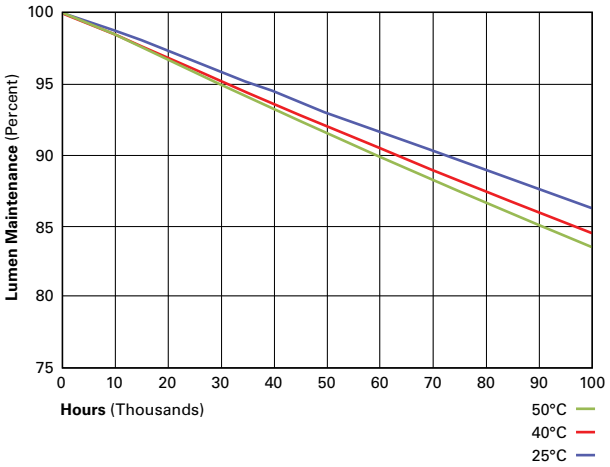
POWER AND LUMENS BY FIXTURE MODEL

LED Information	XTOR1B	XTOR1B-W	XTOR1B-Y	XTOR2B	XTOR2B-W	XTOR2B-Y	XTOR3B	XTOR3B-W	XTOR3B-Y	XTOR4B	XTOR4B-W	XTOR4B-Y
Delivered Lumens (Wall Mount)	1,418	1,396	1,327	2,135	2,103	1,997	2,751	2,710	2,575	4,269	4,205	3,995
Delivered Lumens (With Flood Accessory Kit) [1]	1,005	990	940	1,495	1,472	1,399	2,099	2,068	1,965	3,168	3,121	2,965
B.U.G. Rating [2]	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0
CCT (Kelvin)	5,000	4,000	3,000	5,000	4,000	3,000	5,000	4,000	3,000	5,000	4,000	3,000
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70	70	70	70	70
Power Consumption (Watts)	12W	12W	12W	18W	18W	18W	26W	26W	26W	38W	38W	38W

NOTES: 1 Includes shield and visor. **2** B.U.G. Rating does not apply to floodlighting.

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1B Model		
25°C	> 90%	255,000
40°C	> 89%	234,000
50°C	> 88%	215,000
XTOR2B Model		
25°C	> 89%	240,000
40°C	> 88%	212,000
50°C	> 87%	196,000
XTOR3B Model		
25°C	> 89%	240,000
40°C	> 88%	212,000
50°C	> 87%	196,000
XTOR4B Model		
25°C	> 89%	222,000
40°C	> 87%	198,000
50°C	> 87%	184,000



CURRENT DRAW

Voltage	Model Series			
	XTOR1B	XTOR2B	XTOR3B	XTOR4B
120V	0.103A	0.15A	0.22A	0.34A
208V	0.060A	0.09A	0.13A	0.17A
240V	0.053A	0.08A	0.11A	0.17A
277V	0.048A	0.07A	0.10A	0.15A
347V	0.039A	0.06A	0.082A	0.12A

ORDERING INFORMATION

Sample Number: XTOR2B-W-WT-PC1

Series [1]	**LED Kelvin Color**	**Housing Color**	**Options** (Add as Suffix)	**Accessories** (Order Separately)
XTOR1B=Small Door, 12W **XTOR2B**=Small Door, 18W **XTOR3B**=Small Door, 26W **XTOR4B**=Medium Door, 38W	**[Blank]**=Bright White (Standard), 5000K **W**=Neutral White, 4000K **Y**=Warm White, 3000K	**[Blank]**=Carbon Bronze (Standard) **WT**=Summit White **BK**=Black **BZ**=Bronze **AP**=Grey **GM**=Graphite Metallic **DP**=Dark Platinum	**PC1**=Photocontrol 120V [2] **PC2**=Photocontrol 208-277V [2,3] **347V**=347V [4] **HA**=50°C High Ambient [4]	**WG/XTOR**=Wire Guard [5] **XTORFLD-KNC**=Knuckle Floodlight Kit [6] **XTORFLD-TRN**=Trunnion Floodlight Kit [6] **XTORFLD-KNC-WT**=Knuckle Floodlight Kit, Summit White [6] **XTORFLD-TRN-WT**=Trunnion Floodlight Kit, Summit White [6] **EWP/XTOR**=Escutcheon Wall Plate, Carbon Bronze **EWP/XTOR-WT**=Escutcheon Wall Plate, Summit White

NOTES:
1. DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
2. Photocontrols are factory installed.
3. Order PC2 for 347V models.
4. Thru-branch wiring not available with HA option or with 347V. XTOR3B not available with HA and 347V or 120V combination.
5. Wire guard for wall/surface mount. Not for use with floodlight kit accessory.
6. Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

STOCK ORDERING INFORMATION

12W Series	**18W Series**	**26W Series**	**38W Series**
XTOR1B=12W, 5000K, Carbon Bronze	**XTOR2B**=18W, 5000K, Carbon Bronze	**XTOR3B**=26W, 5000K, Carbon Bronze	**XTOR4B**=38W, 5000K, Carbon Bronze
XTOR1B-WT=12W, 5000K, Summit White	**XTOR2B-W**=18W, 4000K, Carbon Bronze	**XTOR3B-W**=26W, 4000K, Carbon Bronze	**XTOR4B-W**=38W, 4000K, Carbon Bronze
XTOR1B-PC1=12W, 5000K, 120V PC, Carbon Bronze	**XTOR2B-WT**=18W, 5000K, Summit White	**XTOR3B-WT**=26W, 5000K, Summit White	**XTOR4B-WT**=38W, 5000K, Summit White
XTOR1B-W=12W, 4000K, Carbon Bronze	**XTOR2B-PC1**=18W, 5000K, 120V PC, Carbon Bronze	**XTOR3B-PC1**=26W, 5000K, 120V PC, Carbon Bronze	**XTOR4B-PC1**=38W, 5000K, 120V PC, Carbon Bronze
	XTOR2B-W-PC1=18W, 4000K, 120V PC, Carbon Bronze	**XTOR3B-W-PC1**=26W, 4000K, 120V PC, Carbon Bronze	**XTOR4B-W-PC1**=38W, 4000K, 120V PC, Carbon Bronze
	XTOR2B-347V=18W, 5000K, Carbon Bronze, 347V	**XTOR3B-347V**=26W, 5000K, Carbon Bronze, 347V	**XTOR4B-347V**=38W, 5000K, Carbon Bronze, 347V
	XTOR2B-WT-PC1=18W, 5000K, 120V PC, Summit White	**XTOR3B-PC2**=26W, 5000K, 208-277V PC, Carbon Bronze	

Attachment E
Financial and Technical Capacity

HMV, LLC
CERTIFIED PUBLIC ACCOUNTANTS

P.O. BOX 543
ELLSWORTH, MAINE 04605

207-667-5529 • 1-800-499-9108 • FAX 207-667-9915

James E. McFarland, CPA
Annette L. Gould, CPA
Ellen Cleveland, CPA

Amy J. Billings, CPA
Nicholas Henry, CPA

January 15, 2021

Town of North Yarmouth
Planning Board
10 Village Square Road
North Yarmouth, ME 04097

Dear Planning Board Members,

HMV, LLC has served as the Yarmouth Water District's (YWD) financial statement auditor for the past five years. HMV also provides rate consulting and other advisory services to YWD.

Regarding the North Yarmouth transmission main and booster pump station project costing in excess of three million dollars, YWD does have the financial capacity for the project. YWD is having ongoing discussions with its bond advisor and is planning to fund the project with a 20-year bond.

Based on our analysis of the current financial condition of YWD, the new debt service cost that will be required by this project will require a rate increase. YWD is currently assessing the impact on rates but the increase is estimated to be less than 15%. New rates will be effective prior to the first bond payment and will generate sufficient cash flow to cover these new costs. The anticipated timing of the rate increase is projected to be in early 2022.

If you would like additional information or would like to discuss this matter further, please contact me at 667-5529.

Sincerely,

Nicholas Henry, CPA

YARMOUTH WATER DISTRICT

FINANCIAL STATEMENTS

FOR THE YEARS ENDED
DECEMBER 31, 2019 AND 2018

YARMOUTH WATER DISTRICT
TABLE OF CONTENTS
DECEMBER 31, 2019 AND 2018

HMV, LLC
CERTIFIED PUBLIC ACCOUNTANTS

P.O. BOX 543
ELLSWORTH, MAINE 04605

207-667-5529 • 1-800-499-9108 • FAX 207-667-9915

Partners
James E. McFarland, CPA
Annette L. Gould, CPA
Ellen Cleveland, CPA
Amy J. Billings, CPA

INDEPENDENT AUDITORS' REPORT

To the Board of Trustees
Yarmouth Water District
Yarmouth, Maine

We have audited the accompanying financial statements consisting of the statements of net position, statements of revenues, expenses and changes in fund net position, and statements of cash flows of the Yarmouth Water District as of and for the years ended December 31, 2019 and 2018, which collectively comprise the Yarmouth Water District's basic financial statements and the related notes to the financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Yarmouth Water District as of December 31, 2019 and 2018, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of proportionate share of the net pension liability, schedule of pension contributions and schedule of changes in the total OPEB liability and related ratios as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Yarmouth Water District's basic financial statements. The accompanying supplementary information presented as Schedule 1 is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The accompanying supplementary information presented as Schedule 1 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

HMV, LLC

HMV, LLC
Ellsworth, Maine
February 20, 2020

Yarmouth Water District
PO Box 419, 181 Sligo Road
Yarmouth, Maine 04096
(207) 846-5821 fax (207) 846-1240

Robert N. MacKinnon, Jr.
Superintendent

Irving C. Felker, Jr.
Chairman, Board of Trustees

Management's Discussion and Analysis
December 31, 2019 and 2018

Introduction of the Financial Statements

The Yarmouth Water District (the District) was established in 1923 as a quasi-municipal water utility district organized by a special act of the Maine State Legislature to provide and maintain a water treatment and distribution system for the inhabitants of the District. The District serves the Towns of Yarmouth and North Yarmouth. The District is governed by a five member Board of Trustees. Representation is apportioned based on the percentage of metered connections in each town, with a minimum of one representative per town. The District is regulated by the Maine Public Utilities Commission (MPUC). The District prepares its financial statements on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America for proprietary funds, which are similar to those for private business enterprises.

This Management's Discussion and Analysis (MD&A) serves as an introduction to the audited basic financial statements and notes. The MD&A is the District management's analysis of its financial condition and performance. It is presented to give the reader more insight on the District's finances.

The District's basic financial statements include the:

- Statements of Net Position
- Statements of Revenues, Expenses and Changes in Fund Net Position
- Statements of Cash Flows
- Notes to the Financial Statements

The statements of net position present the financial position of the District by providing information about the nature and amount of resources and obligations at year-end. The statements of revenues, expenses and changes in fund net position present the results of the business activities over the course of the fiscal year and information as to how the net position changed during the year. The statements of cash flows present the amount of cash and cash equivalents generated and used during the fiscal year. The notes to the financial statements present required disclosures and other information that are essential to a full understanding of the material provided in the statements.

Capital Assets and Long-Term Debt

Capital asset additions in 2019 were: structures and improvements totaling $13,700, wells totaling $30,910, mains totaling $654,658, services totaling $196,354, meters totaling $18,798, hydrants totaling $57,256, and equipment totaling $46,030. Capital asset additions in 2018 were: wells totaling $21,745, distribution reservoirs totaling $19,945, mains totaling $518,405, services totaling $75,116, meters totaling $13,750, hydrants totaling $21,792 and equipment totaling $11,956.

Long-term bonds outstanding at December 31, 2019 and 2018 were $2,918,549 and $3,286,365, respectively. Debt retired in 2019 and 2018 totaled $367,816 and $357,073, respectively. No long-term bonds were issued in 2019 or 2018.

There are no unfinished commitments for capital expenditures at December 31, 2019 or any debt limitations that may affect future financing. In 2019 Moody's Investors Service assessed the District's credit position as strong and gave the District a rating of Aa3.

