

**TOWN OF OLD ORCHARD BEACH
TOWN HALL CHAMBERS
TOWN COUNCILWORKSHOP
Thursday, April 30, 2020**

A Town Council Workshop of the Old Orchard Beach Town Council was held on Tuesday, Thursday, April 30, 2020. Councilor Tousignant opened the meeting at 6:30 p.m.

The following were in attendance:

**Councilor Kenneth Blow
Councilor Jay Kelley
Councilor Michael Tousignant
Town Manager Larry Mead
Assistant Town Manager V. Louise Reid
Waste Water Superintendent Christopher White
Maintenance Foreman Michael Hershey**

**Absent: Chair Joseph Thornton
Vice Chair Shawn O'Neill**

**It should be noted that
DUE TO COVID-19, THE PUBLIC WILL NOT BE ABLE TO ATTEND THIS MEETING IN
PERSON. THEY COULD WATCH THE MEETING ON SPECTRUM 1301, OR GO ON-LINE
TO WWW.OOBMAINE.COM AND CLICK ON "MEETING VIDEOS" AND WATCH THE
MEETING LIVE, AND IT WILL BE ARCHIVED TO WATCH AT A FUTURE DATE.**

Discussion this evening will be on budget requests for the Waste Water Department.

Wastewater Treatment Department

The wastewater department is responsible for the maintenance and operation of the pollution control facility and eight (8) remote pump stations. The maintenance and operations departments are required to have working knowledge of each other's general duties. The Department Foreman oversees all maintenance duties and is second in charge during the temporary absence of the Superintendent. The Chief Operator oversees all chemical and biological operations. At all times there are two employees on call and ready to respond in case of power outages, equipment failures and rain events. Everyday duties include inspecting facility equipment, pump station equipment, scheduling maintenance, laboratory testing and operational adjustments. Other duties consist of operating the solids disposal equipment, coordinating outside contractors, diagnosing electrical and mechanical equipment, scheduling in house repairs, ongoing training, ordering parts/supplies/material and yard maintenance.

Staff faces a number of biological, electrical and mechanical hazards on a daily basis. Training and attention to safety play an important role in everything we do. It should be noted that in comparing wages and benefits as part of the total departmental budget; the labor costs are a much smaller percentage in this department than others.

Although wastewater treatment in most municipalities tends to be less in the public eye than other departments, it is a service that is provided 24 hours a day. There are tremendous amounts of technology and infrastructure that make up the wastewater treatment system. It is a huge investment and it is very important that the public be educated on what it takes to properly operate the facility. There have been tremendous advances in how wastewater is treated and great strides have been made in technology. Newer equipment saves manpower, electricity and provides a safer working atmosphere for the employees.

Process

The first part of the process uses primary clarifier's to settle out non-organic material that has no benefit to the biological process. The waste stream then enters the biological part of the process called aeration. In this process, repopulated microorganisms are supplied with air and sludge is recirculated as nutrients for the purpose of "breaking down" the organic material. After the aeration process, the waste stream enters the secondary clarifier's. Much like primary clarifiers, this process uses the same principals to settle out organic material coming from the aeration tanks.

The last process uses hypo-chlorite to kill the pathogens in the waste stream. The solids that settle out are run through a belt press that compresses the solids in order to get as much water out as possible. These dried solids are then sent out for disposal by New England Organics. The OOB facility typically treats over 400 million gallons of wastewater and processes over 1,200 tons of solids on an annual basis. The treated water is discharged to the Atlantic Ocean and is subject to federal and state laws that are put in place to protect our waterways. While the OOB facility is mandated to remove 85% of the pollutants. The OOBWW facility typically removes better than 95%. The WWTF's discharge license was recently approved for 2015 through 2020. The new license dictates that the town starts background testing for nutrient limits.

FY21 Goals

This year staff will be overseeing the construction of a new administration building starting early spring. This project is expected to be completed by the end of 2020. The department is also in the middle of a fiscal sustainability plan (FSP), climate adaptation plan (CAP) as well as determining the cost of upgrading the wastewater facility and associated pump stations. All of these undertakings will require staff time over and above normal duties. This will be an extremely expensive endeavor for the town and it will be critically important the design serves

the community for the next few decades in the most efficient and safe manner possible. Added pressure from state regulatory agencies are part of the driving force behind these activities. It is also expected that the state will require the department to establish a software maintenance program. This will be very time consuming for staff to create and maintain.

The department is also in the process of completing multiple in house projects. Along with multiple pieces of equipment being replaced the department has undertaken smaller projects. These projects include locating another bulk chlorine storage tank. The current chlorine system is over complicated and has failed multiple times. By adding a bulk storage tank the department will bypass the old system. The department is also adding level sensors to the secondary clarifiers and replacing the level sensor on the primary sludge holding tank.

STAFF DESCRIPTION

Superintendent – Oversees the operation and maintenance off the all wastewater infrastructure, short and long term planning of infrastructure replacement, discharge licensing, creating and tracking budgets, securing electricity contracts for the town, wastewater payroll, negotiating wastewater association contracts, personal matters, processing invoices, public relations, securing bio solids disposal contracts, coordinating with Maine Healthy Beaches and co-chair of the OOB safety committee.

Department Foreman – Manages and supervises all repairs and installation of equipment. Recommends purchases of new equipment, assists the Superintendent with internal and external projects, orders materials and supplies. The Department Foreman performs basic administrative functions in the temporary absence of the Superintendent.

Chief Operator – Manages and supervises all biological and chemical operations. Recommends purchases of new equipment, assists the Superintendent with internal projects and orders materials and supplies. Performs in house laboratory testing and schedules contracted laboratory testing. The Chief Operator submits state and federal reporting forms pertaining to the discharge license. Runs the departments' safety program and coordinates training classes.

Senior Operator – Responsible for all biological and chemical operations in the short term absence of the Chief Operator. Performs in house laboratory testing, operates the dewatering equipment and assists the Chief operator in all aspects of biological and chemical operations.

Senior Mechanic – Responsible for all maintenance activities in the short term absence of the Department Foreman. Assists the Department Foreman with repairs to existing equipment, performs routine checks and maintenance.

Operator - Performs in house laboratory testing, operates the dewatering equipment and assists the Chief operator in all aspects of biological and chemical operations.

