

**Water Department
Expense Budget for FY2018**

13-Dec-17

Expended Period 11/12/2017 10:55:17 AM - 12/13/2017 10:55:17 AM

Budget Month 6

		Budgeted	Revised	Expended This Period	Expended YTD	Available	Percent Remaining
Operating Budget							
E4501 Salary							
51120	Superintendent	93,982	93,982	7,222.40	40,806.56	53,175.44	57%
51490	Longevity, Superintendent	1,500	1,500	0.00	1,500.00	0.00	0%
Sub Total Salary		95,482	95,482	7,222.40	42,306.56	53,175.44	56%
E4502 Wages							
51130	Laborers, Full Time	113,016	113,016	8,660.16	48,929.90	64,086.10	57%
51131	Clerical, Full Time	34,395	34,395	2,645.76	14,948.54	19,446.46	57%
51141	Seasonal Wages	7,000	7,000	0.00	0.00	7,000.00	100%
51200	Outside Help, Labor	2,933	2,933	0.00	218.94	2,714.06	93%
51310	Overtime, Labor	42,398	42,398	4,478.94	17,969.86	24,428.14	58%
51490	Longevity	988	988	0.00	987.50	0.50	0%
Sub Total Wages		200,730	200,730	15,784.86	83,054.74	117,675.26	59%
E4505 Other							
51920	Uniform Allowance	2,730	2,730	0.00	2,730.00	0.00	0%
51970	Meal Allowance	1,400	1,400	100.00	430.00	970.00	69%
52100	Electricity	40,000	40,000	3,385.42	18,958.31	21,041.69	53%
52106	PWB Electricity	3,200	3,200	525.49	1,666.79	1,533.21	48%
52150	Gas	2,600	2,600	316.62	503.76	2,096.24	81%
52150	PWB Gas	2,200	2,200	78.72	167.34	2,032.66	92%
52400	Building Maintenance	1,500	1,500	281.98	371.94	1,128.06	75%
52406	PWB Building Maintenance	2,800	2,800	136.29	1,018.61	1,781.39	64%
52415	Property Maintenance, Wellfi	14,000	14,000	0.00	3,600.00	10,400.00	74%
52416	PWB Cleaning	1,000	1,000	46.00	184.00	816.00	82%
52420	Systems Maintenance	17,000	17,000	2,361.41	10,710.41	6,289.59	37%
52430	Systems Maintenance, Emerg	25,000	25,000	13,621.24	14,821.24	10,178.76	41%
52450	Vehicle Maintenance	2,000	2,000	0.00	948.00	1,052.00	53%
52510	Equipment Maintainance	500	500	0.00	179.00	321.00	64%
52520	Radio Maintenance	1,000	1,000	0.00	0.00	1,000.00	100%
52700	Equipment Rental	2,000	2,000	0.00	900.00	1,100.00	55%
52720	Street Paving, Contract.	4,000	4,000	0.00	0.00	4,000.00	100%
52750	Security, Contracted	4,500	4,500	0.00	2,132.70	2,367.30	53%
52940	Waste Disposal	2,000	2,000	0.00	681.95	1,318.05	66%
53050	Annual DEP Maintainence	10,000	10,000	0.00	2,622.00	7,378.00	74%
53060	Deeds	0	0	0.00	0.00	0.00	N/A
53110	Engineering	0	0	0.00	1,418.30	-1,418.30	N/A
53120	Water Testing	22,000	22,000	2,328.79	8,761.59	13,238.41	60%
53150	Contract Clerical Service	0	0	0.00	0.00	0.00	N/A
53200	Tuition	0	0	0.00	0.00	0.00	N/A
53400	Telephone	5,000	5,000	567.79	2,050.48	2,949.52	59%
53420	System Prints	0	0	0.00	0.00	0.00	N/A
53430	Postage	6,800	6,800	538.58	1,485.93	5,314.07	78%
53450	Advertising	1,800	1,800	0.00	466.90	1,333.10	74%
53800	DEP Volume Assessment	1,500	1,500	1,237.63	1,237.63	262.37	17%
53800	Lock Box	2,000	2,000	123.11	436.39	1,563.61	78%
53800	PWB Tank Cleaning	500	500	87.50	87.50	412.50	83%
53810	Water Treatment Services	2,000	2,000	0.00	0.00	2,000.00	100%
53870	Police Detail	2,050	2,050	168.00	2,520.00	-470.00	-23%

