

# KENNEBUNK, KENNEBUNKPORT AND WELLS WATER DISTRICT

## 96<sup>th</sup> Annual Report

January 1, 2017 – December 31, 2017

92 Main Street, P.O. Box 88  
Kennebunk, ME 04043  
207-985-3385



## TRUSTEES AND OFFICERS



From left, Treasurer Wayne Brockway, Assistant Superintendent Scott Minor, Trustee Richard Littlefield (Ogunquit), Trustee Jim Burrows (Kennebunkport), Trustee Tom Oliver (Wells), Trustee Bob Emmons (Kennebunk) and Superintendent Norm Labbe

## **2017 REPORT OF THE KENNEBUNK, KENNEBUNKPORT AND WELLS WATER DISTRICT**

The Kennebunk, Kennebunkport and Wells Water District is a non-profit, quasi-municipal public water utility that was established in 1921 by an act of the Maine State Legislature. The Water District serves an area that encompasses the Towns of Kennebunk, Kennebunkport, Wells, Ogunquit, Arundel and small portions of Biddeford and York. The area includes a population which varies seasonally from about 30,000 to over 100,000. It is directed by a four-member Board of Trustees, one elected from each of the towns of Kennebunk, Kennebunkport, Wells and Ogunquit.

2017 was a healthy year for the Water District. Although not record-breaking as with 2016, it compared reasonably well on several fronts. Compared with 2016, 2017 saw a 5.9% decrease in water production and a 2.5% decrease in total operating revenues. From a financial perspective, we received \$7.0 million in total operating revenues, as compared to a record-breaking \$7.18 million in 2016. All of this contributed to a projected (unaudited) net income for 2017 of approximately \$250,000, as compared to a net income of \$722,000 in 2016. Overall, the primary drivers for water production and revenues are related to weather conditions during the warmer months and long term customer growth, as follows.

Precipitation during 2017, as measured at our Branch Brook Filtration Plant, was the fourth lowest since the 2003 drought (the lowest was in 2015 and the next lowest was in 2016). This year's dry weather, combined with a relatively stable local economy, resulted in an annual water production of 1.062 billion gallons. This is the fourth highest annual water production since the drought of 2003 and compares to the record 1.125 billion gallons produced in 2016. Our groundwater sources produced 281 million gallons (26%) of all of our water production for 2017.

From a customer growth perspective, it appears the local economy is still healthy, with 147 customers added in 2017. This compares with 166 in 2016 and 143 in 2015, resulting in a customer growth rate of about 1.1%. Our customer base now stands at 13,808 metered accounts.

This was the seventh year in a row that we have been successful in being awarded a low-interest SRF (State Revolving Loan Fund) financing package. Since 2008, through SRF financing, we have installed \$9.4 million of infrastructure to date at a total bonded cost of \$8.9 million, at an average bond interest rate of only 0.87%.

We have once again achieved the lowest ever "experience modification factor" that our workmen's compensation insurance carrier has ever seen for a water utility. This factor, which measures the actual workmen's compensation claim history of an employer, directly affects the insurance premium paid by that employer. For us, the modification factor of 0.61 will result in our 2018 workmen's compensation insurance premium being reduced to 61% of the "standard" amount. Being that we perform much more construction-related work than that of a typical water utility, this low factor is a very significant statistic and indicative of our commitment to employee safety.

With all of the recent discussion relating to the poor condition of America's infrastructure, we are pleased to report that for the past 30-plus years, we have averaged replacing about 0.8% of our distribution system per year. This is very close to the desired water industry "gold standard" of 1% per year, based upon an expected 100-year usable life for water mains. Very few other water utilities have maintained such an aggressive (yet appropriate) water main replacement schedule. We have accomplished this task while keeping our water rates below that of the average of Maine's water utilities. On a related note, despite maintaining this aggressive infrastructure replacement program, we have a relatively low cost of debt service, which currently stands at 12.9% of revenues. In other

words, only about 1/8 (one eighth) of each revenue dollar goes toward the payment on debt service (principal and interest). From a water utility perspective, this is extremely low, as water utilities are very capital intensive and usually carry a disproportionately large amount of debt as compared to other businesses.

