TEMPLETON WATER REPORT

A NEWSLETTER FROM THE TEMPLETON WATER DEPARTMENT
ISSUE No. 16 — JUNE 2016

2015 Water Quality Report

The Water Quality Report shows details of your drinking water, where it comes from and where you can get more information. This annual quality report documents all DETECTED primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels [MCLs] for the year ended 2015.

The Templeton Water Department contacts property owners soon after we detect a situation of unusually high water usage. Speedy notification allows property owners to quickly repair any leaks and minimize charges to your water bill. In 2015 we found several [HIGH READ] water customers. The Templeton Water Department can also provide you with a Toilet Leak Detection Kit with instructions on how to perform a simple test that may save you money and save water. We need property owners to update their contact information so the water Department can notify you as soon as a [HIGH READ] customer is detected. Please call [978-939-5323] with your name, account number, phone number, mailing address, and email address.

FY15 Templeton Municipal Water Plant Report

Herein submitted for inclusion in the Templeton Annual Report for FY15 are the financial and statistical data for the Templeton Municipal Water Plant.

The Templeton Municipal Water Plant is an enterprise fund formed as a result of the Special Acts of 2000 duly passed by the State House of Representatives, the State Senate, the Governor and the Templeton voters. This new legislation put the financial management and operational oversight of the town's water department directly under the control of the Templeton Municipal Lighting Plant, its Commission and its Manager. The purpose of this was to allow the water department to operate under the same Massachusetts General Law, Chapter 164, that the light department does. Further, it allowed the water department to operate solely from revenues from the sale of water to its customers rather than from town funds generated by taxation.

During FY15 our customers purchased a total of 115,811,630 gallons of water compared to 118,717,860 gallons in FY14. This 2,906,230 decrease in water usage can be attributed to a net negative value in homes occupied for FY15 versus FY14. The local economic growth was still basically stagnant in FY15 like in FY14 and it will likely some time before Templeton Water recovers back to the level of 147,953,220 gallons of water usage in FY08.

Templeton Water connected 1 new water service in FY15 and collected $1,329,180 in water sales revenue and $62,489 in miscellaneous revenue.

Additions and Improvements

The Water Plant made improvements to its water distribution stations in FY15 amounting to $55,635 for our Maple Street and Willow Street Well Sites, our Baldwinville Road and Depot Road Booster Stations and our Pressure Relief Valve (PRV) Hut on Dudley Road.

The Water Plant made improvements to a portion of its 53 miles of water distribution mains in FY15 amounting to $21,511.

The Water Plant made improvements to its water treatment plant on Sawyer Street in FY15 amounting to $31,116. **CAPITAL EXPENSES** —

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Capital Expenses

(from page 1)

In July 2014 the Water Plant purchased a new compactor for flattening fill and repairing holes made the roadways at a cost of $2,487. This unit will be used every time the Water Plant has a need to cut into a private or public roadway or driveway to repair a broken water main or service pipe.

In October 2014 the Water Plant purchased 1 new 6" pit-style water meter at a cost of 412,720. This unit will be used to measure the gallons of water consumed by the Department of Conservation and Recreation on Beamon Road.

In December 2014 and March and April 2015 the Water Plant purchased 38 new R-900 meter interface units for remote water reading at a cost of $3,653.

In December 2014 and May 2015 the Water Plant purchased 13 new water meters at a cost of $3,223, one of which was put into service for the Town's new Senior Center located on Bridge Street.

Thank you!

The Water Commission and General Manager thanks all of the Water Plant's employees for their continued dedication and hard work in 2015.

What is a Cross-Connection?

A cross connection occurs whenever a drinking water source comes in contact with dangerous contaminants. The outside water spigot and garden hose is one of the most common sources of cross connections at homes. Garden hoses are often left lying on the ground and may come in contact with contaminants such as fertilizers, cesspools, or garden chemicals. Under certain conditions, these contaminants can be drawn back into the drinking water line. A hose bibb vacuum breaker is a device that can be attached to sill cocks and in turn connected to a hose. It consists of a spring-loaded check valve that seals against an atmospheric outlet when the water supply pressure is turned on. When the water pressure is turned off, the device vents to the atmosphere, protecting the drinking water from being contaminated. We urge customers to consider using one of these devices on their garden hoses. For more information on how to purchase a hose bibb vacuum breaker, call our office at 978-939-5323, ext. 3.