		Budgeted	Revised	Expended This Period	Expended YTD	Available	Percent Remaining
54100	Gasoline	6,000	6,000	0.00	0.00	6,000.00	100%
54200	Office Supplies	3,200	3,200	651.85	3,682.97	-482.97	-15%
54210	Forms & Printing	6,800	6,800	346.92	1,573.61	5,226.39	77%
54300	Building Supplies	1,500	1,500	0.00	0.00	1,500.00	100%
54506	PWB Custodial Supplies	650	650	0.00	165.84	484.16	74%
54800	Vehicular Supplies	2,000	2,000	115.04	164.01	1,835.99	92%
55300	Public Works Supplies	16,000	16,000	7,459.23	16,986.65	-986.65	-6%
55310	Meters	30,000	30,000	0.00	10,756.22	19,243.78	64%
55800	Water Treatment Supplies	75,000	75,000	2,085.86	28,425.58	46,574.42	62%
55820	Safety Gear	1,500	1,500	0.00	304.29	1,195.71	80%
55860	Computer Software	5,000	5,000	299.99	996.98	4,003.02	80%
57100	In State Travel	0	0	0.00	0.00	0.00	N/A
57200	Out of State Travel	0	0	0.00	0.00	0.00	N/A
57300	Dues, Conferences, Licenses	4,000	4,000	745.00	2,470.33	1,529.67	38%
57800	Elem. School Educ. Expense	0	0	0.00	0.00	0.00	N/A
57810	Water Conservation Program	0	0	0.00	0.00	0.00	N/A
58500	Additional Equipment	4,000	4,000	491.38	491.38	3,508.62	88%
58510	Computer	5,000	5,000	0.00	5,550.77	-550.77	-11%
58700	Replacement Equipment	5,000	5,000	0.00	2,717.00	2,283.00	46%
Sub Total Other		348,730	348,730	38,099.84	155,376.40	193,353.60	55%
Total Operating Budget		644,942	644,942	61,107.10	280,737.70	364,204.30	56%
Reserves							
E4515 Unanticipated Emergenci							
52730	Unanticipated Emerg.	138,000	138,000	17,115.00	34,815.00	103,185.00	75%
Sub Total Unanticipated Emerge		138,000	138,000	17,115.00	34,815.00	103,185.00	75%
E4590 Reserve Fund							
52730	Reserve Fund	145,000	145,000	0.00	0.00	145,000.00	100%
Sub Total Reserve Fund		145,000	145,000	0.00	0.00	145,000.00	100%
Total Reserves		283,000	283,000	17,115.00	34,815.00	248,185.00	88%
Debt Service							
E4591 Multipurpose, Interest							
59195	Interest	21,192	21,192	0.00	10,701.25	10,490.75	50%
Sub Total Multipurpose, Interest		21,192	21,192	0.00	10,701.25	10,490.75	50%
E4593 Multipurpose, Principal							
59195	Principal	79,500	79,500	0.00	0.00	79,500.00	100%
Sub Total Multipurpose, Princip		79,500	79,500	0.00	0.00	79,500.00	100%
E4594 Short-Term Debt							
59210	Principal	207,000	207,000	0.00	0.00	207,000.00	100%
59250	Debt Issuance Cost	5,000	5,000	0.00	0.00	5,000.00	100%
59251	Interest	17,852	17,852	0.00	0.00	17,852.00	100%
Sub Total Short-Term Debt		229,852	229,852	0.00	0.00	229,852.00	100%
Total Debt Service		330,544	330,544	0.00	10,701.25	319,842.75	97%
Grand Total		1,258,486.00	1,258,486.00	78,222.10	326,253.95	932,232.05	74%

Water Treatment Plant Project

Water Department

Fiscal Year: 2018

Period Start: 12-Nov-17

Period End: 13-Dec-17

	Appropriation	Revised	Period Total	Fiscal Total	Total Spent	Remainder	Percent
38600 A3/17STM Water Treatment Plant Construction							
58300 Owner's Project Manager	259,000.00	259,000.00	4,682.74	9,745.48	9,745.48	249,254.52	96.2%
58310 Engineering	782,166.00	782,166.00	63,965.17	106,930.96	106,930.96	675,235.04	86.3%
58320 Transmission Mains	1,524,629.85	1,524,629.85	987,363.12	987,363.12	987,363.12	537,266.73	35.2%
58330 Plant Construction	7,246,000.00	7,246,000.00	604,525.85	1,268,492.88	1,268,492.88	5,977,507.12	82.5%
58380 Miscellaneous	588,204.15	588,204.15	649.99	9,960.07	9,960.07	578,244.08	98.3%
C3640 A34/14ATM Water Treatment Plant Design							
88000 Engineering	800,000.00	800,000.00	0.00	76,613.91	802,456.94	-2,456.94	-0.3%

Warrant Articles

Water Department

Fiscal Year: 2018

Period Start: 12-Nov-17

Period End: 13-Dec-17

	Appropriation	Revised	Period Total	Fiscal Total	Total Spent	Remainder	Percent
E4545 A39/13ATM Minor Water Main Replacement							
58000 General	100,000.00	100,000.00	0.00	0.00	79,079.76	20,920.24	20.9%



Town of Topsfield

Monthly Report of Accrued Time
Highway Department

For the month of November 2017

Date Reviewed: _____

Signature: _____

Department Head

Dwinell, Andrew

11/14/2016

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
0.00	16.00	0.00	16.00	-92.00	10.00	0.00	-82.00	0.00	80.00	0.00	80.00	21.50	0.00	0.00	21.50

Bond, David

10/29/1987

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
24.00	0.00	0.00	24.00	1,760.00	0.00	0.00	1,760.00	308.00	0.00	-20.00	288.00	0.00	0.00	0.00	0.00

Woodbury, Andy

12/7/1987

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
16.00	0.00	0.00	16.00	1,127.57	10.00	0.00	1,137.57	96.00	0.00	-72.00	24.00	11.50	0.00	0.00	11.50

Merry, George

2/28/2000

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
4.50	0.00	0.00	4.50	188.82	10.00	0.00	198.82	88.00	0.00	0.00	88.00	3.00	0.00	0.00	3.00

Wildes, Gary

12/25/2014

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
0.00	0.00	0.00	0.00	168.00	10.00	0.00	178.00	8.00	0.00	0.00	8.00	48.00	0.00	-8.00	40.00