Comparison of Financial Statements for Current and Prior Years

Statements of Net Position

	2019	2018
Current Assets	1,026,268	1,282,423
Investments	1,919,259	1,784,090
Capital Assets, Net	14,449,916	13,932,953
Total Assets	17,395,443	16,999,466
Deferred Outflows of Resources	92,639	90,548
Total Assets and Deferred Outflows of Resources	17,488,082	17,090,014
Current Liabilities	612,736	575,254
Non-Current Liabilities	2,891,999	3,214,087
Total Liabilities	3,504,735	3,789,341
Deferred Inflows of Resources	734,193	642,514
Net Position:		
Net Investment in Capital Assets	11,531,367	10,646,588
Restricted by Covenant	403,106	403,106
Unrestricted	1,314,681	1,608,465
Total Net Position	13,249,154	12,658,159
Total Liabilities, Deferred Inflows of Resources and Net Position	17,488,082	17,090,014

Comparison of Financial Statements for Current and Prior Years (Continued)

Statements of Revenues, Expenses and Changes in Fund Net Position

	2019	2018
Operating Revenues	2,086,114	1,978,909
Non-Operating Revenues	188,749	180,136
Total Revenues	2,274,863	2,159,045
Operating Expenses	1,929,191	1,725,224
Non-Operating Expenses	69,073	79,521
Total Expenses	1,998,264	1,804,745
Change in Net Position Before Contributions	276,599	354,300
Construction Contributions	314,396	608,952
Change in Net Position After Contributions	590,995	963,252
Net Position – Beginning of Year	12,658,159	11,694,907
Net Position – End of Year	13,249,154	12,658,159

Overall Financial Position and Results of Operations

To analyze the change in the District's overall financial position and results of operations in the past year, we have focused on two elements: revenue stability and financial ratios.

Revenue Stability:

Water rates, both metered and fire protection, are regulated by the MPUC. The MPUC allows the District to set rates which maintain operations and pay debt service.

All of the District's operating revenues are derived from water assessments, consisting of metered water sales and fire protection changes, and Florida Light and Power Company charges for debt service, operations and maintenance expenses and depreciation related to the Cousins Island power plant. Overall, operating revenues increased $107,205 or 5.40% in 2019 as compared to 2018. Approximately 30% of total operating revenues are generated from public fire protection charges assessed to the Towns of Yarmouth and North Yarmouth and non-usage charges to Florida Light and Power Company. A general nine percent rate increase became effective on March 1, 2019.

Overall Financial Position and Results of Operations (Continued)

Financial Ratios:

Two of the key financial ratios for analyzing the District's financial position are the current ratio and the coverage ratio. The current ratio measures an entity's ability to meet short-term obligations. The coverage ratio shows an entity's ability to meet debt service payments. During 2019 the current ratio decreased from 2.23 to 1.67. During 2019 the coverage ratio decreased from 1.82 to 1.65.

Current Ratio

	2019	2018
Current Assets	1,026,268	1,282,423
Current Liabilities	612,736	575,254
Current Ratio	1.67	2.23

Coverage Ratio

	2019	2018
Operating Revenues	2,086,114	1,978,909
Non-Operating Revenues	188,749	180,136
Total Revenues	2,274,863	2,159,045
Operating Expenses	1,929,191	1,725,224
Depreciation	(388,661)	(372,322)
Expenses	1,540,530	1,352,902
Net Available for Debt Service	734,333	806,143
Principal Payments	367,816	357,073
Interest Payments and Bond Issue Costs	76,098	86,695
Total Debt Service Payments	443,914	443,768
Coverage Ratio	1.65	1.82

Budgetary Highlights

The District is not legally required to adopt budgetary accounting and reporting; however, an annual budget is prepared by management and approved by the Board of Trustees. The original budget approved by the Board of Trustees was not amended in 2019. Overall, the District operated within its overall approved budget in 2019.

Significant Transactions and Changes

As planned, the District partnered with the Town of Yarmouth to replace approximately 3,700 feet of water main, water services and fire hydrants on Hillside and Cumberland Streets in Yarmouth. Significant growth occurred in the North Yarmouth portion of the system in 2019, with 1,680 feet of new water main, two hydrants and twenty-nine water services. The District did increase its contribution to the standpipe maintenance account in accordance to the recommendation in the revised 2018 Master Plan from $28,000 to $84,500 annually.

Next Year's Operations

The District has made preliminary plans to replace the water main on Church Street in 2020 in Yarmouth. This project will connect two previous renewal projects as well as prepare for another much needed replacement project. The District has budgeted for an accelerated meter replacement program for the next few years now that the District is fully staffed. The unprecedented recent growth in the North Yarmouth village area will also mean that recommended improvements noted in the most recent Master Plan become a high priority.

Request For Information

This financial report is designed to provide a general overview of the District's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to Robert MacKinnon, Treasurer, Yarmouth Water District, PO Box 419, 181 Sligo Road, Yarmouth, Maine 04096.

YARMOUTH WATER DISTRICT
STATEMENTS OF NET POSITION
AT DECEMBER 31,

	2019	2018
Assets and Deferred Outflows of Resources		
Current Assets:		
Cash and Cash Equivalents	857,022	964,339
Accounts Receivable	36,868	54,425
Materials and Supplies	104,525	97,353
Prepaid Expenses	27,853	166,306
Total Current Assets	1,026,268	1,282,423
Non-Current Assets:		
Plant, Property and Equipment:		
Utility Plant	22,492,049	21,576,558
Less: Accumulated Depreciation	(8,433,916)	(8,147,190)
Net Utility Plant	14,058,133	13,429,368
Construction Work in Progress	391,783	503,585
Total Plant, Property and Equipment	14,449,916	13,932,953
Investments	1,516,153	1,380,984
Investments - Restricted	403,106	403,106
Total Non-Current Assets	16,369,175	15,717,043
Total Assets	17,395,443	16,999,466
Deferred Outflows of Resources:		
Other Outflows of Resources	19,868	25,807
Deferred Outflows - OPEB	830	1,107
Deferred Outflows - Pensions	71,941	63,634
Total Deferred Outflows of Resources	92,639	90,548
Total Assets and Deferred Outflows of Resources	17,488,082	17,090,014

See independent auditors' report and accompanying notes to the financial statements.

YARMOUTH WATER DISTRICT
STATEMENTS OF NET POSITION (CONTINUED)
AT DECEMBER 31,

	2019	2018
Liabilities, Deferred Inflows of Resources and Net Position		
Current Liabilities:		
Accounts Payable	41,024	52,266
Accrued Interest	27,866	31,785
Accrued Vacation	13,646	9,985
Advances for Construction	176,615	113,401
Current Portion of Long-Term Debt	353,585	367,817
Total Current Liabilities	612,736	575,254
Non-Current Liabilities:		
Net OPEB Liability	104,353	109,770
Net Pension Liability	222,682	185,769
Long-Term Debt	2,564,964	2,918,548
Total Non-Current Liabilities	2,891,999	3,214,087
Total Liabilities	3,504,735	3,789,341
Deferred Inflows of Resources:		
Unamortized Bond Refunds	15,464	18,570
Deferred Inflows - OPEB	13,277	10,202
Deferred Inflows - Pensions	55,776	62,488
Regulatory Reserves	649,676	551,254
Total Deferred Inflows of Resources	734,193	642,514
Net Position:		
Net Investment in Capital Assets	11,531,367	10,646,588
Restricted by Covenant	403,106	403,106
Unrestricted	1,314,681	1,608,465
Total Net Position	13,249,154	12,658,159
Total Liabilities, Deferred Inflows of Resources and Net Position	17,488,082	17,090,014

See independent auditors' report and accompanying notes to the financial statements.

YARMOUTH WATER DISTRICT
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN FUND NET POSITION
YEARS ENDED DECEMBER 31,

	2019	2018
Operating Revenues:		
Metered Sales - Residential	1,026,496	978,920
Metered Sales - Commercial	127,985	118,932
Metered Sales - Industrial	163,609	188,138
Metered Sales - Public Authority	27,809	29,728
Public Fire Protection	541,715	500,644
Private Fire Protection	115,201	106,050
Other Water Revenues	83,299	56,497
Total Operating Revenues	2,086,114	1,978,909
Operating Expenses:		
Supply and Pumping Expenses - Operations	248,532	276,864
Supply and Pumping Expenses - Maintenance	21,529	30,547
Water Treatment Expenses	11,866	10,425
Transmission and Distribution Expenses - Operations	256,365	200,658
Transmission and Distribution Expenses - Maintenance	322,676	236,140
Customer Accounts Expenses	165,273	144,654
Administrative and General Expenses	463,114	406,772
Depreciation	388,661	372,322
Taxes and Assessments	51,175	46,842
Total Operating Expenses	1,929,191	1,725,224
Net Operating Income	156,923	253,685
Non-Operating Revenues (Expenses):		
Jobbing Income - Net	18,611	20,315
Interest Income	21,706	17,454
Non-Utility Income	148,432	142,367
Interest Expense	(69,073)	(79,521)
Total Non-Operating Revenues (Expenses)	119,676	100,615
Change in Net Position Before Construction Contributions	276,599	354,300
Contributions in Aid of Construction	314,396	608,952
Change in Net Position After Construction Contributions	590,995	963,252
Net Position - Beginning of Year	12,658,159	11,694,907
Net Position - End of Year	13,249,154	12,658,159

See independent auditors' report and accompanying notes to the financial statements.

YARMOUTH WATER DISTRICT
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31,

	2019	2018
Cash Flows from Operating Activities:		
Receipts from Customers and Users	2,103,671	1,974,699
Payments to Suppliers	(461,018)	(815,147)
Payments to Employees	(831,622)	(766,323)
Net Cash Flows from Operating Activities	811,031	393,229
Cash Flows from Noncapital Financing Activities:		
Other Income	167,043	162,682
Net Cash Flows from Noncapital Financing Activities	167,043	162,682
Cash Flows from Capital and Related Financing Activities:		
Purchase of Capital Assets	(773,574)	(292,039)
Advances Received From (Returned To) Customers - Net	63,214	(76,775)
Construction Contributions	182,346	186,033
Interest Payments	(76,098)	(86,695)
Principal Payments	(367,816)	(357,073)
Net Cash Flows from Capital and Related Financing Activities	(971,928)	(626,549)
Cash Flows from Investing Activities:		
Investment Income	21,706	17,454
Proceeds From (Purchase of) Investments - Net	(135,169)	90,359
Net Cash Flows from Investing	(113,463)	107,813
Net Increase (Decrease) in Cash and Cash Equivalents	(107,317)	37,175
Cash and Cash Equivalents at Beginning of Year	964,339	927,164
Cash and Cash Equivalents at End of Year	857,022	964,339

See independent auditors' report and accompanying notes to the financial statements.

YARMOUTH WATER DISTRICT
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31,

	2019	2018
Reconciliation of Operating Income to Net Cash Flows from Operating Activities:		
Net Operating Income	156,923	253,685
Adjustments to Reconcile Operating Income to Net Cash Flows from Operating Activities:		
Depreciation	388,661	372,322
Change in Operating Assets and Liabilities:		
(Increase) Decrease in Accounts Receivable	17,557	(4,210)
(Increase) Decrease in Materials and Supplies	(7,172)	6,672
(Increase) Decrease in Prepaid Expenses	138,453	(146,568)
(Increase) Decrease in Other Outflows of Resources	5,939	(16,042)
(Increase) Decrease in Deferred Outflows - OPEB	277	(1,107)
(Increase) Decrease in Deferred Outflows - Pensions	(8,307)	100,448
(Decrease) Increase in Accounts Payable	(11,242)	(38,694)
(Decrease) Increase in Accrued Vacation	3,661	2,596
(Decrease) Increase in Net OPEB Liability	(5,417)	(8,705)
(Decrease) Increase in Net Pension Liability	36,913	(89,983)
(Decrease) Increase in Deferred Inflows - OPEB	3,075	10,202
(Decrease) Increase in Deferred Inflows - Pensions	(6,712)	(84,558)
(Decrease) Increase in Regulatory Reserves	98,422	37,171
Net Cash Flows from Operating Activities	811,031	393,229

Supplemental Disclosures of Cash Flow Information		
Noncash Investing and Financing Activities:		
Mains Contributed By Customers	112,350	383,900
Services Contributed By Customers	16,500	32,619
Hydrants Contributed By Customers	3,200	6,400
	132,050	422,919

See independent auditors' report and accompanying notes to the financial statements.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Yarmouth Water District's (the District) financial statements include the operations for which the Board of Trustees exercises oversight responsibility. Oversight responsibility is demonstrated by financial interdependency, designation of management, ability to significantly influence operations, and accountability for fiscal matters. The summary of significant accounting policies is presented to assist in understanding the representations of the District's management who is responsible for their integrity and objectivity.

