



TEMPLETON WATER REPORT

A NEWSLETTER FROM THE TEMPLETON WATER DEPARTMENT
ISSUE No. 15 — JUNE 2015

2014 Water Quality Report

We are proud to provide the Town of Templeton residents with drinking water of the highest quality possible. And we strive to improve all facets of our water system. Our goal is to ensure that we will have ample water supplies now and in the future that are

contaminant free. Please review this report; it is intended to increase public awareness of all water issues and contains important information about our water system.

FY14 Templeton Municipal Water Plant Report

The Templeton Annual Report for FY14 financial and statistical data for the Templeton Municipal Water Plant is as follows:

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 Light Plant, its Commission and its Manager. The purpose of this was to allow the water department to operate under the same Chapter of Massachusetts General Law, Chapter 164, that the light department does. Further, it allowed the water department to operate solely from revenues from sale of water to its customers rather than from funds generated by taxation.

During FY14 our customers purchased a total of 118,717,680 gallons of water compared to 127,496,740 gallons in FY13. This 8,778,880 gallon decrease in water usage can be attributed to a net negative value in homes occupied for FY14 versus FY13. The local economic growth was still basically stagnant in FY14 like in FY13 and it will likely be some time before Templeton Water recovers back to the level of 147,953,220 gallons of water usage in 2008.

Templeton Water connected 4 new water services in FY14 and collected \$1,267,125 in water sales and \$56,568 in miscellaneous revenue.

Additions and Improvements

In FY14 the Water Plant maintained a constant presence when necessary in the Back Bay area for the construction associated with Phase VI of the Community Development Block Grant (CDBG) Project focused on Memorial Street in Baldwinville. Templeton Water received \$115,118 in new water mains, hydrants, gate boxes and other associated equipment. The water customers on Memorial Street got the benefit of a new 8" water main with increased flow capability.

The Water Plant made improvements to its distribution stations and treatment plant amounting to \$35,771 for FY14, including maintenance at the Maple Street Wells, the Otter River Well, the Sawyer Street Well and Treatment Facility Plant and its booster stations at Baldwinville Road, Depot Road and South Road.

The Water Plant made improvements to its water distribution mains amounting to \$14,919 for FY14.

Capital Expenses —
continued on page 3

ROYALSTON

WINCHENDON

TEMPLETON LIGHT & WATER OFFICE

HOSPITAL ROAD STORAGE TANK 0.9 MG

MAPLE STREET WELLS		
NO.	RATED (GPM)	ACTUAL (GPM)
#1	350	250
#2	240	240
TOTAL	590	490

CLEANED & REFURBISHED

PROTESTANT YOUTH CENTER

S. ROYALSTON ROAD

NORCROSS HILL ROAD

MAPLE STREET

COTTAGE ST.

STATE ROAD (RT. 80)

OTTER RIVER WELL 340 GPM

FERNALD SCHOOL

BALDWINVILLE ROAD BOOSTER STATION

HIGH SCHOOL

LOW SERVICE AREA
HIGH SERVICE AREA

BAPTIST COMBION ROAD

MAIN STREET BOOSTER STATION

FILTRATION PLANT
SAWYER STREET WELL 450 GPM

ROUTE 202

ROUTE 2

EAST TEMPLETON

RICE ROAD

BROOKS VILLAGE ROAD

PATRIOTS ROAD

OTTER RIVER ROAD

LADDER HILL STORAGE TANK 0.5 MG 1251 FT O.E.

2008 DUDLEY ROAD PRV STATION

TEMPLETON

PHASE I IMPROVEMENT BOOSTER PUMP STATION

SOUTH ROAD STORAGE TANK 0.5 MG 1251 FT O.E.
CLEANED & PAINTED

STONE BRIDGE ROAD

COOK ROAD

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

DUDLEY ROAD

BARRE ROAD

SOUTH ROAD

FARNSWORTH ROAD

FRENCH ROAD

HUBBARSTON

CRAGG ROAD

ROY ROAD

HUBBARSTON

PAK FACTORY ROAD

S. MAIN STREET

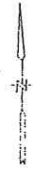
TURNER LANE

ROUTE 2

(RT. 2A)

(RT. 101)

(RT. 101)



Capital Expenses

(from page 1)

The Water Plant purchased one new cutoff saw at a cost of \$1,849, twenty-four new water meters at a cost of \$5,208 and one new 1-ton utility truck at a cost of \$51,464.

In FY14 the Water Plant incurred unforeseen legal expenses in the amount of \$13,252 due to several issues including open meeting law complaints filed, records requests submitted and town meeting articles placed on a warrant with possible detrimental effects on Templeton's water ratepayers (some articles brought on directly by the Advisory Board and/or Select Board). Ultimately the Water Plant changed nothing in the way that it conducts its daily operations. However, legal defense came at a cost of

\$6.06 per Templeton ratepayer. Neither of these unfortunate instances assisted in keeping the Water Plant's cash flow favorable through the conclusion of FY14 and the water Commission reluctantly voted to increase the water usage rates by 23% pursuant to the now completed water rate study by Tighe & Bond. Both the Water Commission and the General Manager knew that without this rate increase in FY14 it would be impossible to keep up with the water distribution system, station and treatment plant maintenance, especially given the number of empty residences in town that had been customers of Templeton Water.

The Water Commission and General Manager would like to thank the Water Plant's employees for their continued hard work in FY14.

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 for 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 2014 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)	2014	1.71	0 - 1.71	10	10	N	Runoff from fertilizer use; leaching from septic tanks; natural deposits
Barium (ppm)	2014	0.023	0 - 0.023	2	.2	N	Erosion of natural deposits
Fluoride (ppm)	2014	1.1	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
DISINFECTION CONTAMINANTS							
Haloacetic Acids (HAA5s) (ppb)	2014	2	--	60	--	N	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	2014	5.8	--	80	--	N	Byproduct of drinking water chlorination
Chlorine (ppm)	2014	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 2013	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	90 th Percentile	Action Level (AL)	MCLG	# of Sites Sampled	# of Sites above AL	Exceeds AL (Y/N)	Possible Sources
Lead (ppb)	2010	0	15	0	20	0	N	Corrosion of household plumbing
	2012	2			20	0	N	
Copper (ppm)	2010	0.20	1.3	1.3	20	0	N	Corrosion of household plumbing
	2012	0.38			20	0	N	

Unregulated and Secondary Contaminants	Date Collected	Range Detected	Average	SMCL	ORSG	Possible Sources
Manganese (ppb)	2014	0 - 0.091	0.091	50	300*	Natural sources
Iron (ppb)	2014	0 - 0.11	0.11	300	--	Natural sources; aging pipes
Sulfate (ppm)	2014	13 - 64	11	250	--	Natural sources
Sodium (ppm)	2014	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 experiencing 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 available 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.

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 particu-

larly 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 <http://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

FIRST CLASS
PERMIT NO. 8
BALDWINVILLE, MA
01436
PRE-SORTED



2014

Board of Commissioners

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:

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Fax: 978-939-4309

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Public Water Supply ID:
2294000