Wise, Paul

7/6/2006

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
0.00	0.00	0.00	0.00	-1,101.43	10.00	0.00	-1,091.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Yeo, Anne-Marie

4/14/2005

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
23.00	0.00	-2.00	21.00	158.00	10.00	0.00	168.00	132.00	0.00	-8.00	124.00	0.00	0.00	0.00	0.00

Sick Bank, Union

7/1/2013

Personal Time (hours)				Sick Time (hours)				Vacation Time (hours)				Comp Time (hours)			
Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total	Previous	Added	Used	Total
0.00	0.00	0.00	0.00	860.00	0.00	0.00	860.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Per Union contract,

- 40 hours per employee put in sick bank July 1st with a maximum sick bank of 1760 hours
- Maximum of 14 working days (112 hours) of compensatory time allowed



Town of Topsfield
Task Sheet Report - Water Department
November 2017

Category	Anne-Marie Yeo	Ben Reuell	Gregory Krom	Travis Fontaine	Total
Accrued Time					
Holidays	12	16	24	16	68
Vacation	12		8	48	68
	24	16	32	64	136
Administrative					
Accrual Tracking	5				5
Charts		44		47	91
Correspondence	23				23
File Maintenance	7				7
Meeting Prep.			6		6
Meetings			6		6
Other			4		4
Purchasing/Procurement			2		2
System Review			4		4
Training			6	6	12
	35	44	28	53	160
Billing					
Bill Prep.			2		2
Meter Problems		4	2		6
Meter Reading Radio			3		3
		4	7		11
Building Maintenance					
Annual			4		4
Security			4		4
			8		8
Computer Systems					
Networking			2		2
			2		2
Customer Service					
Customer Complaints		6			6
Lien Requests	9				9
Pressure Questions		2		1	3
Title 5 Requests	5				5
Water Quality Questions				1	1
Water Service Flushing		4		3	7
	14	12		5	31



Town of Topsfield
Task Sheet Report - Water Department
November 2017

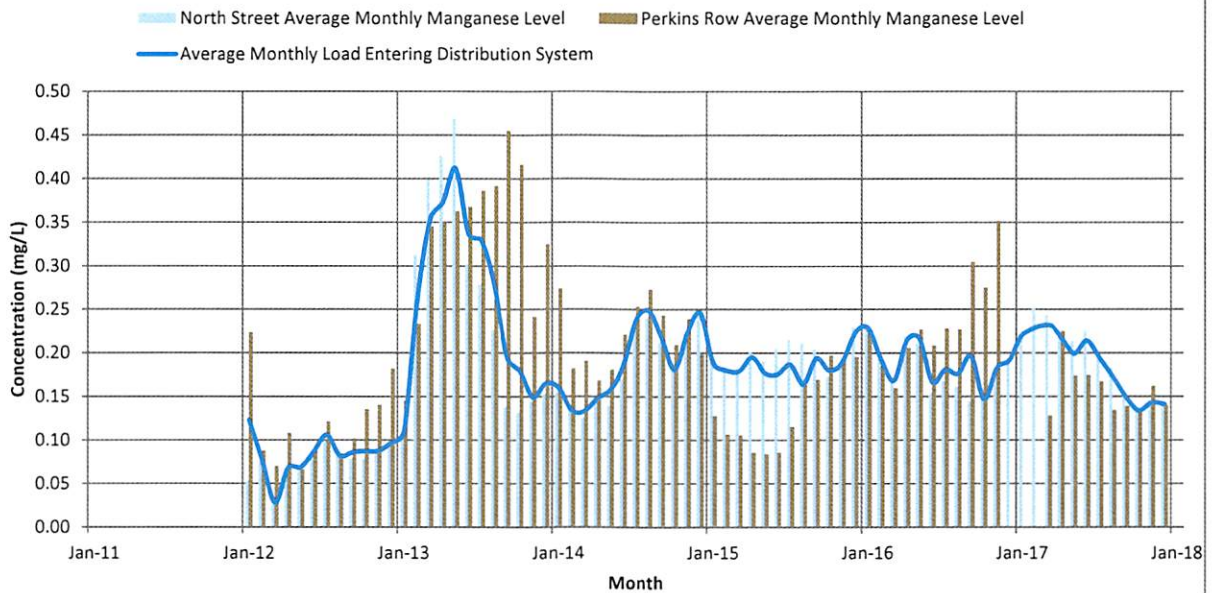
Category	Anne-Marie Yeo	Ben Reuell	Gregory Krom	Travis Fontaine	Total
DEP Projects					
WMA Permit Requirements			3		3
			3		3
Equipment Maintenance					
Annual				1	1
				1	1
Financials					
Payment Processing	27				27
Payroll/Bills	25				25
	52				52
Fire Department					
Fire Call				1	1
				1	1
Public Service					
Citizen Concerns		4			4
Markouts/DigSafe		18		2	20
Other			1		1
		22	1	2	25
Quality Control					
Bacteria Sampling		20		9	29
Fluoride Testing		36		10	46
In-house Testing		2			2
Manganese Testing		10		3	13
Other		2		3	5
pH Testing		12		4	16
Phosphates		4		2	6
		86		31	117
Road Maintenance					
Trench Repair				2	2
				2	2
Special Projects					
Water Use Application			16		16
			16		16
Treatment Plant Project					
Plant Construction			12	3	15
Water Main Construction		23	31	22	76