In February of 2017, we shut down our Kennebunk River Well as a precautionary measure, as a result of discovering trace amounts of perfluorinated compounds (PFAS) in the well's water. Although the level of this unregulated contaminant was below the USEPA's recommended Health Advisory Level, it was felt that erring on the side of caution was in the best interest of our customers. The details of this issue are further described on our website at [www.kkw.org](http://www.kkw.org) or at <http://kkw.org/2018/02/kennebunk-river-well-pfas-information>.

We are well into the conversion of our customers' water meters to a new Automated Metering Infrastructure (AMI) technology. For several decades, our customers' meters were either of the "straight read" or "generator-remote read" type. Both types required a person to visit the premises to get a meter reading. The generator-remote technology is no longer available. The new AMI technology uses a very small, low-power radio to transmit the water consumption data directly to our office on a daily basis. The radio is powered by a D-cell sized battery which has an expected 16 to 20 year life. In 2017, our crews installed 3,400 AMI meters. As of the end of the year, 4,167 of our 13,808 customers are now served with AMI meters. For more information on our conversion to AMI meters, visit [www.kkw.org](http://www.kkw.org) or at <http://kkw.org/2016/03/automated-meter-infrastructure-ami-information>.

In April of 2017, we made a significant change in our water disinfection regimen, with the primary water disinfectant changing from free chlorine to chloramines. The main reason for the change was to make our water fully compatible with other nearby, interconnected water utilities. The change has also resulted in several water quality-related benefits, from the minimization of corrosion and disinfection by-products to the elimination of the free chlorine smell. More details are available on our website at [www.kkw.org](http://www.kkw.org) or at <http://kkw.org/2017/03/information-on-chloramines> or on page 6 of our Winter 2018 newsletter at <http://kkw.org/archived-newsletters>.

The following is a partial list of distribution projects funded and installed by our personnel during 2017. These projects typically relate to our goals of coordination with State and Town roadway projects, optimizing water quality, enhancing fire suppression capabilities and improving system reliability by replacing outdated and substandard facilities with an eye toward accommodating anticipated growth.

- Green Street, Kennebunkport: Replaced 660 feet of old 6-inch cast iron (CI) main with 8-inch high density polyethylene (HDPE) main. (In conjunction with a Town sewer main replacement project and Town pavement overlay.)
- Mast Cove Lane, Kennebunkport: Replaced 250 feet of old 2-inch cast iron (CI) main with 2-inch (HDPE) main.
- Parson's Beach Road, Kennebunk: Replaced 3,600 feet of obsolete 2-inch galvanized iron pipe (GALV) seasonal main with 3-inch HDPE main.
- Spring Street, Kennebunk: Replaced 520 feet of old 2-inch wrought iron (WI) main with 8-inch polyvinyl chloride (PVC) main.

- Shore Road, Ogunquit: Replaced 1,200 feet of old 10-inch CI main with 12-inch ductile iron (DI) main. (This was the last of a two phase project that was begun in 2016 and was done in conjunction with an Ogunquit Sewer District sewer main replacement project).
- Pulpit Rock Lane, Ogunquit: Replaced 600 feet of obsolete 2-inch GALV seasonal main with 3-inch HDPE main.
- Grove Street, Ogunquit: Replaced 400 feet of obsolete 2-inch GALV seasonal main with 3-inch HDPE main.
- Maple Street, Ogunquit: Replaced 285 feet of obsolete 2-inch GALV seasonal main with 3-inch HDPE main.
- Stoney Brook Road, Ogunquit: Replaced 580 feet of obsolete 2-inch GALV seasonal main with 3" HDPE main.