Manganese in Drinking Water —

"Manganese is a naturally occurring mineral found in rocks, soil, groundwater, and surface water. Manganese is necessary for proper nutrition and is part of a healthy diet, but can have undesirable effects on certain sensitive populations at elevated concentrations. The United States Environmental Protection Agency (EPA) and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for manganese of 50 ug/L (micrograms per liter), or 50 parts per billion, and health advisory levels. In addition the EPA and MassDEP have also established public health advisory levels. ***Drinking water may naturally have manganese and, when concentrations are greater than 50 ug/L, the water may be discolored and taste bad. Over a lifetime, EPA recommends that people drink water with manganese levels less than 300 ug/L and over the short term, EPA recommends that people limit their consumption of water with levels over 1000 ug/L, primarily due to concerns about possible neurological effects. Children up to 1 year of age should not be given water with manganese concentrations over 300 ug/L, nor should formula fir infants be made with that water for longer than 10 days."***

For Your Information . . .

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. Templeton Light and Water 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 (1-800-426-4791) or at

http://.epa.gov/safewater/lead.

Templeton Water Department
2015 CCR Tables

The following tables provide the most recent water quality results for our water system.
Only the detected contaminants are shown.

INORGANIC CONTAMINANTS	Dates Collected	Highest Result or Highest RAA*	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources
Nitrate (ppm)	2015	1.71	0 - 1.71	10	10	N	Runoff from fertilizer use; leaching from septic tanks; natural deposits
Barium (ppm)	2015	0.023	0 - 0.023	2	2	N	Erosion of natural deposits
Fluoride (ppm)	2015	0.7	0.7 - 1.1	4**	4	N	Water additive that promotes strong teeth. Fluoride has been added since 1950 to prevent tooth decay.
SYNTHETIC ORGANIC CONTAMINANTS							
Hexachloro-cyclopentadien (ppb)	2013•	0.1	- -	50	50	N	Discharge from chemical factories (•Next Test 2016)
DISINFECTION CONTAMINANTS							
Haloaceptic Acids (HAA5s) (ppb)	2015	1.7	- -	60	- -	N	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	2015	6.0	- -	80	- -	N	Byproduct of drinking water chlorination
Chlorine (ppm)	2015	0.3	0 - 0.75	4	4	N	Water additive used to control microbes

* Highest RAA = highest running annual average of four consecutive quarters.
** Fluoride also has a secondary maximum contaminant level (SMCL) of 2 ppm.

Bacteria in 2015	Highest Number Positive Samples in a Month	MCL	MCLG	VIOLATION (Y/N)	Possible Sources
Total Coliform	0	0	0	N	Naturally present in the environment
E. Coli	0	*	0	N	Human and animal fecal waste

* Compliance with E. Coli MCL is determined upon additional repeat testing.

Lead and Copper	Date Collected	90th Percentile	Action Level (AL)	MCLG	# of Sites Sampled	# of Sites above AL	Exceeds AL (Y/N)	Possible Sources
Lead (ppb)	2013 2013	0 2	15	0	20 20	0 0	N N	Corrosion of household plumbing
Copper (ppm)	2013 2013	0.20 0.38	1.3	1.3	20 20	0 0	N N	Corrosion of household plumbing

Unregulated and Secondary Contaminants	Date Collected	Range Detected	Average	SMCL	ORSG	Possible Sources
Manganese (ppb)	2015	0 - 0.091	0.091	50	300*	Natural sources
Iron (ppb)	2015	0 - 0.11	0.11	300	- -	Natural sources; aging pipes
Sulfate (ppm)	2015	13 - 64	11	250	- -	Natural sources
Sodium (ppm)	2015	20 - 29	24.5	- -	20**	Natural sources; runoff from road salt

* US EPA and MassDEP have established public health advisory levels for manganese to protect against concerns of potential neurological effects.
** Sodium-sensitive individuals, such as those eperiencing hypertension, kidney failure, or congestive heart failure, should be aware of the levels of sodium in their drinking water where exposures are being carefully controlled.

IMPORTANT DEFINITIONS

ppm = parts per million, or milligrams per liter (mg/l)

ppb = parts per billion, or micrograms per liter (ug/l)

90th percentile = Out of every 10 homes sampled, 9 were at or below this level. Compliance for lead and copper is determined by comparing this number to the action level.

Unregulated Contaminants – Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted. For some of these substances, the Massachusetts Office of Research and Standards (ORS) has developed state guidelines or secondary MCLs.

