

**Water Department**  
**Expense Budget for FY2017**

**30-Jun-17**

**Expended Period 6/1/2017 - 6/30/2017**

		Budget Month 12					
		Budgeted	Revised	Expended This Period	Expended YTD	Available	Percent Remaining
Operating Budget							
E4501 Salary							
51120	Superintendent	89,910	89,910	7,578.56	89,909.29	0.71	0%
51490	Longevity, Superintendent	1,500	1,500	0.00	1,500.00	0.00	0%
Sub Total Salary		91,410	91,410	7,578.56	91,409.29	0.71	0%
E4502 Wages							
51130	Laborers, Full Time	113,016	113,016	10,608.70	114,097.62	-1,081.62	-1%
51131	Clerical, Full Time	32,940	32,940	2,776.49	32,939.25	0.75	0%
51140	Laborers, Part Time W/E	0	0	0.00	0.00	0.00	N/A
51141	Seasonal Wages	7,000	7,000	0.00	0.00	7,000.00	100%
51200	Outside Help, Labor	2,933	2,933	345.05	1,018.50	1,914.50	65%
51310	Overtime, Labor	42,398	42,398	2,598.05	34,180.62	8,217.38	19%
51311	Overtime, Clerical	0	0	0.00	0.00	0.00	N/A
51314	Overtime, Part Time	0	0	0.00	0.00	0.00	N/A
51490	Longevity	988	988	0.00	987.50	0.50	0%
Sub Total Wages		199,275	199,275	16,328.29	183,223.49	16,051.51	8%
E4505 Other							
51920	Uniform Allowance	2,730	2,730	0.00	2,730.00	0.00	0%
51970	Meal Allowance	1,200	1,200	20.00	740.00	460.00	38%
52100	Electricity	40,000	40,000	4,243.77	42,337.97	-2,337.97	-6%
52106	PWB Electricity	3,800	3,800	209.86	3,041.15	758.85	20%
52150	Gas	2,500	2,500	165.19	2,660.20	-160.20	-6%
52156	PWB Gas	2,200	2,200	51.45	2,067.48	132.52	6%
52400	Building Maintenance	1,500	1,500	0.00	329.00	1,171.00	78%
52406	PWB Building Maintenance	2,800	2,800	1,374.53	4,464.24	-1,664.24	-59%
52415	Property Maintenance, Wellfi	14,000	14,000	0.00	8,566.01	5,433.99	39%
52416	PWB Cleaning	1,000	1,000	0.00	368.00	632.00	63%
52420	Systems Maintenance	17,000	17,000	420.00	13,986.02	3,013.98	18%
52430	Systems Maintenance, Emerg	25,000	25,000	1,470.00	10,585.53	14,414.47	58%
52450	Vehicle Maintenance	3,000	3,000	0.00	570.79	2,429.21	81%
52510	Equipment Maintainance	500	500	0.00	0.00	500.00	100%
52520	Radio Maintenance	800	800	0.00	0.00	800.00	100%
52700	Equipment Rental	2,000	2,000	0.00	3,155.25	-1,155.25	-58%
52720	Street Paving, Contract.	4,000	4,000	0.00	856.30	3,143.70	79%
52750	Security, Contracted	4,000	4,000	0.00	4,265.40	-265.40	-7%
52940	Waste Disposal	2,000	2,000	0.00	3,305.29	-1,305.29	-65%
53050	Annual DEP Maintainence	9,000	9,000	1,647.50	8,383.50	616.50	7%
53060	Deeds	0	0	0.00	0.00	0.00	N/A
53110	Engineering	0	50,000	47,678.51	47,678.51	2,321.49	5%
53120	Water Testing	22,000	22,000	947.79	16,973.97	5,026.03	23%
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	4,500	4,500	617.03	4,677.75	-177.75	-4%
53420	System Prints	0	0	0.00	0.00	0.00	N/A
53430	Postage	6,750	6,750	474.80	6,141.78	608.22	9%
53450	Advertising	1,800	1,800	925.18	1,376.59	423.41	24%
53800	DEP Volume Assessment	1,500	1,500	0.00	1,180.50	319.50	21%
53801	Lock Box	1,800	1,800	425.19	1,465.31	334.69	19%

