

Water Pollution Control Facility

Outcomes:

- Maintain Effluent Compliance with MEPDES permit
- Keep CSOs to a minimum
- Maintain Stable Sewer Rates
- Maintain 4 Pump Stations and 4 Buildings at the Plant

Mandates:

- Inspect and Maintain the Sanitary Sewer System and Infrastructure
- Comply with OSHA and Bureau of Labor Standards requirements
- Comply with Environmental Protection Agency and Maine Department of Environmental Protection laws and rules
- State Law requires Maintaining Town Owned Buildings and Equipment
- Maintain cross country Right of Ways.

Methods:

- Update and follow the sewer cleaning plan.
- Follow the preventive maintenance plan for plant equipment.
- Rehabilitate manholes
 - Monoform
 - Ring and Cover Resets
 - Replacement
- Capital Investment in sewer line repair and replacement as well as plant equipment.

Resources:

Personnel

- Superintendent
- Lab Tech/Operator
- Operator/Mechanic
- 2 Operators
- ½ time Laborer (shared with Public Works) 6 months each

Equipment and Fleet Vehicles

- 2014 Western Star Sludge Truck
- 2004 3500 Series GMC Dump Truck with Plow
- 2013 2500 Series GMC Pickup
- 2008 2500 Series GMC Pickup
- 2008 Sewer Flusher
- 2012 Dump Trailer
- 2007 Sewer Camera in a Trailer
- Le Roi Air Compressor
- 750 kW Caterpillar Diesel Generator

Facilities

- Headworks Building
- Operations Building
- Disinfection Building
- Maintenance Garage
- Penobscot Street Pump Station with generator
- Union Street Pump Station with generator
- College Avenue Pump Station with generator
- Stillwater Avenue Pump Station with generator
- 23 miles of Sanitary Sewer lines
- 500 Sanitary Sewer Manholes

Financial (FY17/18 Budget)

● Personnel:.....	\$ 403,721	
● Operating:.....	\$ 503,035	
● Debt Service:.....	\$ 423,994	
● Funding Reserves:.....	\$ 164,176	
● Capital Investment Projects:.....	\$ 340,000	
○ Pickup Truck with Plow and Dump Body		\$ 60,000
○ Sandbass and Paint #1 Clarifier		\$ 70,000
○ Mill Street Sewer Main Replacement		\$185,000
○ Kell Street Interceptor Phase #1		\$ 25,000

Areas of Discussion

- Although there has been new construction, billing revenues have not increased in the manner that had been projected.

Areas of Concern:

- Where are State and Federal regulations going?
- Can we afford to continue investing in the collections system at the rate we're doing?
- 2017 is the year for a new NPDES permit. Will DEP add more requirements - and if so, what will the impacts be to required staffing levels and the budget?

Opportunities for Reduced Service Level:

- Given that WPCF operation's are heavily regulated by the state and federal government - and, that increased operational service levels are aimed at employing best practices where feasible to reduce Town liability and sewer backups into customer properties, options are limited to reduce services. The Council could elect to scale back on capital projects which would in turn allow a reduction in the level of funding into the Sewer Infrastructure Reserve Account.

