While many of you are well acquainted with our newsletters, some may be new to the Kennebunk, Kennebunkport and Wells Water District, so I’d like to point out that our summer edition always features our Consumer Confidence Report (CCR). We are required to provide this annual drinking water quality assessment to all our customers, but please don’t wait for the newsletter if you have any questions or concerns. We welcome conversations with our customers anytime.

Many of our employees take time to contribute to this newsletter so all of our customers can be well informed as to what’s on tap at the District. This edition includes:

- Beneath the Surface – highlights of projects
- Here we Grow Again – development growth
- Staying in Touch with the Community – community involvement
- Severe Erosion – watershed concerns
- PUC and Future Rates – a forecast for planning
- GAC Filtration – PFAS update
- Plant Operators 1921-2021 – an employee’s perspective
- Customer Corner – what does green mean to you?

I’d like to thank all KKW employees for their commitment to the health and safety of our communities through their dedication to providing an abundant supply of safe drinking water to your homes and businesses. We clearly just experienced the most difficult year in our 100 year history. Three weeks into the “shut down”, our Health and Safety Committee developed a COVID-19 safety plan which also became the model for many other utilities in Southern Maine. It continues to serve us well and, with appropriate modifications along the way, has allowed us to maintain employee safety and business continuity without issue.

I would also like to thank the customers of KKW for your patience as we have modified some of our business processes in order to meet these new safety goals. We closed the office to foot traffic and encouraged electronic payment options. We may have not always been quite as responsive as we’d like, as we began using an automated telephone greeting to connect you to our staff as quickly and as efficiently as possible. Thank you, customers, for navigating the pandemic with us.

Please enjoy this edition of What’s on Tap.
As this newsletter goes to print there are a lot of interesting projects in the works. Construction activity is in such a boom lately. There are many active developer-funded projects that slowly expand the water distribution system to reach new housing developments or existing houses that want the reliability and high quality of public water.

The District has diligently been working through our District-funded 2021 water main replacement projects. We have completed installation of a 2,000’ water main project on Merrifield Drive in Kennebunk. Approximately 1,600’ of obsolete and leak-prone main was replaced with new 8” PVC pipe, and an additional 400’ of new pipe was installed to “loop” the system in the area. This added connection will provide redundancy to that part of the system and will improve fire flows for the area residents.

Construction of the new 16” main along Laudholm Farm Road and Old Farm Lane in Wells was completed early this spring (approximately 3,900 feet). This important project will provide critical redundancy to the transmission main that follows Route 1 to serve the southern end of the water system.

The replacement of the pipe along Island Beach Road in Wells is progressing. The area is currently served by an undersized, unlined cast iron main original to the system that was acquired from the York Water Company in 1921. This has led to some of the poorest fire flow capacity in our system and numerous aesthetic water quality issues that are inherent with unlined cast iron. We are excited to replace this section of main with a much larger (16”) pipe that is an extension of the new redundant transmission noted above and will serve the area for the next 100 years.

For the residents in the area, we extend our sincere appreciation for your patience as we continue to work as quickly as possible in the tight corridor serving that beach community. Soon you will be served by a water main properly sized to maintain pressure and fire protection needs in that area, and if all goes according to plan you shouldn’t have to share your roadway with us for about 100 years!

Normally everything I talk about in this column is buried “beneath the surface” where it remains unseen. This time though I’ll update you on arguably one of the most exciting and visible projects to happen at the District in recent years. We completed construction of the new, 1.5-million-gallon water storage tank in Arundel. The tank is located in a wooded area adjacent to Route 1, near the beautiful Cape Arundel Cottage Preserve housing development. It’s connected to the rest of the water distribution system via a 16” main that makes its way through the neighboring development.

Here at the District, we design our facilities to last for many decades and some have even lasted over a century. Previous District employees could envision the need for more water storage, especially in the northern reaches of the system, decades ago. A parcel of land was purchased in 1990 with the intent for building a water storage tank at some point in the future. It was a landlocked parcel, so in 1992 an easement was acquired to give the future tank site access from Route 1.

