

# WHAT'S ON TAP

Summer 2011

The KKW Water District Newsletter & Annual Consumer Confidence Report Vol. 9 No. 2 [www.kkw.org](http://www.kkw.org)

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## OUR MISSION

**IS TO PROVIDE THE  
HIGHEST QUALITY  
DRINKING WATER  
AND CUSTOMER  
SERVICE AT THE MOST  
REASONABLE PRICE.**

Did you know.....that we pumped 1,007,000,000 gallons of water to our customers in 2010, marking only the 5th year in District history that over 1 billion gallons (BG) of water has been produced. The other four years, in order of production were 2003 (1.091 BG), 2007 (1.048 BG), 2004 (1.033 BG), and 2005 (1.020 BG).

2010 also marked our single highest production day (peak day) of all time with 7,018,500 gallons of water being produced on July 5th. That's enough water to fill over 175,000 standard sized bathtubs - holy bubble bath!

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## ANOTHER GREAT YEAR IN THE MAKING

Norm Labbe, Superintendent - [nlabbe@kkw.org](mailto:nlabbe@kkw.org)

2011 is shaping up to be as successful as 2010 on several fronts. Regardless of water production, this year already has many good things happening, which we are pleased to report to you in this issue. For example, in addition to recently being allowed to lower the fluoride level in your water (visit our website at [www.kkw.org](http://www.kkw.org) for more information), we have made some positive water treatment chemical changes that will maximize the benefits of our ongoing shift toward high quality groundwater. For more details, see Bill Snyder's article below. We have also started construction of an important new pumping facility on Route 1 in Arundel that will increase pressure and public fire suppression. Also, we were once again awarded a financing package from Maine's Drinking Water Program for a 1-1/2 mile main extension along Alewife Road in Kennebunk. This main is the first phase toward connecting our new 2 million gallon per day well site on Kimball Lane. Its installation is being coordinated with an MDOT road rebuilding project and once again, is being designed and built in-house (see *Beneath the Surface*, Page 4).

We have lots of other updates for you including results of water radionuclide testing we conducted as a result of the recent nuclear crisis in Japan (see *Consumer Confidence Report - Radiation Testing*, Page 2). We are also conducting pilot studies on a new Automatic Meter Reading (AMR) system that will provide a variety of benefits (see *Radio Read Metering Update*, Page 4).

We hope you enjoy reading this issue of your Water District's home grown newsletter, which is in its ninth year of publication. As always, we're just a phone call or email away and would love to hear from you.



## THE WATER TREATMENT END GAME IS NEAR

Bill Snyder, Treatment Plant Manager - [bsnyder@kkw.org](mailto:bsnyder@kkw.org)

We have just completed our 2011 pilot study for replacing pre-chlorination with chlorine dioxide (ClO<sub>2</sub>). Chlorine dioxide is used by many European countries with multi-faceted applications both in the food processing industry and for water treatment. Although this treatment trial particularly applies to our surface water (worst case organic demand), it will certainly help when blending our groundwater sources too. ClO<sub>2</sub> provides three distinct treatment benefits: 1) it dramatically lowers disinfection by-products which are known to increase certain cancer risks, 2) it oxidizes minerals in the water that can create precipitates, color and the clogging of hot water heating systems, and 3) it reduces undesirable taste and odor, most notably the smell of chlorine. The ClO<sub>2</sub> trial worked so well that we recently purchased the system. Although we are still refining for optimum dosing for our particular water chemistry, at this stage, all customers should have noticed a vast improvement in aesthetic water quality (chlorine taste and odor).



Bill Snyder stands next to the new chlorine dioxide system (ClO<sub>2</sub>) that was pilot tested for pre-disinfection of our Branch Brook surface water supply. The ClO<sub>2</sub>, which was installed by District staff, has worked so well to reduce disinfection by-products and improve aesthetic water quality that the District recently purchased the system for permanent use.

Another important and significant change happened to our corrosion control program in January 2011. After much research and consultation, we determined that the best option for addressing the inherent differences in  
(continued on page 6.....)

