

**Water Department
Expense Budget for FY2018**

11-Apr-18

Expended Period 3/11/2018 1:21:55 PM - 4/11/2018

Budget Month 10

		Budgeted	Revised	Expended This Period	Expended YTD	Available	Percent Remaining
Operating Budget							
E4501 Salary							
51120	Superintendent	93,982	93,982	7,222.40	71,501.76	22,480.24	24%
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	73,001.76	22,480.24	24%
E4502 Wages							
51130	Laborers, Full Time	113,016	113,016	8,660.16	85,735.58	27,280.42	24%
51131	Clerical, Full Time	34,395	34,395	2,645.76	26,193.02	8,201.98	24%
51141	Seasonal Wages	7,000	7,000	0.00	0.00	7,000.00	100%
51200	Outside Help, Labor	2,933	2,933	283.20	502.14	2,430.86	83%
51310	Overtime, Labor	42,398	42,398	1,217.83	25,709.88	16,688.12	39%
51490	Longevity	988	988	0.00	987.50	0.50	0%
Sub Total Wages		200,730	200,730	12,806.95	139,128.12	61,601.88	31%
E4505 Other							
51920	Uniform Allowance	2,730	2,730	0.00	2,730.00	0.00	0%
51970	Meal Allowance	1,400	1,400	0.00	450.00	950.00	68%
52100	Electricity	40,000	40,000	2,567.94	30,600.13	9,399.87	23%
52106	PWB Electricity	3,200	3,200	1,140.34	6,772.83	-3,572.83	-112%
52150	Gas	2,600	2,600	74.13	1,388.34	1,211.66	47%
52156	PWB Gas	2,200	2,200	160.15	1,734.11	465.89	21%
52400	Building Maintenance	1,500	1,500	0.00	2,604.85	-1,104.85	-74%
52406	PWB Building Maintenance	2,800	2,800	140.99	2,138.36	661.64	24%
52415	Property Maintenance, Wellfi	14,000	14,000	524.35	13,397.60	602.40	4%
52416	PWB Cleaning	1,000	1,000	0.00	230.00	770.00	77%
52420	Systems Maintenance	17,000	17,000	1,234.93	29,074.52	-12,074.52	-71%
52430	Systems Maintenance, Emerg	25,000	25,000	0.00	14,844.68	10,155.32	41%
52450	Vehicle Maintenance	2,000	2,000	0.00	2,072.54	-72.54	-4%
52510	Equipment Maintainance	500	500	0.00	534.72	-34.72	-7%
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	1,066.35	4,880.47	-380.47	-8%
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	8,812.67	1,187.33	12%
53060	Deeds	0	0	0.00	0.00	0.00	N/A
53110	Engineering	0	0	0.00	1,529.80	-1,529.80	N/A
53120	Water Testing	22,000	22,000	2,872.00	14,873.93	7,126.07	32%
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	429.44	3,548.73	1,451.27	29%
53420	System Prints	0	0	0.00	0.00	0.00	N/A
53430	Postage	6,800	6,800	274.26	2,503.00	4,297.00	63%
53450	Advertising	1,800	1,800	0.00	466.90	1,333.10	74%
53800	DEP Volume Assessment	1,500	1,500	0.00	1,237.63	262.37	17%
53801	Lock Box	2,000	2,000	195.27	966.18	1,033.82	52%
53806	PWB Tank Cleaning	500	500	0.00	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	0.00	2,856.00	-806.00	-39%