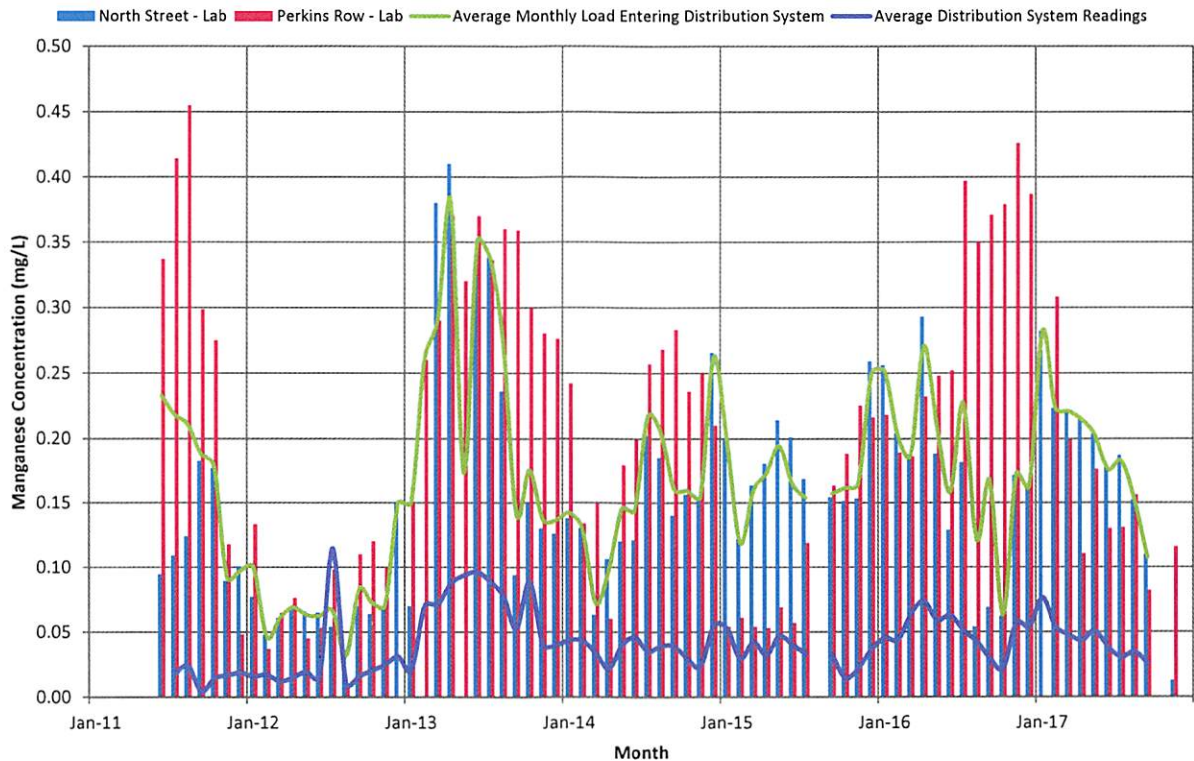
Town of Topsfield
Task Sheet Report - Water Department
November 2017

Category	Anne-Marie Yeo	Ben Reuell	Gregory Krom	Travis Fontaine	Total
		23	43	25	91
Vehicle Maintenance					
Preventive		2			2
		2			2
Water Controls					
Alarms			1	1	2
SCADA System			5		5
			6	1	7
Water Distribution					
Meter Replacements		2		1	3
Meter Testing			2		2
Service Repair			5	4	9
Tanks				1	1
Valve			11	3	14
Water Main Repair		15	25	23	63
		17	43	32	92
Water Supply					
Generator			2		2
			2		2
Water Treatment					
Analyzer Calibration				2	2
Chlorine				4	4
Fluoride				2	2
Sequestrant				2	2
				10	10
Grand Total					
	125	226	191	227	769
Total Monthly Work Hours (40 hrs/wk)					
	176				

Monthly Source Water Manganese Concentrations & System Loading based on TWD Test Kit Results and Withdrawals



Monthly Source Water Manganese Concentrations & System Loading based on Lab Tests and Withdrawals