		Budgeted	Revised	Expended This Period	Expended YTD	Available	Percent Remaining
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	2,000	2,000	0.00	1,176.00	824.00	41%
54100	Gasoline	6,500	6,500	5,200.00	5,200.00	1,300.00	20%
54200	Office Supplies	3,100	3,100	224.93	3,539.07	-439.07	-14%
54210	Forms & Printing	6,500	6,500	341.88	8,962.69	-2,462.69	-38%
54300	Building Supplies	1,500	1,500	0.00	0.00	1,500.00	100%
54506	PWB Custodial Supplies	650	650	0.00	255.17	394.83	61%
54800	Vehicular Supplies	2,000	2,000	0.00	649.24	1,350.76	68%
55300	Public Works Supplies	15,000	15,000	4,708.41	37,086.81	-22,086.81	-147%
55310	Meters	15,000	15,000	273.32	16,636.28	-1,636.28	-11%
55800	Water Treatment Supplies	67,500	67,500	9,446.49	63,864.57	3,635.43	5%
55820	Safety Gear	1,500	1,500	0.00	0.00	1,500.00	100%
55860	Computer Software	4,500	4,500	0.00	5,453.53	-953.53	-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	3,500	3,500	0.00	3,988.04	-488.04	-14%
57800	Elem. School Educ. Expense	0	0	0.00	0.00	0.00	N/A
57810	Water Conservation Program	2,000	2,000	0.00	2,000.00	0.00	0%
58500	Additional Equipment	3,500	3,500	0.00	3,089.98	410.02	12%
58510	Computer	4,500	4,500	0.00	1,596.38	2,903.62	65%
58700	Replacement Equipment	4,500	4,500	738.00	9,828.06	-5,328.06	-118%
Sub Total Other		323,630	373,630	81,603.83	355,319.86	18,310.14	5%
Total Operating Budget		614,315	664,315	105,510.68	629,952.64	34,362.36	5%
<b>Reserves</b>							
<b>E4515 Unanticipated Emergenci</b>							
52730	Unanticipated Emerg.	52,000	52,000	12,338.24	30,543.32	21,456.68	41%
Sub Total Unanticipated Emerge		52,000	52,000	12,338.24	30,543.32	21,456.68	41%
<b>E4590 Reserve Fund</b>							
52730	Reserve Fund	356,000	306,000	0.00	0.00	306,000.00	100%
Sub Total Reserve Fund		356,000	306,000	0.00	0.00	306,000.00	100%
Total Reserves		408,000	358,000	12,338.24	30,543.32	327,456.68	91%
<b>Debt Service</b>							
<b>E4591 Multipurpose, Interest</b>							
59195	Interest	23,191	23,191	0.00	23,191.25	-0.25	0%
Sub Total Multipurpose, Interest		23,191	23,191	0.00	23,191.25	-0.25	0%
<b>E4593 Multipurpose, Principal</b>							
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%
<b>E4594 Short-Term Debt</b>							
59210	Principal	55,000	55,000	0.00	0.00	55,000.00	100%
59250	Debt Issuance Cost	5,000	5,000	0.00	0.00	5,000.00	100%
59251	Interest	11,598	11,598	0.00	0.00	11,598.00	100%
Sub Total Short-Term Debt		71,598	71,598	0.00	0.00	71,598.00	100%
Total Debt Service		174,289	174,289	0.00	102,691.25	71,597.75	41%
<b>Grand Total</b>		<b>1,196,604.00</b>	<b>1,196,604.00</b>	<b>117,848.92</b>	<b>763,187.21</b>	<b>433,416.79</b>	<b>36%</b>



## Town of Topsfield

Monthly Report of Accrued Time

Water Department

For the month of June 2017

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	705.57	10.00	0.00	715.57	144.00	0.00	-16.00	128.00	110.00	0.00	0.00	110.00

### 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
26.00	0.00	0.00	26.00	1,760.00	0.00	0.00	1,760.00	208.00	0.00	-8.00	200.00	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
0.00	16.00	0.00	16.00	266.00	10.00	0.00	276.00	40.00	80.00	0.00	120.00	74.00	6.00	-12.00	68.00