The tank site sat untouched for 26 years. Then in 2018 we started taking steps to make a new tank a reality. There was an 1,800-foot-long construction driveway to build, permits to be acquired, and site preparations to be made. We put the tank project out to bid near the end of 2019 with a construction start date of spring 2020 in our sights.

Water storage tanks are typically pretty noticeable structures. In your travels you may have noticed that there are several types of water storage tanks out there to choose from. In this case, what made the most sense financially and operationally for us is a wire-wound, prestressed concrete tank. These have a neutral appearance, an extremely weather-resistant and low-maintenance exterior surface, and a long useful life expectancy. I’ll go light on the engineering design details here, but the basic elements of a tank of this type are a monolithic concrete floor (poured all at once with no joints), reinforced concrete wall and dome sections cast onsite using local materials and labor, and about 40 miles of steel wire wrapped around the tank in a precise way to give the tank its strength. If you’re interested in the unique construction methods used for a tank like this, I recommend visiting us on Facebook where you can see some aerial drone footage we took of the tank at various phases of construction.

The District was pleased to accept a State Revolving Fund loan, provided through the Maine Drinking Water Program, for this project. This allowed the District to borrow money at a very low interest rate (1%) which will save its customers a lot of interest over the life of the 20-year loan.

In the winter of 2020, the tank construction bid was awarded to DN Tanks. They have constructed dozens of concrete tanks throughout Maine and far too many to count throughout the US. There were challenges encountered along the way, of course. These included learning how to work safely through COVID, dealing with the labor shortage that was an unforeseen side effect of COVID-related unemployment, and challenges specific to the tank site itself. Challenges are nothing new to DN Tanks, so they forged ahead without breaking a sweat. The tank was substantially completed early in November. Then it sat dormant through the winter.

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It seems like everyone you talk with these days is hyper aware of all the growth, development and new construction going on throughout the area. I honestly can’t recall one car trip with my wife over the last year when one or both of us would make a comment such as “is that a new house” or “they’re building a house there - didn’t even realize that was a buildable lot” or “wow, that sure went up quickly”. Such conversations are also common place (mostly via Zoom) among my peers and colleagues at the District.

People ‘in the know’, will tell you that there are many reasons behind this present construction boom and the desire to relocate to southern Maine. They note the beautiful southern Maine coastal environment, good school systems, low crime rates, abundance of recreational opportunities, close proximity to metropolitan areas (i.e. Boston and Portland) and low housing interest rates, as all being significant factors on the list of desirability. And while most of these attributes have existed for years, and even decades in some cases, there appears to be something else drawing people to our section of the Pine Tree state this time around. That “something else” is jobs, and not only jobs, but an abundance of good paying jobs that are now available in places like Maine, ironically thanks to the COVID-19 pandemic.

Many companies in the United States, and around the globe for that matter, quickly realized at the onset of the pandemic, that a rapid transition to allow eligible employees to work remotely was the only way they could survive and ensure business continuity by protecting their employees from transmitting COVID-19 in the workplace. In fact, my son, oldest daughter, her husband and our 26-month-old grandson all relocated to Maine from Massachusetts at the start of the pandemic due to their new ability to work remotely (and hopefully being closer to Mom and Dad was in the mix). I have also spoken with many others who have moved to Maine for the same reason. A Human Resource (HR) professional stated during a recent virtual Zoom conference I attended, that most companies who have transitioned to remote work capability will likely stay that way given the economic benefits, enhanced productivity and improved employee morale they’ve come to recognize. The HR professional further stated that this transition to remote work capability during 2020 marks the single largest change to impact the United States workforce over the last 120 years.

So, what does all this new growth and development mean to the District you might ask? Is there enough water to supply all these new customers? Neither of those questions can adequately be addressed with one-word

Continued on Page 7
CONGRATULATIONS! WE ARE ONCE AGAIN PLEASED TO REPORT THAT YOUR DRINKING WATER FULLY COMPLIES WITH ALL STATE & FEDERAL PRIMARY DRINKING WATER REGULATIONS IN 2020.