# CONSUMER CONFIDENCE REPORT - DRINKING WATER INFORMATION

## CONGRATULATIONS! YOUR WATER MEETS OR EXCEEDS ALL FEDERAL AND STATE DRINKING WATER REQUIREMENTS.

Since its incorporation in 1921, the Kennebunk, Kennebunkport & Wells Water District (KKW) has considered water quality of the utmost importance. The KKW vigilantly monitors and safeguards its water supplies and is proud to report that it continued to meet or exceed all drinking water quality requirements in 2010. Our highly trained and State licensed Water System Operators are committed to providing our customers with drinking water that surpasses State and Federal standards for safety and quality. In doing so, we work to conserve, preserve and protect our water supply sources.

### 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 stormwater 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 stormwater runoff and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban runoff, and septic systems.

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).

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 KKW is responsible for providing high quality drinking water, but cannot control the variety of materials used in 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 <http://www.epa.gov/safewater/lead>.

### WATER SOURCE

The KKW 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. The KKW also utilizes groundwater from its three approved naturally developed gravel well sites. The KKW also maintains mutual-aid system interconnection agreements with the Biddeford-Saco Water Company and the York Water District.

Protection of the Branch Brook watershed and well sites remains a top priority. The KKW continues to purchase property, seek conservation easements and work with local officials to develop ordinances within the watershed and wellhead protection zones as opportunities arise. You can help too. Please be careful as you live, work and play to limit what goes onto the ground, into storm drains, tributaries and surface waters to help preserve the water quality and the diverse ecosystems it supports. If you witness illegal or suspicious activity within the Branch Brook watershed or at the well sites, please report it immediately by calling the KKW at 985-2362 or notify the appropriate Police Department (Kennebunk - 985-6121, Wells - 646-9354, Sanford - 324-9170).

### 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 materials and can pick up substances resulting from human or animal activity. The Maine Drinking Water Program (DWP) 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 ordinances to see how likely our drinking water source is to being contaminated by human activities in the future. Assessment results are available at public water suppliers, town offices and the DWP. For more information about the SWAP, please contact the DWP at (207) 287-2070.

### WATER QUALITY MONITORING/REPORTING

**VIOLATIONS:** No water quality violations were issued in 2010.

**WAIVER INFORMATION:** No waivers are in effect.

### 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 FLOCCULATION occurs in mixing chambers where the small particles combine into larger particles called floc. Next, CLARIFICATION occurs in the settling basins where the heavier floc particles settle out. Chlorine is then introduced for PRIMARY DISINFECTION. 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 using sodium silicate/ortho-poly phosphates (see Note 1), FLUORIDATION, and SECONDARY DISINFECTION with chlorine/chloramines (see Note 2) prior to being pumped into our distribution system where over 209 miles of transmission and distribution system water mains and 7 storage tanks distribute water to the District's customers.

**GROUND WATER** from our three well sites (six wells) is pumped to our Pumping, Treatment and Recycling (PTR) Facility where the water chemistry is optimized for CORROSION CONTROL with sodium silicates/ortho-poly phosphates (see Note 1 below), FLUORIDATION, and DISINFECTION with chlorine/chloramines (see Note 2 below) before being pumped directly into the distribution system.

**RADIATION TESTING:** As a result of the recent crisis in Japan, along with subsequent phone calls from concerned customers, the District has tested its water for gamma emitting isotopes through the Maine Health and Environmental Testing Lab. We are pleased to report that no detectable amount of these isotopes was found in our water. Please visit our website at [www.KKW.org](http://www.KKW.org) to see the test results.

Notes:

- 1.) The District began using blended ortho-poly phosphates for its corrosion control program on December 3, 2010 in place of sodium silicate.
- 2.) The District resumed secondary disinfection using the method of free chlorine instead of chloramines (chlorine & ammonia) in June 2010.