In addition to the above projects, individuals and developers funded several water main extensions totaling 9000 feet in length, as compared to approximately 14,000 feet installed in 2016.

Drinking water quality remains a top priority. We are pleased to report that in addition to making significant water quality improvements with our unique blending of groundwater and surface water, all State and Federal water quality standards were met during 2017. By maintaining a dedicated, well-trained staff and continually upgrading our process equipment and control systems, we continually assure the highest degree of reliability in the quality of drinking water for our customers.

Our customers and all other interested parties are welcome to contact us at our business office at 92 Main Street in Kennebunk or visit our website at [www.kkw.org](http://www.kkw.org), like us on Facebook ([facebook.com/kkwwaterdist](https://facebook.com/kkwwaterdist)) or follow us on Twitter (@kkwaterdist). Electronic bill notifications, reminders, as well as online payment options are all available and tailored to suit our customers' needs. Current and past issues of our popular semi-annual newsletter *What's on Tap* are also on our website. As always, we welcome your input, as our mission is **to provide the best quality of water and customer service at the lowest reasonable cost.**

The Trustees of the Kennebunk, Kennebunkport & Wells Water District appreciate the continuing extraordinary effort and dedication of their employees, as well as the support and cooperation of their customers, area contractors and State and local municipal officials.

Respectfully submitted,

Richard H. Littlefield, President  
James E. Burrows, Vice President  
Thomas P. Oliver, Trustee  
Robert A. Emmons, Trustee

Normand R. Labbe, P.E., Superintendent  
Scott J. Minor, P.E., Asst. Superintendent  
Wayne A. Brockway, MBA, Treasurer













































































































## 2017 OPERATIONAL REPORT

### PERSONNEL

**Education:**

The District’s employees attended several educational meetings and seminars covering many subjects that included:

- |   |                                      |
|---|--------------------------------------|
| Applied Hydraulics                                    | Chainsaw Safety                      |
| Asbestos Abatement                                    | Lock Out Tag Out                     |
| Confined Space Rescue                                 | Backflow Prevention                  |
| Introduction to Blueprints                            | Video Display Training               |
| Chemical Feed Pumps 101                               | Bloodborne Pathogens                 |
| Fire Extinguisher Fire Safety                         | Boundaries & Easement                |
| Heartsaver First Aid, CPR, AED                        | Trenching and Excavation             |
| Lifting, Back Safety & Ladder Safety                  | Basis Math for Operators             |
| Treatment & Distribution I & II Cert. Prep            | Water Loss Management                |
| Treatment & Distribution III & IV Cert. Prep          | Developing Leadership Skills         |
| Primary & Secondary Standards and Public Notification | PVC Valves, Connection & Joining     |
| Disaster Management for Water Utilities               | Management Candidate School          |
| Construction Coordination & Project Planning          | Business Grammar & Proofreading      |
|   | OSHA 1920 – Hazardous Communications |

### SERVICES

<u>New Installations</u>	<u>Renewals</u>	<u>Total Active Services</u>
32	72	11,455

### METERING

**Meters:**

Number in service at beginning of year	13,661
New installations	147
Number in service at end of year	13,808

Meters serving seasonal customers are installed in the spring and after removal during the fall are tested then stored for the winter. Area plumbers, along with District personnel, set seasonal meters in a cooperative program which is not only beneficial to the District, but to the customer and the plumber as well. As a result of the cooperation received from the area plumbers, the success of the program has continued.