This drinking water quality report contains important information about your water, what it contains and the treatment processes used to make it safe to drink. Since its incorporation in 1921, the Kennebunk, Kennebunkport & Wells Water District (KK&W) has considered water quality of paramount importance. We vigilantly monitor and safeguard our water supplies and our highly trained and State-licensed Water System Operators strive to provide our customers with drinking water that not only tastes good, but also surpasses State and Federal standards for safety and quality. Not only did your drinking water continue to meet all water quality requirements in 2020 but it still cost less than a penny per gallon (based on 1,200 cubic feet). Now that’s refreshing.

SOURCE WATER ASSESSMENT

The sources of drinking water include rivers, lakes, ponds and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from human or animal activity. The Maine Drinking Water Program (OWP) has evaluated all public water supplies as part of the Source Water Assessment Program (SWAP). The assessments include geology, hydrology, land uses, water testing information, and the extent of land ownership or protection by local ordinance to see how likely our drinking water source is to be contaminated by human activities in the future. Assessment results are available at town/city offices and public water systems.

HEALTH INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can also come from gas stations, urban runoff and septic systems.
- **Radioactive contaminants**, that can be naturally-occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791) or at the following link: https://www.epa.gov/otw/forms/contact-us-about-consumer-confidence-reports.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The KK&W is responsible for providing high quality drinking water, but cannot control the variety of materials used in private plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at the following link: http://www.epa.gov/safewater/lead.

SOURCE WATER INFORMATION

KK&W utilizes both high quality surface water and groundwater as supply sources. Surface water is obtained exclusively from Branch Brook, a largely spring-fed, naturally flowing water body that originates in Sanford and forms the town line between Kennebunk and Wells. In addition to Branch Brook, KK&W obtains groundwater from four naturally developed gravel well sites (two wells at each site for a total of 8 wells). KK&W also maintains mutual-aid system interconnection agreements with the Biddeford-Saco Division of the Maine Water Company (SJW Group Family) and the York Water District.

Protection of the Branch Brook watershed and well sites remains a top priority. In addition to owning a significant portion of the watershed, KK&W continues to purchase property, seek conservation easements and work with local officials/councils to strengthen ordinances within the watershed and wellhead protection zones as opportunities arise. If you witness illegal or suspicious activity within the Branch Brook watershed or at the well sites, please report it immediately by calling us at 207-985-3386 or to the local Police Dept. at 911.

WATER QUALITY MONITORING/REPORTING

VIOLATIONS: No water quality violations were issued in 2020.

WAIVER INFORMATION In 2020, our system was granted a ‘Synthetic Organics Waiver.’ This is a three year exemption from the monitoring/reporting requirements for the following industrial chemicals: TOXAPHENE/CHLORDANE/PCB, HERBICHIDES, CARBA-MATE PESTICIDES and SEMIVOLATILE ORGANICS. This waiver was granted due to the absence of these potential sources of contamination within a half mile radius of the water supply sources.

TREATMENT PROCESS

SURFACE WATER from Branch Brook flows into our Filtration Plant where multiple processes are used to remove particles and microorganisms. The first process is COAGULATION, where chemicals (primarily food-grade alum) are added, causing particles to destabilize and attract to each other. Then FLOCULATION occurs in mixing chambers where the small particles combine into larger particles called floc. Next, CLARIFICATION occurs in the settling basins where gravity causes the heavier floc particles to settle out. Chlorine is used for PRIMARY DISINFECTION before filtration. The FILTRATION process follows where clarified water passes through dual media filters (sand and anthracite) to remove any remaining floc particles. Finished water chemistry is then optimized for CORROSION CONTROL & SEQUESTRATION using ortho-phosphates and SECONDARY DISINFECTION with chloramines prior to being pumped into our distribution system where over 200 miles of transmission and distribution system water mains and seven storage tanks distribute water to our customers.