### 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	0.00	23.00	172.00	10.00	-5.00	177.00	172.00	0.00	-16.00	156.00	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	1,144.00	0.00	-166.00	978.00	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, July 12, 2017



# Town of Topsfield

## Task Sheet Report - Water Department

June 2017

Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
<b>Accrued Time</b>								
Comp				12				12
Vacation			12			8	8	28
			12	12		8	8	40
<b>Administrative</b>								
Accrual Tracking			5					5
Charts				54			54	108
Correspondence			22					22
File Maintenance			9					9
Meeting Prep.			2			17		19
Meetings			2			16		18
Other							1	1
Purchasing/Procurement						5		5
System Review						4		4
Training							1	1
			40	54		42	56	192
<b>Billing</b>								
Bill Prep.						4		4
Collections						2		2
Meter Reading Radio				6		2		8
Other			2					2
			2	6		8		16
<b>Building Maintenance</b>								
Annual							4	4
Repairs						2		2
						2	4	6
<b>Computer Systems</b>								
Development						4		4
Networking						2		2
Website						4		4
						10		10
<b>Customer Service</b>								
Billing Questions							1	1
Lien Requests			5					5
Title 5 Requests			2					2
Valve Replacement							2	2



# Town of Topsfield

## Task Sheet Report - Water Department

June 2017

Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
Water Quality Questions							1	1
Water Service Flushing				6			3	9
			7	6			7	20
<b>DEP Projects</b>								
Consumer Confidence Report						2		2
						2		2
<b>Equipment Maintenance</b>								
Other		5					2	7
Repairs							2	2
		5					4	9
<b>Financials</b>								
Other						3		3
Payment Processing			20					20
Payroll/Bills			26					26
			46			3		49
<b>Fire Department</b>								
Fire Call							3	3
							3	3
<b>Grants</b>								
MassDEP SWMI Withdrawal Permit and Planning						13		13
						13		13
<b>Public Service</b>								
Markouts/DigSafe				20			4	24
Public Records Request						11		11
				20		11	4	35
<b>Quality Control</b>								
Bacteria Sampling				16			12	28
Fluoride Testing				40			16	56
In-house Testing				6				6
Manganese Testing				8			9	17
Other				6			5	11
pH Testing				8			10	18
Phosphates				6			8	14
				90			60	150
<b>Road Maintenance</b>								



# Town of Topsfield

## Task Sheet Report - Water Department

June 2017

Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
Other					9			9
Trench Repair							4	4
					9		4	13
<b>Special Projects</b>								
Andrews Farm						1		1
Prospect St. and River Road Water Main Replacement						4		4
Water Quality Database						2		2
						7		7
<b>Treatment Plant Project</b>								
Bidding						16		16
Town Meeting Prep.						26		26
						42		42
<b>Water Controls</b>								
Alarms							1	1
SCADA System						4		4
						4	1	5
<b>Water Distribution</b>								
Meter Replacements							2	2
Meter Testing						7	1	8
Private Property Repairs							3	3
Valve							3	3
Water Main Repair	4					16	19	39
	4					23	28	55
<b>Water Supply</b>								
Dam Management							1	1
Vacuum System							1	1
Wellfield Maintenance						4		4
						4	2	6
<b>Water Treatment</b>								
Analyzer Calibration							1	1
Chlorine							7	7
Fluoride						1	2	3
KOH							1	1
Sequestrant							3	3
						1	14	15



## Town of Topsfield

### Task Sheet Report - Water Department

June 2017

Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
Grand Total	4	5	107	188	9	180	195	688
Total Monthly Work Hours (40 hrs/wk)	176							

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

**Old Business**

**1. Water Treatment Plant**

The Selectmen voted to award the water treatment plant contract to Kinsmen Corp. earlier this week. The notice of award was sent and Kinsmen is gathering the insurance and bond documents so the contract can be executed. The vote for no action on the Public Works Building fire suppression system upgrades and the structure of the bid prevents the award of the fire suppression alternate #1 and bathroom alternate #2. Both of these can still be done but we'll have to negotiate new pricing with the vendor.