Town of Orono - Water Pollution Control Facility (WPCF)				
Services Review for Budget Year 2017-2018				
Budget Year 2017-18				
Service Levels				
Tier I:	Minimum service level required by law regardless of need			
Tier II:	Minimum requirements to meet basic needs of the community			
Tier III:	Meets or exceeds service level required by law, utilizes best practices and provides additional services to meet needs of the community			
Tier IV:	Highest level of service available, meeting all needs and wants of the entire community			
Current Level of Service	Best approximation of current level of services provided			
Service	Tier I:	Tier II:	Tier III:	Tier IV:
Maintain DEP compliance for licensed management responsibility Grade 4 or higher.	Contract with an Engineering firm for contract operations. Town has no staff at the WPCF. All lab work is done by a contract lab.	Engineering firm supplies management responsibility. Town staff does lab work and maintenance.	Minimum Grade 4 operator has management responsibility. Town staff does maintenance and lab work. Town Office supplies billing, clerical and finance support.	Staff with a Superintendent and a Chief Operator (minimum Grade 4 License). Employ engineering and administrative (billing, clerical, and finance) support in-house (at the WPCF).
Method of Treatment for Waste water	Treat influent with conventional activated sludge process - no nitrate pumps and no mixers.	Use current treatment process, with mixers and nitrate pumps, but use sodium hypochlorite instead of ultraviolet disinfection.	Use 4 parts of the 5 part Bardenpho system built in the upgrade. Currently, the Town utilizes all but the selectors that would be needed to remove phosphorus. Since this is not a requirement of the Town's license, we do not use this process.	Use all 5 parts of the 5 part Bardenpho system built for the Orono WPCF
Maintain the Collection system	Flush and remove roots from collection system only when called to respond to a blockage or system problem. Allow paving to bury rings and covers and lift only when access to the manhole is needed.	Flush and remove roots from 1/3 of the collection system each year. Adjust Rings and covers to grade on a proactive basis to ensure efficient access to manholes.	Flush and remove roots from 2/3 of the accessible collection system each year. Adjust rings and covers to grade on a proactive basis. Replace covers as needed to keep the system as water tight as possible and reduce risk to the public associated with ill fitting covers. Manage the cross country rights of way on a priority basis.	Clean entire system and routine maintenance on all rights of way annually. Replace old style rings and covers with gasketed covers to reduce water inflow.
Disinfection	Disinfect with bleach	Disinfect with bleach and keep the chlorine residual down with Sodium Bisulfate.	Disinfect with ultraviolet light.	Disinfect with ultra violet light and store water for reuse.
Plant Maintenance	Repair equipment and systems when they breakdown.	Do breakdown maintenance and some preventive maintenance	Maintain the plant based upon a developed and updated proactive preventative maintenance plan. Update/upgrade equipment as needed to improve processes and ensure efficient operations.	Utilize computerized preventive maintenance plan that generates workorders and maintains easily accessible documentation of work accomplished.
CSO Compliance	File the report annually, update the CSO Master Plan every five years, and fix obvious areas of water infiltration and inflow. Manage CSO events without operational changes.	File the report annually, update the CSO Master Plan every five years, and fix and have a proactive plan for addressing known areas of water infiltration and inflow. Manage CSO events by changing operations during the event.	File the report annually, update the CSO Master Plan every five years, and fix and have a proactive plan for actively investigating collection system for potential problem areas; allocating \$100K plus per year for collection system upgrades. Proactively planning for and upgrading operations in anticipation of CSO events.	File the report annually, update the CSO Master Plan every five years, and fix and have a proactive plan for actively investigating collection system for potential problem areas; allocating \$250-350K plus per year for collection system upgrades. Construct containment infrastructure to hold excess water during CSO events.

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Current Level of Service	Best approximation of current level of services provided			
Service	Tier I:	Tier II:	Tier III:	Tier IV:
Staff	3 people, grade 4 licensed operation. 24-hour response to calls, weekend testing and inspection	4 people, grade 4, weekend testing and inspection	5-6 people, grade 4, weekend, on-call, collection specialist, lab specialist, and mechanical specialist	According to EPA guidance, this level of service requires 8 people - including a Grade 4 licensed operator, specialists, weekend testing and inspection, and 24-hour response to calls.

TOWN OF ORONO
WPCF PROPOSED FY 2018 BUDGET
July 1, 2017 - June 30, 2018

REVENUE BUDGET

			Budget Net	YTD Net	Uncollected Balance	Estimated FY18	Variance	% Variance
35 - WPCF								
35 - WPCF			\$ 1,470,960.00	\$ 1,151,794.01	\$ 319,165.99	\$ 1,494,925.00	\$ 23,965.00	1.63%
4330 - WPCF: Application & Inspection			\$ 500.00	\$ 664.95	\$ (164.95)	\$ 500.00	\$ -	0.00%
4331 - WPCF: Lien Costs & Deeds			\$ 300.00	\$ 1,311.69	\$ (1,011.69)	\$ 1,200.00	\$ 900.00	300.00%
4332 - WPCF: Sewer Connection Fees			\$ 1,500.00	\$ 1,291.50	\$ 208.50	\$ 1,000.00	\$ (500.00)	-33.33%
4334 - WPCF: Rental of Equipment			\$ 250.00	\$ 169.00	\$ 81.00	\$ 100.00	\$ (150.00)	-60.00%
4410 - Investment Earnings			\$ 8,500.00	\$ 11,469.73	\$ (2,969.73)	\$ 12,000.00	\$ 3,500.00	41.18%
4490 - Sewer Billings			\$ 1,457,160.00	\$ 1,129,485.58	\$ 327,674.42	\$ 1,475,125.00	\$ 17,965.00	1.23%
4491 - Interest on Overdue Bills			\$ 2,750.00	\$ 7,401.56	\$ (4,651.56)	\$ 5,000.00	\$ 2,250.00	81.82%
USE OF FUNDS								
			\$ 337,000.00	\$ -	\$ -	\$ 360,000.00	\$ 23,000.00	6.82%
	Equipment Reserve		\$ -			\$ 60,000.00	\$ 60,000.00	100.00%
	Capital Reserve		\$ -			\$ 70,000.00	\$ 70,000.00	100.00%
	Sewer Infrastructure Reserve		\$ 337,000.00	\$ -	\$ -	\$ 230,000.00	\$ (107,000.00)	-31.75%