Topsfield Water Department
FY2019 Capital Plan - Draft

Project	Fiscal Year	Cost	Cash	Bond	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Supply																			
North Street Exploratory Drilling	2019	100,000	100,000	-		100,000													
Station Rehab Design	2022	250,000	250,000	-					250,000										
Station Rehab Construction	2024	1,500,000		1,500,000							1,500,000								
		1,850,000	350,000	1,500,000	-	100,000	-	-	250,000	-	1,500,000	-	-	-	-	-	-	-	-
Treatment																			
Treatment Plant	2018	10,400,000	1,115,000	9,285,000	10,400,000														
		10,400,000	1,115,000	9,285,000	10,400,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Distribution																			
Meter Upgrades	2020	25,000	25,000	-			25,000												
Water Mains																			
Water Main Improvement Design	2019	100,000	100,000	-		100,000													
Prospect St. & River Road	2018	1,600,000	100,000	1,500,000	1,600,000														
High, Central, Summer & Perkins	2027	2,300,000	500,000	1,800,000										2,300,000					
		1,700,000	200,000	1,500,000	1,600,000	100,000	25,000	-	-	-	-	-	-	2,300,000	-	-	-	-	-
Storage Tanks																			
Inspection	2019	50,000	50,000	-		50,000									50,000				
Replacement	2024	1,000,000	150,000	850,000							1,000,000								
Repair	2020	150,000	150,000	-			150,000									75,000			
		1,200,000	350,000	850,000	-	50,000	150,000	-	-	-	1,000,000	-	-	-	50,000	75,000	-	-	-
Vehicles & Equipment																			
Loader	2019	15,000	15,000	-		15,000													
Service Truck	2026	90,000	90,000	-									90,000						
Ranger #1	2023	35,000	35,000	-					35,000										
Ranger #2	2024	35,000	35,000	-						35,000									
		175,000	175,000	-	-	15,000	-	-	-	35,000	35,000	-	90,000	-	-	-	-	-	-
Public Works Building																			
Fire System Upgrade	2019	35,000	35,000	-	-	35,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Summary																			
Supply		1,850,000	350,000	1,500,000	-	100,000	-	-	250,000	-	1,500,000	-	-	-	-	-	-	-	-
Treatment		10,400,000	1,115,000	9,285,000	10,400,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Distribution		1,700,000	200,000	1,500,000	1,600,000	100,000	25,000	-	-	-	-	-	-	2,300,000	-	-	-	-	-
Storage		1,200,000	350,000	850,000	-	50,000	150,000	-	-	-	1,000,000	-	-	-	50,000	75,000	-	-	-
Public Works Building		35,000	35,000	-	-	35,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicles & Equipment		175,000	175,000	-	-	15,000	-	-	-	35,000	35,000	-	90,000	-	-	-	-	-	-
		15,360,000	2,225,000	13,135,000	12,000,000	300,000	175,000	-	250,000	35,000	2,535,000	-	90,000	2,300,000	50,000	75,000	-	-	-

**Topsfield Water Department
Superintendent's Report
December 13, 2017**

Old Business

1. Water Treatment Plant

The concrete foundation work is complete. The exterior tank walls have all been leak tested and the contractor received permission to backfill the entire foundation. They've started working on the structural slab which will be completed sometime in January.

2. Transmission Mains

The Route 1 crossing was installed this past month. Work continues on directional drilling the pipes on the easement. The upper legs have been installed and Henniker is working on the lower legs and will probably have them finished by the middle of next week if all goes well. They'll head to Perkins Row to drill under the pond once work on the easement is complete.

3. Withdrawals

November water withdrawals totaled 0.282 MGD which is well below the 5-year (0.358 MGD) and 10-year (0.355 MGD) average. About half of the decline is due in part to the cancellation of hydrant flushing which typically accounts for 0.033 MGD. Another 0.250 MGD can be attributed to service leak repairs.

4. Leaks & Breaks

Two service leaks were repaired this past month. A leak before the curb stop at 11 Prospect Street and a private leak at 206 Perkins Row. Both leaks were repaired on the same day and it appears we were losing approximately 19 gpm between them based on the decline of early morning use following the repair.

A service leak at 60 Willowdale Road was reported by the homeowner and will be repaired this week.

5. Unaccounted for Water (UAW)

UAW information was not available last month because the software was being updated. The update is now complete and UAW remains high despite fixing a number of service leaks and recalibrating the master meters. High UAW will be an issue during the upcoming withdrawal permitting process so you will receive a new report each month showing what MassDEP allows us to include as UAW versus what our best estimate is.

At issue is MassDEP's definition of "Confidently Estimated Use". Service leak estimates are not allowed and master meter calibrations are prorated to the last test date. These have been at the root of our UAW problem for the past few years.

The exclusion of service leak information is due to the difficulty in estimating the size and duration of the leaks. We are able to reliably estimate service leak flow during certain times of year by analyzing early morning water use before and after the repair. During the winter months (Nov-Apr) early morning use is relatively stable so any changes, such as a service leak repair, are easy to quantify and often result in a statistically significant drop in use. This can be further refined if we knew how leaks progress over time for certain pressure ranges and pipe diameters. This information could be used to quantify how

long a service was leaking prior to the repair, i.e. a pinhole leak in a 1" copper line at x psi takes y days to develop into a z gpm leak. I'm not sure if this information is available through AWWA or a copper pipe manufacturers' association but we could figure it out if needed.

Recalibrating the master meters is essentially a one-time issue. Pro-rating the water lost between tests makes sense if you are using the same test equipment. We built a new, very accurate calibration rig that in my opinion revealed a long-standing error that wasn't found due to the inaccuracy of the previous, industry standard testing arrangement. Therefore, the full error should be allowed, not just a prorated amount dating back to the previous test. The master meter error was found when analyzing early morning water use last winter and noticing that water use was higher when the pumps were running versus when they were off. A quick review of previous years indicates the error dates as far back as the winter of 2008/2009.

6. Hydrant Flushing

Flushing was cancelled due to a variety of factors including breaks, valve failures and weather.

7. Capital Planning

We received the forms needed for capital requests. Rather than review each form for every project I've updated the summary spreadsheet for your review.

8. Water Management Act Permit

I met with MassDEP on November 29th to discuss the status of the permit renewal. They're planning on issuing an Order to Complete just after New Year's and we'll have 60 days to respond and can request an extension if needed. Following that they'll forward a draft permit for us to review and eventually issue a final permit. They'd like to have this process completed by spring.