The transmission main award has been delayed until the Attorney General's Office rules on the bid protest. We expect to receive the ruling within the next week.

Part of the WTP project includes SCADA radio improvements and I've started getting quotes for this work.

**2. River Road Water Main Project**

The Conservation Commission approved the project on June 28<sup>th</sup>. We're waiting for the order of conditions and plan to go to bid in 2018.

**3. Leaks & Breaks**

We've had three water main breaks in the past month. I believe two of them can be attributed to pressure surges caused by fire training. The details are:

- June 14<sup>th</sup> – the 8" main in the Maple Street / Boston Street intersection let go. This is perhaps the worst break I've seen. We lost 8,300 gallons per minute and were unable to locate 10 feet of the original pipe. Two 8" open pipe faces were flowing full blast. A large section of Maple Street needs to be stripped of pavement, regraded and paved. This was following fire training on June 12<sup>th</sup> on the Town common.
- June 21<sup>st</sup> – the 8" main on High Street near Caitlin Lane broke. This was a typical main failure as the pipe broke near a coupling which is where the pipe wall is thinnest. The road will be milled and repaved.
- June 29<sup>th</sup> – the 6" main on Ross Road broke. It's the second break we've had in the area both of which occurred after fire training events at Masco. The first break occurred the same day and this break occurred three days afterward. We found a one inch split on the bottom of the pipe section.

I've raised the water hammer issue with the Fire Department and they plan to address it through increased training.

**4. Unaccounted for Water (UAW)**

UAW for June was holding around 11% which is a very good sign. It's still too high but much lower than earlier this year. I plan to read meters again in mid-July to double check it. We're still working on a system to check the meters at the pump stations.

**5. Andrews Farm**

Andrews Farm Water Company began operating well in advance of the July 1<sup>st</sup> deadline. They were concerned about a possible well problem and requested an additional 30 days of supply but it appears it's an instrumentation/control problem that they plan to fix later this month. The fire service remains under pressure and I plan to leave it on until it is clear that their well isn't the issue. I expect to turn the fire line off in early August.

**6. Manganese**

Manganese levels remained roughly the same for both stations.



#### 7. Ipswich River Flow & Water Restrictions

I posted a voluntary water restriction earlier this week that applies to public water customers. It's a "soft" restriction in that it's not required by our permit but I didn't want to go too much longer without at least a voluntary restriction. We've gone straight into a mandatory restriction the last couple of years which I'm trying to avoid this year.

#### 8. Meters

I've been informed that the radio transmitters, commonly known as MXUs, that we currently use will no longer be available at the end of this calendar year. Our meter manufacturer, Sensus is discontinuing production. The replacement unit operates on a different frequency and is not compatible with our existing meter reading equipment so we'll have to upgrade our gear at some point in the near future. The change may also complicate the strategy of replacing 10% of the meters each year. The new MXU can be used with walk-by, drive-by and fixed base reading systems so I'll be investigating those options over the next month or two. The fixed base system has some interesting applications such as leak detection.

#### 9. Networking & Camera Upgrades

We've started the process of dividing our computer network into sections. Our current network contains computers and printers used for general office use, a security camera, phone system module and the SCADA terminal. This will be divided into 3 separate networks to improve security and limit access to various components. Each will have its own firewall and security restrictions.

I've ordered some equipment to upgrade the camera system at the Public Works Building. We currently have one analog camera aimed at the driveway entrance. This camera will be replaced with a high resolution IP camera to monitor the driveway entrance and booster station. Another camera will be mounted on the antenna at the rear of the building and will be aimed at the water treatment plant construction site. Additional cameras can be added later if needed.