		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	0.00	4,038.64	-838.64	-26%
54210	Forms & Printing	6,800	6,800	870.89	2,969.22	3,830.78	56%
54300	Building Supplies	1,500	1,500	0.00	0.00	1,500.00	100%
54506	PWB Custodial Supplies	650	650	0.00	340.10	309.90	48%
54800	Vehicular Supplies	2,000	2,000	0.00	164.01	1,835.99	92%
55300	Public Works Supplies	16,000	16,000	0.00	21,028.53	-5,028.53	-31%
55310	Meters	30,000	30,000	0.00	23,500.22	6,499.78	22%
55800	Water Treatment Supplies	75,000	75,000	3,135.28	48,485.82	26,514.18	35%
55820	Safety Gear	1,500	1,500	0.00	596.59	903.41	60%
55860	Computer Software	5,000	5,000	0.00	3,953.93	1,046.07	21%
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	120.00	3,023.33	976.67	24%
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	0.00	491.38	3,508.62	88%
58510	Computer	5,000	5,000	9.31	5,883.69	-883.69	-18%
58700	Replacement Equipment	5,000	5,000	0.00	2,717.00	2,283.00	46%
Sub Total Other		348,730	348,730	14,815.63	269,109.90	79,620.10	23%
Total Operating Budget		644,942	644,942	34,844.98	481,239.78	163,702.22	25%
Reserves							
E4515 Unanticipated Emergenci							
52730	Unanticipated Emerg.	138,000	138,000	0.00	34,815.00	103,185.00	75%
Sub Total Unanticipated Emerge		138,000	138,000	0.00	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	0.00	34,815.00	248,185.00	88%
Debt Service							
E4591 Multipurpose, Interest							
59195	Interest	21,192	21,192	0.00	21,402.50	-210.50	-1%
Sub Total Multipurpose, Interest		21,192	21,192	0.00	21,402.50	-210.50	-1%
E4593 Multipurpose, Principal							
59195	Principal	79,500	79,500	0.00	79,500.00	0.00	0%
Sub Total Multipurpose, Princip		79,500	79,500	0.00	79,500.00	0.00	0%
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	100,902.50	229,641.50	69%
Grand Total		1,258,486.00	1,258,486.00	34,844.98	616,957.28	641,528.72	51%

Warrant Articles

Water Department

Fiscal Year: 2018

Period Start: 11-Mar-18

Period End: 10-Apr-18

	Appropriation	Revised	Period Total	Fiscal Total	Total Spent	Remainder	Percent
E0000 Prospect Street & River Road Water Main Improvements							
00001 Administration	0.00	0.00	5,455.74	10,370.74	10,370.74	-10,370.74	N/A
00002 Construction	1,600,000.00	1,600,000.00	0.00	0.00	0.00	1,600,000.00	100.0%
	1,600,000.00	1,600,000.00	5,455.74	10,370.74	10,370.74	1,589,629.26	100.0%
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%
	100,000.00	100,000.00	0.00	0.00	79,079.76	20,920.24	20.9%

Water Treatment Plant Project

Water Department

Fiscal Year: 2018

Period Start: 11-Mar-18

Period End: 10-Apr-18

	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	11,055.64	37,781.31	37,781.31	221,218.69	85.4%
58310 Engineering	782,166.00	782,166.00	31,130.90	261,196.89	261,196.89	520,969.11	66.6%
58320 Transmission Mains	1,524,629.85	1,524,629.85	0.00	987,363.12	987,363.12	537,266.73	35.2%
58330 Plant Construction	7,246,000.00	7,246,000.00	526,035.90	2,075,249.03	2,075,249.03	5,170,750.97	71.4%
58380 Miscellaneous	588,204.15	588,204.15	0.00	44,108.78	44,108.78	544,095.37	92.5%
	10,400,000.00	10,400,000.00	568,222.44	3,405,699.13	3,405,699.13	6,994,300.87	83.0%



Town of Topsfield

Monthly Report of Accrued Time
Water Department

For the month of March 2018

Date Reviewed: _____

Signature: _____

Department Head

Fontaine, Travis

12/2/2009

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	747.57	10.00	0.00	757.57	168.00	0.00	0.00	168.00	109.00	0.00	0.00	109.00

Krom, Gregory

3/12/1992

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
6.00	0.00	0.00	6.00	1,654.00	10.00	0.00	1,664.00	45.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

Reuell, Ben

6/2/2014

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
16.00	0.00	0.00	16.00	275.50	10.00	0.00	285.50	46.00	0.00	0.00	46.00	124.50	0.00	0.00	124.50

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
21.00	0.00	-1.50	19.50	192.00	10.00	-8.00	194.00	92.50	0.00	-4.00	88.50	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

Wednesday, April 11, 2018

**Topsfield Water Department
Superintendent's Report
April 11, 2018**

1. Water Treatment Plant Project

Plant

The mason is working on the interior block walls and the exterior load bearing walls. The cold weather has slowed progress but about a quarter of the interior walls are complete. The filter pressure vessels were delivered and placed last week.