Our wells are registered for a combined 0.43 MGD. This is our "grand-fathered" withdrawal right. In 1995 the Town was granted a permit for an additional 0.17 MGD raising the average daily total to 0.60 MGD and allowing a maximum of 1.3 MGD to be drawn from North Street. This is the permit that is being renewed. The permit requested is for 0.05 MGD down from 0.17 MGD. The lower request is due to a dramatic reduction in withdrawals and flat population estimates from DCR.

The Sustainable Water Management Initiative has added some new wrinkles to the process. The streams along both wells are rated poorly due to August streamflow depletion. Also, North Street is listed as being near a cold-water fishery. So, we're going to have to contest the cold-water fishery designation or develop a minimization and mitigation plan. The plan could be as simple as prioritizing the use of Perkins Row over North Street.

The most interesting part of the discussion centered around the role of the permit. Permits are required for withdrawals of 0.10 MGD above registered withdrawals. Our request is for much less than that so it all boils down to the following options:

- Abandon the permit request, keep our annual average withdrawals below 0.53 MGD and develop our own rules to achieve this.
- Revise the permit request to 0.03 MGD, to meet our historic average, and avoid the minimization and mitigation and withdraw up to 0.53 MGD
- Continue with the requested amount and deal with the minimization and mitigation requirements and withdraw up to 0.53 MGD.

We don't need to make a decision about this right away. It probably makes sense to proceed with the higher request and see how much resistance there is. The watershed associations won't get involved until at least a draft permit is circulated. MassDEP doesn't appear to have much of an appetite to go to court on this so a lot of it depends on how the watershed associations react to the draft permits.

Many of the existing permit conditions will be included in the new permit such as the UAW requirement, per capita use cap, summer use cap, streamflow based restrictions, etc. However, the meter accuracy requirement will change from the 10 years – 2% rule we currently have to American Water Works performance standards. We'll have to develop a meter program that includes regular maintenance, testing, calibration, repair, replacement, tamper checking and illegal connection checks and provide sufficient funds for the program. This could be more difficult to implement than the current rule but either way it doesn't really make sense to do too much meter work until our water quality improves.

9. Andrews Farm Water Company

Attached is a draft fee calculation for providing full-time fire protection to the Andrews Farm Water Company. Leaving the fire connection on provides fire protection for the residents of Andrews Farm and a quick emergency connection for the Andrews Farm Water Company. The calculation is based on the replacement of the water mains on Lockwood Lane. The monthly fee for AFWC would be approximately \$250 per month assuming a cost of \$1.1 million per mile, a 75-year lifetime and splitting the cost equally. Adding in the replacement costs of the water meters would bring the total to \$270 per month.

New Business

1. Tax Liens

The annual transfer to tax lien is ready to process. A copy of the list and a memo for the Assessor's Office is attached.

2. RFS Bid Protest

Attorney Carbone has submitted several public records requests with us and a renewed bid protest with the Attorney General's Office on behalf of RFS Corp. The bid protest was denied by the AGO.