# Town of Topsfield

## Task Sheet Report - Water Department

June 2017

Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
<b>Accrued Time</b>								
Comp				12				12
Vacation			12			8	8	28
			12	12		8	8	40
<b>Administrative</b>								
Accrual Tracking			5					5
Charts				54			54	108
Correspondence			22					22
File Maintenance			9					9
Meeting Prep.			2			17		19
Meetings			2			16		18
Other							1	1
Purchasing/Procurement						5		5
System Review						4		4
Training							1	1
			40	54		42	56	192
<b>Billing</b>								
Bill Prep.						4		4
Collections						2		2
Meter Reading Radio				6		2		8
Other			2					2
			2	6		8		16
<b>Building Maintenance</b>								
Annual							4	4
Repairs						2		2
						2	4	6
<b>Computer Systems</b>								
Development						4		4
Networking						2		2
Website						4		4
						10		10
<b>Customer Service</b>								
Billing Questions							1	1
Lien Requests			5					5
Title 5 Requests			2					2
Valve Replacement							2	2



# Town of Topsfield

## Task Sheet Report - Water Department

June 2017

Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
Water Quality Questions							1	1
Water Service Flushing				6			3	9
			7	6			7	20
<b>DEP Projects</b>								
Consumer Confidence Report						2		2
						2		2
<b>Equipment Maintenance</b>								
Other		5					2	7
Repairs							2	2
		5					4	9
<b>Financials</b>								
Other						3		3
Payment Processing			20					20
Payroll/Bills			26					26
			46			3		49
<b>Fire Department</b>								
Fire Call							3	3
							3	3
<b>Grants</b>								
MassDEP SWMI Withdrawal Permit and Planning						13		13
						13		13
<b>Public Service</b>								
Markouts/DigSafe				20			4	24
Public Records Request						11		11
				20		11	4	35
<b>Quality Control</b>								
Bacteria Sampling				16			12	28
Fluoride Testing				40			16	56
In-house Testing				6				6
Manganese Testing				8			9	17
Other				6			5	11
pH Testing				8			10	18
Phosphates				6			8	14
				90			60	150
<b>Road Maintenance</b>								



## Town of Topsfield

### Task Sheet Report - Water Department

June 2017

Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
Other					9			9
Trench Repair							4	4
					9		4	13
<b>Special Projects</b>								
Andrews Farm						1		1
Prospect St. and River Road Water Main Replacement						4		4
Water Quality Database						2		2
						7		7
<b>Treatment Plant Project</b>								
Bidding						16		16
Town Meeting Prep.						26		26
						42		42
<b>Water Controls</b>								
Alarms							1	1
SCADA System						4		4
						4	1	5
<b>Water Distribution</b>								
Meter Replacements							2	2
Meter Testing						7	1	8
Private Property Repairs							3	3
Valve							3	3
Water Main Repair	4					16	19	39
	4					23	28	55
<b>Water Supply</b>								
Dam Management							1	1
Vacuum System							1	1
Wellfield Maintenance						4		4
						4	2	6
<b>Water Treatment</b>								
Analyzer Calibration							1	1
Chlorine							7	7
Fluoride						1	2	3
KOH							1	1
Sequestrant							3	3
						1	14	15