Organization

The District, established in 1923, is a Quasi-Municipal Corporation organized by an Act of the Legislature of the State of Maine. Providing and maintaining the public water system for domestic, industrial and fire protection for the inhabitants of the Towns of Yarmouth and North Yarmouth, the District is governed by a five member Board of Trustee, elected from the Towns of Yarmouth and North Yarmouth. Representation is apportioned based on percentage of metered connections in each town, with a minimum of one representative per town. Regulated by the Maine Public Utilities Commission (MPUC), the District extends normal credit to its customers which consist of residential dwellings, commercial entities and governmental agencies.

Nature of Business

The District's accounting policies conform to generally accepted accounting principles as applicable to the quasi-municipal units, which utilize the accrual basis of accounting, and to the regulations of the MPUC with respect to its' water operations. The major sources of revenue are metered water sales and fire protection charges. Revenue is recognized in the period when earned.

Reporting Entity

In evaluating how to define the District for financial reporting purposes, management has considered all potential component units. Based on the applicable criteria, there are no other entities within the District that should be included as part of these financial statements. There are no fiduciary funds included in the District.

Regulation

As a regulated water utility, the District is subject to regulation by the MPUC, which has jurisdiction with respect to rates, service, accounting procedures, acquisitions and other matters. The District defers certain costs and credits as regulatory assets and liabilities when it is probable that such amounts will be recognized in the rate making process in a period different from the period in which they would have been reflected in income by an unregulated entity.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Use of Estimates

Management uses estimates and assumptions in preparing these financial statements in accordance with accounting principles generally accepted in the United States of America. These estimates and assumptions affect the reported amounts of assets, liabilities, the disclosure of contingent assets and liabilities and the reported revenues and expenses during the reporting period. Actual results could differ from those estimates.

Restricted Resources

The District's policy is to first apply restricted resources when an expense is incurred for purposes for which both restricted and unrestricted net positions are available.

Measurement Focus, Basis of Accounting and Basis of Presentation

The District follows Governmental Accounting Standards Board (GASB) Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements.* This Statement provides specific guidance as to which FASB and AICPA pronouncement provisions should be applied to state and local governments. The District prepares its financial statements on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America for proprietary funds, which are similar to those for private business enterprises. Proprietary funds are accounted for on the flow of economic resources measurement. Accordingly, revenues are recorded when earned and expenses are recorded when incurred. Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses arise from providing goods and services in connection with a proprietary fund's principal ongoing operations. Revenues and expenses that are not derived directly from operations are reported as non-operating revenues and expenses. Rental revenues from various wireless cellular companies are treated as non-operating income.

Budget

The District is not legally required to present budgetary comparison information as required supplementary information.

Deposits and Investments

Maine Statutes authorize investments in obligations of the U.S. Treasury and U.S Agencies, repurchase agreements, corporate stocks and bonds within statutory limits, obligations of financial institutions and mutual funds. The District's policy is to invest all available funds at the highest possible rates while avoiding unreasonable risk. The District has adopted deposit and investment policies that limit the District's allowable deposits or investments and address the specific types of risk to which the District is exposed.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Cash, Cash Equivalents and Custodial Credit Risk

For purposes of these statements, the District considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents. All cash is considered available for current use at December 31, 2019 and 2018. Custodial credit risk is the risk that, in the event of the bank's failure, the District will not be able to recover the value of its deposits and investments that are in the possession of an outside party. The District does have policies addressing custodial credit risk.

The District's deposits are categorized as follows to give an indication of the level of risk assumed by the District at year end: Category 1 includes deposits covered by federal depository insurance or by collateral held by the District or by the District's agent in the District's name; Category 2 includes uninsured deposits covered by collateral held by the pledging financial institution's trust department or agent in the District's name; and Category 3 includes uninsured and uncollateralized deposits.

At December 31, 2019, cash on deposit consisted of the following:

	Carrying Amount	Bank Balance	Category 1	Category 2	Category 3
Cash	857,022	892,974	359,341	533,633	-0-

At December 31, 2018, cash on deposit consisted of the following:

	Carrying Amount	Bank Balance	Category 1	Category 2	Category 3
Cash	964,339	1,006,908	568,200	424,402	14,306

Accounts Receivable

Accounts receivables are stated at net realizable value. No allowance for doubtful accounts has been recorded in the financial statements; uncollectible accounts are written off in the year in which they are deemed to be uncollectible. Generally accepted accounting principles require that the allowance method be used to recognize bad debts. The effect of using the direct write-off method has not been materially different from the results that would have been obtained under the allowance method.

Inventories

Materials and supplies inventory is stated at cost using the first-in first-out method. Inventory used for capital projects is capitalized and depreciated. Inventory used for repairs is expensed in the period when the repairs occur.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Prepaid Expenses

Prepaid expenses consist of the following at December 31:

	2019	2018
Insurance	9,487	4,158
Bank Fees	3,066	3,817
Dues and Assessments	15,300	14,056
Debt Service	-0-	144,275
	27,853	166,306

Plant, Property and Equipment

Plant, property and equipment are stated at cost. Donated property is recorded at its estimated fair value at the date of donation. Depreciation has been provided on a basis considered adequate to amortize the cost of depreciable assets over their estimated useful lives on the straight-line method at rates from 1.3% to 20%. Land costs are not being depreciated because they have indefinite useful lives. Annual rates in use are as follows:

Structures and Intakes	1.3% - 2.0%
Wells and Springs	2.0%
Pumping, Power Generation and Treatment Equipment	5.0%
Standpipes, Mains and Hydrants	1.3% - 2.0%
Services and Meters	3.0% - 4.0%
Transportation Equipment	20.0%
General Equipment	5.0% - 20.0%

Capitalization Policy

Expenditures that materially increase values, change capacities, or extend useful lives are capitalized. The amounts charged to utility plant accounts represent all reasonable and necessary costs, including labor, materials, overhead, equipment charges and interest costs incurred. Routine maintenance and repairs are expended as incurred. The District does not have a policy setting a minimum capitalization threshold for amount or lives for reporting capital assets.

Contributions in Aid of Construction

Contributions in aid of construction include direct non-refundable contributions and are reported as income in the year earned. Utility plant funded by contributions is not depreciated for rate-making purposes as required by the MPUC. The net contributions in aid of construction included in total net position at December 31, 2019 and 2018 is $5,912,567 and $5,737,402, respectively.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Deferred Outflows of Resources

In addition to assets, the Statement of Net Position will report a separate section of deferred outflows of resources. This separate financial statement element represents consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expenses/expenditures) until then. The District has three items that qualify for reporting to this category: other outflows of resources, deferred outflows – OPEB and deferred outflows – pensions. Other outflows of resources consist of comprehensive plan, wellhead protection, special contract and rate case costs.

Deferred Inflows of Resources

In addition to liabilities, the Statement of Net Position will report a separate section of deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time. The District has four items that qualify for reporting to this category: unamortized bond refunds, deferred inflows – OPEB, deferred inflows – pensions and regulatory reserves. Refunds from bond refinancing are capitalized and amortized over the remaining life of the bond, decreasing interest expense in those years. Regulatory reserves represent amounts recovered from customers in advance of incurring the actual costs. The District's reserve amount is for future standpipe painting costs.

Compensated Absences

The District reports compensated absences in accordance with the provisions of GASB Statement No. 16 *Accounting for Compensated Absences*. A liability for compensated absences attributable to services already rendered and not contingent on a specific event that is outside the control of the employer and employee is accrued as employees earn the rights to the benefits. District employees are granted varying amounts of vacation and sick leave in accordance with the District's personnel policy. Employees are allowed to carry up to two weeks of vacation time to the next year; sick time must be used by year-end.

Taxes

As a quasi-municipal entity, the District is not subject to federal and state income taxes, accordingly it is not necessary to consider the effects of any uncertain tax positions.

The District is subject to federal and state payroll taxes and is required to file the appropriate tax returns. Management believes that all required returns have been properly filed as of December 31, 2019 and 2018. No examinations have been conducted by the federal or state taxing authorities and no correspondence has been received from these authorities.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Advances for Construction

The District receives advances for construction from, or on behalf of, customers. Under certain circumstances, the amounts received are refundable, generally in part, over varying time periods. Amounts no longer refundable are transferred to revenues.

Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Participating Local District (PLD) Plan administered by the Maine Public Employees Retirement System and additions to/deductions from the PLD plan's fiduciary net position have been determined on the same basis as they are reported by the PLD plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

NOTE 2 – DEBT SERVICE COVERAGE

The 2005, 2009, 2010, 2012, 2015 and 2016 bond indentures require, among other covenants, that the District fix rates and other charges for an amount not less than 125% of annual debt service for all prior indebtedness and bonds outstanding for each fiscal year. The following is a summary of the District's Debt Service Coverage calculations for the year ended December 31:

	2019	2018
Total Operating Revenues	2,086,114	1,978,909
Total Operating Expenses	(1,929,191)	(1,725,224)
Net Operating Income	156,923	253,685
Plus Depreciation	388,661	372,322
Jobbing Income - Net	18,611	20,315
Interest Income	21,706	17,454
Non-Utility Income	148,432	142,367
Net Revenues Available for Debt Service Ratio	734,333	806,143
Current Debt Service Including Bond Issue Costs	443,914	443,768
Debt Service Coverage	1.65x	1.82x

NOTE 3 – RISK MANAGEMENT

The District is exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The District participates in several public entity risk pools sponsored by Maine Municipal Association for the risks of losses to which it is exposed. There have been no significant reductions in the insurance coverage from the prior year. The District is not aware of any material actual or potential claim liabilities which should be recorded at December 31, 2019 and 2018. Settlements have not exceeded insurance coverage for each of the past three years.

NOTE 4 – UTILITY PLANT

Capital asset costs, additions and disposals are as follows for the year ended December 31, 2019:

	Beginning Balance	Additions	Disposals	Ending Balance
Land and Land Rights	1,051,687			1,051,687
Structures and Improvements	2,492,087	13,700	10,500	2,495,287
Impounding Reservoirs	2,605			2,605
Lake, River and Other Intakes	53,631			53,631
Wells and Springs	555,388	30,910	3,700	582,598
Power Generation Equipment	42,449			42,449
Pumping Equipment	401,207			401,207
Water Treatment Equipment	38,423			38,423
Distribution Reservoirs	491,436			491,436
Mains	12,904,049	654,658	15,000	13,543,707
Services	1,691,352	196,354	29,500	1,858,206
Meters	430,605	18,798		449,403
Hydrants	697,927	57,256	3,000	752,183
Other Plant Equipment	8,305			8,305
Office Equipment	151,088	5,000	4,200	151,888
Transportation Equipment	118,574	35,533	32,115	121,992
Stores Equipment	4,111			4,111
Tools	82,206	5,497	4,200	83,503
Lab Equipment	2,869			2,869
Communication Equipment	322,437			322,437
Miscellaneous Equipment	34,122			34,122
Total Utility Plant in Service	21,576,558	1,017,706	102,215	22,492,049
Less: Accumulated Depreciation	8,147,190	388,661	101,935	8,433,916
Net Utility Plant in Service	13,429,368	629,045	280	14,058,133
Construction Work In Progress	503,585	1,000	112,802	391,783
Total Utility Plant	13,932,953	630,045	113,082	14,449,916

NOTE 4 – UTILITY PLANT (CONTINUED)

Capital asset costs, additions and disposals are as follows for the year ended December 31, 2018:

	Beginning Balance	Additions	Disposals	Ending Balance
Land and Land Rights	1,051,687			1,051,687
Structures and Improvements	2,492,087			2,492,087
Impounding Reservoirs	2,605			2,605
Lake, River and Other Intakes	53,631			53,631
Wells and Springs	533,852	21,745	209	555,388
Power Generation Equipment	42,449			42,449
Pumping Equipment	401,207			401,207
Water Treatment Equipment	38,423			38,423
Distribution Reservoirs	471,691	19,945	200	491,436
Mains	12,386,644	518,405	1,000	12,904,049
Services	1,616,236	75,116		1,691,352
Meters	416,855	13,750		430,605
Hydrants	676,135	21,792		697,927
Other Plant Equipment	8,305			8,305
Office Equipment	156,233		5,145	151,088
Transportation Equipment	107,737	10,837		118,574
Stores Equipment	4,111			4,111
Tools	82,206			82,206
Lab Equipment	2,869			2,869
Communication Equipment	322,437			322,437
Miscellaneous Equipment	33,003	1,119		34,122
Total Utility Plant in Service	20,900,403	682,709	6,554	21,576,558
Less: Accumulated Depreciation	7,781,422	372,322	6,554	8,147,190
Net Utility Plant in Service	13,118,981	310,387	-0-	13,429,368
Construction Work In Progress	471,336	32,249	-0-	503,585
Total Utility Plant	13,590,317	342,636	-0-	13,932,953

NOTE 5 – MAJOR CUSTOMER

For the year ending December 31, 2019 and 2018, the District derived 30% and 28%, respectively, of its operating revenues from the Towns of Yarmouth and North Yarmouth, related to the servicing of public fire hydrants, and Florida Light and Power Company charges for debt service, operations and maintenance expenses and depreciation related to the Cousins Island power plant.