GROUNDWATER from our Plant and Harmscott Road wells is pumped directly to our Pumping, Treatment and Recycling (PTR) Facility where the water chemistry is optimized for CORROSION CONTROL & SEQUESTRATION with ortho-phosphates and SECONDARY DISINFECTION with chloramines before being repumped directly into the distribution system at the same entry point as surface water treated at the Filtration Plant. Groundwater from our Millendale River well is pumped to the Filtration Plant and passed through our dual media rapid sand filters to remove iron and manganese before being sent to the PTR and repumped into the distribution system. Groundwater from our Kennebunk River wells is pumped through the Granular Activated Carbon (GAC) Filtration Facility to remove PFAS and then onto the Kimball Lane Treatment Facility where the water chemistry is optimized using the same chemicals as the PTR before entering the distribution system.
### 2020 Annual Water Quality Test Results for PWSID# ME0090760

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Date</th>
<th>Result</th>
<th>MCL</th>
<th>MCLG</th>
<th>Source/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microbiological</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COLIFORM (TCR) (1)</td>
<td>Oct 2020</td>
<td>1 pos</td>
<td>1 pos or 5%</td>
<td>0 pos</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td><strong>Inorganics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARSENIC (6)</td>
<td>7/13/2020</td>
<td>4 ppb</td>
<td>10 ppb</td>
<td>0 ppb</td>
<td>Emission of natural deposits. Runoff from orchards, glass and electronics production wastes.</td>
</tr>
<tr>
<td>FLUORIDE (3)</td>
<td>7/13/2020</td>
<td>0.33 ppm</td>
<td>4 ppm</td>
<td>4 ppm</td>
<td>Emission of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.</td>
</tr>
<tr>
<td><strong>Lead and Copper</strong></td>
<td>1/1/18 - 6/30/18</td>
<td>0.187 ppm</td>
<td>AL=1.3ppm</td>
<td>1.3 ppm</td>
<td>Corrosion of household plumbing systems.</td>
</tr>
<tr>
<td><strong>Disinfectants and Disinfection By-Products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biddeford Pool Fire Station</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HALOCARCINIC ACIDS (HAAS) (9)</td>
<td>LRAA (2020)</td>
<td>16.8 ppb</td>
<td>60 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>TOTAL TRIHALOMETHANE (THM) (9)</td>
<td>LRAA (2020)</td>
<td>15.5 ppb</td>
<td>80 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>Crow Hill Tank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HALOCARCINIC ACIDS (HAAS) (9)</td>
<td>LRAA (2020)</td>
<td>16.8 ppb</td>
<td>60 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>TOTAL TRIHALOMETHANE (THM) (9)</td>
<td>LRAA (2020)</td>
<td>11.4 ppb</td>
<td>80 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>Ogunquit Town Hall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HALOCARCINIC ACIDS (HAAS) (9)</td>
<td>LRAA (2020)</td>
<td>28.6 ppb</td>
<td>60 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>TOTAL TRIHALOMETHANE (THM) (9)</td>
<td>LRAA (2020)</td>
<td>16.7 ppb</td>
<td>80 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>Wells Library</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HALOCARCINIC ACIDS (HAAS) (9)</td>
<td>LRAA (2020)</td>
<td>22.3 ppb</td>
<td>60 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>TOTAL TRIHALOMETHANE (THM) (9)</td>
<td>LRAA (2020)</td>
<td>13.8 ppb</td>
<td>80 ppb</td>
<td>0 ppb</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td>CHLORINE RESIDUAL</td>
<td>RAA (2020)</td>
<td>3.2 ppm (Plant)</td>
<td>MRDL = 4ppm</td>
<td>MRDLG = 4ppm</td>
<td>By-product of drinking water chlorination.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.3 ppm (PTR)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TURBIDITY LEVELS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(highest levels recorded)</td>
<td>1/28/2020</td>
<td>0.14 ntu (Plant)</td>
<td>0.3 ntu in 95% of samples</td>
<td>Soil runoff.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8/24/2020</td>
<td>0.13 ntu (PTR)</td>
<td>1.0 ntu maximum limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10/6/2020</td>
<td>0.22 ntu (Kimball Ln)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Definitions:**

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water.
- **Maximum Contaminant Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health.
- **Running Annual Average (RAA):** 12 month rolling average of all monthly or quarterly samples at all locations. Calculation of the RAA may contain data from the previous year.
- **Locational Running Annual Average (LRAA):** 12 month rolling average of all monthly or quarterly samples at specific locations. Calculation of the LRAA may contain data from the previous year.
- **Action Level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Units:**