## Town of Topsfield

### Task Sheet Report - Water Department

June 2017

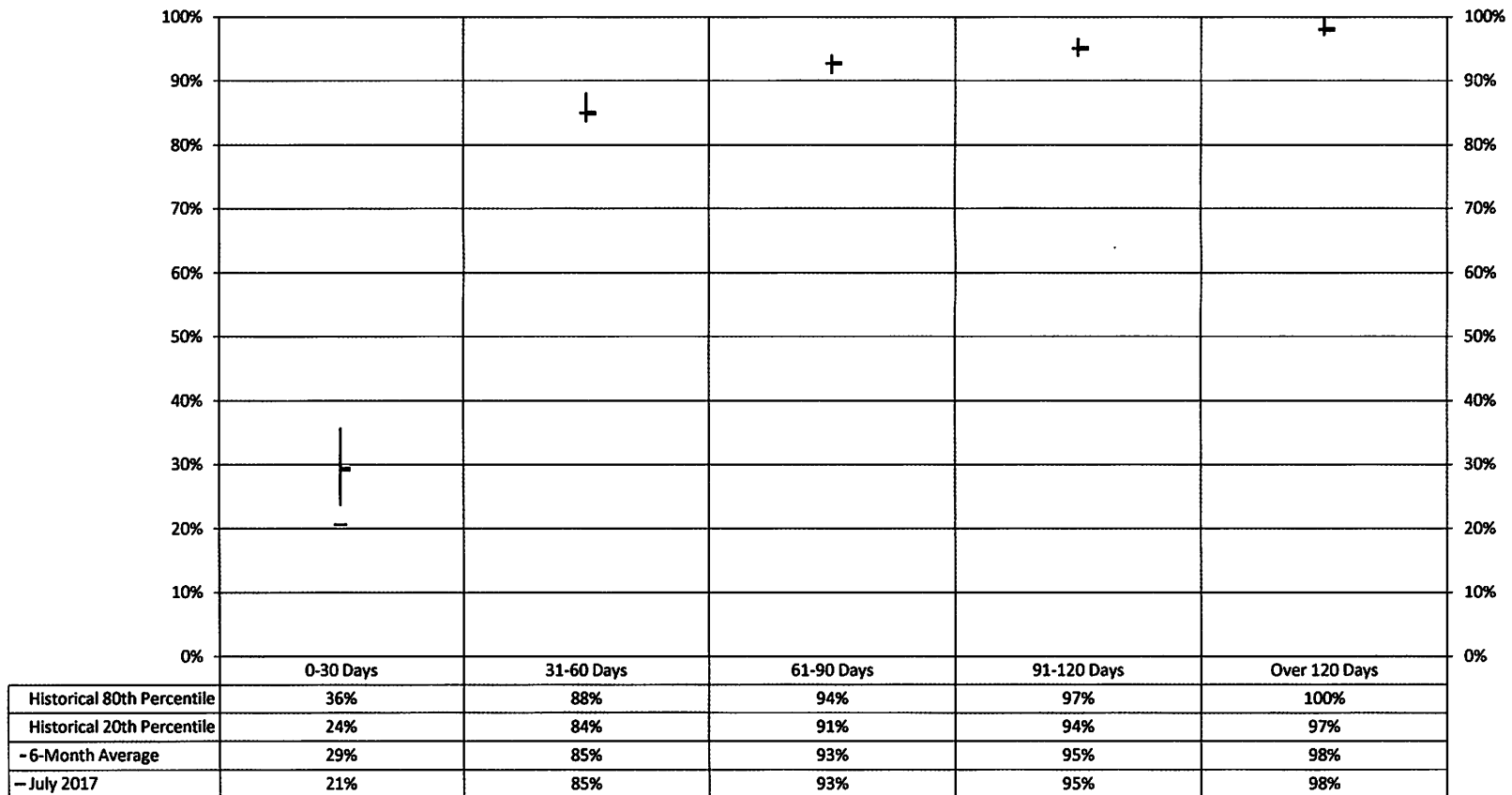
Category	Andrew Dwinell	Andy Woodbury	Anne-Marie Yeo	Ben Reuell	George Merry	Gregory Krom	Travis Fontaine	Total
Grand Total	4	5	107	188	9	180	195	688
Total Monthly Work Hours (40 hrs/wk)	176							

**Topsfield Water Department**  
**Aged Receivable Report**

Report Date 7/1/2017  
 Trailing 12-month commitments 1,317,584  
 Percent over 90 days 2.1%

Item	0-30 Days	31-60 Days	61-90 Days	91-120 Days	Over 120 Days	Total Amount Due
Totals	86,064	13,138	3,685	4,062	24,108	131,057
Percent of Open Balance	66%	10%	3%	3%	18%	100%
Percent of Billed in past 12 months	6.5%	1.0%	0.3%	0.3%	1.8%	9.9%