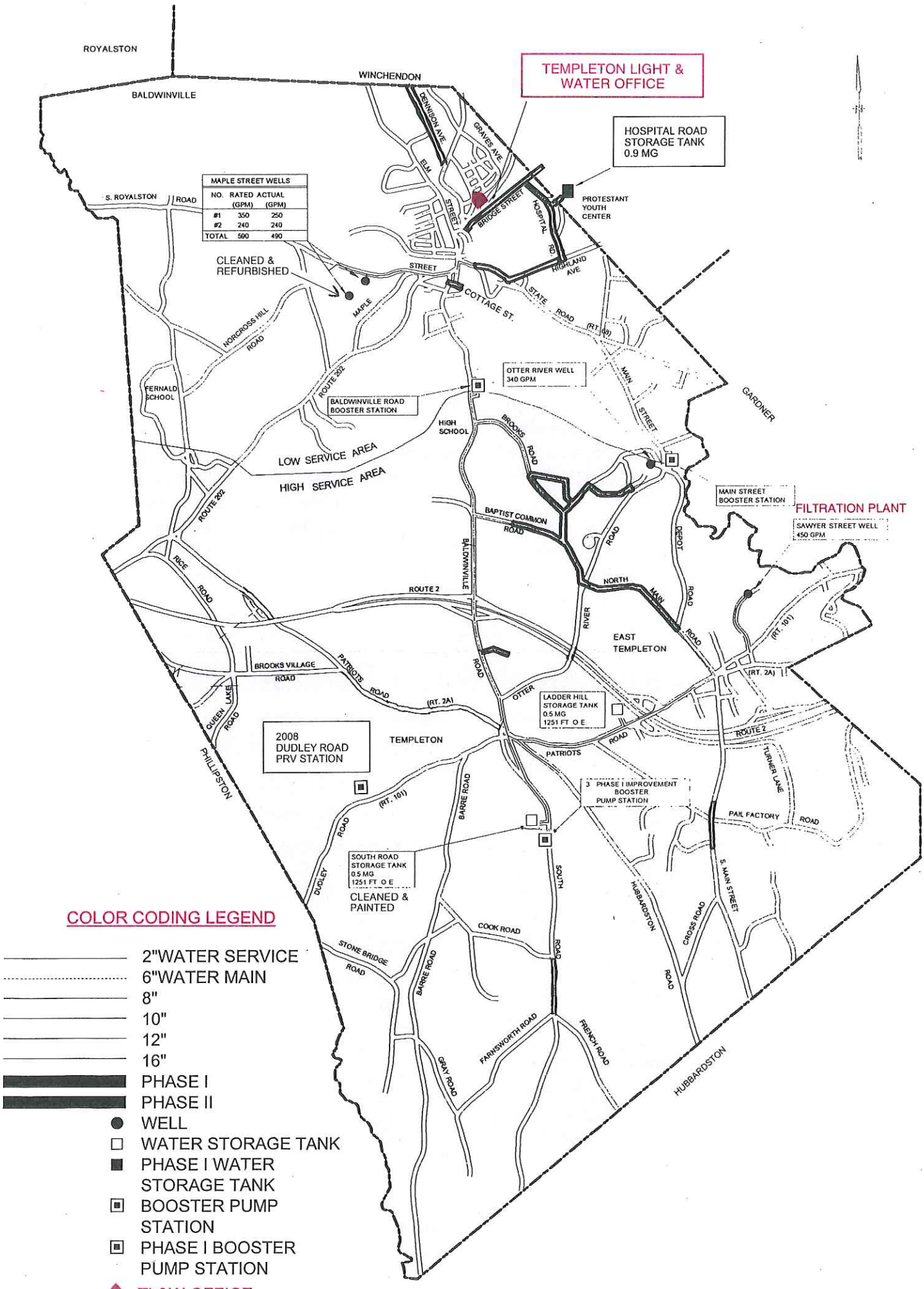
Office of Research and Standards Guidelines (ORSG) – This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

Secondary Maximum Contaminant Level (SMCL) – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCGLs as feasible using the best avaiable treatment technology.

Maximum Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.