	FY2017 Approved Budget	YTD Expended (05/10/2017)	FY2017 Unexpended Balance YTD	FY2018 Budget Estimated Request	Difference \$	Difference %	Comments:
510 - Wages							
110 - Full-Time Salary	\$248,726.00	\$135,820.61	\$112,905.39	\$264,293.55	\$15,567.55	6.26%	See departmental payroll sheet.
131 - Scheduled Overtime	\$10,000.00	\$5,333.11	\$4,666.89	\$12,000.00	\$2,000.00	20.00%	
141 - On Call Pay	\$5,460.00	\$2,985.00	\$2,475.00	\$5,720.00	\$260.00	4.76%	This would be \$110 per week instead of the current \$105
520 - Benefits							
210 - Health Insurance	\$66,224.00	\$33,731.32	\$32,492.68	\$63,369.72	-\$2,854.28	-4.31%	
220 - MPERS Retirement	\$23,629.00	\$14,002.83	\$9,626.17	\$27,073.30	\$3,444.30	14.58%	
230 - FICA/Medicare	\$20,210.00	\$10,656.26	\$9,553.74	\$21,574.04	\$1,364.04	6.75%	
250 - Workers' Compensation	\$7,880.00	\$4,338.58	\$3,541.42	\$6,800.00	-\$1,080.00	-13.71%	
270 - Clothing Allowance	\$2,890.00	\$1,575.00	\$1,315.00	\$2,890.00	\$ -	0.00%	
610 - Travel & Training							
310 - Travel	\$1,000.00	\$195.45	\$804.55	\$1,000.00	\$ -	0.00%	
311 - Training	\$2,600.00	\$1,412.05	\$1,187.95	\$2,600.00	\$ -	0.00%	
620 - Dues & Subscriptions							
320 - Membership Dues	\$1,230.00	\$1,083.70	\$146.30	\$1,260.00	\$30.00	2.44%	Maine Rural Water Assoc., ME Water Environment Assoc., Water Environment Federation
630 - Advertising & Outreach							
330 - Advertising	\$350.00	\$90.30	\$259.70	\$350.00	\$ -	0.00%	
640 - Computers & Devices							
412 - Supplies	\$2,500.00	\$202.44	\$2,297.56	\$2,500.00	\$ -	0.00%	
413 - Cell Phone Expense	\$1,900.00	\$595.19	\$1,304.81	\$1,420.00	-\$480.00	-25.26%	Covers cost of 1 cell phone and 1 tablet. Dropped the on-call cell phone due to lack of use.
414 - Telephone/Internet	\$2,160.00	\$1,296.80	\$863.20	\$2,160.00	\$ -	0.00%	
418 - Internet	\$300.00	\$100.00	\$200.00	\$ -	-\$300.00	-100.00%	With fiber connecting WPCF to the Town hub, separate internet service is not required.
419 - Pager	\$220.00	\$112.00	\$108.00	\$220.00	\$ -	0.00%	
650 - Materials & Supplies							
432 - Postage	\$2,800.00	\$1,383.18	\$1,416.82	\$2,800.00	\$ -	0.00%	For sewer billings to customers and certified mailings for lien customers.
438 - Cleaning Supplies	\$1,815.00	\$148.63	\$1,666.37	\$1,815.00	\$ -	0.00%	
439 - Chemicals	\$22,000.00	\$10,143.96	\$11,856.04	\$22,000.00	\$ -	0.00%	Sodium Bicarbonate for PH control, Sodium Hypochlorate for disinfection, Lime
451 - Billing Supplies	\$1,000.00	\$130.39	\$869.61	\$1,000.00	\$ -	0.00%	
453 - Building Supplies	\$ -	-\$9.99	\$9.99	\$ -	\$ -		
462 - Lab Supplies	\$5,835.00	\$3,134.50	\$2,700.50	\$5,835.00	\$ -	0.00%	
463 - Maintenance & Shop Suppli	\$5,220.00	\$2,736.95	\$2,483.05	\$5,220.00	\$ -	0.00%	
660 - Equipment & Maintenance							
510 - Minor Equipment	\$2,665.00	\$662.45	\$2,002.55	\$2,665.00	\$ -	0.00%	