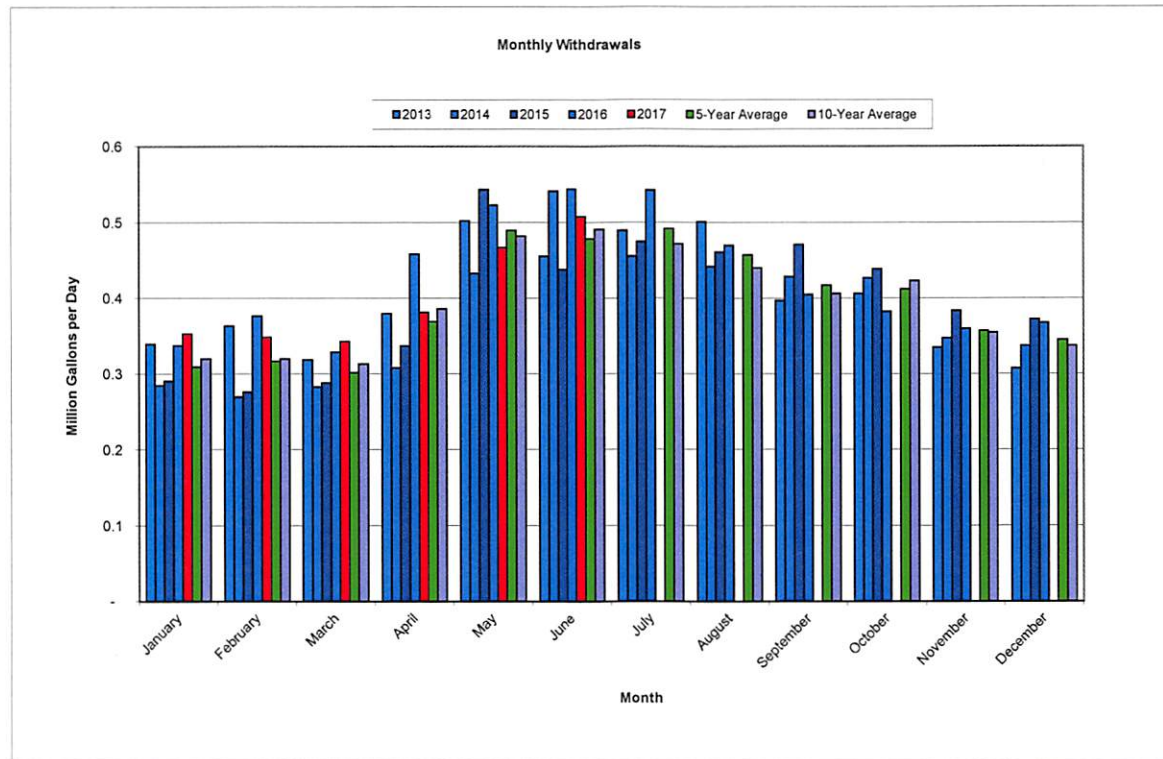
**Percentage of commitments collected for the past 5 years**