- ppm = parts per million or milligrams per liter (mg/L)
- ppb = parts per billion or micrograms per liter (ug/L)
- pCi/L = picocuries per liter (a measure of radioactivity)
- MFL = million fibers per liter
- pos = positive samples

**Notes:**

1. Total Coliform Bacteria: Reported as the highest monthly number of positive samples, for water systems that take less than 40 samples per month.
2. E. Coli: E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these waters can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.
3. Fluoride: For those systems that fluoridate, fluoride levels must be maintained between 0.5 to 1.2 ppm. The optimum level is 0.7 ppm.
4. Lead/Copper: Action Levels (AL) are measured at the consumer’s tap. 90% of the tests must be equal to or below the action level.
5. Nitrate: Drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels may cause nausea, vomiting, diarrhea, and other short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.
6. Arsenic: While your drinking water may meet EPA’s standards for Arsenic, if it contains between 5 and 10 ppb you should know that the standard balances the current understanding of arsenic’s possible health effects against the cost of removing it from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Quarterly compliance is based on RAA.
7. Gross Alpha: Action level over 5 pCi/L requires testing for Radium 226 and 228. Action level over 15 pCi/L requires testing for Uranium. Compliance is based on Gross Alpha results minus Uranium results = Net Gross Alpha.
8. Radon: The State of Maine adopted a Maximum Exposure Guideline (MEG) for Radon in drinking water at 4,000 pCi/L, effective 1/1/07. If Radon exceeds the MEG in water, treatment is recommended. It is also advisable to test indoor air for Radon.
9. THM/HAA5: Total Trihalomethanes and Haloacetic Acids (THM and HAA5) are formed as a by-product of drinking water chlorination. This chemical reaction occurs when chlorine combines with naturally occurring organic matter in water. Compliance is based on running annual average.

All other regulated drinking water contaminants were below detection levels.
As I’m sure you know, 2020-2021 has been a difficult time to engage in community activities; however, throughout the District’s 100 years of service, District employees have actively participated in town events and celebrations. We try to add value by being involved in events like May Day in Kennebunk and Earth Day festivities at Laudholm Farm helping the Wells Reserve celebrate the occasion. Our Filtration Plant usually sets up booths or demonstrations to help people understand the variety of interesting things we do. For instance, to meet our environmental stewardship goals, we have a Hydro-solids program where we recycle 100% of our residuals (sediments removed by the filtration process). We blend it with other materials to make loam used to restore lawns disrupted by our construction projects.

During my 29-year career here, KKW has opened its Treatment Plant doors to local schools for teachers, students and chaperones to learn where their public water comes from and see the process of how drinking water is filtered and made safe for consumption. Maybe someday one of those students will become a water professional. We certainly hope so.

Over the years the District has developed relationships with many organizations that help strengthen our communities and put us in a better position to provide high quality drinking water and customer service.

- Southern Maine Regional Water Council – We, along with six other utilities, regularly collaborate on water utility issues in southern Maine.
- Maine WARN (Water/Wastewater Agency Response Network) – Provides mutual aid response to utility emergencies.
- Wells Reserve – We assist with the active fishway on Branch Brook.
- Sanford Airport Advisory Committee – We advocate for the protection of the head waters of Branch Brook.
- The Nature Conservancy and other land trusts – We combine resources to manage and protect against development pressures on the watershed.
- Various civic committees in the Towns we serve – We coordinate with other local projects in planning and construction.

One of our newest partnerships is called the Branch Brook Watershed Coalition where many local preservation groups and interested parties are working together to protect against influences that could negatively impact the watershed. We focus on strengthening common goals and work towards compromise if we discover competing goals.

Giving thanks and appreciation to our community!