# 2010 ANNUAL WATER QUALITY REPORT FOR PWSID# ME0090760

Contaminant	Date	Result	MCL	MCLG	Source
<b>Microbiological</b>					
TOTAL COLIFORM (1)	2010	0 pos	1 pos or 5%	0 pos	Naturally present in the environment.
<b>Inorganics</b>					
CADMIUM (2)	6/1/10	1.0 ppb	5 ppb	5 ppb	Corrosion of galv. pipes. Erosion of natural deposits. Discharge from metal refineries, runoff from waste batteries and paint.
FLUORIDE (3)	10/5/10	1.4 ppm	4 ppm	4 ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
LEAD 90th % VALUE (4)	1/1/08 12/31/10	12 ppb	AL=15 ppb	0 ppb	Corrosion of household plumbing systems.
<b>Synthetic Organics</b>					
DEHP (5)	2/20/07	0.2 ppb	6 ppb	0 ppb	Discharge from rubber and chemical factories; plastics.
<b>Radionuclides</b>					
URANIUM-238 (6)	7/6/10	1.4 ppb	30 ppb	0 ppb	Erosion of natural products.
<b>Disinfectants and Disinfection By-Products</b>					
TOTAL HALOACETIC ACID (HAA5) (7)	RAA	14.88 ppb Range (2.5-34.0 ppb)	60 ppb	0 ppb	By-product of drinking water chlorination.
TOTAL TRIHALO-METHANES (TTHM) (7)	RAA	13.66 ppb Range (3.3-36.0 ppb)	80 ppb	0 ppb	By-product of drinking water chlorination.
CHLORINE RESIDUAL	RAA	1.6 ppm Range (1.0-3.4 ppm - WTP; 1.3-3.1 ppm - PTR)	MRDL=4 ppm	MRDLG=4 ppm	By-product of drinking water chlorination.
TURBIDITY LEVELS (10)	2/28/09	0.24 ntu (WTP) 0.62 ntu (PTR)	0.3 ntu in 95% of samples 1.0 ntu maximum limit		Soil runoff. Trapped air generated a false high reading at PTR start up.

## Definitions:

- MCL = Maximum Contaminant Level: The highest Level of a Contaminant that is allowed in drinking water.
- MCLG = Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health.
- RAA - Running Annual Average: The average of all monthly or quarterly samples for the last year at all sample locations.
- AL = Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- MRDL = Maximum Residual Disinfectant Level: 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.
- MRDLG = Maximum Residual Disinfectant Level Goal: 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.
- TT = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

## Units:

ppm = parts per million or milligrams per liter (mg/L); pos = positive samples; ntu = nephelometric units  
ppb = parts per billion or micrograms per liter (µg/L); pCi/L = picocuries per liter (a measure of radioactivity).

## 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) Cadmium: The U.S. EPA adopted the Phase II Rule, the regulation for cadmium, in 1992. EPA reviewed the cadmium as part of the Six Year Review and determined that the 5ppb MCLG and 5ppb MCL for cadmium in drinking water are still protective of human health.
- 3) Fluoride: Fluoride levels must be maintained between 1-2 ppm for those water systems that fluoridate.
- 4) Lead/Copper: Action Levels (AL) are measured at the customer's tap. 90% of the tests must be equal to or below the action level.
- 5) DEHP or Di(2-ETHYLHEXYL) PHTHALATE is the most commonly used of a group of related chemicals called phthalates. Some people who drink water containing DEHP well in excess of the MCL for many years may have problems with their liver, experience reproductive difficulties or develop cancer.
- 6) Uranium-238: Uranium is a naturally-occurring element found at low levels in virtually all rock, soil and water. The U.S. EPA adopted the MCL of 30 ppb in December 2000. Water systems were required to meet this standard after December 2003.
- 7) TTHM/HAA5: Total Trihalomethanes and Haloacetic Acids are formed as a by-product of drinking water chlorination. This chemical reaction occurs when chlorine combines with naturally occurring organic matter in water.
- 8) Turbidity levels for both the Water Treatment Plant (WTP) and Pumping, Treatment and Recycling (PTR) facility averaged 0.07 ntu for the year.

**All other regulated drinking water contaminants were below detection levels - NO VIOLATIONS WERE ISSUED IN 2010.**

**PLEASE CALL US AT 985-2362 WITH ANY WATER QUALITY QUESTIONS YOU MAY HAVE.**



## BENEATH THE SURFACE - WHAT DO WE DO FOR AN ENCORE?

Don Gobeil, Technical Services Director - [dgobeil@kkw.org](mailto:dgobeil@kkw.org)

In the last Beneath the Surface article (Winter 2011), I provided a recap of what was an historic 2010 construction season. During 2010, District crews successfully installed over 14,000 feet of water main, a whopping figure that made 2010 the most productive construction year in our 115 year history. Fresh off the success of 2010, it is logical to ask ourselves "what can we do for an encore"? The short answer is to attempt to build upon the momentum established in 2010 and strive to achieve this year's goals in a manner that again maximizes the resources that are available to us. We know that we will not exceed the footage of pipe installed last year, but what we are reaching for this year is noteworthy and historic in its own right.