NOTE 6 – CONTINGENCIES

There are no pending legal proceedings to which the District is a party that are material or are expected to have a material effect on the District's financial position, results of operations or cash flows.

NOTE 7 – LONG-TERM DEBT

Bonds payable are as follows at December 31, 2019:

	Beginning Balance	Increases	Decreases	Ending Balance
Bonds payable to US Bank, maturing in 2019. Interest rates of 6.25% - 7.00%.	20,000		20,000	-0-
Bonds payable to US Bank, maturing in 2020. Interest rates of 2.00% - 3.00%.	285,000		140,000	145,000
Bonds payable to Maine Municipal Bond Bank, maturing in 2024. Interest rate of 2.05%.	241,530		38,659	202,871
Bonds payable to Maine Municipal Bond Bank, maturing in 2029. Interest rate of 0.00%.	238,272		22,693	215,579
Bonds payable to US Bank, maturing in 2032. Interest rates of 2.00% - 3.63%.	1,705,000		100,000	1,605,000
Bonds payable to Maine Municipal Bond Bank, maturing in 2034. Interest rate of 0.10%.	529,739		32,861	496,878
Bonds payable to Maine Municipal Bond Bank, maturing in 2036. Interest rate of 1.00%.	266,824		13,603	253,221
Total Outstanding Debt	3,286,365		367,816	2,918,549
Less: Current Portion	367,817			353,585
Bonds Payable	2,918,548			2,564,964

NOTE 7 – LONG-TERM DEBT (CONTINUED)

Bonds payable are as follows at December 31, 2018:

	Beginning Balance	Increases	Decreases	Ending Balance
Bonds payable to US Bank, maturing in 2019. Interest rates of 6.25% - 7.00%.	40,000		20,000	20,000
Bonds payable to US Bank, maturing in 2020. Interest rates of 2.00% - 3.00%.	420,000		135,000	285,000
Bonds payable to Maine Municipal Bond Bank, maturing in 2024. Interest rate of 2.05%.	279,614		38,084	241,530
Bonds payable to Maine Municipal Bond Bank, maturing in 2029. Interest rate of 0.00%.	260,964		22,692	238,272
Bonds payable to US Bank, maturing in 2032. Interest rates of 2.00% - 3.63%.	1,800,000		95,000	1,705,000
Bonds payable to Maine Municipal Bond Bank, maturing in 2034. Interest rate of 0.10%.	562,567		32,828	529,739
Bonds payable to Maine Municipal Bond Bank, maturing in 2036. Interest rate of 1.00%.	280,293		13,469	266,824
Total Outstanding Debt	3,643,438		357,073	3,286,365
Less: Current Portion	357,073			367,817
Bonds Payable	3,286,365			2,918,548

NOTE 7 – LONG-TERM DEBT (CONTINUED)

The following is a schedule of annual maturities of outstanding long-term debt:

	Principal	Interest	Total
2020	353,585	63,990	417,575
2021	214,385	57,943	272,328
2022	220,212	53,890	274,102
2023	221,072	49,732	270,804
2024	226,960	45,464	272,424
2025 – 2029	971,403	154,333	1,125,736
2030 – 2034	678,871	40,609	719,480
2035 – 2036	32,061	1,942	34,003
	2,918,549	467,903	3,386,452

NOTE 8 – INTEREST EXPENSE

No interest costs were capitalized during the period. The amount of interest costs incurred and charged to expense for the year ending December 31, 2019 and 2018 was $69,073 and $79,521, respectively.

NOTE 9 – INVESTMENTS

The District invests funds in U.S. Treasury Bills, money market deposit accounts and certificates of deposit, which are insured by federal depository insurance or collateralized with securities backed by the government or bond of any state or agency or local governmental unit of any such stated which are at least A1 by Moody's or AA by Standard and Poor's (S&P). All investments are classified as available for sale and are reported at fair market value. Investments are as follows at December 31:

	2019	2018
U.S. Treasury Bills	43,846	43,846
Money Market Deposit Accounts	381,711	364,035
Certificates of Deposit	1,493,702	1,376,209
	1,919,259	1,784,090
Investments	1,516,153	1,380,984
Investments – Restricted	403,106	403,106
	1,919,259	1,784,090

The U.S. Treasury Bills mature in 2024. Included in investments are restricted funds for debt service and board designated funds for debt service, standpipe maintenance and submarine main maintenance.

NOTE 10 – NET POSITION

Net position represents the difference between assets plus deferred outflows of resources and liabilities plus deferred inflows of resources. Net position comprises the various net earnings from operating and non-operating revenues, expenses and contributions of capital. Net position is classified in the following components: net investment in capital assets, restricted and unrestricted. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. The District's net investment in capital assets was calculated as follows at December 31:

	2019	2018
Total Plant, Property and Equipment	14,449,916	13,932,953
Bonds Payable, Including Current Portion	(2,918,549)	(3,286,365)
Total Net Investment in Capital Assets	11,531,367	10,646,588

Restricted net position results from constraints placed on the use of net position which are either externally imposed by debt covenants, grantors, contributors, or laws or regulations of other governments, or constraints imposed by law through constitutional provisions or enabling legislation. The District had restricted net position in the amount of $403,106 at December 31, 2019 and 2018 for debt service reserve funds required by the District's Master Trust Indenture. All restricted net position is expendable at December 31, 2019 and 2018. Unrestricted net position consists of all other net position not included in the above categories.

The Board of Trustees has designated cash and investments for the following at December 31:

	2019	2018
Debt Service	-0-	4,817
Water Resource	91,456	61,419
Standpipe Maintenance	649,675	551,254
Submarine Main Maintenance	869,257	826,919
	1,610,388	1,444,409

NOTE 11 – COMMITMENTS

The District has a special rate agreement effective May 1, 2019 with Florida Light and Power Company (the Company). Under the terms of the agreement, the District agrees to provide the Company's power plant on Cousins Island with water and the Company agree to pay the District (1) the supply cost of the water, (2) a submarine pipeline charge of $3,101.58 per month which increases by 2% on January 1st of each year and (3) an administrative charge of $3,895.77 per month which increases by 2% on January 1st each year. After May 1, 2024 either party may terminate the agreement provided two years written notice is given to the other party.

NOTE 11 – COMMITMENTS (CONTINUED)

In 2018, the District signed a water purchase agreement with Portland Water District (PWD) where PWD supplies water to a portion of the District's system. Under terms of the agreement, the District agrees to use PWD as the primary source of supply for the water to be delivered to the Cousins Island power plant. The District pays PWD on a monthly basis for all water delivered in accordance to rates established by PWD. After five years, either party may terminate the agreement on two years written notice to the other party.

In 2000, the District signed a communication site lease agreement with Nextel Communications. The initial term of the agreement was five years with the right to extend for five successive five year periods. Under the terms of the agreement, Nextel Communications pays the District a monthly lease payment for the purpose of installing, operating and maintaining a radio communication facility on land owned by the District. The lease payment increases 4% per year. The 2020 monthly lease payment to be received by the District is $3,371.

In 2002, the District signed a water tower lease agreement with Verizon Wireless. The initial term of the agreement was five years with four additional five year automatic extensions unless terminated by the Lessee. Under the terms of the agreement, Verizon Wireless pays the District a monthly lease payment for the right to install, maintain and operate radio communications equipment on land owned by the District. The lease payment increases 3% per year. The 2020 monthly lease payment to be received by the District is $3,306.

In 2004, the District signed a lease agreement with AT&T Wireless. The initial term of the agreement was five years with four additional five year automatic extensions unless terminated by the Tenant. Under the terms of the agreement, AT&T Wireless pays the District a monthly lease payment for the right to install, maintain and operate radio communications equipment on land owned by the District. The lease payment increases 3% per year. The 2020 monthly lease payment to be received by the District is $3,116.

In 2014, the District signed a water tower lease agreement with Verizon Wireless. The initial term of the agreement was five years with four additional five year automatic extensions unless terminated by the Lessee. Under the terms of the agreement, Verizon Wireless pays the District a monthly lease payment for the right to install, maintain and operate radio communications equipment on land owned by the District. The lease payment increases 3% per year. The 2020 monthly lease payment to be received by the District is $2,388.

In 2014, the District signed an agreement with October Corporation where the District manages and operates the Pineland Water System in New Gloucester and Gray, Maine. The agreement is ongoing until a thirty day written non-renewal notice is issued by either party. The District charges October Corporation a service rate that is currently $65 per hour. Revenue generated in 2019 and 2018 under this agreement totaled $28,536 and $29,090, respectively.

NOTE 11 – COMMITMENTS (CONTINUED)

In 2019, the District entered into a contract with Constellation NewEnergy Inc. to supply electricity at $0.05730 per kilo-watt hour. The contract is effective through November 2023.

NOTE 12 – DEFINED CONTRIBUTION RETIREMENT PLAN

The District offers employees the option to participate in a 457 defined contribution retirement plan through the Maine Public Employees Retirement System whereby the District contributes up to $10 per week of employees' contributions on their behalf as approved by the Board of Trustees. Total expense at December 31, 2019 and 2018 was $4,160 and $4,040, respectively. The Board of Trustees has authority over plan provisions, requirements and amendments.

NOTE 13 – DEFINED BENEFIT PENSION PLAN

Plan Description

Qualifying employees of the District are provided with a pension plan through the Participating Local District (PLD) Plan – a cost-sharing, multiple-employer defined benefit pension plan administered by the Maine Public Employees Retirement System (the System). Benefit terms are established in Maine statute. An advisory group, also established by statute, reviews the terms of the plan and periodically makes recommendations to the Legislature to amend the terms.

Pension Benefits

The plan provides defined retirement benefits based on members' average final compensation and service credit earned as of retirement. Vesting (i.e., eligibility for benefits upon reaching qualification) occurs upon the earning of five years of service credit. In some cases, vesting occurs on the earning of one year of service credit immediately preceding retirement at or after normal retirement age. For plan members, normal retirement age is 60 or 65. The monthly benefit of members who retire before normal retirement age by virtue of having at least 25 years of service credit is reduced by a statutorily prescribed factor for each year of age that a member is below her/his normal retirement age at retirement. The System also provide disability and death benefits by contract with plan members under applicable statutory provisions.

Upon termination of membership, members' accumulated employee contributions are refundable with interest, credited in accordance with statute. Withdrawal of accumulated contributions results in forfeiture of all benefits and membership rights. The annual rate of interest credited to members' accounts is set by the System's Board of Trustees and is currently 2.69%.

NOTE 13 – DEFINED BENEFIT PENSION PLAN (CONTINUED)

Contributions

Retirement benefits are funded by contributions from members and employers and by earnings on investments. Disability and death benefits are funded by employer normal cost contributions and by investment earnings. Member and employer contribution rates are each a percentage of applicable member compensation. Member contribution rates are defined by law or by the System's Board of Trustees and depend on the terms of the plan under which a member is covered. Employer contribution rates are determined through actuarial valuations.

For the plan, employees are required to contribute 8.1% of their annual pay if they are part of the Age 60 Plan or 7.35% of their annual pay if they are part of the Age 65 Plan. The District's contractually required contribution rate was 9.6% from January 1, 2018 to June 30, 2018, 10.0% from July 1, 2018 to June 30, 2019 and 10.0% from July 1, 2019 to December 31, 2019. District contributions to the pension plan were $45,351 and $40,646 for the years ended December 31, 2019 and 2018, respectively.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the plan, at December 31, 2019 and 2018, the District reported a liability of $222,682 and $185,769, respectively, for its proportionate share of the net pension liability. Activity for the net pension liability is as follows:

2017 Balance	Increases (Decreases)	2018 Balance	Increases (Decreases)	2019 Balance
275,752	(89,983)	185,769	36,913	222,682

The net pension liability was measured as of June 30, 2019 and 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The District's proportion of the net pension liability was based on a projection of the District's long-term share of contributions to the pension plan relative to the projected contributions of all participating entities, actuarially determined. At June 30, 2019, the District's proportion for the plan was 0.072851%, which was an increase of 0.004973% from its proportion measured as of June 30, 2018. At June 30, 2018, the District's proportion for the plan was 0.067878%, which was an increase of 0.000529% from its proportion measured as of June 30, 2017.