Mechanic - Assists the Department Foreman with repairs to existing equipment, performs routine checks and maintenance to equipment. Performs operational duties as assigned.

Seasonal staff – Performs non skilled tasks such as grounds keeping, cleaning tanks and assisting staff.

CURRENT STAFF

Superintendent, department foreman, chief operator, senior mechanic (out on short term disability), operator, mechanic, assistant operator

RECOMMENDED STAFF

Superintendent, department foreman/project manager, chief operator, senior operator (2), senior mechanic (2), seasonal staff (1)

RECOMMENDED CHANGES

Promote department foreman to department foreman/project manager

\$37.50 x 2080 = \$78,000 plus vehicle, superintendent to maintain all invoicing and payroll duties, all personal issues to go through superintendent, foreman to maintain on call duties, foreman to maintain all supervisory duties, salaried position

$$\$78,000 - \$75,000 = \$3,000 \times 1.3 = \$3900$$

Promote current Mechanic to Senior Mechanic

$$\$26.29 - \$24.84 = \$1.45 \times 2080 = \$3016 \times 1.3 = \$3920$$

Promote current Operator to Senior Operator

$$\$25.52 - \$24.11 = \$1.41 \times 2080 = \$2933 \times 1.3 = \$3812$$

Promote current Assistant Operator to Operator

$$\$24.59 - \$22.42 = \$2.17 \times 2080 = \$4513 \times 1.3 = \$5868$$

Line Item Justifications

➤ 50101 Department Head Salary \$86,146

- 50106 Full-time employee wages - \$336,857
See requested full time staff for an explanation of the positions and requested positions.
- 50108 Seasonal wages \$15,000
24 weeks X 40 hours weekly at \$15 hourly
- 50111 Overtime wages - \$26,000
The department has two staff members on call on a rotating basis at all times. Overtime is incurred for weekend duty, equipment break downs, power failures and heavy rain events.
- 50112 Standby wages - \$32,000
Standby wages for two staff members to be on call each week totals \$450 per week.
- 50220 Health Club - \$600
- 50230-Clothing Allowance – \$3,900
Each staff member gets a \$650 clothing stipend.
- 50251 Conferences/Training - \$2,500
Employees must earn 18 hours of DEP approved classes every two years in order to maintain their wastewater license. The union contract, as of this year, dictates that at least two (2) employees will have the ability to attend the annual wastewater conference. It is expected that additional safety training will have an impact on this budget line.
- 50252 Travel/food/lodging - \$500
Employees must earn 18 hours of DEP approved classes every two years in order to maintain their wastewater license. The union contract, as of this year, dictates that at least two (2) employees will have the ability to attend the annual wastewater conference.
- 50256 Dues/memberships/licenses - \$4,415
This line covers misc. state and federal fees for operating the WWTF and wastewater license renewals for staff. State and federal license fees associated with the WWTF totaled \$2,643 and there is also \$450 for individual license renewals. A 50% increase in state and federal fees are expected in 2020.

- 50305 Laboratory services, equipment and supplies - \$15,000
This budget line funds laboratory supplies and contracted testing. This line does not contain sufficient funds for replacing lab equipment. The requested increase is due to mandatory testing requirements in the final two years of our discharge license.

- 50310 Service contracts - \$30,000
Below is a list of regular services, vendors and the estimated costs.
 - ❖ **Weekly bathroom cleaning Cintas: \$7,280 (two existing bathrooms)/\$7280 (new building including weekly cleaning of bathrooms, hallway, lunchroom and conference room for 26 weeks)**
 - ❖ **Emergency Generator maintenance services through Power Products: \$3,315**
 - ❖ **SCADA software updates through Results Engineering: \$4,400**
 - ❖ **One day of service for Huber: \$3,000 (est)**
 - ❖ **Crane/hoist inspection through Coastal Equipment: \$1,370**
 - ❖ **Calibration of lab equipment through QC Services: \$1,000**
 - ❖ **Backflow preventer inspection through Bruce E Clark: \$1100**
 - ❖ **Annual service contract for DR3900: \$800**
 - ❖ **Fire alarm system inspection through Simplex Grinnell: \$1100**
 - ❖ **Gas meter calibrations through Eastern Fire: \$690**
 - ❖ **Fire extinguisher inspection through Lindsey Fire Services: \$565**

- 50325 – Postage \$500
This line funds postage and shipping.

- 50330 Equipment replacement - \$55,300
Below is a list of requests for replacement and repair of equipment. Any individual unscheduled repairs or replacements with a cost of over \$1,000 will need to be funded from the connection fee account.
 - ❖ **Replace two (2) VFD's in the effluent pump station: \$30,000 (pending recommendations by Woodard and Curran)**
 - ❖ **Replace zero turn mower: \$15,000**
 - ❖ **Replace plow: \$5,300**
 - ❖ **Server: \$5,000**

- 50336 Equipment rental - \$0/\$0
This budget line funds rental equipment as needed.

- 50340 Waste tipping and disposal - \$130,000
This budget line funds the pickup, delivery and disposal of the bio solids produced at the WWTF. The current contract is at \$100 per ton plus fuel surcharges. The amount of bio solids produced is dependent on total flow, primary gallons wasted, secondary gallons wasted, weather and equipment performance.

- 50342 Waste pumping - \$35,000
This budget line is dedicated to costs incurred for cleaning/disposal of various tanks, wet wells and channels at the WWTF and pump stations. The department has worked closely with the present company to make this operation as efficient and cooperative as possible. Cleanings are performed twice a year.

- 50400 Electricity costs – \$150,000
This budget line is dedicated to electricity costs incurred from operating the WWTF and pump stations.

- 50401 Water - \$4,700
This account is to fund water usage from Maine Water and bottled water from Poland Spring Bottling Company.

- 50402 Phones, cell phones and pagers - \$5,500
**4 employee phones \$1,760 (3 through ATT First Net, and 1 through PR)
Pager (American Messaging) \$560
Consolidated Communications Pump Station Alarms \$140 X 12 \$1680
NTT Phone repairs/hardware \$1,500**

- 50404 Internet and cable services - \$2,000
**ATT First Net iPad \$450
Spectrum TV & Internet \$1,550**

- 50405 Heating Fuel – \$13,000
This account funds heating oil and propane to the administrative building and storage building. The process building and pump stations are heated with electric heaters. The increase is to account for three months of heating the new administrative building.