ROYALSTON
WINCHENDON
BALDWINVILLE
TEMPLETON LIGHT & WATER OFFICE
HOSPITAL ROAD STORAGE TANK 0.9 MG
PROTESTANT YOUTH CENTER
DENNISON AVE
GRAVES AVE
ELM STREET
BRIDGE STREET
HOSPITAL RD
HIGHLAND AVE
MAPLE STREET WELLS
NO. RATED (GPM) ACTUAL (GPM)
#1 350 250
#2 240 240
TOTAL 590 490
S. ROYALSTON ROAD
CLEANED & REFURBISHED
MAPLE STREET
COTTAGE ST.
STATE ROAD (RT. 68)
NORCROSS HILL ROAD
FERNALD SCHOOL
ROUTE 202
OTTER RIVER WELL 340 GPM
MAIN STREET
GARDNER
BALDWINVILLE ROAD BOOSTER STATION
HIGH SCHOOL
BROOKS ROAD
LOW SERVICE AREA
HIGH SERVICE AREA
MAIN STREET BOOSTER STATION
FILTRATION PLANT
SAWYER STREET WELL 450 GPM
BAPTIST COMMON ROAD
DEPOT ROAD
BALDWINVILLE ROAD
RICE ROAD
ROUTE 2
NORTH MAIN ROAD
RIVER ROAD
EAST TEMPLETON
(RT. 101)
(RT. 2A)
BROOKS VILLAGE ROAD
PATRIOTS ROAD
OTTER ROAD
LADDER HILL STORAGE TANK 0.5 MG 1251 FT O.E.
QUEEN LAKE ROAD
2008 DUDLEY ROAD PRV STATION
TEMPLETON
PHILLIPSTON
PATRIOTS ROAD
ROUTE 2
TURNER LANE
PHASE I IMPROVEMENT BOOSTER PUMP STATION
PAIL FACTORY ROAD
(RT. 101)
BARRE ROAD
DUDLEY ROAD
SOUTH ROAD STORAGE TANK 0.5 MG 1251 FT O.E.
CLEANED & PAINTED
SOUTH ROAD
HUBBARDSTON ROAD
CROSS ROAD
S. MAIN STREET
COOK ROAD
STONE BRIDGE ROAD
BARRE ROAD
FARNSWORTH ROAD
FRENCH ROAD
GRAY ROAD
HUBBARDSTON
COLOR CODING LEGEND
2"WATER SERVICE
6"WATER MAIN
8"
10"
12"
16"
PHASE I
PHASE II
WELL
WATER STORAGE TANK
PHASE I WATER STORAGE TANK
BOOSTER PUMP STATION
PHASE I BOOSTER PUMP STATION
TL&W OFFICE

VULNERABILITY

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 Hotline (1-800-426-4791).

SUBSTANCES FOUND IN TAP WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface over the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbiological contaminants such as viruses and bacteria, that may come from septic systems, agriculture 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 and 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 stormwater runoff and septic systems.
- Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities.

Protecting Templeton's Water Supply –

The SWAP Program

The Source Water Assessment and Protection (SWAP) Program, established under the Federal Safe Water Drinking Act, requires every state to:

- Inventory land uses within the recharge areas of all public water supply sources.
- Assess the susceptibility of drinking water sources to contamination from these land uses.
- Publicize the results to provide support for improved protection.

The Massachusetts Department of Environmental Protection (MassDEP) completed an assessment of Templeton's sources in June 2003 and prepared a report that documents specific threats, such as underground storage tanks, auto repair shops, and machine shops. It also recommends action we can take to protect our water supply. MassDEP assessed our susceptibility as high, based on the presence of at least one high-threat land use in our water supply protection areas.

Where Does My Water Come From?

The Town of Templeton receives its water from four gravel-packed wells:

- Otter River Well
- Birch Hill Well #1
- Birch Hill Well #2
- Sawyer Street Well

These wells supply ground water from an aquifer of high vulnerability because of an absence of barriers, such as clay.

Each well has a Zone I protective radius close to the well and shares a larger Zone II area, which includes all of the land that supplies water to the wells. The Zone II was determined by a scientific study. The wells are treated for corrosion control (to prevent the leaching of lead and copper from pipes) and to remove chlorinated volatile organic compounds. The system map can be seen on page 2.

Where can I See the SWAP Report?

The complete SWAP report is available at the Templeton Water Department and at hhtp://www.mass.gov/eea/docs/dep/water/drinking/swap/cero/2294000.pdf. For more information, call the Water Department at 978-939-5323.

Templeton Water Department
86 Bridge Street
P.O. Box 20
Baldwinville, MA 01436-0020

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PRE-SORTED

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Dana Blais, Chairman
Gregg Edwards, Secretary
Chris Stewart, Member

Staff

John Driscoll, General Manager
Ron Davan, Superintendent
Brigid Lambert, Secretary
Randy Brown, Foreman
Dick Blodgett, Jr., Utility Specialist
Greg Cheney, Utility Specialist

Monthly Meetings

The Water Commissioners meet on the first Tuesday of each month at 6:00 PM at the Light/Water Department office. Please feel free to participate in these meetings.

Share Your Thoughts

Do you have any questions that you would like the report to answer or on how information is presented? Please let us know:

Templeton Light & Water Plant
86 Bridge Street - P.O. Box 20
Baldwinville, MA 01438-0020

Hours: Mon.-Fri. 7 AM - 4 PM
Telephone 978-939-5323
Fax: 978-939-4309

Nights, Weekends, Holidays
Emergency Call: 978-939-5638

e-mail:
rdavan@templetonlight.com

Website
www.templetonlight.com

Public Water Supply ID:
2294000