The Water District's construction program is geared almost exclusively toward replacing water mains that already exist; but due to advancing age, leak history or inadequate size, need to be replaced. Every piece of pipe installed last year replaced pipe that was already serving our customers. This year, our primary construction project is not designed to replace pipe that has reached the end of its useful lifecycle, but rather designed to extend our distribution system into an area that we currently do not serve. As regular readers of our newsletter know, the Water District is in the process of developing a new high capacity groundwater source of supply along the Kennebunk River in the Alewife section of Kennebunk. When completed and online, this new groundwater supply will provide around two million gallons of high quality water per day for our customers, ensuring an adequate water supply for many years to come. But before we can take advantage of this new source, we must install a transmission main to connect to this new well.



The unsung heroes of the extremely busy 2010 and 2011 construction campaigns are from left to right: Ed Thyng (Foreman), Dennis Buzzell (Foreman), Steve Allen, Joshua Johnson, Shane Bachelder, Butch Tibbetts (Distribution Mgr.), Mike LeBlanc, Eric Cloutier and Fred Smith.

The Alewife Road (Route 35) construction project in Kennebunk, currently underway, is the first phase of a multi-phase project that will ultimately connect our distribution network to the new groundwater source of supply. This year, we are in the process of installing the first 8,500 feet of 12-inch and 16-inch mains along Alewife Road, ending at the intersection of Kimball Lane. This project is being financed by a \$1.3 million low interest loan provided by the Maine Drinking Water Program revolving loan fund. It is the same funding source that financed last year's extremely successful Kennebunkport main replacement project. This year's project has also been designed in close coordination with the State Department of Transportation, who is concurrently doing a full rebuild of a large portion of Alewife Road. Over the next year or two, another 5,000 feet of water main will be installed along Kimball Lane, ultimately reaching the well site adjacent to the Kennebunk River. Once the water distribution system is completed, a small combination booster station and treatment facility will be constructed on Kimball Lane to facilitate the movement of water to our core system. In total, this multi-year expansion will add nearly 14,000 feet of additional water main to our system. *(Continued on page 7.....)*



## RADIO READ METERING UPDATE - SO FAR SO GOOD

Wayne Brockway, Treasurer - [wbrockway@kkw.org](mailto:wbrockway@kkw.org)

In our winter edition of the *What's On Tap* newsletter, we updated you on our metering pilot program that was underway with the Badger Meter Company. We soon plan to begin pilot testing with a second company, Datamatic. As you may recall, the technology we're considering is a type of fixed-base automatic meter reading (AMR) that transmits your meter's consumption reading to the office using radio waves, similar to that of a common walkie-talkie. Fixed base means that a meter reader won't need to drive by every building in order to read water meters. The meters will automatically send the readings to a fixed base radio antenna which then passes along the information to our billing computer software. Data transmission with the Datamatic system is done using "mesh technology" which simply means that the meters actually "talk" to each other to transmit and relay the meter readings to the fixed base unit. The Datamatic system requires very little power for this radio transmission which is why each radio unit is equipped with a battery, similar in size to a common "D" cell flashlight battery. These radio batteries are projected to last for 15 to 20 years before needing replacement. By comparison, the Datamatic system radios produce a much weaker signal than the "smart meters" used for metering electricity, which require AC power to effectively operate their more powerful radios.

What are the benefits for you and the District you ask? The meter reading technology we are currently using is known as GTR, which uses water flowing through the meter to advance an odometer-style register. This technology is being rapidly phased out in favor of radio read systems which offer many operational, cost and customer service advantages. For example, this new technology alerts us to any water leakage in your home, allowing us to promptly notify you, avoiding water waste and ultimately saving you money. Instantaneous final readings, a chronological record of water usage, the option for low cost monthly billing, and website viewing of customer account information are some of the advantages that AMR offers.

Watch for further updates on this very important change with the future in mind.