- 50450 Building repairs - \$0
This account is used to fund minor building improvements as they become necessary. The administrative building contains asbestos, code violations and is inadequate for

current needs. Repairs are only made while absolutely necessary. No repairs are planned for this year.

- 50452 Operating equipment repairs - \$45,000
The budget line is dedicated to the repair and replacement of WWTF and PS equipment under \$1,000. A comprehensive pump replacement program has held these costs down. Equipment repair and replacement requests that are over \$1,000 will be taken out of Equipment Replacement fund #20161-50330.

- 50453 Vehicle repairs - \$5,000
The budget line is dedicated for the scheduled maintenance of a 2006 Ford F-250, 2006 Ford F-550 crane truck, 2016 F-350, 2017 F-550 hook/lift truck and 2018 Caterpillar loader. The request is for annual maintenance and will not be sufficient for unscheduled repairs.

- 50500 Admin/office supplies - \$2,000
This budget line funds purchases for office supplies. This year the department is requesting to be part of the town's contracted copier service.

- 50501 Operating supplies/equipment - \$85,188
Approximately seventy five percent of this account is dedicated to hypochlorite, polymer, potassium permanganate and bio augmentation. The account is also used for hardware, lubricants, tools, safety supplies, PPE and bathroom supplies. The cost of hypo chlorite is increasing from \$0.96 per gallon to \$1.15 per gallon starting January 1, 2020. The price of polymer is expected to be \$1.53 in 2019.
 - ❖ **Polymer (sludge conditioning): 12000 pounds at \$1.53 per pound equals \$18,360**
 - ❖ **Hypochlorite (disinfection): 15000 gallons at \$1.15 per gallon equals \$17,250**
 - ❖ **Bio augmentation: \$5,000**
 - ❖ **Non chemical: \$25,000**

CIP

For the budget year **Fy21**:

Purchase Huber Q800 Screw Press	\$300,400
Replace Crane Truck	110,000
Purchase portable Generator	40,000
Purchase fine bubble diffusers for the AT's	45,000
Mezzanine for Equipment Storage Building	35,000
Repair/expand Comfort Pump Station Building Cupola	10,000

Total of \$540,400.

Meeting Notes:

Background:

Submitted Funding Applications to DEP to secure \$120,000 (\$70,000 forgiven) for Development of Fiscal Sustainability (FSP) and Climate Adaptation (CAP) Plans.

Hired Woodard & Curran to conduct evaluation of Wastewater System and complete FSP and CAP.

Hired Woodard & Curran to design and oversee construction of the Administration Building.

Brief Summary of Work on FSP to Date:

On-site equipment and unit process inspections and meetings with Wastewater Staff conducted.

Wastewater Treatment Facility and Pump Station evaluation draft completed.

Submitted application to DEP for funding improvements.

Developed Capital Plan identifying critical, short-and-long-term improvements.

Critical Project Address:

Code, safety, capacity, structural integrity, permit compliance and useful life issues with additional benefits of enhanced treatment performance, process control, and reliability at a cost of \$23,500,000.

Short Term Projects Address:

Energy savings, operational efficiency, asset protection, and control of labor costs with additional benefits of replacing date equipment at a cost of \$3,500,000.

Long Term Project Address:

Redundancy, maintenance needs a control of labor costs at a cost of \$8,500,000.

Potential Funding Sources for the Work are:

Economic Development Administration (up to \$3,000,000 grant), potential stimulus Funding and Clean Water State Revolving Loan fund.

Critical/Short Term Projects

**Dunegrass 200 Pump Station
Purchase Property
Standby Emergency Generator**

**Dunegrass 100 Pump Station
Mechanical/Equipment Repairs
Standby Emergency Generator**

**West Grand Pump Station
HVAC Upgrades**

Comfort Pump Station

**Process/Treatment Upgrades
SADA/Control Upgrades
Replace Standby Emergency Generator**

Milliken Street Pump Station

Complete Pump Station Replacement

Ross Road Pump Station

Complete Pump Station Replacement

Portland Avenue Pump Station

Complete Pump Station Replacement

East Grand Pump Station

**Mechanical Equipment Repairs
Standby Emergency Generator**

Old Aeration Tanks

Proposed to be Re-utilized for Additional Aeration Tankage

Administration Building – under construction

Chlorine Feed Building and Storage Tanks – Proposed

Sludge Garage – Addition Proposed

Overflow Clarifier – Not Used

Halfway Pump Station/Control Building – Partial Demolition & Modifications Proposed

Standby Generator – Proposed.

Critical Projects:

Maintenance Garage

**Provide Unisex Bathroom
HVAC Plumbing Upgrades**

Aeration Tanks:

**Mechanical/Equipment Repairs and Upgrades
Process/Treatment Upgrades including Retrofitting Existing
Aeration (Original) Tanks to Provide a Nitrogen Management System
Structural Repairs and Upgrades.**

Primary Sedimentation Tanks:

**Mechanical/Equipment Repairs & Upgrades
Electrical Repairs & Upgrades including relocating Electrical Gear to
Upper Level
SCADA/Controls Upgrade
Architectural & Structural Repairs and Upgrades including Enclosing
Exterior Stairs to Pump Gallery
Plumbing and HVAC Repairs and Upgrades.**

SCADA System:

Provide Site Wide SCADA System & Fiber-optic Loop.

Site Work:

**Automotive Security Entrance Gate
Pavement Restoration
Site Fencing Improvements.**

Disinfecting Feed System:

**New Sodium Hypochlorite Storage Tanks & Feed Building
New Chemical Metering Pumps
Provide Multiple Chemical Dosing Points.**

Second Clarifier # 1:

Process/Treatment Upgrades including providing Dome Cover.

Yard Drain Pump Station:

Mechanical/Equipment Repairs and Upgrades.