I love motorized vehicles and motorsports. Race cars, trucks, motorcycles, dirt bikes and ATVs are just some of the motorized activities I enjoy watching or partaking in. However, these activities must be enjoyed in the proper locations. Unfortunately, the Branch Brook watershed is not a location to enjoy off-road recreation activities. The Branch Brook watershed is part of the Kennebunk Plains and Wells Barrens, a very unique glacial outwash of sifted sand and gravelly soil that is very prone to erosion. Vegetation in this region is unique due to the soils and do not stabilize soil very well. This year we have seen a significant increase in dirt bike and ATV activity on our lands. We have signs that prohibit the use of dirt bikes and ATVs, but recreational riders have been ignoring our signage. This year we will increase signage and will be working with the authorities to warn violators and even prosecute if needed. Erosion within the watershed not only costs a significant amount of money to restore the land, but also is a significant expense to treat the water due to the higher color and turbidity that Branch Brook experiences as a result of soil erosion. As stewards of the watershed, it is our duty to make sure our customers do not have to pay for these avoidable damages to the watershed land.

Erosion beginning on a trail in Kennebunk

7 years later — Eroded gully is now 60’ wide, 20’ deep & 350’ long
Here We Grow Again continued from Page 3

answers. The truth is, our service territory, which stretches around 21 miles along the Maine coast from northern York to Biddeford Pool, has a long history of significant growth, as illustrated by the chart at the bottom of page 3. In fact, over the last 40 years, we have added 6,635 new metered customers, representing an 87% increase. The peak during this period was 2005, when 411 new metered customers were added to the system. The chart also depicts four years when over 300 new metered customers were added to the system each year. By comparison, 2020 was a relatively mild growth year for the District with “only” 133 new metered customers taking water service. One reason for this relatively low number is that much of the new construction is occurring in areas not served by the District, where individual private wells must be used to obtain water. Another factor involves the lead-lag nature of the housing construction process, especially for subdivisions, where it can take many months to undergo the design and approval process before construction can begin, with the construction processes often taking several additional months to complete before the new water meter is set. With regard to the latter point, it appears that 2021 will be another significant growth year for the District, based on the many projects that are currently under construction, approved and ready to soon begin construction, or undergoing the building permit approval process. Based on all of this activity, the potential exists for the District to set over 300 new meters in 2021, with many more likely to be added in 2022 as well.

As for the water supply, the District has regularly updated its Water System Master Plan (last done in 2018) which currently projects water supply needs thru 2037 with the District’s ability to meet these needs. Based on this Plan, the District’s combination of surface water (Branch Brook) and groundwater supplies (four separate well sites) will provide an estimated safe yield during the peak demand months (June thru September) of 6.69MGD (million gallons per day). A shortfall of 0.21MGD is predicted to exist by 2027 and increase to 0.59MGD by 2037. Based on this potential shortfall, the District is in the process of reinforcing its interconnection with Biddeford-Saco Division of the Maine Water Company to increase its ability to purchase up to an additional 3.0MGD of water to satisfy its customer needs well beyond the 2037 projections. As waterworks professionals, we constantly look at the past, present and future to ensure our customers will continue to receive an abundant supply of the highest quality drinking water and customer service, at the lowest reasonable cost. Please visit our website at www.kkw.org under the Engineering & Distribution heading to review a copy of our latest Water System Master Plan, and feel free to contact us if you have any questions, comments or would like additional information.

Automated Metering Infrastructure (AMI) is nearing full implementation and many customers are already experiencing the benefits of this modern metering technology. Our Customer Service teams are continuously monitoring abnormal metering trends and then communicating with customers to make sure they are not having any plumbing issues. Many times, it is determined to be due to something like a new hot tub filling or a hose left on overnight and is easy to explain. However, sometimes it is something like a leaky toilet valve or irrigation pipe that, if not noticed quickly, would translate into a costly quarterly bill. The AMI helps the District achieve the goal of every customer receiving an accurate, timely water bill for the water they intended to use.

Beneath the Surface continued from Page 2

During the spring of 2021 we wrapped up the sitework around the tank, finished construction of an underground vault which houses the valves and electronics that control the tank, and gave its raw concrete exterior a cement-coating. The coating provides added concrete protection and neutral color, to blend into the surroundings. With 1.5 million gallons of additional storage in the system, we now have a better reserve in case of a major fire or main break, and our operators also have more flexibility and control of the water in other tanks and throughout the system. This will help just in time for the high demands we typically face during the hot days of summer.
As you may know, the District is regulated by two State of Maine agencies. The first agency is the Maine Drinking Water Program (DWP) which is a division of Maine Health and Human Services (DHHS). The DWP is charged with ensuring that all Public Water Systems regularly sample and test their water to ensure that they meet federal/state drinking water standards and that the water is safe to drink. You can see how well we are doing in that respect in our 2020 Annual CCR Report on pages 4 and 5.