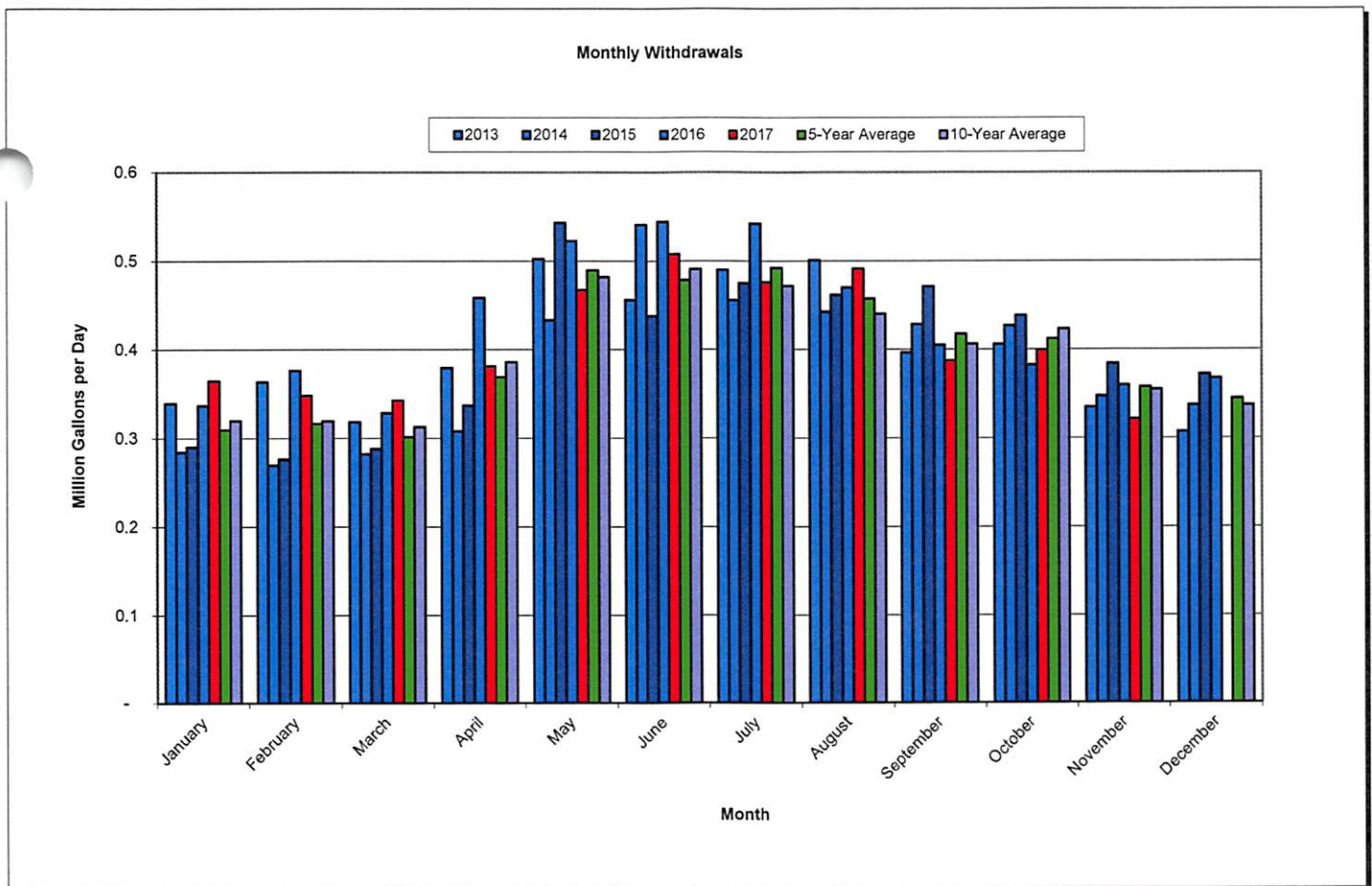
3. FY2019 Budget

The first draft of the FY2019 budget will be available at the meeting. This year's guidelines are steps and raises for non-union personnel, level fund union personnel because they're without a contract, and 0% for other expenses. The water treatment plant will begin operating during the second half of the fiscal year. The draft budget includes expenses and savings for the operation of the plant.

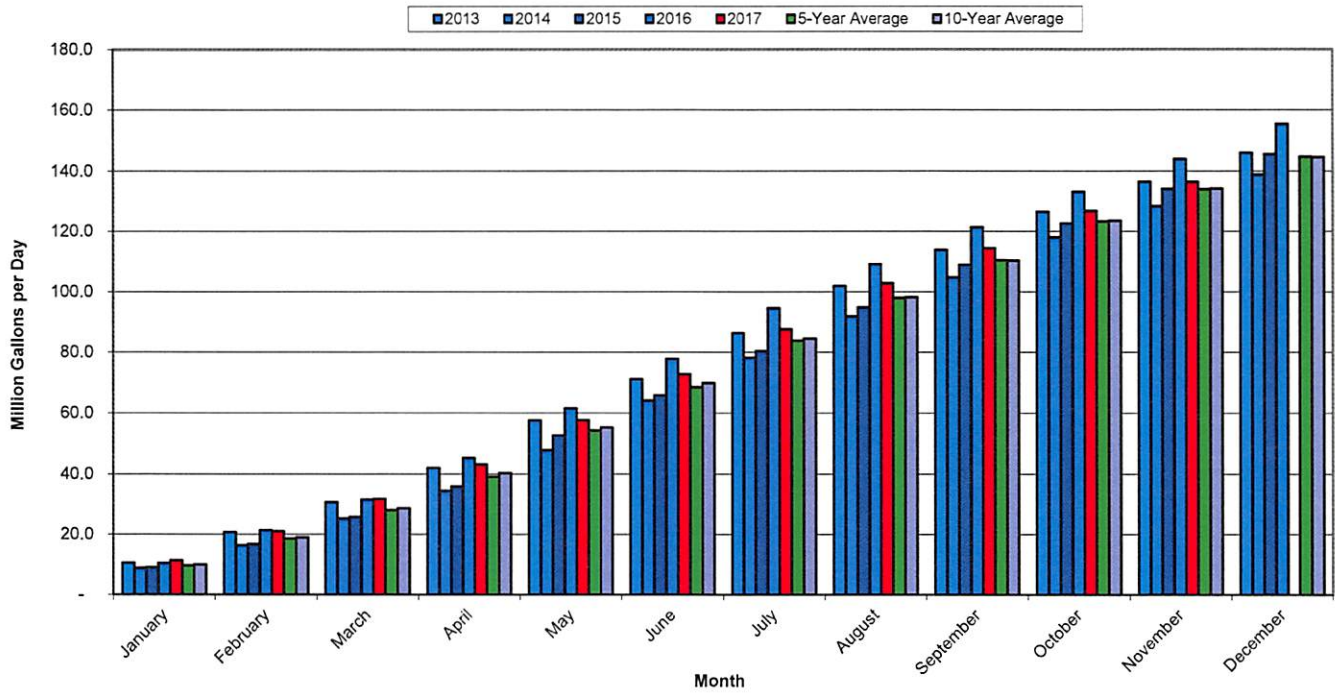
Topsfield Water Department
Annual Withdrawal Report
Calendar Year