Primary Sludge Holding Tank (PSHT):

**Mechanical/Equipment Repairs & Upgrades
Process/Treatment Upgrades.**

Sludge Processing:

**Mechanical/Equipment Upgrades including 2nd Sludge Press
Process/Treatment Upgrades.**

Halfway Pump Station/Control Building:

**Mechanical/Equipment Repairs & Upgrades including Pup & VFD Replacement
Architectural/Structural Repairs & Upgrades including Partial Demo of
Existing Control Building for new Building Enclosure for Halfway PS,
Maintenance Garage, and Main Electrical Room.**

Main Electrical System/Site Wide Electrical Upgrades:

**New Electrical Service
Site Wide Electrical Upgrades including new Electrical Gear (MCC's & VFDs)
Site Wide Emergency Generator
Electrical Repairs & Upgrades including replacement of Lighting Panels.**

Overflow Clarifier:

Demolish for Sludge Garage Access.

RAS/WAS Pumping:

SCADA /Controls Upgrades.

Secondary Clarifier #2:

Mechanical/Equipment Upgrades.

Effluent Flume & Effluent Samples:

**Controls Upgrades
New Sampler.**

Plant Water System:

**Replace Underground Piping and Hydrants
Provide New Plant Water Pumps.**

Chlorine Contact Tank (CCT):

**Process/Treatment Upgrades including Reconfiguring Tank to provide
additional Disinfection Time
Mechanical/Equipment Repairs & Upgrades
Structural Repairs.**

Process Building:

**Architectural/Structure Repairs and Upgrades to Exterior and Interior
of building.
Plumbing & HVAC Upgrades
Electrical Repairs & Upgrades including relocating electrical gear to upper level.**

Secondary Sludge Holding Tank (SSHT):

**Mechanical/Equipment Repairs & Upgrades
Process Treatment Upgrades.**

Effluent Pump Station:

**Mechanical/Equipment Repairs & Upgrades including Pump & VFD Replacement
Process/Treatment Upgrades.**



**TOWN OF OLD ORCHARD BEACH, ME
WASTEWATER TREATMENT FACILITY & PUMP STATION ASSESSMENT
PROPOSED PROJECT LIST
APRIL 2020**

Project Number	Location	Project Description	Need for Upgrades
CRITICAL PROJECTS			
1.	Main Electrical System	<ul style="list-style-type: none"> ■ Replace electrical feed for WWTF site <ul style="list-style-type: none"> ▶ New electrical service & transformer from CMP ▶ New electrical enclosure or building for main breaker & switchgear ▶ New diesel-powered standby emergency generator for entire WWTF ▶ New electrical distribution system (duct bank) ■ New electrical gear (MCC's & VFDs) to replace all existing electrical gear on site 	<ul style="list-style-type: none"> ■ Electrical System Upgrade ■ Age & Condition ■ O&M ■ Resiliency
2.	Plantwide SCADA System	<ul style="list-style-type: none"> ■ Provide plant wide SCADA system ■ Provide plant wide fiber-optic communications network ■ Provide Main Control Panel in New Administration Building ■ Provide remote I/O panels for Primary Sedimentation Tank Bldg., Process Bldg., CCT/Effluent Structure, & Effluent PS & Halfway PS 	<ul style="list-style-type: none"> ■ O&M ■ Resiliency ■ Permit Compliance ■ Cyber Security
3.	Halfway Pump Station	<ul style="list-style-type: none"> ■ Rehabilitate the existing pump station & expand wet well and dry well area ■ Replace existing pumps with duty standby arrangement ■ Provide beam and access hatch for pump removal ■ Structural repairs as needed ■ Demolish existing control building and construct new building enclosure for Halfway pump station (dry well only), maintenance garage, and new main electrical room 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Permit Compliance
4.	Primary Sedimentation Tanks	<ul style="list-style-type: none"> ■ Mechanical: <ul style="list-style-type: none"> ▶ Replace collection equipment & weirs in (All 5) ▶ Replace primary sludge & scum pumps 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Permit Compliance
5.		<ul style="list-style-type: none"> ■ Structural: <ul style="list-style-type: none"> ▶ Enclosure for exterior stairs to pump gallery ▶ Tank concrete repairs ▶ Remove scaling in influent launder ■ Provide safety grating for access hatches 	<ul style="list-style-type: none"> ■ Age & Condition ■ Preventative Maintenance ■ Safety
6.		<ul style="list-style-type: none"> ■ Electrical: <ul style="list-style-type: none"> ▶ Replace electrical gear (MCC & Lighting Panels) ■ Relocate electrical gear to new enclosure located on top deck of Primary sed tanks (above flood elevation) 	<ul style="list-style-type: none"> ■ Electrical Upgrades ■ Age & Condition ■ Resiliency
7.		<ul style="list-style-type: none"> ■ Controls: <ul style="list-style-type: none"> ▶ Provide controls means to allow for any PS pump to pump from any sedimentation tank 	<ul style="list-style-type: none"> ■ Process Control
8.	Aeration Tanks	<ul style="list-style-type: none"> ■ Mechanical: <ul style="list-style-type: none"> ▶ Replace existing fine bubble aeration diffusers ▶ Nitrogen management system <ul style="list-style-type: none"> - New anoxic selector tanks with mixers in the existing Aeration Tanks (original) - New recycle pumps from ATs to anoxic tanks ▶ New foam mitigation system/froth spray system ■ New slide gate in effluent launder 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Permit Compliance ■ Capacity Limitations ■ Process Control ■ Treatment Performance



TOWN OF OLD ORCHARD BEACH, ME
 WASTEWATER TREATMENT FACILITY & PUMP STATION ASSESSMENT
 PROPOSED PROJECT LIST
 APRIL, 2020