Transmission Mains

All of the mains installed by R+D are in service.

Boston Street Altitude Valve

The site contractor began the installation of the altitude valve this week. The isolation valve to the tank leaks so the tank will have to be drained to perform the tie-in work. The mains near the tank are deep, 12' to the top of pipe, so the placement of the valve vault and piping will have to be adjusted to account for the extra depth of the mains.

Booster Station

Site work around the booster station continued this past month. The water connections for the station were installed last week.

Change Orders

- Change Order Request #1 is attached for your review. The change is for a harmonics filter to be installed in the booster station at a cost of \$9,316. Wright-Pierce and Woodard & Curran agree that the filter is needed to reduce harmonic distortion in the electrical feed to the site caused by the variable frequency drive for the 100-horsepower fire pump. The filter is normally included in WP's design but the booster station is a packaged plant designed separately and they don't believe the line attenuator normally included in the packaged design provides sufficient protection. They are concerned that breakers and motors in the treatment plant may not work properly when the fire pump is running without the filter.

Potential Change Orders

- Bathroom Prep – At our request the general contractor is providing drains and other piping in the floor and walls to accommodate the addition of a bathroom at a future date.
- Booster Station Relocation –The location of the booster station pad changed due to conflicts with underground utilities and grading changes made to the site by the Town after the design plans were completed. The location of the underground electric service to the Public Works Building was not accurately depicted on the as-built plans so the pad had to be shifted farther off the road.
- Electrical Feed Change – The original design called for installing a new electrical service for the booster station and the plant from Route 1. This changed when the transformer to the Public Works Building failed last year and National Grid installed a pass-through transformer allowing us to extend the existing electrical service from the Public Works Building to the plant location. This has already saved more than \$25,000 in National Grid fees, not including the cost of installing a duct bank from Route 1 to the plant.
- Exterior Veneer Block – I selected a smooth gray block veneer with a split-faced brown accent

stripe for the treatment plant to match the Public Works Building. This differed from the construction drawings that called for a split-face veneer and smooth accent stripe. The blocks that were ordered were the reverse of what was requested – brown spilt-faced veneer and a gray smooth accent stripe. Wright-Pierce and Woodard & Curran agree the blocks should not have been ordered until the mock-up wall was completed and the mason did this at their own risk.

- Boston Street Altitude Valve – The depth of the mains and the presence of transite pipe will likely lead to a change order request.

2. Leaks & Breaks

Nothing to report but UAW remained low for March – 6.3%.

3. Prospect Street & River Road Water Main Project

Bids for the project were opened on April 4th. We received 7 bids and R+D Site Development was the low bidder at 968,540.89 for the base bid and both alternates. R+D just finished the water main portion of the transmission main project and I'm very satisfied with the quality of their work. We checked their references prior to that job and I recommend this bid be awarded to R+D for the base bid and both alternates. Work is expected to begin in May.