## ISO FIRE PROTECTION RATINGS RISE - ALL ACCORDING TO PLAN

Scott Minor, Assistant Superintendent - sminor@kkw.org

According to the Insurance Information Institute, fire remains the leading cause of property damage for homeowners in the United States. The National Fire Protection Association (NFPA) reports that in the last decade (2000-2009), there were 5,152,500 structure fires causing \$204.6 billion in property damage, which is nearly \$40,000 per fire event. The NFPA also reports that these fires resulted in 31,910 civilian (non-firefighter) deaths and 138,385 injuries. The destructive and devastating effects of fire are well documented and have plagued both ancient and modern societies. In fact, many people may not realize that most public water systems were originally constructed around the turn of the last century to primarily provide water for fighting fires. These early systems often used wooden pipe that could be quickly bored or "tapped" to access water for fire fighting. After the fire, a tapered wooden peg known as a "fire plug" would be used to plug the tap.

Here at the Water District, providing an adequate fire suppression water supply is one of the critical elements that still goes into all of our infrastructure planning activities. As a result, every new (and replacement) water main, booster pump station and standpipe is designed and constructed to provide an adequate water supply for fire suppression in accordance with nationally recognized standards developed by the NFPA and the American Water Works Association (AWWA). In fact, the August 2008 update of our Water System Master Plan acknowledged that the Water District.....*"has been diligent in upgrading the (distribution) system with available resources to attain fire flow goals established by the Insurance Service Office and that as a result, the (fire suppression) ratings of the municipalities served by the District have significantly improved since implementation of the 1982 Comprehensive (Water System Master) Plan"*.

The Insurance Service Office (ISO) is an organization that collects and evaluates information from communities on their structure fire suppression capabilities using a uniform set of criteria based on NFPA and AWWA standards. The ISO collects data by conducting surveys approximately every ten years and analyzes the data using their *Fire Suppression* (continued on page 6.....)



District Trustee and retired Kennebunkport Fire Administrator Jim Burrows calculates the available flow rate after the new 16" water main was installed at Goose Rocks Beach (Kennebunkport) in 2010. The new 16" main has more than doubled the available fire flow by replacing an obsolete and undersized 1927 vintage 10" main.

## WATER CONSERVATION SPOTLIGHT - EVERY DROP COUNTS

Proven tips to reduce irrigation demand and save you money.....\$\$\$\$\$\$\$\$\$\$\$\$

- 1.) Put a layer of mulch around trees and plants. Chunks of bark, peat moss or gravel slow down evaporation.
- 2.) Water during the cool parts of the day. Early morning is better than dusk since it helps prevent the growth of fungus.
- 3.) Don't water the lawn or garden on windy days as the wind causes excessive evaporation, minimizing the benefit.
- 4.) Cut down watering on cool and overcast days and don't water in the rain. Adjust or deactivate automatic sprinklers.
- 5.) Set lawn mower blades one notch higher. Longer grass means less evaporation, reducing the frequency of irrigating.
- 6.) Drive your car onto the lawn to wash it. The rinse water will help water the grass while reducing runoff.
- 7.) When the kids want to cool off, use the sprinkler in an area where your lawn needs it most, moving it as required.
- 8.) Xeriscape - replace your lawn and high-water-using trees and plants with less thirsty and drought resistant plantings.
- 9.) Divide your watering cycle into shorter periods to reduce runoff and allow for better absorption when you water.
- 10.) Check outdoor hoses, pipes, faucets, connections and fixtures for leaks. Fixing even small leaks can mean big savings.
- 11.) Remember to weed your lawn and garden regularly. Weeds compete with other plants for nutrients, light and water.
- 12.) Set a kitchen timer when watering your lawn or garden with a hose or manually operated sprinkler.
- 13.) Avoid the use of water toys that require a constant flow of water. A flow rate of only 3 gpm = 180 gallons per hour.
- 14.) Aerate your lawn. Punching holes in your lawn about 6 inches apart helps water to reach the roots rather than run off.
- 15.) Place an empty tuna can on your lawn to catch and measure the water output of your sprinklers. Adjust as necessary.