Project Number	Location	Project Description	Need for Upgrades
CRITICAL PROJECTS			
9.	Secondary Clarifiers	<ul style="list-style-type: none"> ■ Secondary Clarifier #1 <ul style="list-style-type: none"> ▶ Provide density current baffles ▶ Provide dome cover 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Permit Compliance ■ Treatment Performance
10.	Chlorine Contact Tank	<ul style="list-style-type: none"> ■ Reconfigure CCT to serpentine baffle arrangement ■ Replace mud valves, knife gate valves, gate operators ■ Concrete repairs as needed ■ Scum Baffles 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Permit Compliance ■ Treatment Performance
11.	Chlorine Feed System	<ul style="list-style-type: none"> ■ Relocate chemical feed system to be adjacent to CCT ■ New insulated & heated double walled sodium hypo storage tanks ■ Relocate existing chemical metering pumps ■ New transfer pump to pump to existing day tank in Process Bldg. ■ New enclosure (small building) for electrical gear, controls equipment, and chemical pumps 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Permit Compliance ■ Process Control
12.	RAS/WAS Pumping	<ul style="list-style-type: none"> ■ Provide SCADA control to allow RAS/WAS pumps to be flow paced off influent or effluent flowrate 	<ul style="list-style-type: none"> ■ Process Control ■ O&M ■ Treatment Performance
13.	Sludge Processing Equipment	<ul style="list-style-type: none"> ■ Provide 2nd Huber Q800 screw press & polymer feed system ■ New sludge conveyors w/ covers ■ Provide new sludge garage sized for sludge can ■ Provide odor control system for sludge garage & sludge conveyors & each screw press 	<ul style="list-style-type: none"> ■ O&M ■ Permit Compliance ■ Process Control ■ Resiliency ■ Odor Control ■ Safety ■ Protection of Building & Equipment
14.	Process Building	<ul style="list-style-type: none"> ■ Structural: <ul style="list-style-type: none"> ▶ Exterior/1st floor: <ul style="list-style-type: none"> - Exterior repairs (siding, roofing, etc.) - Roof flashing at parapet walls - New rollup door - Replace or repaint doors & frames - Replace concrete stair treads - Repaint & Seal exterior CMU - Modify existing sludge can area into loading dock - Relocate stairs on east side to current bathroom location ▶ Blower Room: <ul style="list-style-type: none"> - Repair crack in floor ▶ Pump Gallery <ul style="list-style-type: none"> - Repair basement floor slab – void area ■ Repaint columns 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Safety ■ Building Preventative Maintenance



TOWN OF OLD ORCHARD BEACH, ME
 WASTEWATER TREATMENT FACILITY & PUMP STATION ASSESSMENT
 PROPOSED PROJECT LIST
 APRIL 2020

Project Number	Location	Project Description	Need for Upgrades
CRITICAL PROJECTS			
15.		<ul style="list-style-type: none"> ■ HVAC: <ul style="list-style-type: none"> ▶ Provide energy recover ventilator (ERV) for pump gallery & dewatering area ▶ Provide AC unit for blower room 	<ul style="list-style-type: none"> ■ HVAC/Cooling Equipment Upgrades ■ Building & Equipment Preventative Maintenance
16.		<ul style="list-style-type: none"> ■ Plumbing: <ul style="list-style-type: none"> ▶ Provide city water connection for polymer feed system ▶ Provide hot water heater 	<ul style="list-style-type: none"> ■ O&M ■ Process Reliability
17.	Plant Water System	<ul style="list-style-type: none"> ■ Replace underground piping and yard hydrants 	<ul style="list-style-type: none"> ■ O&M ■ Process Reliability
18.		<ul style="list-style-type: none"> ■ Provide new plant water pump system 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M
19.	Effluent Pump Station	<ul style="list-style-type: none"> ■ Replace/rebuild pumps <ul style="list-style-type: none"> ▶ Replace 150 HP pumps ▶ Replace 14 HP pumps ■ Evaluate intermediate pump (between 14 & 150 HP) 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Process Control
20.	WWTF Site Work	<ul style="list-style-type: none"> ■ Motor Operated Vehicle Gate (Cover to be provided in closed position) 	<ul style="list-style-type: none"> ■ Site Improvements ■ Security
21.	Comfort Pump Station	<ul style="list-style-type: none"> ■ Additional Wet Well Access ■ New Flow Meter ■ Control System Upgrades ■ New Generator (Reuse of Halfway PS Generator) 	<ul style="list-style-type: none"> ■ O&M ■ Age & Condition ■ Permit Compliance
22.	Ross Road Pump Station	<ul style="list-style-type: none"> ■ Complete Pump Station Upgrade to Suction Lift Station ■ Upgrade electrical feed to site ■ Dedicated Generator 	<ul style="list-style-type: none"> ■ O&M ■ Age & Condition ■ Capacity Limitations
23.	Portland Avenue Pump Station	<ul style="list-style-type: none"> ■ Complete Pump Station Upgrade ■ Upgrade electrical feed to site ■ Dedicated Generator ■ Remove Stormwater Flow from Development 	<ul style="list-style-type: none"> ■ O&M ■ Age & Condition ■ Capacity Limitations ■ Permit Compliance
24.	Milliken Street Pump Station	<ul style="list-style-type: none"> ■ Complete Pump Station Upgrade to Suction Lift Station ■ Dedicated Generator 	<ul style="list-style-type: none"> ■ O&M ■ Age & Condition ■ Capacity Limitations ■ Permit Compliance

CRITICAL PROJECTS OPINION OF PROBABLE COST ESTIMATE TOTAL = \$23,500,000



TOWN OF OLD ORCHARD BEACH, ME
 WASTEWATER TREATMENT FACILITY & PUMP STATION ASSESSMENT
 PROPOSED PROJECT LIST
 APRIL 2020