**MAINS****DISTRIBUTION MAINS IN SERVICE (FEET)**

	<b><u>SIZE</u></b>	<b><u>2016</u></b>	<b><u>ADDED</u></b>	<b><u>RETIRED</u></b>	<b><u>2017</u></b>
Deep	20"	75,218			75,218
Deep	16"	111,966	900	20	112,846
Deep	12"	185,514	1,468		186,982
Deep	10"	106,363	17	875	105,505
Deep	8"	330,926	4,275	22	335,179
Surface	8"	0	1,932		1,932
Deep	6"	147,705	50	1,969	145,786
Surface	6"	0	1,745		1,745
Deep	4'	19,217	1,715		20,932
Surface	4"	3,801			3,801
Deep	3"	11,134	300		11,434
Surface	3"	25,487	5,641		31,128
Deep	2½"	279			279
Surface	2½"	388			388
Deep	2"	58,044	835	810	58,069
Surface	2"	20,226	60	5,700	14,586
Deep	1½"	918			918
Surface	1½"	7,062			7,062
Deep	1¼"	3,188			3,188
Surface	1¼"	3,034			3,034
Deep	1"	10,299			10,299
Surface	1"	20,689			20,689
Deep	¾"	2,856			2,856
Surface	¾"	<u>4,065</u>			<u>4,065</u>
		<b>1,148,379</b>			<b>1,157,921</b>



**2017 MAINS INSTALLED**

<b><u>TOWN</u></b>	<b><u>LOCATION</u></b>	<b><u>SIZE</u></b>	<b><u>MATERIAL</u></b>	<b><u>LENGTH</u></b>	<b><u>REMARKS</u></b>	
<b><u>Arundel</u></b>	Cottage Preserve	16"	DI	880'	Main Extension	
		8"	PVC	903'	Main Extension	
		4"	PVC	1,283'	Main Extension	
<b><u>Kennebunk</u></b>	Flagship Circle	8"	PVC	510'	Main Extension	
	Fletcher Street	16"	DI	20'	Main Relay	
	Mill Street	8"	PVC	36'	Main Relay	
	Parsons Beach Road	3"	HDPE	3,630'	Main Relay	
		2"	HDPE	20'	Main Relay	
	Spring Street	8"	PVC	560'	Main Relay	
		6"	DI	3'	Main Relay	
	Woodhaven Drive	10"	DI	17'	Main Relay	
	<b><u>Kennebunkport</u></b>	Binnacle Hill Drive	8"	PVC	1,090'	Main Extension
4"			PVC	90'	Main Extension	
Dyke Road		8"	PVC	1,932'	Main Extension	
Green Street		8"	HDPE	560'	Main Relay	
		8"	DI	8'	Main Relay	
		6"	DI	36'	Main Relay	
Mast Cove Lane		2"	HDPE	250'	Main Relay	
New Biddeford Road		12"	PVC	570'	Main Extension	
Olde Port Village		12"	DI	40'	Main Extension	
Route 9 (Mills Road)		6"	PVC	1,745'	Main Extension	
Sandpiper Lane		3"	HDPE	300'	Main Extension	
<b><u>Wells</u></b>		Millbrook Farm Drive	8"	PVC	586'	Main Extension
			4"	PVC	342'	Main Extension

**2017 MAINS INSTALLED (continued)**

<b><u>TOWN</u></b>	<b><u>LOCATION</u></b>	<b><u>SIZE</u></b>	<b><u>MATERIAL</u></b>	<b><u>LENGTH</u></b>	<b><u>REMARKS</u></b>
<b><u>Ogunquit</u></b>	Grove Street	3"	HDPE	360'	Main Relay
		2"	CU	30'	Main Relay
	Juniper Lane	3"	HDPE	325'	Main Relay
		2"	CU	20'	Main Relay
	Maple Street	3"	HDPE	158'	Main Relay
	Pulpit Rock	3"	HDPE	613'	Main Relay
	Shore Road	12"	DI	858'	Main Relay
		8"	DI	22'	Main Relay
		6"	DI	11'	Main Relay
	Stony Brook	3"	HDPE	555'	Main Relay
<b><u>Kennebunk</u></b>	Doanes Wharf Road	2"	PVC	45'	Main Relay
		8"	PVC	280'	
	Alfred Road	12"	PVC	4,040'	Main Extension
	Holland Road	8"	PVC	70'	Main Relay

**HYDRANTS - 2017**

During 2017, 5 public and 6 private hydrants were installed, no public hydrants were abandoned and 1 private hydrant became public, making a total of 735 public and 279 private hydrants in the District's system.