NOTE 13 – DEFINED BENEFIT PENSION PLAN (CONTINUED)

For the year ended December 31, 2019 and 2018, the District recognized pension expense (revenue) of $67,244 and ($33,606), respectively. The District reported deferred outflows of resources related to pensions for the plan from the following sources at December 31:

	2019	2018
Difference Between Expected and Actual Experience	26,366	582
Changes in Assumptions	11,277	29,650
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	-0-	-0-
Changes in Proportion and Differences Between District Contributions and Proportionate Share of Contributions	11,692	11,582
District Contributions Subsequent to the Measurement Date	22,606	21,820
Total Deferred Outflows of Resources	71,941	63,634

The District reported deferred inflows of resources related to pensions for the plan from the following sources at December 31:

	2019	2018
Difference Between Expected and Actual Experience	-0-	2,040
Changes in Assumptions	-0-	-0-
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	55,776	44,856
Changes in Proportion and Differences Between District Contributions and Proportionate Share of Contributions	-0-	15,592
Total Deferred Inflows of Resources	55,776	62,488

$22,606 reported as deferred outflows of resources related to pensions resulting from District contributions subsequent to the measurement date for the plan will be recognized as a reduction of the net pension liability in the year ended December 31, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended December 31:	
2020	14,074
2021	(20,394)
2022	(85)
2023	(36)
Total	(6,441)

Actuarial Assumptions

The total pension liability in the June 30, 2019 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

NOTE 13 – DEFINED BENEFIT PENSION PLAN (CONTINUED)

Actuarial Cost Method: The Entry Age Normal cost method is used to develop costs. Under this cost method, the total employer contribution rate consists of two elements, the normal cost rate and the unfunded actuarial liability rate.

The individual entry age normal method is used to determine liabilities. Under the individual entry age normal method, a normal cost rate is calculated for each employee. This rate is determined by taking the value, as of age at entry into the plan, of the member's projected future benefits, and dividing it by the value, also as of the member's entry age, of his expected future salary. The normal cost for each employee is the product of his pay and his normal cost rate. The normal cost for the group is the sum of the normal costs for all members.

Experience gains and losses, i.e., actual decreases or increases in liabilities and/or in assets which differ from the actuarial assumptions, affect the unfunded actuarial accrued liability.

Asset Valuation Method: The actuarial valuation employs a technique for determining the actuarial value of assets which dampens the swing in the market value. The specific technique adopted in this valuation recognizes in a given year one-third of the investment return that is different from the actuarial assumption for investment return.

Amortization: The net pension liability is amortized on a level percentage of payroll using a method where a separate twenty-year closed period is established annually for the gain or loss for that year.

Investment Rate of Return: 6.75% per annum, compounded annually.

Inflation Rate: 2.75%.

Annual Salary Increases, Including Inflation: 2.75% - 9.00%.

Cost of Living Benefit Increases: 1.91%.

Mortality Rates: RP2014 Total Dataset Healthy Annuitant Mortality Table.

The total pension liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Cost Method: The Entry Age Normal actuarial funding method is used to develop costs. Under this cost method, the total employer contribution rate consists of two elements, the normal cost rate and the unfunded actuarial liability rate.

NOTE 13 – DEFINED BENEFIT PENSION PLAN (CONTINUED)

The individual entry age normal method is used to determine liabilities. Under the individual entry age normal method, a normal cost rate is calculated for each employee. This rate is determined by taking the value, as of age at entry into the plan, of the member's projected future benefits, and dividing it by the value, also as of the member's entry age, of his expected future salary. The normal cost for each employee is the product of his pay and his normal cost rate. The normal cost for the group is the sum of the normal costs for all members.

Experience gains and losses, i.e., actual decreases or increases in liabilities and/or in assets which differ from the actuarial assumptions, affect the unfunded actuarial accrued liability.

Asset Valuation Method: The actuarial valuation employs a technique for determining the actuarial value of assets which dampens the swing in the market value. The specific technique adopted in this valuation recognizes in a given year one-third of the investment return that is different from the actuarial assumption for investment return.

Amortization: The net pension liability is amortized on a level percentage of payroll using a method where a separate twenty-year closed period is established annually for the gain or loss for that year.

Investment Rate of Return: 6.75% per annum, compounded annually.

Inflation Rate: 2.75%.

Annual Salary Increases, Including Inflation: 2.75% - 9.00%.

Cost of Living Benefit Increases: 1.91%.

Mortality Rates: RP2014 Total Dataset Healthy Annuitant Mortality Table.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major class of assets. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Plan's target asset allocation as of June 30, 2019 and 2018 are summarized in the following table:

NOTE 13 – DEFINED BENEFIT PENSION PLAN (CONTINUED)

Asset Class	Target Allocation	Long-Term Expected Rate Of Return
Public Equities	30.0%	6.0%
US Government	7.5%	2.3%
Private Equity	15.0%	7.6%
Real Assets:		
Real Estate	10.0%	5.2%
Infrastructure	10.0%	5.3%
National Resources	5.0%	5.0%
Traditional Credit	7.5%	3.0%
Alternative Credit	5.0%	4.2%
Diversifiers	10.0%	5.9%

Discount Rate

The discount rate used to measure the total pension liability at June 30, 2019 and 2018 was 6.75% for the plan. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer and non-employer entity contributions will be made at contractually required rates, actuarially determined. Based on these assumptions, the fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the District's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the District's proportionate share of the net pension liability as of June 30, 2019 calculated using the discount rate of 6.75%, as well as what the District's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

1% Decrease (5.75%)	Discount Rate (6.75%)	1% Increase (7.75%)
507,255	222,682	(43,509)

NOTE 13 – DEFINED BENEFIT PENSION PLAN (CONTINUED)

The following presents the District's proportionate share of the net pension liability as of June 30, 2018 calculated using the discount rate of 6.75%, as well as what the District's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

1% Decrease (5.75%)	Discount Rate (6.75%)	1% Increase (7.75%)
437,834	185,769	(49,842)

Components of Schedules of Pension Amounts

Net Pension Liability: Changes in net pension liability are recognized in pension expense for the years ended June 30, 2019 and 2018 with the following exceptions.

Differences between Expected and Actual Experience: The difference between expected and actual experience with regard to economic or demographic factors are recognized in pension expense using a straight-line amortization method over a closed period equal to the average expected remaining service lives of active and inactive members in each plan. The first year is recognized as pension expense and the remaining years are shown as either deferred outflows of resources or deferred inflows of resources. For 2019 and 2018, this was three years for the PLD Consolidated Plan.

Differences between Projected and Actual Investment Earnings: Differences between projected and actual investment earnings are recognized in pension expense using a straight-line amortization method over a closed five-year period. The first year is recognized as pension expense and the remaining years are shown as either deferred outflows of resources or deferred inflows of resources.

Changes of Assumptions: Differences due to changes in assumptions about future economic or demographic factors or other inputs are recognized in pension expense using a straight-line amortization method over a closed period equal to the average expected remaining service lives of active and inactive members in each plan. The actuarial assumptions used for the year ended June 30, 2019 valuation and June 30, 2018 valuation were based on the results of an actuarial experience study for the period of June 30, 2012 through June 30, 2015. The first year is recognized as pension expense and the remaining years are shown as either deferred outflows of resources or deferred inflows of resources. There were no changes in assumptions for the fiscal year ended June 30, 2019. For the fiscal year ended June 30, 2018, assumptions that change were the investment rate of return decreasing to 6.75% from 6.875%, cost of living benefit increase decreasing to 1.91% from 2.20% and the discount rate decreasing to 6.75% from 6.875%.

NOTE 13 – DEFINED BENEFIT PENSION PLAN (CONTINUED)

Changes in Proportion and Differences between Employer Contributions and Proportionate Share of Contributions: Differences resulting from a change in proportionate share of contributions and differences between total employer contributions and the employer's proportionate share of contributions are recognized in pension expense using a straight-line amortization method over a closed period equal to the average expected remaining service lives of active and inactive members in each plan. The first year is recognized as pension expense and the remaining years are shown as either deferred outflows of resources or deferred inflows of resources. Differences between total employer contributions and the employer's proportionate share of contributions may arise when an employer has a contribution requirement for an employer specific liability.

Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued Maine Public Employees Retirement System financial report.

Additional Financial and Actuarial Information

Additional financial and actuarial information with respect to the Plan can be found in the System's Comprehensive Annual Financial Reports available online at www.mainepers.org or by contacting (207) 512-3100.

NOTE 14 – OTHER POSTEMPLOYMENT BENEFITS (OPEB)

Plan Description

The District sponsors a post-retirement benefit plan providing health insurance to retiring employees. The plan is a single-employer defined benefit OPEB plan administered by the Maine Municipal Employees Health Trust (MMEHT). The Board of Trustees has the authority to establish and amend the benefit terms and financing requirements. No assets are accumulated in a trust that meets the criteria of paragraph 4 of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

Benefits Provided

MMEHT provides healthcare and life insurance benefits for retirees and their dependents. District employees over the age of 55 with 5 years of continuous service are allowed to participate in the plan. Retirees pay 100% of the coverage premiums, whether single plan or family plan. The non-Medicare retirees are offered the same plans that are available to the active employees. Medicare retirees are assumed to be enrolled in Medicare Parts A and B which are primary, and the Retiree Group Companion Plan which includes prescription drug coverage.

NOTE 14 – OTHER POSTEMPLOYMENT BENEFITS (OPEB) (CONTINUED)

The following employees were covered by the benefit terms:

	2019	2018
Inactive employees or beneficiaries currently receiving benefits	3	3
Inactive employees entitled to but not yet receiving benefits	-	-
Active employees	8	8
Total	11	11

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

The District's total OPEB liability at December 31, 2019 and 2018 was $104,353 and $109,770, respectively. The 2019 liability was measured as of January 1, 2019, and was determined by an actuarial valuation as of that date. The 2018 liability was measured as of January 1, 2018, and was determined by an actuarial valuation as of that date.

Changes in the total OPEB liability for 2019 are shown below:

Balance at December 31, 2018	109,770
Changes for the Year:	
Service Cost	3,679
Interest	3,803
Changes of Benefit Terms	-0-
Differences Between Expected and Actual Experience	-0-
Changes in Assumptions	(7,032)
Benefit Payments	(5,867)
Net Changes for the Year	(5,417)
Balance at December 31, 2019	104,353

Changes in the total OPEB liability for 2018 are shown below:

Balance at December 31, 2017	118,475
Changes for the Year:	
Service Cost	3,425
Interest	4,509
Changes of Benefit Terms	-0-
Differences Between Expected and Actual Experience	(12,753)
Changes in Assumptions	1,384
Benefit Payments	(5,270)
Net Changes for the Year	(8,705)
Balance at December 31, 2018	109,770

NOTE 14 – OTHER POSTEMPLOYMENT BENEFITS (OPEB) (CONTINUED)

There is no fiduciary net position at December 31, 2019 and 2018 because the plan is pay as you go and is not funded. Contributions to the plan in 2019 and 2018 were $5,867 and $5,270, respectively, which equals the plan benefit payments. Because retirees pay 100% of the coverage premiums, revenue totaling $5,867 and $5,270, respectively, was recognized in 2019 and 2018 by the District. There were no plan administrative expenses in 2019 and 2018.

A change in assumption for 2019 was the discount rate changing from 3.44% to 4.10%. Changes in assumptions for 2018 were a change in the discount rate from 3.78% to 3.44% and the funding method changing from Projected Unit Credit funding to Entry Age Normal funding method.

For the year ended December 31, 2019 and 2018, the District recognized OPEB expense of $3,802 and $5,660, respectively.

The District reported deferred outflows of resources related to OPEB from the following source at December 31:

	2019	2018
Changes in Assumptions	830	1,107
Total Deferred Outflows of Resources	830	1,107

The District reported deferred inflows of resources related to OPEB from the following sources at December 31:

	2019	2018
Difference Between Expected and Actual Experience	7,651	10,202
Changes in Assumptions	5,626	-0-
Total Deferred Inflows of Resources	13,277	10,202

Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ended December 31:	
2020	(3,680)
2021	(3,680)
2022	(3,679)
2023	(1,408)
Total	(12,447)

NOTE 14 – OTHER POSTEMPLOYMENT BENEFITS (OPEB) (CONTINUED)

Actuarial Assumptions

The total OPEB liability in the January 1, 2019 actuarial valuation for the Health Plan was determined using the following assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

Salary Increases: 2.75% per year.