Project Number	Location	Project Description	Need for Upgrades
SHORT-TERM PROJECTS			
25.	General Plantwide Electrical Upgrades	<ul style="list-style-type: none"> ■ Replace Panelboards & Transformers in need of upgrades 	<ul style="list-style-type: none"> ■ Age & Condition ■ Lighting Conditions ■ Energy Efficiency ■ Safety
26.	Primary Sedimentation Tanks	<ul style="list-style-type: none"> ■ HVAC/Plumbing: <ul style="list-style-type: none"> ▶ Replace sump pumps ▶ Provide energy recover ventilator (ERV) for pump gallery ▶ Repair/adjust exhaust fan damper 	<ul style="list-style-type: none"> ■ HVAC/Cooling Equipment Upgrades ■ Age & Condition ■ Preventative Maintenance
27.	Aeration Tanks	<ul style="list-style-type: none"> ■ Structural: <ul style="list-style-type: none"> ▶ Replace portion of grating (non-slip resistant grating) ▶ Concrete repairs as needed ▶ Additional walkway for access ▶ Stairway on south-side of tank 	<ul style="list-style-type: none"> ■ Age & Condition ■ Safety
28.	Secondary Clarifiers	<ul style="list-style-type: none"> ■ Secondary Clarifier #2 <ul style="list-style-type: none"> ▶ Provide density current baffles ▶ Rebuild/replace drive mechanism 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M ■ Permit Compliance ■ Treatment Performance
29.	Chlorine Feed System	<ul style="list-style-type: none"> ■ New chemical mixer (induction mixer) in CCT Influent ■ Provisions for multiple dosing points (upstream in pipe) 	<ul style="list-style-type: none"> ■ Treatment Performance ■ Permit Compliance ■ Process Control
30.	Effluent Flume	<ul style="list-style-type: none"> ■ New level element 	<ul style="list-style-type: none"> ■ Age & Condition ■ Permit Compliance
31.	Effluent Sampler	<ul style="list-style-type: none"> ■ New sampler (to be included in chem feed bldg.) 	<ul style="list-style-type: none"> ■ Age & Condition ■ Permit Compliance
32.	Primary Sludge Holding Tank (PSHT)	<ul style="list-style-type: none"> ■ Provide dedicated 20 HP Blower ■ Replace diffused air system 	<ul style="list-style-type: none"> ■ Treatment Performance ■ Process Control
			<ul style="list-style-type: none"> ■ O&M ■ Age & Condition
33.	Secondary Sludge Holding Tank (SSHT)	<ul style="list-style-type: none"> ■ Provide dedicated 50 HP Blower ■ Replace gaskets on air piping 	<ul style="list-style-type: none"> ■ Treatment Performance ■ Process Control ■ O&M ■ Age & Condition
			<ul style="list-style-type: none"> ■ Electrical Upgrades ■ Resiliency
34.	Process Building	<ul style="list-style-type: none"> ■ Electrical: <ul style="list-style-type: none"> ▶ Relocate electrical gear from basement to 1st floor 	<ul style="list-style-type: none"> ■ Electrical Upgrades ■ Resiliency
35.	Yard Drain Pump Station	<ul style="list-style-type: none"> ■ Provide new pumps, valves, and instruments 	<ul style="list-style-type: none"> ■ Age & Condition ■ O&M
36.	Effluent Pump Station	<ul style="list-style-type: none"> ■ Provide recirculation loop for all pumps 	<ul style="list-style-type: none"> ■ O&M
37.	Maintenance Garage	<ul style="list-style-type: none"> ■ Provide unisex bathroom ■ Replace/upgrade gas fired unit heaters 	<ul style="list-style-type: none"> ■ HVAC/Cooling Equipment Upgrades ■ Staff Restroom



TOWN OF OLD ORCHARD BEACH, ME
 WASTEWATER TREATMENT FACILITY & PUMP STATION ASSESSMENT
 PROPOSED PROJECT LIST
 APRIL 2020

Project Number	Location	Project Description	Need for Upgrades
SHORT-TERM PROJECTS			
38.	Site Work	<ul style="list-style-type: none"> ■ Paving - Areas of Disturbance & Access to Buildings 	<ul style="list-style-type: none"> ■ Site Improvements
39.		<ul style="list-style-type: none"> ■ Fencing - Areas in Need ■ Remove Barbed Wire 	<ul style="list-style-type: none"> ■ Site Improvements ■ Security
40.	East Grand Pump Station	<ul style="list-style-type: none"> ■ Dedicated Generator (Portable Generator to be Repurposed as Permanent) ■ Replace Valves 	<ul style="list-style-type: none"> ■ O&M ■ Age & Condition ■ Permit Compliance
41.	Dunegrass 100 Pump Station	<ul style="list-style-type: none"> ■ Replace Pump Base Elbow ■ Dedicated Generator 	<ul style="list-style-type: none"> ■ O&M ■ Age & Condition ■ Permit Compliance
42.	Dunegrass 200 Pump Station	<ul style="list-style-type: none"> ■ Purchase Pump Station Land ■ Dedicated Generator 	<ul style="list-style-type: none"> ■ Ownership of Assets ■ O&M ■ Permit Compliance
43.	West Grand Pump Station	<ul style="list-style-type: none"> ■ Upgrade Heater on Wet side 	<ul style="list-style-type: none"> ■ O&M ■ HVAC/Cooling Equipment Upgrades
SHORT TERM PROJECTS OPINION OF PROBABLE COST ESTIMATE TOTAL = \$3,500,000			



TOWN OF OLD ORCHARD BEACH, ME
 WASTEWATER TREATMENT FACILITY & PUMP STATION ASSESSMENT
 PROPOSED PROJECT LIST
 APRIL 2020

Project Number	Location	Project Description	Need for Upgrade:
LONG-TERM PROJECTS			
44.	General Plant-wide Electrical Upgrades	<ul style="list-style-type: none"> ■ Replace interior lights in building with energy efficient lighting (LED) ■ Replace Fire alarm system 	<ul style="list-style-type: none"> ■ Age & Condition ■ Lighting Conditions ■ Energy Efficiency ■ Safety
45.	Headworks	<ul style="list-style-type: none"> ■ New Headworks <ul style="list-style-type: none"> ▶ New Rotary Drum Screen ▶ New Concrete Channel Adjacent to Primary Sed Tank Influent Channel ■ New Screenings Building 	<ul style="list-style-type: none"> ■ O&M ■ Permit Compliance ■ Protection of Downstream Processes ■ Solids Management ■ Odor Mitigation
46.	Aeration Tanks	<ul style="list-style-type: none"> ■ BNR Upgrades: <ul style="list-style-type: none"> ▶ Tankage: Consideration of (3rd) Aeration Tank 	<ul style="list-style-type: none"> ■ Permit Compliance ■ Capacity Limitations ■ Process Control
47.	Chlorine Feed System	<ul style="list-style-type: none"> ■ New chlorine residual analyzer 	<ul style="list-style-type: none"> ■ Age & Condition ■ Permit Compliance
48.	Goosefare Brook Outfall Structure	<ul style="list-style-type: none"> ■ Provide level switch for indication of overflow 	<ul style="list-style-type: none"> ■ Age & Condition ■ Permit Compliance
49.	RAS/WAS Pumping	<ul style="list-style-type: none"> ■ Dedicated Pump for Each Clarifier with Common Backup 	<ul style="list-style-type: none"> ■ Process Control ■ O&M ■ Treatment Performance
50.	Primary Sludge Holding Tank (PSHT)	<ul style="list-style-type: none"> ■ Provide concrete repairs as needed 	<ul style="list-style-type: none"> ■ O&M ■ Age & Condition ■ Structural Repairs
51.	Secondary Sludge Holding Tank (SSHT)	<ul style="list-style-type: none"> ■ Remove ladder on exterior of tank 	<ul style="list-style-type: none"> ■ Safety
52.	Plant Water System	<ul style="list-style-type: none"> ■ Replace automated strainer with manual duplex basket strainer 	<ul style="list-style-type: none"> ■ O&M
53.	Yard Drain Pump Station	<ul style="list-style-type: none"> ■ Reroute catch basins to yard drain pump station (potential difficulty permitting with MEDEP) 	<ul style="list-style-type: none"> ■ O&M
54.	West Grand Pump Station	<ul style="list-style-type: none"> ■ Chlorine Injection Point for 18-inch FM ■ Replace Modulating Influent Gate Actuator 	<ul style="list-style-type: none"> ■ O&M ■ Odor Mitigation ■ Permit Compliance ■ Process Control
55.	Comfort Pump Station	<ul style="list-style-type: none"> ■ Building Repairs (Roof, siding, etc.) 	<ul style="list-style-type: none"> ■ Age & Condition