While the DWP regulates the safety of our drinking water, the Maine Public Utilities Commission (MPUC) regulates many aspects regarding the provision of service. The MPUC’s role, as defined by Maine law, is to ensure that safe, reasonable and adequate service is provided by all public utilities and that their rates are just and reasonable to customers. As such, Maine utilities are allowed to collect revenues that are “required to perform its public service and to attract necessary capital on just and reasonable terms”. For KKWWD, this means that we can recover our operating costs and debt service but also can collect a portion of the costs associated with replacing our infrastructure (mains, hydrants, buildings, etc.).

As you know from previous articles, the District has done a pretty good job of managing both it’s operating cost and debt levels. For example in 1982, 70 cents of every dollar collected was spent just on debt service (principal + interest). The ratio of debt service to revenue has steadily declined to just 12 cents of every dollar in 2020. For the past several years we have been keeping our rate increases to a modest level, increasing them every other year to keep pace with inflation and avoid large increases that can catch customers by surprise. These rate changes have been applied equally in an “across the board” manner whereby all classes of customers have seen the same percentage increase. In keeping with this practice, the District plans to file for a modest rate increase later this year to cover normal cost increases for the year 2022. This rate change would take effect around April 1, 2022 and will most likely be in the 2% to 4% range.

As we discussed in the Winter 2021 AMI Project Update, the AMI program is having an increasingly significant impact on the ways that we perform our work. For example, one of the major benefits for our customers will likely include the elimination of the seasonal customer class for all but the 200 summer line customers. This will simplify the billing process for all and allow for a transition to convenient monthly billing for most of our customers after the AMI project is complete.

Although we welcome the increase in efficiency and other exciting opportunities that the new technology is creating, it is also beginning to cause a change in the relationship of cost drivers between our different customer classes. These impacts are leading us in the direction of beginning an in-depth analysis of our rate structure later this year to ensure that our rates will remain fair and equitable to our entire customer base. This will be accomplished thru the use of a Cost of Service Study that often takes at least twelve months to be completed and approved by the MPUC. Our current plan is to have a revised rate structure ready to be put in place at the beginning of 2023.

In the Winter 2021 edition of What’s On Tap we reported (see GAC Filtration 401 – The Final Chapter) that since being activated on June 16, 2020, the new GAC (granular activated carbon) Filtration Facility had successfully treated nearly 175MG (million gallons) of water from our Kennebunk River Well supply with no detectable levels of PFAS (Per- and Polyfluoroalkyl chemical contaminants). That is, PFAS levels less than the detection limit of 2ppt (parts per trillion). For this newsletter, we are pleased to report that 253.3MG of water has now been treated by the GAC Filtration Facility with PFAS levels still below the detection limit. These results are certainly promising as we inch closer to our goal of 500MG treated before needing to replace the GAC media. Please stay tuned as we will continue to provide subsequent updates in our future editions of the What’s On Tap semi-annual customer newsletter.
I was reflecting on the District’s 100 year anniversary and looked up some information that I’ve collected over the past few decades here at the Plant. We have had 49 Plant Operators since 1921. The longest tenure was 46 years, 4 months (wow!), and the shortest was 5 weeks (wow!). The average time worked by an Operator at the Plant in the last 100 years is 8.4 years.

We currently have seven full time Operators and one part time Operator. Our current Filtration Plant staff have a total of 136 years of experience in water treatment. We are all proud of what we do as silent servants for the customers and communities we serve.

The Kennebunk, Kennebunkport & Wells Water District took over operations from the York County Water Company in 1921. In 1956, because of the Maine Turnpike construction, we completed the addition of sand filters. With increasing regulation and customer demand, we have expanded and used innovative technology to increase the design performance of the Plant.