Healthcare Cost Trend Rates: 8.00% for 2019, decreasing to 4.00% for 2032.

Retirees' Share of the Benefit Related Costs: 100% of projected premiums.

Mortality Rates: RP2014 Total Dataset Healthy Annuitant Mortality Table.

The actuarial assumptions used in the January 1, 2019 valuation were based on the results of an actuarial experience study for the period June 30, 2012 through June 30, 2015.

The total OPEB liability in the January 1, 2018 actuarial valuation for the Health Plan was determined using the following assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

Salary Increases: 2.75% per year.

Healthcare Cost Trend Rates: 8.27% for 2018, decreasing to 4.00% for 2032.

Retirees' Share of the Benefit Related Costs: 100% of projected premiums.

Mortality Rates: RP2014 Total Dataset Healthy Annuitant Mortality Table.

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study for the period June 30, 2012 through June 30, 2015.

Discount Rate

The rate used to measure the total OPEB liability at December 31, 2019 and 2018 was 4.10% and 3.44%, respectively, per annum. Since the plan is pay as you go and is not funded, the discount rate is based on a 20-year tax-exempt general obligation municipal bond index. The rate is assumed to be an index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher, for pay as you go plans.

NOTE 14 – OTHER POSTEMPLOYMENT BENEFITS (OPEB) (CONTINUED)

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate

The following presents the District's total OPEB liability as of December 31, 2019 calculated using the discount rate of 4.10%, as well as what the District's total OPEB liability would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage point-point higher than the current rate:

1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)
115,319	104,353	95,030

The following presents the District's total OPEB liability as of December 31, 2018 calculated using the discount rate of 3.44%, as well as what the District's total OPEB liability would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage point-point higher than the current rate:

1% Decrease (2.44%)	Discount Rate (3.44%)	1% Increase (4.44%)
121,815	109,770	99,546

Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the District's total OPEB liability as of December 31, 2019 as well as what the District's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1 percentage-point lower or 1 percentage point-point higher than the current rates:

1% Decrease	Healthcare Trend Rates	1% Increase
94,292	104,353	116,224

The following presents the District's total OPEB liability as of December 31, 2018 as well as what the District's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1 percentage-point lower or 1 percentage point-point higher than the current rates:

1% Decrease	Healthcare Trend Rates	1% Increase
99,756	109,770	121,562

NOTE 15 – SUBSEQUENT EVENTS

In preparing these financial statements, the District has evaluated events and transactions for potential recognition or disclosure through February 20, 2020, the date on which the financial statements were available to be issued.

REQUIRED SUPPLEMENTAL INFORMATION

YARMOUTH WATER DISTRICT
REQUIRED SUPPLEMENTAL INFORMATION
SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
LAST 10 YEARS*

Year Ended	Proportion of the Net Pension Liability	Proportionate Share of the Net Pension Liability	Covered-Employee Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered-Employee Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2019	0.072851%	222,682	453,981	49.05%	90.62%
2018	0.067878%	185,769	396,339	46.87%	91.14%
2017	0.067349%	275,752	366,601	75.22%	86.43%
2016	0.059372%	315,462	313,036	100.77%	81.61%
2015	0.077438%	247,063	405,652	60.91%	88.30%

* Only five years of information available

See notes to required supplementary information.

YARMOUTH WATER DISTRICT
REQUIRED SUPPLEMENTAL INFORMATION
SCHEDULE OF PENSION PLAN CONTRIBUTIONS
LAST 10 YEARS*

Year Ended	Contractually Required Contributions	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered-Employee Payroll
2019	45,351	(45,351)	0	459,105	9.88%
2018	40,646	(40,646)	0	424,075	9.58%
2017	35,472	(35,472)	0	375,377	9.45%
2016	33,354	(33,354)	0	364,199	9.16%
2015	27,195	(27,195)	0	329,212	8.26%

* Only five years of information available

See notes to required supplementary information.

YARMOUTH WATER DISTRICT
REQUIRED SUPPLEMENTAL INFORMATION
SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS
LAST 10 YEARS*

	2019	2018
Total OPEB Liability		
Service Cost	3,679	3,425
Interest	3,803	4,509
Changes of Benefit Terms	0	0
Differences Between Expected and Actual Experience	0	(12,753)
Changes of Assumptions	(7,032)	1,384
Benefit Payments	(5,867)	(5,270)
Net Change in Total OPEB Liability	(5,417)	(8,705)
Total OPEB Liability - Beginning	109,770	118,475
Total OPEB Liability - Ending	104,353	109,770
Plan Fiduciary Net Position		
Contributions - Employer	5,867	5,270
Contributions - Member	0	0
Net Investment Income	0	0
Benefit Payments	(5,867)	(5,270)
Administrative Expense	0	0
Net Change in Plan Fiduciary Net Position	0	0
Plan Fiduciary Net Position - Beginning	0	0
Plan Fiduciary Net Position - Ending	0	0
Net OPEB Liability - Ending	**104,353**	**109,770**
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.00%	0.00%
Covered Employee Payroll	468,395	468,395
Net OPEB Liability as a Percentage of Covered Employee Payroll	22.30%	23.40%

* Only two years of information available

See notes to required supplementary information.

NET PENSION LIABILITY

Changes of Benefit Terms: None

Changes of Assumptions: None

NET OPEB LIABILITY

Changes of Benefit Terms: None

Changes of Assumptions:

	2019 Valuation	2018 Valuation
Discount Rate	4.10%	3.44%

OTHER SUPPLEMENTAL DATA

YARMOUTH WATER DISTRICT
SCHEDULES OF OPERATIONS, MAINTENANCE AND ADMINISTRATION EXPENSES
YEARS ENDED DECEMBER 31,

SCHEDULE 1

	2019	2018
OPERATIONS:		
Pumping System:		
Salaries and Wages	18,559	18,408
Water Purchases	164,566	189,139
Power Purchases	37,759	40,552
Supplies and Expenses	13,498	12,736
Contracted Services	14,150	16,029
Total Pumping System	248,532	276,864
Water Treatment:		
Salaries and Wages	3,913	3,511
Supplies and Expenses	94	281
Contracted Services	7,859	6,633
Total Water Treatment	11,866	10,425
Distribution:		
Salaries and Wages	77,271	75,746
Employee Benefits	155,261	103,808
Power Purchases	1,850	1,717
Supplies and Expenses	8,392	8,336
Contracted Services	5,863	4,972
Transportation Expense	7,728	6,079
Total Distribution	256,365	200,658
Total Operations Expenses	516,763	487,947
MAINTENANCE:		
Pumping System:		
Salaries and Wages	8,746	9,562
Supplies and Expenses	6,468	1,798
Contracted Services	6,315	19,187
Total Pumping System	21,529	30,547

See accompanying independent auditors' report.

YARMOUTH WATER DISTRICT **SCHEDULE 1**
SCHEDULES OF OPERATIONS, MAINTENANCE AND ADMINISTRATION EXPENSES (CONTINUED)
YEARS ENDED DECEMBER 31,

	2019	2018
MAINTENANCE (CONTINUED):		
Distribution:		
Salaries and Wages	111,946	93,217
Supplies and Expenses	49,248	20,050
Contracted Services	161,482	122,873
Total Distribution	322,676	236,140
Total Maintenance Expenses	344,205	266,687
ADMINISTRATION:		
Customers Accounting and Collections:		
Salaries and Wages	81,222	75,886
Employee Benefits	63,941	47,573
Supplies and Expenses	234	234
Contracted Services	19,876	20,961
Total Customers Accounting and Collections	165,273	144,654
General and Miscellaneous:		
Salaries and Wages	232,417	227,767
Employee Benefits	101,836	39,738
Power Purchases	4,684	4,707
Supplies and Expenses	45,141	47,539
Contracted Services	50,530	53,551
Transportation Expense	1,374	2,015
Advertising Expense	808	3,850
Insurance Expense	26,324	27,605
Total General and Miscellaneous	463,114	406,772
Total Administration Expenses	628,387	551,426
Total Operations, Maintenance and Administration Expenses	1,489,355	1,306,060

See accompanying independent auditors' report.

Drinking Water

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New Water Main – Acton, MA

Booster Pump Station – Bethel, CT

Traditional & Alternative Water Supply – Polk Regional Water Cooperative, FL

Microfiltration Membrane Facility – Rockport, ME

New Water Storage Tank – Manchester, NH

Raw Water Intake Pipeline – South Burlington, VT

Water Master Planning

- Water Supply Plans
- Water System Evaluations
- Asset Management/GASB 34 Compliance
- Capital Improvement Plans (CIP)
- Mutual Aid and Emergency Planning
- Funding Assistance/Rate Studies

Water Source & Supply

- Source Identification and Development
- Recharge Area Mapping
- Safe-Yield Analysis
- Well Evaluation
- Aquifer Management
- Well Rehabilitation

Water Treatment

- Pre-Design and Pilot Studies
- Filtration
- Membranes
- Iron and Manganese Removal
- Softening
- Disinfection
- Corrosion Control
- Taste and Odor Control
- Arsenic Removal
- Radon Removal
- Disinfection Byproducts Reduction
- Emerging Contaminants

Water Pumping, Storage & Distribution

- Transmission/Distribution Design
- Alternative Pipeline Construction/Rehabilitation
- Hydraulic Analysis
- Water Quality Modeling
- Pumping and Booster Stations
- Energy Efficiency
- Storage Facilities
- Metering Systems

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Wastewater

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- Mechanical/HVAC Engineering
- Electrical/Instrumentation Engineering
- SCADA Integration
- Landscape Architecture
- GIS Services
- Funding/Financial Services
- Hydrogeology

888.621.8156
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Attachment F
Agency Review Letters

WRIGHT-PIERCE
Engineering a Better Environment

11 Bowdoin Mill Island, Suite 140
Topsham, ME 04086
Phone: 207.725.8721 | Fax: 207.729.8414
www.wright-pierce.com

RECEIVED
OCT 19 2020
By 10/10-20

October 19, 2020
W-P Project No. 20451A

Mr. Kirk F. Mohney, Director
Maine Historic Preservation Commission
65 State House Station
Augusta, Maine 04333-0041

Re: Environmental Review- North Yarmouth Booster Pump Station and Water Main

Dear Mr. Mohney,

Yarmouth Water District (YWD) intends to construct a new booster pump station and water main to supply water from the Yarmouth pressure zone to the North Yarmouth high service zone. The North Yarmouth zone is currently fed by a single booster pump located in the Hayes Well facility and an 8-inch cross country main which has proven to be problematic for the District in recent years. The new pump station and water main will provide redundancy and reliability in supplying water to the North Yarmouth high service zone. The project consists of a new 26'x26' CMU building with a liquid propane emergency standby generator, two vertical multistage pumps, a chemical room and approximately 7,300 linear feet of 12-inch diameter water main along Sweetser Road in North Yarmouth. The project location is as shown on the attached preliminary plans.

The District has applied for financial assistance from the Maine Drinking Water State Revolving Loan Fund (DWSRF), which is funded in part by a grant to the State from the U.S. Environmental Protection Agency. Consequently, it is necessary for the project to meet federal cross-cutting authority requirements.

At your earliest convenience, please review the proposed project and give us comments with regard to the Maine Historic Preservation Commission. Also please let me know if you have other concerns about the potential environmental impact of the proposed activity. If you need further information, please contact me at (207) 798-3716 or by email at dustin.lacombe@wright-pierce.com.

If a response to this letter is not received within 30 days, we will assume that you have no concerns with regard to the proposed project.

Sincerely,
WRIGHT-PIERCE

Dustin J. Lacombe, P.E.
Project Engineer
dustin.lacombe@wright-pierce.com

Enclosure – Site map

Cc: Drinking Water Program

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission

11/3/2020
Date

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

November 23, 2020

Dustin Lacombe
Wright-Pierce

RE: Information Request – Yarmouth Water District Booster Pump Project, North Yarmouth

Dear Dustin:

Per your request received on October 20, 2020, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *Yarmouth Water District Booster Pump* project in North Yarmouth. For purposes of this review we are assuming tree clearing will be part of your project.