LONG-TERM PROJECTS OPINION OF PROBABLE COST ESTIMATE TOTAL = \$8,500,000

Final discussion contained:

Waste Water Budget is at \$1,101,406 or a decrease of (\$22,064) or (-1.96%).

Employee Wage Expense increased by \$17,993 (4.4%) which reflects a 3% COLA for non-union, union employees and a union promotion. WWTF Union Contract expires on June 30, 2021.

Seasonal Employee Wage Expense increased \$2,320 (63%) to reflect the increase in the number of hours from 24 hours weekly to 32 hours weekly for 24 weeks.

Service Contract Expense increased \$9,800 or 48.81% to reflect the price increase for current cleaning service and adding the new Administrative Building for six months.

Equipment Replacement Expense decreased (\$72,200) or (-58.94%) because of one-time equipment replacement purchases budgeted in FY20.

Waste Tipping/Disposal Expense increased \$10,000 or 8.33% to reflect prior year and current year to date actual expenses.

Heating Fuel Expense increased \$5,000 or 38.46% to reflect the addition of heating the new Equipment Storage Building.

A question was raised by Council about the old versus the new dewatering efficiency. According to the Superintendent's calculations and limited information the new dewatering machine is 12.9% more efficient than the old one. Using \$95 per ton a one year snapshot of operation in 2017 shows we dewatered 7,022,000 gallons and produced 1,402 tons at a total cost of \$133,760 using the old machine. Using \$95 per ton a one year snapshot of operation in 2019 shows we dewatered 7,324,000 gallons and produced 1,214 tons at a total cost of \$115,330 using the new machine. The conclusion is that we dewatered more gallons in 2019 and produced 188 fewer tons saving \$18,430 with the new machine. There are a number of factors that affect operational efficiency such as weather, operator preference, flows, loading, accuracy of instrumentation, biological conditions and controlling fats, oils and grease discharges from the service area. Right now we dewater 80-100 gallons per minute which is the upper end of the machine's efficiency. With two machines we could operate them simultaneously at 60-80 gallons per minute. A slower feed rate produces a drier solid which reduces weight which reduces cost.

CIP – in the amount of \$125,000:

	Department Review	Finance Committee	Town Manager
New Portable Generator	\$40,000	\$40,000	\$40,000
New Crane Truck (Lease) *	85,000	85,000	85,000
Total	\$125,000	\$125,000	\$125,000

*Lease purchase for the Crane is in operating budget at \$20,400 annually for five years.

MS4 STORMWATER PERMIT AWARENESS

The presentation fulfilled a permit requirement under the Town of Old Orchard Beach's MS4 General Permit. In response to the COVID-19 pandemic, it is being offered as an online video rather than a live presentation.

The Town is required to document attendance/participation in this video. For the Town to receive credit, the survey needed to be completed – e-mail and/or posted with video.

Where does the water go? Not all water that falls on your property soaks into the ground. As water flows off your property, it can wash pollutants such as soil, lawn chemicals and pet waste into where we fish, what we drink and where we swim. It's up to all of us to protect our local rivers, lakes and bay from polluted runoff. Go to web – www.ThinkBlueMaine.org

The Town is regulated for the direct discharge from their separate storm sewer system to the waters of the State. This includes Municipal Street, Curbs, Gutters and Catch Basins. Drain Manholes and Storm Drains. Outfalls and Ditches.

The Small MS4 General Permit contains the following:

National Pollutant Discharge Elimination System (NPDES) Program permit;

Authorize discharge of storm water pursuant to Clean Water Act;

Issued and administered by the Maine DEP (on behalf of the US EPA);

30 regulated communities in Maine; and

Regulates Urbanized Area (based on 2000 + 2010 Census.)

Small MS4 General Permit



Additional regulations in each permit cycle

- SWMP (Stormwater Management Plan)
- NOI (Notice of Intent)
- BMP (Best Management Practice)
- MCM (Minimum Control Measure)

Interlocal Storm water Working Group (ISWG)

**Coalition of 14 municipalities in greater Portland and Saco areas;
Work collaboratively to implement MS4 General Permit;
Coordinated by Cumberland County Soil and Water Conservation District; and
Old Orchard Beach is a member.**

Waterbodies in Old Orchard Beach

**Goose fare Brook
Little River/Jones Creek
Milliken Mill Pond
Mill Brook
Milliken Pond
Cascade Brook**

Stormwater Pollutants

**Heavy metals
Chemicals
Oil and Grease
Solvents
Paint
Detergents
Nutrients
Bacteria
Trash
Sediment, sand, salt.**

Activity of Source

Polutant

Vehicle washing/fueling/storage/maintenance

**Heavy metals
Oils and grease
Detergents
Solvents**

Lawn Maintenance/Landscaping

**Fertilizers and Pesticides
Nutrients**

Dumpsters

Trash

De-icing

Salt

Failing septic systems/sewer cross connections/pet waste

Bacteria

Illegal dumping/spills from vehicular accidents

**Oil and grease
Chemicals and Paint
Nutrients (from lawn waste
Dumping)**

Swimming Pool Draining

Chlorine

Minimum Control Measures

Public Education

Stormwater Program Manager in coordination with ISWG

Public Participation

Storm water Program Manager in coordination with ISWG

Illicit Discharge Detection & Elimination (IDDE)