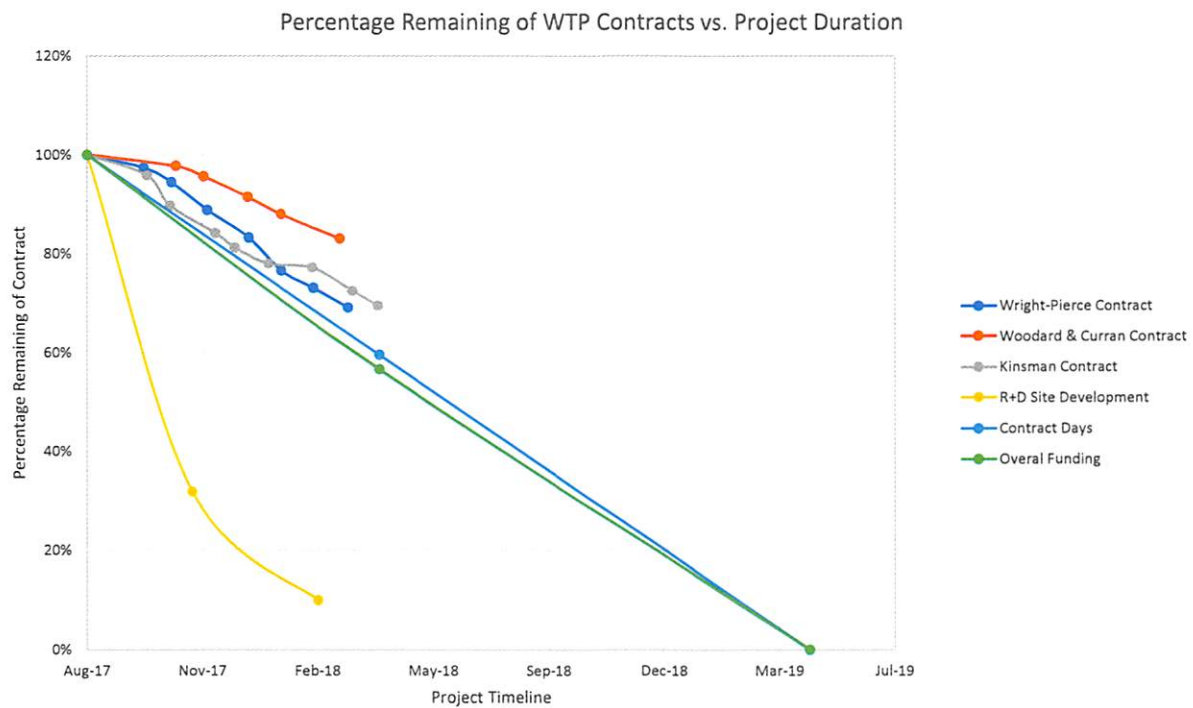
This project was estimated to be \$1.6 million. The bid doesn't include road reclamation and final paving for the heavily damaged paved areas on River Road and Prospect Street. This paving work will be done by the Town. The total project cost, including the reclamation work, is expected to be approximately \$1.3 million.

WTP Construction Progress
April 11, 2018

Contracts	Total	Spent	Remaining	
Kinsmen	7.246	2.207	5.039	70%
Wright-Pierce	0.782	0.261	0.521	67%
Woodard & Curran	0.259	0.038	0.221	85%
R+D Site Development	1.525	1.374	0.151	10%
Total	9.812	3.879	5.933	60%

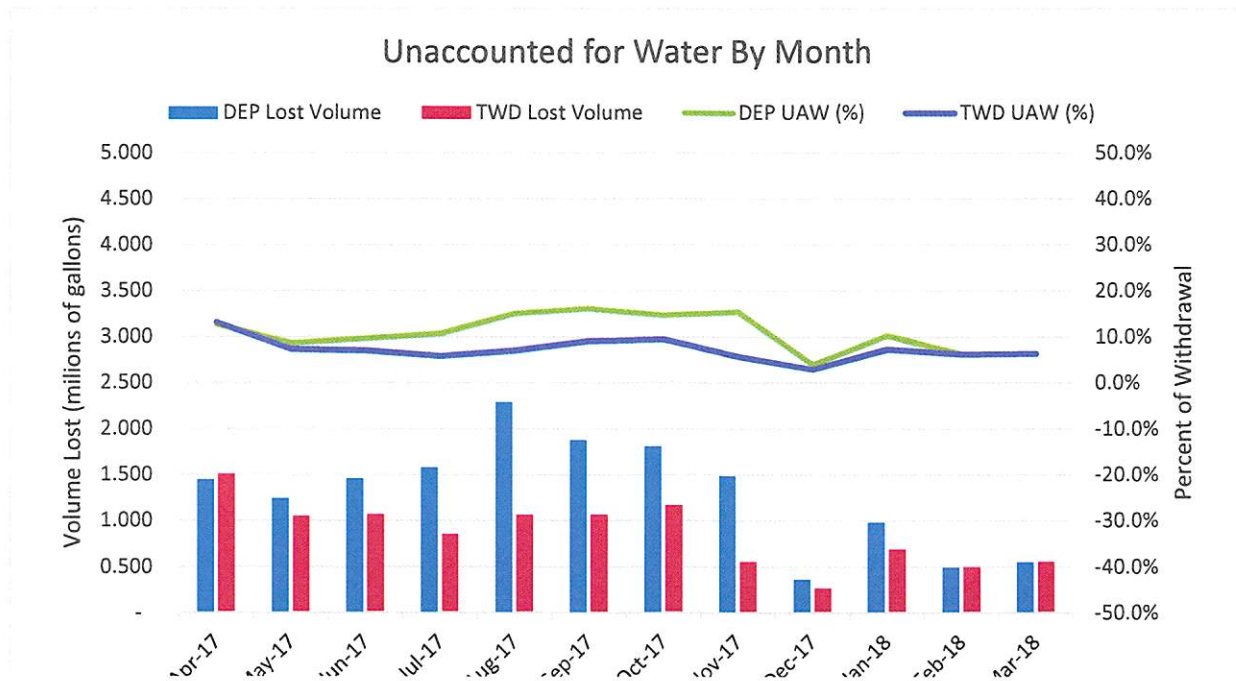
Misc	0.044		
Funded	10.400		
Contingency	0.545	5.2%	