## SOURCE WATER PROTECTION NEWS - ATV ISSUES REMAIN

Greg Pargellis, Chief Operator - gpargellis@kkw.org

The District, in its efforts to best manage the watershed, is planning to do a timber harvest on the 47-acre Littlefield Lot in Wells (Map 84, Lot 3A) later this summer. The goals of the harvest are to properly space the best growing trees in the stand for good growth potential over the next 10 to 20 years, create conditions allowing the white pine to naturally reseed the stand allowing the next crop of trees to grow under the shade of the present older trees, and to remove safety hazards such as dead, diseased and weak trees from the stand. Revenue derived from the harvest will be used to help pay for All Terrain Vehicle (ATV) damage remediation, trail delineation and hardening measures, signage and boundary surveys.

ATVs, appearing again in large numbers, are damaging the District's and others' property and heavy soil erosion will be soon to follow. Some selected evergreen plantings will help to stabilize those areas that are being damaged, and the District will also become more aggressive in trying to deter ATV damage. There will be increased signage, more gates and fencing, video surveillance, and Maine Wardens on patrol. Local groups are working together with us in an effort to slow the problem. Friends of the watershed are encouraged to call me and report any damaging activities.

**Did you know...that Eastern White Pine trees can easily be 200 to 250 years old and that some white pines can live over 400 years, like the tree growing in Syracuse, New York, that was dated to 458 years old in the late 1980s.**

Branch Brook is a Class A stream of excellent quality and is not the only stream being negatively impacted by illegal ATV use. Many of its tributaries are also seeing deteriorating water quality from ATV derived soil erosion. This equates to higher chemical costs during rain events and increased frequencies of dredging the impoundment area at the Filtration Plant.



**Greg Pargellis is heavily involved with helping to manage the District's Branch Brook Watershed operations. Here, Greg stands among the next generation of Eastern White Pine that have naturally sprung up following a recent timber harvest. White pine is a highly desirable tree species because of their ability to grow in sandy and poor soils, thus controlling soil erosion.**

I personally own ATVs and enjoy riding on designated trails and tote roads. Unfortunately, the irresponsible riding I witness seems to be more commonplace nowadays, causing property damage and declining water quality. Is it just a few "bad apples ruining the barrel"? We would like to see ATV riders organize like the snowmobilers and work with local landowners to patrol themselves and keep out or re-educate the rogue riders. Hopefully this can happen sooner rather than later before its too late and the water quality within the Branch Brook Watershed is further diminished.

## ISO RATINGS IMPROVE - CONTINUED FROM PAGE 5

*Rating Schedule* which is used to assign each community (town) a *Public Protection Classification* (PPC) number. The PPC is a number from 1 to 10 with Class 1 representing an exemplary fire suppression program while Class 10 indicates that a community's program is virtually nonexistent. A community's PPC number is determined using three factors: 1) the Fire Department (accounting for 50% of the rating), 2) the Water Supply System (accounting for 40% of the rating), and 3) the Fire Alarm and Communication System (accounting for 10% of the rating). Insurance companies then use the PPC number to establish the fire insurance premiums for homeowners and commercial properties.

**Did you know.....that in the "Great 1947 Fire" that Kennebunkport lost over 200 homes, prompting the modernization of its fire department.**

In 2010, the ISO conducted surveys in both the towns of Kennebunk and Ogunquit. The District is pleased to report that the Water Supply System (WSS) rating for both towns has improved significantly since the prior surveys. For Kennebunk, the WSS rating increased 9.5% from 30.19 to 33.07 points; while the Ogunquit WSS rating increased 17.7% from 26.16 to 30.79 points. The District is proud of these recent accomplishments and plans to make future infrastructure investments that continue to strengthen and improve our fire suppression capabilities as outlined in our Master Plan.

## WATER TREATMENT CHANGES - CONTINUED FROM PAGE 1

well water when combining with surface water was to adopt a more compatible corrosion control program using phosphates. This was accomplished by changing from sodium silicate to blended ortho-poly phosphates. The phosphates better sequester minerals and form a protective barrier, or coating, on the interior pipe wall of water mains and residential plumbing to limit any corrosive actions that might otherwise occur.

I would like to convey to you, our valued customers, my sincere thanks and appreciation for your patience and understanding during this time of transition - it has not gone unnoticed. Your open communication and feedback have been invaluable with helping us to refine and adjust our treatment changes as quickly as possible. It may seem to some that we are making drastic changes, but rest assured no changes are made without approval and close oversight from our state and federal regulatory authorities. Please know that your KK&W water will always be safe to drink.