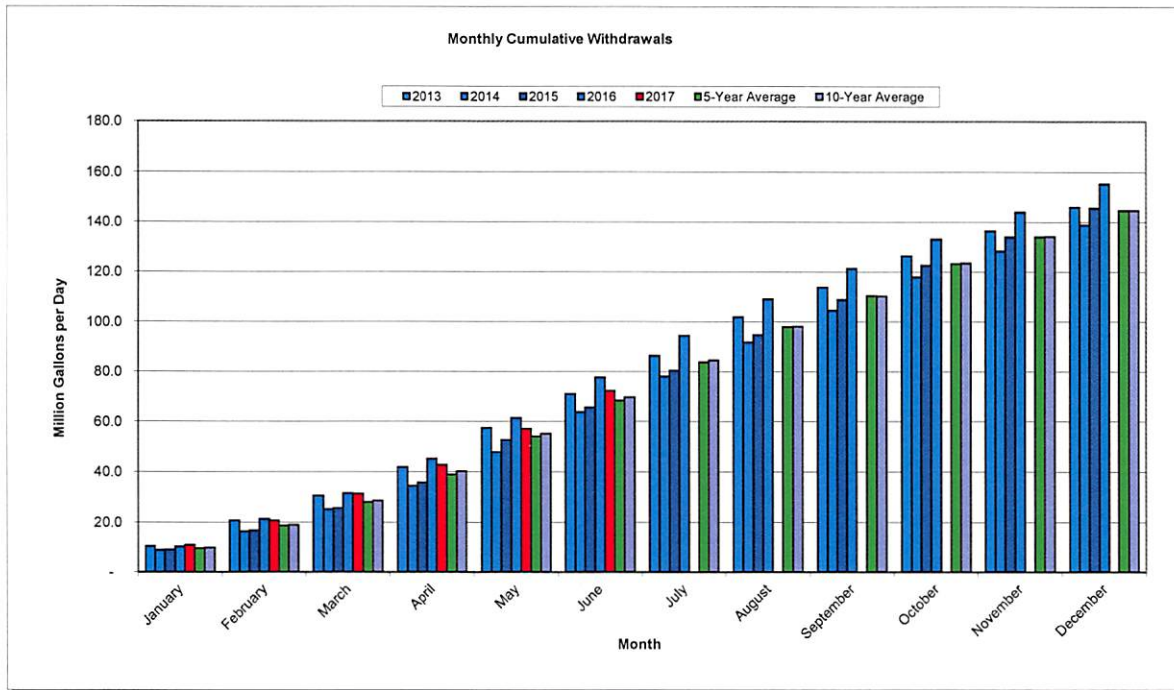


Topsfield Water Department  
Annual Withdrawal Report  
Calendar Year

2017

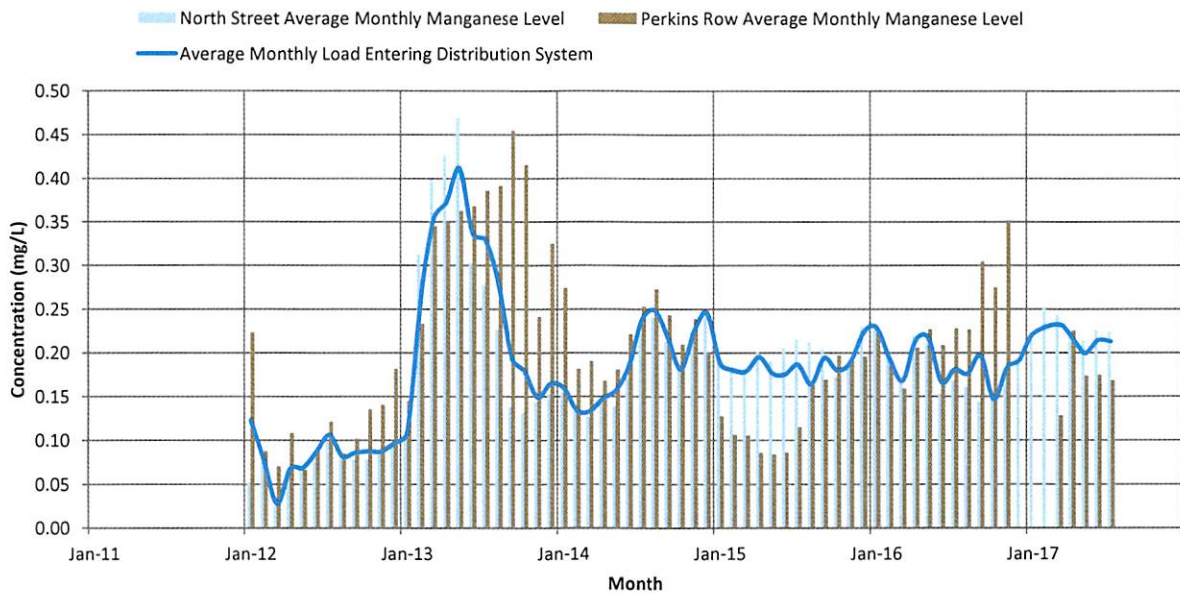
Month	North Street	Perkins Row	Total	Month AGD	5-Year Average	10-Year Average
January	10.935	-	10.935	0.353	0.310	0.320
February	9.711	0.041	9.752	0.348	0.317	0.320
March	10.565	0.063	10.628	0.343	0.302	0.313
April	11.397	0.041	11.438	0.381	0.369	0.386
May	14.095	0.390	14.485	0.467	0.490	0.482
June	14.218	1.008	15.226	0.508	0.479	0.491
July	-	-	-	#N/A	0.492	0.472
August	-	-	-	#N/A	0.457	0.440
September	-	-	-	#N/A	0.417	0.406
October	-	-	-	#N/A	0.412	0.423
November	-	-	-	#N/A	0.358	0.355
December	-	-	-	#N/A	0.345	0.338
<b>Total</b>	<b>70.921</b>	<b>1.543</b>	<b>72.464</b>			







## 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