Public Works with support from Planning, Code, Public Safety & Consultants

Construction Site Runoff Control

Planning with support from Code and Consultant

Post-Construction Storm water Management

Planning with support from Code and Consultant

Good Housekeeping & Pollution Prevention

Public Works with support from Public Safety and Consultant

OOM MS4 Working Group

DPW Director (Storm water Program Manager)

DPW Administrative Operations Manager

Town Planner

Assistant Town Planner

Code Enforcement Officer

Town Manager

CAI Technologies (Consultant)*

Wright-Pierce (Consultant)*

- **Assist responsible party with implementation of permit requirements.**

MCM1: Public Education and outreach

Responsible Party: Storm water Program Manager in coordination with ISWG

Educate the public and municipal staff and officials about polluted runoff and how to reduce pollution.

Develop awareness plan and a BMP adoption plan.

Example Efforts:

thinkbluemaine.org

Media campaign (ducky ad)

ISWG YardScaping Program

Council/Planning Board presentations

School outreach

MCM2: Public Participation

Responsible Party: Storm water Program Manager in coordination with ISWG

Provide the public an opportunity to participate in OOB' Storm water Program.

Example Events:

Urban Runoff 5K

Town events/clean ups

MCM 3: Illicit Discharge Detection & Elimination

Responsible Party: Public Works with support from Planning, Code, Public Safety, and Consultants

Identify and eliminate sources of non-storm water flows to the storm drain system

Map stormwater infrastructure

Implement IDDE Program

Conduct outfall and ditch inspections

Enforce Illicit Discharge Ordinance (Chapter 58 – Article V)

Report Illicit or Suspected Discharges to DPW

Track illicit discharges

Household Hazardous Waste (HHW) Collection Days.

MCM 4: Construction Site Runoff Control

Responsible Party: Planning with support from Code and Consultant

Ensure Construction sites – more or less – one acre do not impact the Town's MS4

Maintain list of active construction sites

Conduct construction site inspections and documentation

Address non-compliance

Maintain Development Review Guideline.

MCM 5 – Post-Construction Storm water Management

Responsible Party: Planning with support from Code and Consultant

Ensure long-term operation and maintenance of stormwater facilities for new development and redevelopment

Reduce impact on receiving waters

Require annual BMP certifications.

Implement Post-Construction Stormwater

Track Post-Construction BMPs

Track annual certifications

Encourage LID/Green Infrastructure.

MCM 6: Good Housekeeping & Pollution Prevention

Responsible Party: Public Works with support for Public Safety and Consultant

Prevent pollution from municipal operations and facilities

O&M Procedures

DPW Garage/San Salt Facility SWPPP*

Street Sweeping

Catch Basing Cleaning

Maintenance of conveyance system

Educate municipal staff about practices to reduce polluted runoff

- **SWPPP (Stormwater Pollution Prevention Plan)**

Appendix B

Responsible Party: Public Works and Planning

Additional controls are required for Goosefare Brook Watershed

**Watershed signage
Additional advertising for HHW Days
Additional construction site inspections
Erosion and sediment control training
Investigate development of a CFUP
Additional/prioritized sweeping
Additional catch basin cleaning.**

Substantial Changes in Draft Permit

**Stormwater Management Plan & Written IDDE Plan
Submitted to DEP with Notice of Intent
Two target audiences for the Awareness and Behavior Change Campaigns
Sampling of dry weather flows
Desktop wet weather assessment
Ordinance requiring erosion and sediment control BMPs for construction sites
less or more of one acre
Three BMPs for Urban Impaired Streams (Goosefare Brook)**

**The Town will need to develop a new SWM this year to incorporate the heightened
Requirements of the new permit.**

OOB Stormwater Statistics

**16 active constructions sites more or less of one acre
11 sites with post-construction BMPs that discharge to MS4
788 Catch Basins
115 Drain Manholes
42 Outfalls
12 miles of storm drain pipe
100 plus or minus lane miles of road to weep
27,000 plus linear feet of ditches.**

All need to be inspected, leaned and/or maintained.

Cost of Implementation – Planning and Code Enforcement

**Construction site tracking
Construction site enforcement
Annual MS4 inspections
Implementation and enforcement of Chapter 71 – Post Construction Stormwater
Management Ordinance**

Cost of Implementation – Public Works

Catch Basin Cleaning
50% plus cat basins cleaned per year
Two person crew
750 manhours.

Street Sweeping
All streets
One person, all day
600 manhours

Ditch Maintenance
Four person crew
360 manhours

Outfall Maintenance
Two person crew
120 manhours

SWPPP Inspections/Visual Monitoring
One person quarterly
16 manhours

- Assume six hour days

Cost of Implementation

Contracted Services
Program Facilitation
Plan Writing
Annual Reporting
Training
Construction Site Inspections
Outfall Inspections

Participation in ISWG
MCM 1 and MCM 2
Meeting facilitation
Trainings and Workshops

Reporting and Recordkeeping

Comprehensive records documenting compliance with permit requirements
Interdepartmental Coordination is essential to the success of OOB's
Municipal Stormwater Program
Public Works
Planning
Code
Public Safety
Town Manager

Compliance versus Non-Compliance

DEP Plans to audit each regulated MS4 at least once per five year permit cycle
Nearly all MS4s audited by DEP and/or EPA since 2013
One MS4 received Consent Agreement with stipulated penalty
Most received Letter of Warning or Notice of Violation
Full Compliance Audits or Focused Compliance Inspections

Non-Compliance can result in:
Fines up to \$25,000 per day, per violation
More rigorous CWA requirements.

OOB Audit was April 6, 2016
Received Letter of Warning

To be reconsidered: Whether to go forward or not.

The meeting ended at 7:37 p.m.

Respectfully Submitted,

V. Louise Reid
Town Council Secretary

I, V. Louise Reid, Secretary to the Town Council of Old Orchard Beach, Maine, do hereby certify that the foregoing document consisting of twenty-eight (28) pages is a copy of the original Minutes of the Town Council Workshop of April 30, 2020.

V. Louise Reid