**Installations**

<b>TOWN</b>	<b>NO.</b>	<b>OWNERSHIP</b>	<b>LOCATION</b>
Arundel	#6-8	Private	Kenneth Roberts Way across from Lookout Cir.
	#6-9	Private	Kenneth Roberts Way between Cornbreak Ln. & Wiswell Cir.
	#6-10	Public	1601 Portland Road
	#6-11	Private	Kenneth Roberts Way across from Colony Lane
Kennebunk	#1-191	Public	Spring St. near Hillcrest
	#1-192	Private	Flagship Circle
	#1-193	Public	117 York Street
Kennebunkport	#2-88	Public	Corner of Dyke Rd. & Mills Rd.
	#2-109	Public	New Biddeford Road near Binnacle Hill subdivision entrance
	#2-110	Private	Binnacle Lane (cul-de-sac)
Wells	#4-101	Private	Millbrook Farm Dr. near Carding Loop

**Replacements**

<b>TOWN</b>	<b>NO.</b>	<b>OWNERSHIP</b>	<b>LOCATION</b>
Arundel	#6-81.3	Public	1669 Portland Road
Kennebunk	#1-60	Public	15 Water Street
	#1-77.3	Public	14 Countryfield Circle
	#1-84.3	Public	14 Intervale Road
	#1-109.2	Public	Ridgewood Drive
Ogunquit	#5-24	Public	Shore Road near Bluefin Way
Wells	#4-59	Public	104 Webhannet Drive

**Abandoned**

<b>TOWN</b>	<b>NO.</b>	<b>OWNERSHIP</b>	<b>LOCATION</b>
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**Transferred from Private to Public**

<b>TOWN</b>	<b>NO.</b>	<b>OWNERSHIP</b>	<b>LOCATION</b>
Kennebunkport	#2-34	Public	8 Pleasant Street

**MONTHLY PUMPING RECORDS****Gallons Pumped**

		<b><u>2016</u></b>	<b><u>2017</u></b>
January		46,464,700	48,457,700
February		47,426,500	44,982,100
March		49,588,000	51,048,400
April		60,473,900	58,402,700
May		94,284,700	84,285,500
June		137,530,200	122,748,300
July		176,034,900	164,700,700
August		179,425,100	163,295,400
September		133,439,900	121,149,100
October		95,677,700	94,138,100
November		51,576,400	50,548,500
December		52,902,900	52,379,300
Subtotal	(KKWWD)	1,124,824,900	1,056,135,800
	(Biddeford/Saco)	0	7,383,700
	(York Water District)	17,090	0
<b>TOTAL</b>		<b>1,124,842,800</b>	<b>1,063,519,500</b>

**MONTHLY SNOW AND RAINFALL**

	<b><u>2016</u></b>		<b><u>2017</u></b>	
	Snow Inches	Rain Inches	Snow Inches	Rain Inches
January	12.0	1.60	17.2	1.68
February	19.8	2.71	48.9	4.42
March	3.6	4.10	28.1	1.36
April	5.1	1.34	16.3	4.98
May	---	2.20	---	6.01
June	---	3.22	---	2.55
July	---	3.12	---	1.97
August	---	2.16	---	3.06
September	---	2.98	---	2.12
October	---	9.10	---	4.03
November	0.2	4.26	---	2.18
December	21.1	2.94	19.6	0.84
<b>Subtotals</b>	<b>61.8</b>	<b>39.73</b>	<b>130.1</b>	<b>35.20</b>
Snow/Liquid Equivalent		6.18		13.01
<b>TOTAL PRECIPITATION</b>		<b>45.91</b>		<b>48.21</b>