**CUSTOMER CORNER - TIMELY NEWS YOU CAN USE**

*Kathleen Chapin, Customer Service Coordinator - kchapin@kkw.org*

Calculating Seasonal Bills

Seasonal properties that close down for the winter comprise almost a quarter of all KKW accounts. Over the years, there has been some confusion about how these accounts are handled and how the bills are calculated. Typically, within weeks of the water being turned on in the spring, a flat-rate minimum charge is issued based on the size of the meter. The most common of these sizes is the 5/8" meter. The size is determined by the "gallons per minute" (gpm) required to satisfy the peak flow rate calculated for each property based on the number and type of plumbing fixtures. The respective charges associated with each meter size are as listed in the following table.

Meter Size	Seasonal Minimum	Seasonal Service		Example A		Example B	
	Charge (SMC)	Fee (SSF)	Total Minimum	5/8" meter uses 17.5 HCF	5/8" meter uses 29.0 HCF	5/8" meter uses 29.0 HCF	5/8" meter uses 29.0 HCF
5/8"	\$102.29	\$60.00	\$162.29	SMC = \$102.29 (includes 6.0 HCF)	SMC = \$102.29 (includes 6.0 HCF)	SMC = \$102.29 (includes 6.0 HCF)	SMC = \$102.29 (includes 6.0 HCF)
3/4"	165.30	60.00	225.30	SSF = \$60.00	SSF = \$60.00	SSF = \$60.00	SSF = \$60.00
1"	294.00	60.00	354.00	<u>AWC = \$19.90 (11.5 HCF x \$1.73)</u>	<u>AWC = \$19.90 (11.5 HCF x \$1.73)</u>	AWC = \$31.14 (18.0 HCF x \$1.73),	AWC = \$31.14 (18.0 HCF x \$1.73),
1 1/2"	517.79	60.00	577.79	Total = \$182.19 (Seasonal Bill)	Total = \$182.19 (Seasonal Bill)	<u>AWC = \$34.65 (5.0 HCF x \$6.93)</u>	<u>AWC = \$34.65 (5.0 HCF x \$6.93)</u>
2"	837.90	60.00	897.90			Total = \$228.08 (Seasonal Bill)	Total = \$228.08 (Seasonal Bill)

The Seasonal Minimum allows for 6.0 hundred cubic feet (HCF) of water to be used for the year without additional consumption-related charges. If, however, your water usage exceeds this amount, all Additional Water Charges (AWC) charges are calculated using the table below.

Up To First 6.0 HCF	See SMC Above
Next 18.0 HCF	\$1.73 per HCF
Next 36.0 HCF	6.93 per HCF
Next 120.0 HCF	8.40 per HCF
Next 180.0 HCF	3.94 per HCF
Over 360.0 HCF	2.10 per HCF

**Please help us by not using tape or staples when sending in your payment.**

**We've been listening to you! Be on the lookout for information regarding new, more convenient, payment options later this year.**

There are two potential times when additional billings are released from our office. These times are at mid-season when we attempt to read the meter and again in the fall when the meter is read, removed and returned to our office.

All of these accounts are charged a \$60.00 Seasonal Service Fee when the initial bill is sent out in the spring. This fee covers a broad spectrum of services including meter installations and removals, maintaining summer lines as well as cleaning, storing and testing meters. Please note that the District's fee and rate structure has been approved by the Maine Public Utilities Commission. Please refer to our website for more details on our rate structure or feel free to contact any of our office staff at 985-3385 for further clarification. As always, we look forward to speaking with you.

**BENEATH THE SURFACE - CONTINUED FROM PAGE 4**

I mentioned earlier in the article that this year's construction program would be noteworthy and historic in its own right. That is due to the fact that the extension along Alewife Road (and subsequently Kimball Lane) will mark the second largest system expansion project in our history. Only our 1979 expansion project that allowed KKW to connect to the Biddeford-Saco Water Company in Biddeford was larger. That project involved over 27,000 feet of new mains, but was engineered by others, plus bid out and installed by a large private contractor. If we consider only projects engineered and constructed with our own people, then this year's project would be the largest to date.