I began at the District in 1994 and the changes that we have made since I started are a blur. We introduced groundwater to our surface water and learned new water chemistry; we’ve built more booster stations to maintain appropriate water pressure throughout the system; we have learned all about granular activated carbon filters for removing contaminants from the water; and various other initiatives to enhance processes along the way. All these improvements have the goal of consistently providing safe, high quality water to our customers’ homes and businesses. In fact, we’ve done so while keeping water rates among the lowest 25% of all water utilities in the state of Maine.

I can stand in every room in the Filtration Plant, and look at every process and see that I have had a hand in making it more efficient and productive. However, it would not be possible without the incredibly competent crew that I work with. I have never seen a place where the urge to constantly make things better is so pervasive. Thank you to the District for 27 great years....so far.

**CUSTOMER CORNER – The Reality of Being Green**

**Going green** is an expression we have all heard at one time or another. It might have been Kermit; it might have been about being aware and doing things that sustain our earth and our environment; it might be about the slow-to-come Maine springtime for which we waited so long to arrive. For our customers who see green as the way they want their landscaping to look, we encourage you contact us for information regarding the green you will be spending to get that lush green lawn.

Spring brings renewal and thoughts turn to gardening, the smell of freshly cut grass and the lingering fragrance wafting from your neighbors who are a bit ahead of you. Did they fertilize earlier, weed and feed, eradicate the bugs left over from the winter? Or do they have an irrigation system that keeps the roots refreshed and happy? Aside from the attendant care your lawn receives, consider the costs involved in getting to that perfect space. From the moment the first spade of topsoil is turned, the tilling, grooming, seeding, fertilizing and watering all lead to what you have today. The cost of creating your landscape can be substantial. Adding an irrigation system, depending on the sophistication of the system, can add thousands more to your base cost. Just as with any investment, original costs are not the only consideration.

As time goes on, maintenance and operational costs come into play as well. The water we supply to your home or business is part of our operational cost, as it is yours. You can control those costs by carefully monitoring how your irrigation system is working. Better yet, do some investigative work as part of your due diligence before installing the system. Inquire with the irrigation company for an estimate on how much water the system will use. With this information, we can help you determine how much of an impact this will be to your water bill. Should your property be on public sewer, you may also be paying disposal fees on this same irrigation water. Contact the sewer district in your town to see if they allow you to purchase and install a submeter to track the water used for this purpose. Green is the color of money too; use it wisely.

We love hearing from you ****

We always appreciate it when our customers take the time to recognize something we’ve done to brighten their day. Like Mary F. who told us “just want to thank you for What’s on Tap. I read every issue front to back and I appreciate having an idea of what is going on with KKW”. Or David S. who reached out to tell us “we appreciate the excellent quality of KKW water. We prefer it to the water we receive in our year round home”. He added; “I want to also compliment you on the KKW newsletter. It is transparent, informative and well-written”. Thank you Mary and David!

We also welcome conversations that may help us improve service. We can be contacted by phone at 207-985-3385 or by email at customerservice@kkw.org

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In this issue of Employee Spotlight, we’d like to introduce **BRENDAN MESSIER**. Brendan recently joined our Facilities Department. He grew up in Kennebunk and graduated from Kennebunk High School in 2008. Since then, he’s acquired licenses in HVAC, plumbing, gas and boiler installation. His mechanical skills and background were a perfect fit to join this essential department. They make sure the mechanical components of water production (wells, boosters, water tanks, treatment facilities, etc.) are working at optimum capability. In his leisure, Brendan enjoys spending time outdoors, hiking, snowmobiling and riding his ATV. We wish Brendan a long and prosperous career at the Water District.

We’ve discovered that Plant Operator **Brian McBride** is a member of Maine’s Heron Observation Network. He recently appeared on the Channel 6 news program 207 to talk about the Blue Herons that have built their home behind the Filtration Plant. Check out this interesting feature (www.newscentermaine.com/article/news/local/207/keeping-tabs-on-maines-great-blue-heron-population/97-c71afa68-17e6-4dc7-9111-c66c293daa0c), you’ll enjoy it.

Hmmm, I wonder if there are any other water districts that can claim herons as residents.