512 - Equipment Rental	\$1,000.00	\$ -	\$1,000.00	\$1,000.00	\$ -	0.00%	
513 - Equipment Repair	\$6,500.00	\$5,443.93	\$1,056.07	\$7,500.00	\$1,000.00	15.38%	
518 - Safety Equipment	\$6,200.00	\$1,577.75	\$4,622.25	\$6,200.00	\$ -	0.00%	
521 - Repair Parts	\$3,500.00	\$568.86	\$2,931.14	\$3,500.00	\$ -	0.00%	
522 - Equipment Replacement	\$10,650.00	\$7,503.41	\$3,146.59	\$12,450.00	\$1,800.00	16.90%	Replace the diffusers in #2 Aeration Basin (600 diffusers @ \$4.50 ea.)
670 - Buildings & Grounds Maint							
530 - Heating Oil	\$12,600.00	\$1,950.61	\$10,649.39	\$12,600.00	\$ -	0.00%	
531 - LP Gas	\$2,750.00	\$486.57	\$2,263.43	\$2,750.00	\$ -	0.00%	
533 - Electricity - Building	\$98,000.00	\$53,237.29	\$44,762.71	\$100,000.00	\$2,000.00	2.04%	
534 - Electricity - Pump Statio	\$7,000.00	\$2,744.08	\$4,255.92	\$8,000.00	\$1,000.00	14.29%	
535 - Water	\$2,500.00	\$1,411.05	\$1,088.95	\$2,500.00	\$ -	0.00%	
537 - Repairs/Maintenance	\$2,500.00	\$1,088.30	\$1,411.70	\$7,000.00	\$4,500.00	180.00%	We were quoted \$4000 to repair the pavement at the plant
548 - Sewer Line Maintenance	\$11,770.00	\$7,923.87	\$3,846.13	\$15,000.00	\$3,230.00	27.44%	Pipe, Rings and covers, manhole raises and repairs
680 - Vehicles & Maintenance							
560 - Repairs/Maint.	\$3,700.00	\$1,620.31	\$2,079.69	\$4,500.00	\$800.00	21.62%	
561 - Gasoline	\$2,500.00	\$331.43	\$2,168.57	\$2,500.00	\$ -	0.00%	
562 - Diesel	\$3,000.00	\$284.72	\$2,715.28	\$3,600.00	\$600.00	20.00%	
690 - Professional Services							
611 - Medical Testing	\$500.00	\$25.00	\$475.00	\$500.00	\$ -	0.00%	
612 - Legal	\$2,500.00	\$ -	\$2,500.00	\$2,500.00	\$ -	0.00%	
616 - Audit	\$5,750.00	\$3,217.50	\$2,532.50	\$5,750.00	\$ -	0.00%	
617 - Liens & Deeds	\$2,500.00	\$912.00	\$1,588.00	\$2,500.00	\$ -	0.00%	
620 - Licensing	\$2,050.00	\$2,020.43	\$29.57	\$2,100.00	\$50.00	2.44%	
633 - Contractor Services	\$22,450.00	\$2,810.60	\$19,639.40	\$28,040.00	\$5,590.00	24.90%	
668 - Reimbursement for Admin Svcs	\$132,500.00	\$ -	\$132,500.00	\$136,825.00	\$4,325.00	3.26%	
670 - Reimb for Facilities Staff	\$2,000.00	\$ -	\$2,000.00	\$2,000.00	\$ -	0.00%	
671 - Sludge Disposal	\$48,000.00	\$21,372.93	\$26,627.07	\$48,000.00	\$ -	0.00%	
683 - MMA Pool Insurance	\$23,675.00	\$5,515.40	\$18,159.60	\$23,675.00	\$ -	0.00%	
NEW CSO Planning and Repair				\$7,500.00	\$7,500.00		CSO Master plan is due in November 2017 and will require \$7500 in engineering services to complete. Staff recommends making this an on-going budgeted expense so that in non-renewal years, these funds can be used to fund non-capital system work or evaluation aimed at reducing the Town's Combined Sewer Overflows (CSOs)
810 - Debt							
830 - WPCF Debt Retirement	\$155,000.00	\$155,000.00	\$ -	\$165,000.00	\$10,000.00	6.45%	
840 - WPCF Debt Interest	\$263,794.00	\$133,059.37	\$130,734.63	\$258,993.76	-\$4,800.24	-1.82%	
890 - Capital Reserve Funding							
894 - WPCF Capital Program/Reserve	\$70,000.00	\$ -	\$70,000.00	\$25,176.00	-\$44,824.00	-64.03%	
895 - WPCF Sewer Replacement Reserve	\$60,757.00	\$ -	\$60,757.00	\$65,000.00	\$4,243.00	6.98%	
896 - WPCF Equip Replacement Reserve	\$65,000.00	\$ -	\$65,000.00	\$74,000.00	\$9,000.00	13.85%	
910 - Other							
941 - Town Wellness Program	\$1,700.00	\$ -	\$1,700.00	\$1,700.00	\$ -	0.00%	