Contract Days			
Start Date	8/1/2017	100%	100%
Current Date	4/11/2018	60%	57%
Completion	4/19/2019	0%	0%

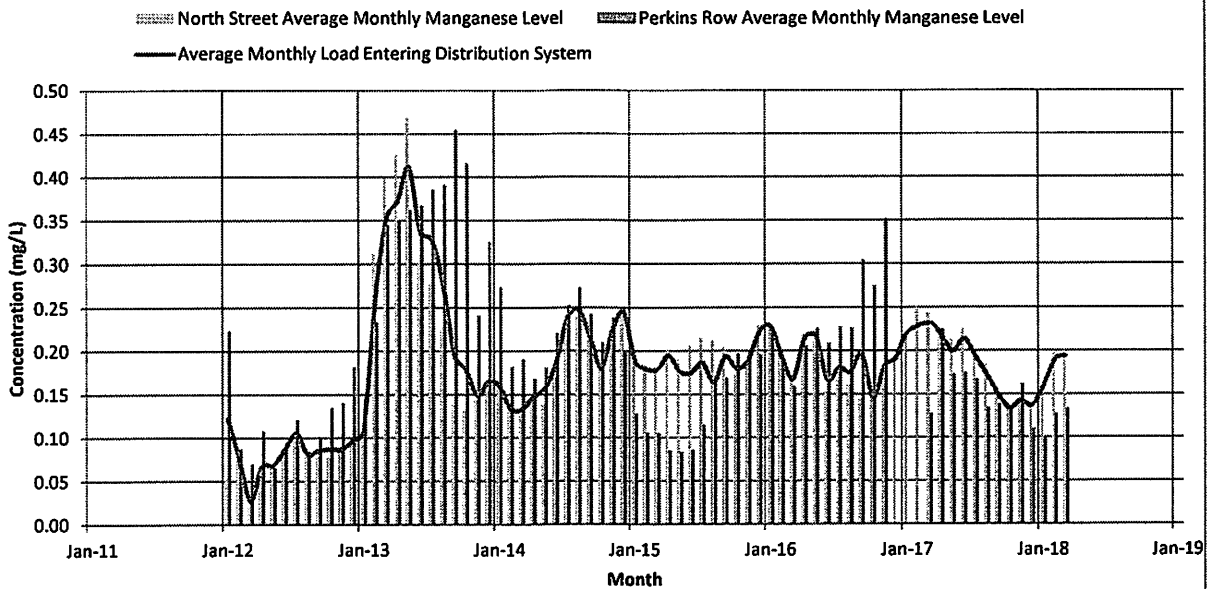


**Topsfield Water Department
Unaccounted for Water Report**

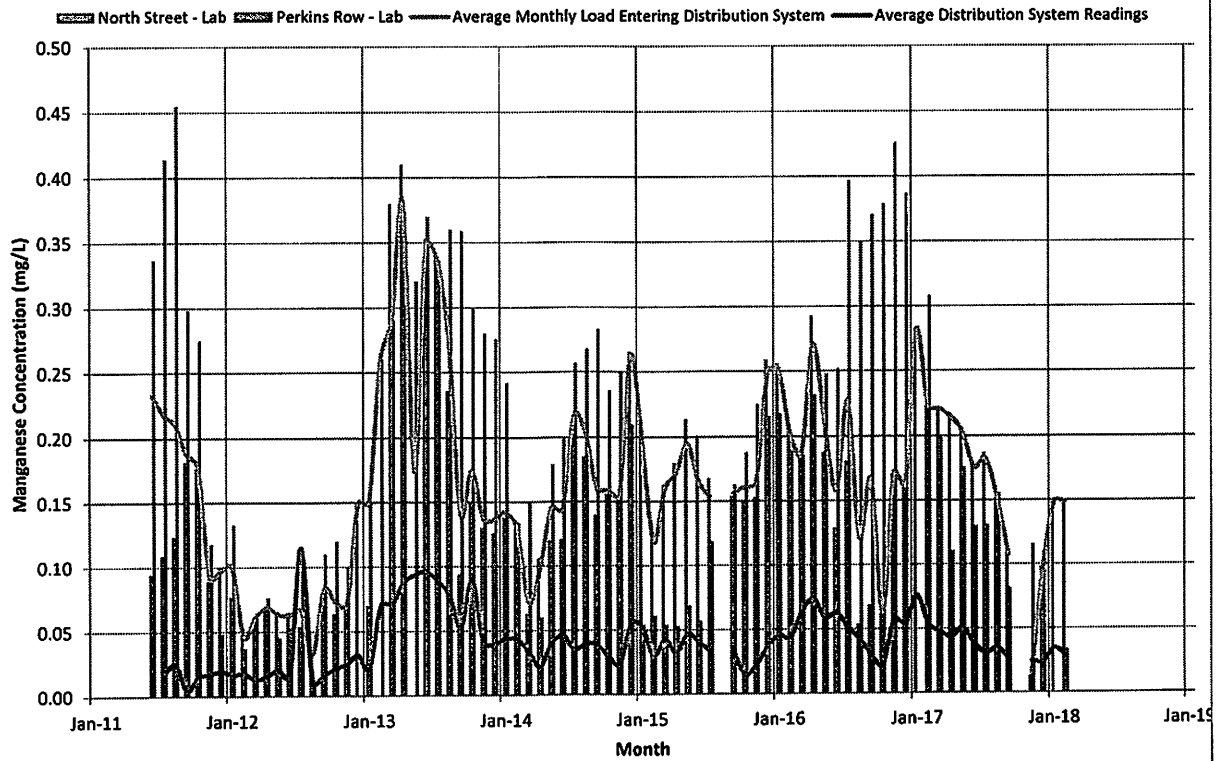
Month	Total Pumped	Water Used			DEP UAW			TWD UAW		
		Metered	Meter Estimates	Total Metered	DEP CEU	Lost Volume	Percent	TWD CEU	Lost Volume	UAW
Apr-17	11.438	8.441	0.073	8.514	1.477	1.447	12.7%	1.424	1.500	13.1%
May-17	14.485	10.654	0.108	10.762	2.486	1.237	8.5%	2.678	1.045	7.2%
Jun-17	15.226	12.474	0.104	12.578	1.192	1.456	9.6%	1.586	1.062	7.0%
Jul-17	14.754	12.729	0.061	12.790	0.387	1.577	10.7%	1.114	0.850	5.8%
Aug-17	15.224	12.444	0.078	12.522	0.416	2.286	15.0%	1.643	1.059	7.0%
Sep-17	11.613	9.532	0.072	9.604	0.131	1.878	16.2%	0.947	1.062	9.1%
Oct-17	12.379	8.901	0.061	8.962	1.610	1.807	14.6%	2.257	1.160	9.4%
Nov-17	9.650	7.963	0.091	8.054	0.114	1.483	15.4%	1.043	0.553	5.7%
Dec-17	9.295	8.722	0.094	8.816	0.118	0.361	3.9%	0.214	0.265	2.8%
Jan-18	9.525	8.288	0.129	8.417	0.128	0.980	10.3%	0.421	0.687	7.2%
Feb-18	7.927	7.208	0.148	7.356	0.079	0.492	6.2%	0.079	0.492	6.2%
Mar-18	8.788	7.858	0.270	8.128	0.108	0.552	6.3%	0.108	0.552	6.3%
Totals	140.30	115.21	1.29	116.50	8.24	15.56	11.1%	13.51	10.29	7.3%