Our Department has not mapped any Essential Habitats or inland fisheries habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bat Species – Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season. However, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

Significant Wildlife Habitat

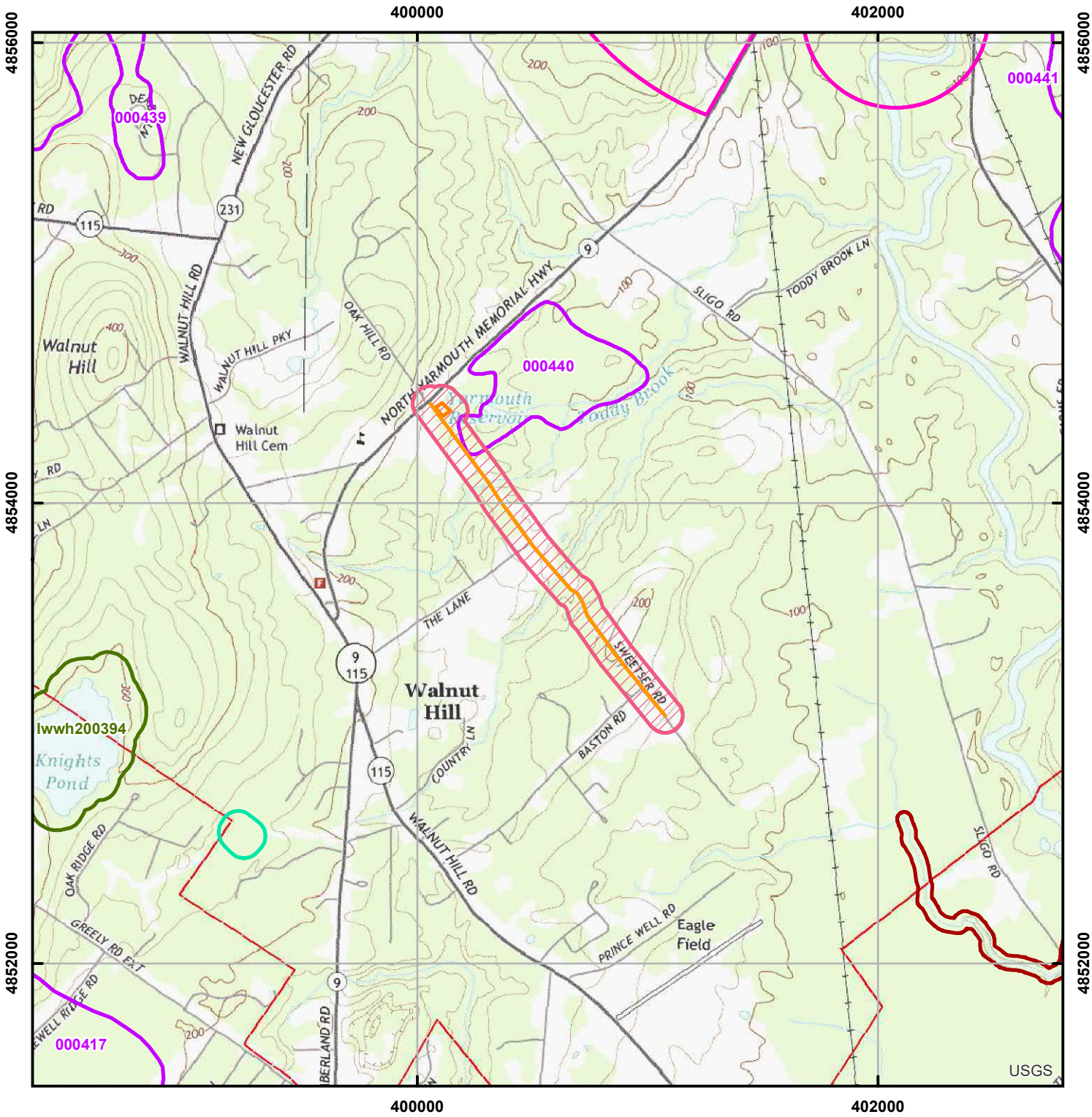
Significant Vernal Pools - At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, we recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Becca Settele
Wildlife Biologist



Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Yarmouth Water District Booster Pump, North Yarmouth (Version 1)

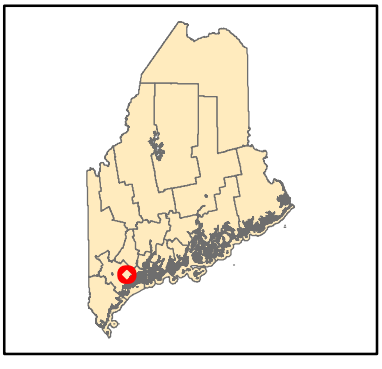
Maine Department of Inland Fisheries and Wildlife

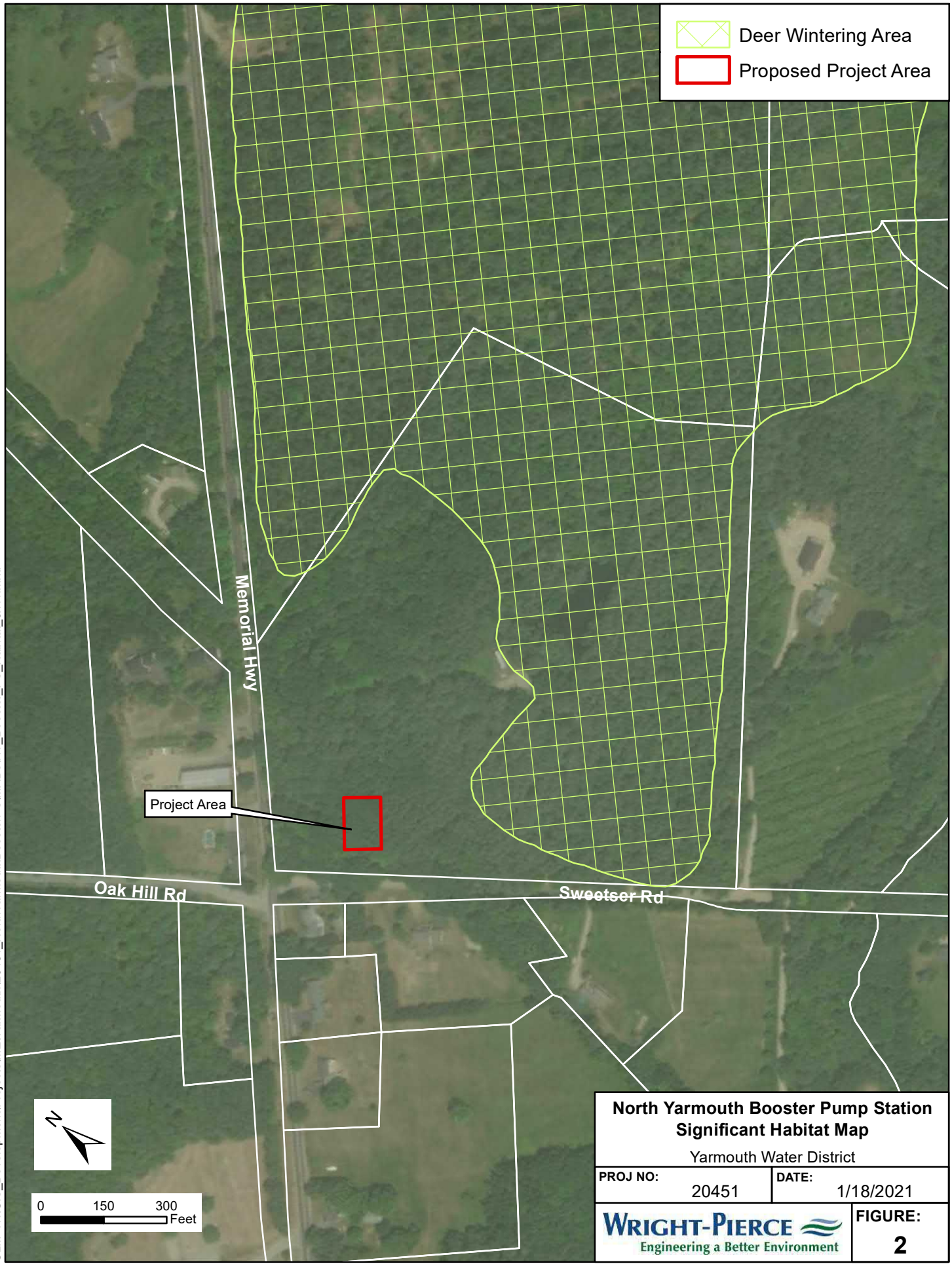
0 0.125 0.25 0.5 0.75 1 Miles

Projection: UTM, NAD83, Zone 19N

Date: 10/23/2020

- ProjectPoints
- ProjectLines
- ProjectPolys
- ProjectSearchAreas
- Maine Cliff and Talus Areas
- Deer Winter Area
- LUPC p-fw
- Cooperative DWAs
- Seabird Nesting Islands
- Shorebird Areas
- Inland Waterfowl and Wading Bird
- 2008 Iwwh - Shoreland Zoning
- Tidal Waterfowl and Wading Bird
- Significant Vernal Pools
- Environmental Review Polygons
- Roseate Tern
- Piping Plover and Least Tern
- Aquatic ETSc - 2.5 mi review
- Rare Mussels - 5 mi review
- Maine Heritage Fish Waters
- Arctic Charr Habitat
- Redfin Pickerel and Swamp Darter Habitats - buffer100ft
- Special Concern occupied habitats - 100ft buffer
- Wild Lake Trout Habitats





CLM W:\GIS_Development\Projects\ME\Yarmouth\20451_NorthYarmouthBoosterPS\MXDs\NY_Booster_PS_Habitat_8x11.mxd

North Yarmouth Booster Pump Station
Significant Habitat Map

Yarmouth Water District

PROJ NO:	DATE:	FIGURE:
20451	1/18/2021	2

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

In Reply Refer To: October 19, 2020
Consultation Code: 05E1ME00-2021-SLI-0068
Event Code: 05E1ME00-2021-E-00186
Project Name: North Yarmouth Booster Pump Station and Water Main

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: http://www.fws.gov/mainefieldoffice/Project%20review4.html

Additionally, wind energy projects should follow the wind energy guidelines: http://www.fws.gov/windenergy/ for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g.,

cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm and at: http://www.towerkill.com; and at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
(207) 469-7300

Project Summary

Consultation Code: 05E1ME00-2021-SLI-0068

Event Code: 05E1ME00-2021-E-00186

Project Name: North Yarmouth Booster Pump Station and Water Main

Project Type: WATER SUPPLY / DELIVERY

Project Description: Yarmouth Water District (YWD) intends to construct a new booster pump station and water main to supply water from the Yarmouth pressure zone to the North Yarmouth high service zone. The North Yarmouth zone is currently fed by a single booster pump located in the Hayes Well facility and an 8-inch cross country main which has proven to be problematic for the District in recent years. The new pump station and water main will provide redundancy and reliability in supplying water to the North Yarmouth high service zone. The project consists of a new 26'x26' CMU building with a liquid propane emergency standby generator, two vertical multistage pumps, a chemical room and approximately 7,300 linear feet of 12-inch diameter water main along Sweetser Road in North Yarmouth.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.829809216015846N70.23629806461682W

Counties: Cumberland, ME

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

In Reply Refer To: October 19, 2020
Consultation Code: 05E1ME00-2021-TA-0068
Event Code: 05E1ME00-2021-E-00187
Project Name: North Yarmouth Booster Pump Station and Water Main

Subject: Verification letter for the 'North Yarmouth Booster Pump Station and Water Main' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Dustin Lacombe:

The U.S. Fish and Wildlife Service (Service) received on October 19, 2020 your effects determination for the 'North Yarmouth Booster Pump Station and Water Main' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

North Yarmouth Booster Pump Station and Water Main

2. Description

The following description was provided for the project 'North Yarmouth Booster Pump Station and Water Main':

> Yarmouth Water District (YWD) intends to construct a new booster pump station and water main to supply water from the Yarmouth pressure zone to the North Yarmouth high service zone. The North Yarmouth zone is currently fed by a single booster pump located in the Hayes Well facility and an 8-inch cross country main which has proven to be problematic for the District in recent years. The new pump station and water main will provide redundancy and reliability in supplying water to the North Yarmouth high service zone. The project consists of a new 26’x26’ CMU building with a liquid propane emergency standby generator, two vertical multistage pumps, a chemical room and approximately 7,300 linear feet of 12-inch diameter water main along Sweetser Road in North Yarmouth.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.829809216015846N70.23629806461682W

Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

5. [Semantic] Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered
   No

6. [Semantic] Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered
   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type ‘0’ in questions 1-3.