2017

Month	North Street	Perkins Row	Total	Month AGD	5-Year Average	10-Year Average
January	11.311	-	11.311	0.365	0.310	0.320
February	9.711	0.041	9.752	0.348	0.317	0.320
March	10.565	0.063	10.628	0.343	0.302	0.313
April	11.397	0.041	11.438	0.381	0.369	0.386
May	14.095	0.390	14.485	0.467	0.490	0.482
June	14.218	1.008	15.226	0.508	0.479	0.491
July	13.609	1.145	14.754	0.476	0.492	0.472
August	14.101	1.123	15.224	0.491	0.457	0.440
September	10.536	1.077	11.613	0.387	0.417	0.406
October	11.521	0.858	12.379	0.399	0.412	0.423
November	9.479	0.171	9.650	0.322	0.358	0.355
December	-	-	-	#N/A	0.345	0.338
Total	130.543	5.917	136.460	0.405		



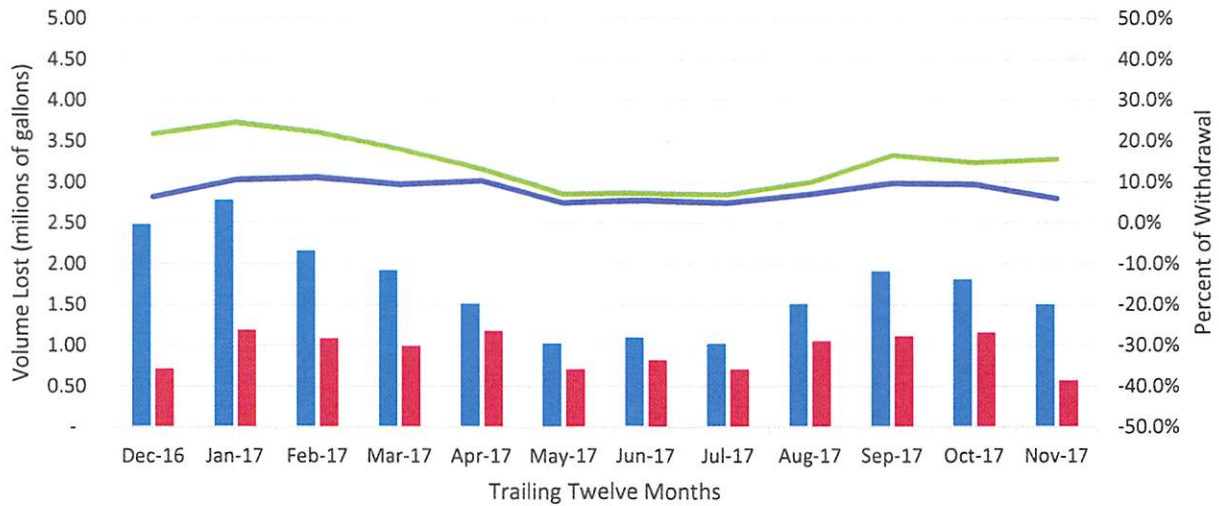
Monthly Cumulative Withdrawals



**Topsfield Water Department
Unaccounted for Water Report**

Month	Total Pumped	Water Used				DEP UAW		TWD UAW				
		Metered	Meter Estimates	Non-Metered	Total DEP Use	Volume	Percent	Full Venturi Error	Known Leaks	Total Used	UAW Volume	UAW
Dec-16	11.41	8.53	0.22	0.18	8.93	2.48	21.7%	0.66	1.10	10.68	0.72	6.3%
Jan-17	11.31	8.34	-	0.20	8.54	2.77	24.5%	0.57	1.01	10.12	1.19	10.5%
Feb-17	9.75	7.25	0.10	0.24	7.59	2.16	22.1%	0.42	0.65	8.66	1.09	11.2%
Mar-17	10.63	8.26	0.12	0.34	8.71	1.92	18.0%	0.38	0.54	9.63	0.99	9.4%
Apr-17	11.44	8.39	0.11	1.42	9.93	1.51	13.2%	0.33	-	10.26	1.18	10.3%
May-17	14.49	10.60	0.19	2.68	13.46	1.03	7.1%	0.31	-	13.77	0.72	4.9%
Jun-17	15.23	12.41	0.19	1.53	14.13	1.09	7.2%	0.22	0.05	14.40	0.83	5.4%
Jul-17	14.75	12.65	0.17	0.91	13.73	1.02	6.9%	0.10	0.20	14.04	0.72	4.9%
Aug-17	15.22	12.34	0.18	1.19	13.72	1.51	9.9%	-	0.45	14.17	1.06	6.9%
Sep-17	11.61	9.27	0.27	0.16	9.71	1.91	16.4%	-	0.79	10.49	1.12	9.6%
Oct-17	12.38	8.64	0.32	1.61	10.57	1.81	14.6%	-	0.65	11.22	1.16	9.4%
Nov-17	9.65	7.65	0.39	0.11	8.15	1.50	15.6%	-	0.93	9.08	0.57	5.9%
	147.87	114.34	2.26	10.56	127.16	20.70	14.0%	3.01	6.36	136.53	11.34	8.3%

Unaccounted for Water By Month





Topsfield Water Department
Andrews Farm Fulltime Water Supply Fee Calculations
Water Main Replacement Costs

Replacement Options

Expected Lifetime 50 years
Cost per Mile 1.1 million

Replacement Costs

Lockwood Lane Water Mains	Length (ft.)	Total (million Dollars)	Annual Cost	TWD Share	AFWC Share
Washington to Silverbrook	1,456	0.303	6,066.67	3,033.33	3,033.33
Silverbrook to Town Line	635	0.132	2,645.83	1,322.92	1,322.92
	2,091	0.436	8,712.50	4,356.25	4,356.25
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AFWC Monthly Fee	363.02				