**Did you know.....that between 1956 and 2008 the spending on public water and wastewater systems doubled five times, equaling around \$1.6 trillion according to the U. S. Conference of Mayors (USCM). The USCM reports that over \$93 billion was spent in 2008 alone and projects that between \$2.5 (low growth) and \$4.3 trillion (high growth) will be spent over the next 20 years (2009-2028).**

The key point to take from what was accomplished last year, and what we hope to complete this year, is not that we are simply driven to break records. The point is to highlight the effectiveness of the talented District staff currently in place. Through dedication and commitment, we all share the goal of advancing the District's mission in as efficient and professional manner as possible. It starts and ends with people, and we believe we are poised to continue to meet the needs of our customers with the industry's best employees.



Girl Scout Troop 243 chats with District Foreman Ed Thyng about the new 16" ductile iron water main being installed on Alewife Road in Kennebunk as part of their recent WOW experience. WOW (Wonders of Water) is a national Girl Scout program designed to help scouts learn about "loving, saving and sharing" water.

Kennebunk, Kennebunkport & Wells Water District  
P.O. Box 88  
Kennebunk, ME 04043

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Did you know.....that 75% of Americans are chronically dehydrated. So how much water should you drink every day? The latest study from the University of Utah concludes that the old standby of eight glasses a day still holds and that amount should be increased for those who exercise or live in a warm climate. The symptoms of dehydration, even mild dehydration, include less energy, inability to concentrate, headaches, grogginess and dry/itchy skin. Severe dehydration can affect blood pressure, circulation, digestion, kidney function, and nearly all body processes. So crack your tap and enjoy some of the best water around for less than a penny per glass.



## EMPLOYEE SPOTLIGHT - IT'S A WET N' WILD WORLD OUT THERE

Cindy Rounds, Administrative Assistant - [crounds@kkw.org](mailto:crounds@kkw.org)

The quality of the water we provide to our customers is the primary focus of the team of professionals that work at our Filtration Plant. For the past 10 of his 18 years with the District, Bill Snyder has been the leader of that team. Bill's dedication and commitment shines through no matter which hat he wears. As the Plant Manager, he provides a fair and encouraging environment in which his staff thrives. As the Facility Emergency Response Coordinator (FERC), he is the District's primary liaison with local, State and Federal emergency responders in the event of a chemical emergency. As a valued member of the District's Health & Safety Committee, he ensures that safety procedures are developed and followed to reduce and avoid the risk of injury.



Bill Snyder, Plant Manager, is the District's very own "Shell Answer Man" when it comes to water treatment.

Bill and his staff continually search for opportunities to improve operational efficiency and enhance water quality. One such innovative project involved converting the sediment (hydrosolids) that is removed during the water treatment process into a high quality manufactured topsoil. The District became the first water utility in Maine to be granted a license by the DEP to manufacture topsoil for agricultural use. So, instead of paying for the costly disposal of hydrosolids, we now have a revenue neutral, eco-friendly, recycling technique that has been a model for other water treatment facilities.

The popularity of the Plant tours, especially with local schools, demonstrates Bill's success with furthering the District's community involvement and outreach programs. This may be the part of Bill's job he enjoys most; demonstrating the sophisticated water treatment process while showcasing the diverse knowledge and skill that his staff possesses.

Bill also takes great pride in delivering exceptional customer service. Bill routinely visits customers' homes to address water quality concerns first hand. On many occasions, he's been known to go above and beyond, even providing assistance to folks with private wells. In a recent email to Superintendent Norm Labbe, a customer in Ogunquit who had been in a dialogue with Bill over her concern with the recent radiation issue in Japan and its potential effect on our water supply wrote, "I appreciate knowing that you and your people are diligent with regard to protecting our precious resources...Bill's professionalism and compassion have brought comfort at a time when there is little peace of mind". We're always pleased to hear when our efforts are appreciated and responses like this are quite common. Bill is also well respected by his peers and regulatory authorities.

Bill's one-of-a-kind sense of humor is another thing that sets him apart. Sometimes he'll get you laughing so hard you're crying and then other times you're left scratching your head wondering how he could think of something so bizarre. We often wonder if it's something in the water...