1. Estimated total acres of forest conversion:

0.5

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type ‘0’ in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type ‘0’ in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type ‘0’ in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

October 29, 2020

Dustin Lacombe
Wright-Pierce
11 Bowdoin Mill Island, Suite 140
Topsham, ME 04086

Via email: dustin.lacombe@wright-pierce.com

Re: Rare and exemplary botanical features in proximity to: #20316, Yarmouth Water District, North Yarmouth Booster Pump Station and Water Main, Sweetser Road, North Yarmouth, Maine

Dear Mr. Lacombe:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received October 19, 2020 for information on the presence of rare or unique botanical features documented from the vicinity of the project in North Yarmouth, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
BLOSSOM LANE, DEERING BUILDING

DEPARTMENT OF Agriculture Conservation & Forestry

PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov

Rare and Exemplary Botanical Features within 4 miles of

Project: #20316, Yarmouth Water District, North Yarmouth Booster Pump Station and Water Main, Sweetser Road, North Yarmouth, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Adder's Tongue Fern						
	SC	S1	G5	1905-08-10	7	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
Hollow Joe-pye Weed						
	SC	S2	G5?	2015-10-15	26	Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
Oak - Hickory Forest						
	<null>	S1	G4G5	2014-08-21	5	Hardwood to mixed forest (forest, upland)
Rattlesnake Hawkweed						
	E	S1	G5T4Q	1909-07	1	Dry barrens (partly forested, upland)
Salt-hay Saltmarsh						
	<null>	S3	G5	2015-08-19	62	Tidal wetland (non-forested, wetland)
Spotted Wintergreen						
	T	S2	G5	2009-07-26	30	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Upper Floodplain Hardwood Forest						
	<null>	S3	GNR	2017-05-17	18	Forested wetland
Water-plantain Spearwort						
	PE	SH	G4	1903-07-29	2	Open water (non-forested, wetland)
Wild Leek						
	SC	S3	G5	2017-05-17	47	Hardwood to mixed forest (forest, upland),Forested wetland
	SC	S3	G5	2017-05-17	28	Hardwood to mixed forest (forest, upland),Forested wetland

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 Rare in Maine (20-100 occurrences).

S4 Apparently secure in Maine.

S5 Demonstrably secure in Maine.

SU Under consideration for assigning rarity status; more information needed on threats or distribution.

SNR Not yet ranked.

SNA Rank not applicable.

S#? Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.

G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

G3 Globally rare (20-100 occurrences).

G4 Apparently secure globally.

G5 Demonstrably secure globally.

GNR Not yet ranked.

Note: **Global Ranks** are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.

PE Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: **Element Occurrence Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species!
http://www.maine.gov/dacf/mnap

Attachment G
Noise Evaluation

Bodwell EnviroAcoustics LLC

Daniel J. Flaig, PE
Wright-Pierce

January 25, 2021
Via Email

RE: Sound Level Analysis
Booster Pump Station
North Yarmouth, Maine

Dear Dan,

Bodwell EnviroAcoustics LLC (BEA) conducted a sound level analysis of a Booster Pump Station planned for construction and operation by the Yarmouth Water District in North Yarmouth, Maine. The objective of the sound analysis is to evaluate sound levels produced by operation of the backup generator in relation to local noise standards potentially applicable at the station property boundary.

Site Description

The proposed Station is a water pumping facility that will provide capacity and redundancy to an existing well pumping station. Two water pumps and a backup generator will be housed inside a new concrete block building on a 28.2 acre property located at the corner of Memorial Highway (Route 9) and Sweetser Road in North Yarmouth, Maine. The proposed facility consists of a 28' x 28' masonry building housing a pump skid and electric water pumps inside a pump room and a propane-fired backup generator inside a adjacent generator room. The proposed backup generator is a Cummins Model C45 N6 rated at 45 kW for which sound performance data has been provided including octave band sound levels (see Exhibit 1). There is also a heat pump and other equipment for operation of the booster water pumps.

The generator exhaust silencer is inside the generator room and the exhaust pipe exits through the rear, northeast facing wall of the Station building approximately 8 feet above ground. A cooling fan on the generator is ducted through the rear wall of the generator room through a 4' by 4' air louver and makeup air enters through a 5' x 5' louvered opening on the northwest facing wall toward Route 9. Other facilities will include a gravel access drive, chain-link fencing and two propane storage tanks behind the Station building. The site is currently heavily wooded except for an existing operations building in the northeast portion of the property and existing access road from Sweetser Road.

The surrounding area is primarily residential across Sweetser Road and Route 9. The proposed site is located in the Farm and Forest Zone and the nearest abutting properties across Sweetser Road are

within the Village Center zone and across Memorial Highway are within the Village Residential Zone. The proposed site plan, exterior wall generator components and adjacent properties are shown as Figure 1.

Proposed Operation and Equipment

The proposed Booster Pump Station will be available to operate 24 hours per day as needed to support the services of the Yarmouth Water District. The backup generator will operate continuously as needed only during power outages at the booster pump station facility. In addition, the generator will be "exercised" once per week for about 15 minutes similar to other backup generator installations. The weekly routine exercise operation will be scheduled to occur during daytime periods consistent with the District's other facilities.

Noise Standards

As part of its Land Use Ordinance, the Town of North Yarmouth regulates noise as part of Article X, Performance and Design Standards for Site Plan Review. The noise standards are set forth in SECTION 10-15. NOISE as follows:

A. The development must control noise levels such that it will not create a nuisance for neighboring properties.

B. The maximum permissible sound pressure level of any continuous, regular or frequent or intermittent source of sound produced by any activity on the site shall be limited by the time period and by the abutting land use as listed below. Sound levels shall be measured at least 4 feet above ground at the property boundary of the source.

Sound Pressure Level Limits Using The Sound Equivalent Level of One Minute (leq 1) (Measured in dB(a) Scale)		
Abutting Use	**6 a.m. to 10 p.m.**	**10 p.m. to 6 a.m.**
Residential	55	45
Public, Semipublic and Institutional	60	55
Vacant or Rural	60	55
Commercial	65	55
Industrial	70	60

C. Noise shall be measured by a meter set on the A-weighted response scale, fast response. The meter shall meet the American National Standards Institute (ANSI S1 4- 1961) 'American Standards Specification for General Purpose Sound Level Meters'.

Unlike other typical environmental noise standards, SECTION 10-15. NOISE does not include a list of exemptions, which commonly include vehicles traveling to and from a facility, snow removal, warning signals and alarms, and emergency equipment such as backup generators.

Figure 1. Booster Pump Station Layout and Exterior Sound Sources

Sound Level Evaluation

BEA evaluated the sound level performance that would be required for operation of the backup generator to meet the sound limits at the facility lot line as set forth in the Town's Land Use Ordinance. The nearest properties are residential where the most stringent limits of 55 dBA daytime/45 dBA nighttime hours would potentially apply.

It is not certain whether these sound limits are applicable to the backup generator as it will only operate continuously during an electrical power outage. During these times, it is likely that some of the residences in the area will also operate backup generators.

Although the ordinance would apply sound limits at the property line of the facility, the residential properties are located across public roads. As such, the property lines of the residences are on the order of 75 feet further away than the Station property lines.

Sound levels from sound sources of the backup generator as located on the Pump Station were calculated at the nearest Station property lines. These calculations are based on distances to the Station property line and noise shielding and reflection by the Station building layout. These calculations indicate that in order to meet the most restrictive 45 dBA nighttime limit at the facility property line, sound levels from the individual generator sources should be within the following:

Sound Source	**Sound Level at 7 meters (23 feet)**
Air Inlet Louver	61.0 dBA
Air Exhaust Louver	62.5 dBA
Engine Exhaust	62.5 dBA
All Sources Combined	**66.8 dBA**

The sound performance specification for the proposed generator (Exhibit 1) provide rated sound levels of the generator for various configurations. This specification indicates overall average sound levels from the generator ranging from 82.6 dBA at 7 meters with a standard protective enclosure to 69.3 dBA at 7 meters with Level 2 sound enclosures. These specified sound levels include all sources combined.

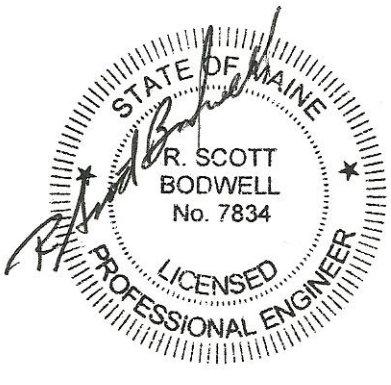
In order for resulting sound levels during full rated operation of the generator to be at or below the 45 dBA nighttime limit at the facility property line, additional noise mitigation would be required. There are several options available to reduce sound levels from the generator that can be incorporated into the facility design depending upon the applicable requirements. These include but are not limited to the following:

- High performance engine exhaust silencer
- Silenced air louvers for the cooling air inlet and exhaust
- Sound barriers or partial enclosures to block the line-of-sight between the sound sources and nearest property lines
- Acoustical lining of the air exhaust duct work
- Installation of sound absorbing material within the generator room

Once the applicable sound limits as set forth in the Land Use Ordinance are determined, a noise mitigation plan can be developed as part of station design for sound compliance. The noise mitigation plan would be based on octave band sound level data for the generator as provided by Cummins and acoustic properties of the station building.

Please contact me should you have any questions or need additional information concerning the findings of this sound level analysis.

Respectfully,



R. Scott Bodwell, PE
Principal

EXHIBIT 1. Cummins Sound Data Specification

Sound data

C45 N6 **60 Hz**

Sound pressure level @ 7 meters, dB(A)

See notes 1-6 listed below

Configuration		Position (note 1)								8 Position average
		1	2	3	4	5	6	7	8	
Standard – unhoused	Infinite exhaust	75	78.7	76.9	79	75.6	78.6	77.1	77.3	77.5
F216-2 weather protective enclosure, aluminium	Mounted	79.7	82.1	83.4	84.6	83	84.1	81.5	80.1	82.6
F231-2 sound attenuated level 1 enclosure, aluminium	Mounted	75.8	74.4	69.4	69.9	69.9	70	68.3	74.3	72.4
F217-2 sound attenuated level 2 enclosure, aluminium	Mounted	71.2	70.5	68	68.4	69	68.4	66.1	70.4	69.3

Sound power level, dB(A)

See notes 2-4, 7, 8 listed below

Configuration		Octave band center frequency (Hz)									Overall sound power level
		31.5	63	125	250	500	1000	2000	4000	8000	
Standard – unhoused	Infinite exhaust	51.4	67.0	82.6	90.5	97.1	99.2	98.2	94.7	91.6	104.2
F216-2 weather protective enclosure, aluminium	Mounted	54.2	98.9	106.0	101.4	98.4	98.8	98.2	98.5	95.9	109.7
F231-2 sound attenuated level 1 enclosure, aluminium	Mounted	62.2	77.5	85.4	89.0	92.6	93.9	91.6	90.3	84.5	99.2
F217-2 sound attenuated level 2 enclosure, aluminium	Mounted	61.6	77.2	85.2	87.6	90.7	90.1	87.9	87.7	81.7	96.5

Exhaust sound power level, dB(A)

See notes 2, 9 listed below

Open exhaust (no muffler) @ rated load	Octave band center frequency (Hz)									Overall sound power level
	31.5	63	125	250	500	1000	2000	4000	8000	
	40.6	68.1	77	87	87.7	100	95	94.2	92.9	103.1

Note:

1. Position 1 faces the generator front per ISO 8528-10. The positions proceed around the generator set in a counter-clockwise direction in 45° increments. All position are at 7 m (23 ft) from surface of the generator set and 1.2 m (48 in.) from floor level.
2. Sound levels are subject to instrumentation, measurement, installation and manufacturing variability.
3. Data based on full rated load.
4. Sound data with generator sets with infinite exhaust do not include exhaust noise.
5. Sound pressure levels are measured per ANSI S1.13 and ANSI S12.18, as applicable.
6. Reference sound pressure is 20 µPa.
7. Sound power levels per ISO 3744 and ISO 8528-10, as applicable.
8. Reference power = 1 pw (10^{-12} W).
9. Exhaust sound power levels are per ISO 6798, as applicable.

Attachment H
Pump Station Rendering

Attachment I
Site Plan
(included under separate cover)

WRIGHT-PIERCE
Engineering a Better Environment

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