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

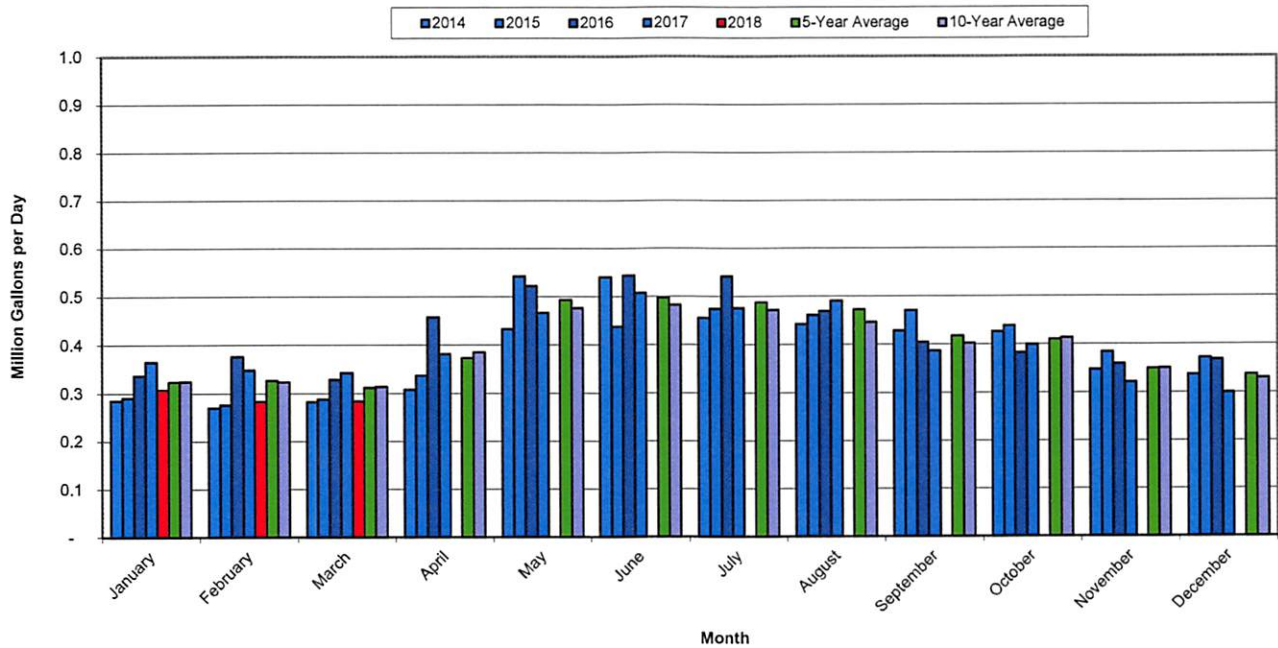
Annual Withdrawal Report

Calendar Year

2018

Month	North Street	Perkins Row	Total	Month AGD	5-Year Average	10-Year Average	Running Average	Historical Rank
January	9.509	0.016	9.525	0.307	0.323	0.325	0.307	19%
February	7.814	0.113	7.927	0.283	0.327	0.324	0.291	12%
March	8.666	0.122	8.788	0.283	0.312	0.314	0.292	10%
April	-	-	-	#N/A	0.373	0.385	#N/A	
May	-	-	-	#N/A	0.494	0.477	#N/A	
June	-	-	-	#N/A	0.497	0.483	#N/A	
July	-	-	-	#N/A	0.488	0.472	#N/A	
August	-	-	-	#N/A	0.473	0.447	#N/A	
September	-	-	-	#N/A	0.418	0.403	#N/A	
October	-	-	-	#N/A	0.411	0.413	#N/A	
November	-	-	-	#N/A	0.350	0.350	#N/A	
December	-	-	-	#N/A	0.337	0.330	#N/A	
Total	25.989	0.251	26.240	0.292				

Monthly Withdrawals



Monthly Cumulative Withdrawals

