

Palmer Water District # 1

***10 Walnut Street
Palmer, Massachusetts 01069***

James Ammann, Superintendent, Tel.: 289-1410

2006 DRINKING WATER QUALITY REPORT

The Palmer Fire District # 1 and Palmer Water District # 1, P.W.S. ID # 1227000, presents this Consumer Confidence Report to all Customers in the water supply service area of the District. This report is part of the 1996 Safe Drinking Water Act Amendments and is required by the United States, Environmental Protection Agency and Commonwealth of Massachusetts, Department of Environmental Protection. All Public Water Systems in the Commonwealth will be presenting some form of this report to their customers prior to July 1st.

PALMER WATER DISTRICT # 1 DISTRIBUTION AND SERVICE AREA

The Palmer Water District # 1 portion of the Palmer Fire District # 1 and Palmer Water District # 1 is the service area with the Water Distribution System and Fire Hydrant System. The service area in general encompasses the area from the Quaboag River, north to the Massachusetts Turnpike and from Palmer Agway, West to the Turnpike Bridge Overpass at Rt. 181. The District also services Mt. Dumplin Rd. area and the Condominium Complex.

There are approximately 1400 metered accounts, 29 miles of Distribution System ranging in size from 16" Cast Iron Main to 1 1/4" Copper Laterals and approximately 215 Fire Hydrants.

There is a 953,000-gallon Concrete Clearwell which was constructed in 1995 and distributes water to the Downtown sections (Low Pressure System) of the District and is located at the Graves Brook Reservoir Treatment Facility.

The higher elevations (High Pressure System) in the District are supplied by a 750,000-gallon Steel Water Storage Tank located at the top of Breckenridge St. which was constructed in 1963.

In 2006 the Commonwealth of Massachusetts, Department of Environmental Protection, Drinking Water Program presented to Palmer Water District # 1 with a Certificate of Special Recognition for consistent excellence in water system performance

BUSINESS HOURS

The Palmer Water District # 1, business office hours are Monday – Friday: 7:30 a.m. – Noon / 12:30 p.m. – 4:00 p.m., (excluding Holidays). The business office telephone number: 1-413-283-8411.

The Board of Water Commissioners regularly meets at least once per month. Please contact the business office for the exact date and time of the next scheduled meeting, if you wish to address problems or concerns with the Board.

The Superintendent, James Ammann, can be contacted at the Graves Brook Reservoir Treatment Facility at 289-1410 or the business office, if there are any questions regarding this report.

1995, 2000 & 2004 SANITARY SURVEY

On May 6, 2004 DEP conducted its' most recent inspection of the Palmer Water District # 1. DEP found the District to have Adequate Capacity since there have been no violations of the Drinking Water Regulations and there have been no management changes.

The District has continued to make ongoing improvements to the System since the previous surveys and continues to:

Administer its Cross-Connection Program as it deals with Municipal, Industrial and Commercial Accounts.

Maintain a minimum number of licensed staff to operate Distribution and Treatment Facilities.

Attempt to make reductions of Unaccountable Water, with the continuation of the remetering of Residential, Commercial, Industrial and Municipal Accounts and Leak Survey Work with the District's Leak Detection Equipment.

Conduct structural inspections of both the Clearwell and Breckenridge Street Water Tank.

PALMER WATER DISTRICT WATER SOURCES

The Palmer Water District # 1 has four sources of water; two of which are Ground Water and the other two are Surface Water Supplies. The Galaxy Wellfield # 1 and Gravel Pack Well # 2 are the two Ground Water Supplies, these are located off Salem Street. The Upper and Lower Graves Brook Reservoir are the two Surface Water Supplies; these are located off Breckenridge Street.

The District currently operates two Water Treatment Plants at each source. The Graves Brook Reservoir Treatment Facility operates at the Surface Water Sources. The Granular Activated Carbon Treatment Plant operates at the Ground Water Sources.

The Graves Brook Reservoir Treatment Facility was placed on line in May 1995. The Facility is a packaged plant and treats the reservoir water with two Micro Floc Up-Flow Clarifiers and Granular Activated Carbon Media Filters. The finished water is treated with Disinfectant, (Chlorine) and Corrosion Control, (pH adjustment and Tri-Metallic Phosphate Injection). The Facility also removes particulate matter (Turbidity) from the water along with Microbial Contaminants, Organic Contaminants, Taste, and Odor. Along with the Treatment Facility at Graves Brook Reservoir is the Operation Headquarters for the District. The business office still remains on Walnut Street next to the Fire Station.

The Granular Activated Carbon Treatment Plant was placed on line in 1989, through the Chapter 286 Grants Program. The Plant has two - 20,000 pound Granular Activated Carbon Pressure Vessels, which treat both well supplies for possible Volatile Organic (VOC), Pesticide and Herbicide Contamination. The finished water is treated with Disinfectant (Chlorine) and Corrosion Control, (pH adjustment and Tri-Metallic Phosphate Injection). The Treatment Plant consistently treats all VOC Contaminants to Non-Detect Levels.

SOURCE WATER ASSESSMENT PROGRAM REPORT

The Department of Environmental Protect has prepared a Source Water Assessment Report (SWAP) for the water supply sources serving the Palmer Water District # 1 water system.

The SWAP Report notes key issues of Environmental Concerns in the Watershed and Zone A of the Graves Brook Reservoir and the Zone I and II of the Well Supply located off Salem Street. The report recommends continued vigilance in these areas to protect the Ground Water Quality of these municipal sources. The report recommends coordination of efforts with other area Water Departments, Board of Health, Planning Board to implement a uniform protect plan for area.

A full copy of this report is available by contacting Superintendent Ammann.

SYSTEM IMPROVEMENTS

In 2006 the District in conjunction with the Town of Palmer received funding from the Massachusetts Department of Housing and Community Development for the Chestnut Street Infrastructure Project. The water system portion of the project will include replacement of 600' of 1930's unlined 4" CI water main with 600' of 8" cement lined Ductile Iron Water Main along with 3 new fire hydrants, 12 upgraded water services and 300' of 4" cement lined Ductile Iron Water Main on Arch St., which will eliminate long copper water services. The District would wish to thank the Town of Palmer for considering this project in their grant application.

Also, the District in conjunction with the Wing Memorial Hospital Expansion Project made Distribution System Improvements on Wright St., which entailed installation of: 155' of 12" cement lined Ductile Iron Water Main, 555' of 8" cement lined Ductile Iron Water Main along with a Pressure Reducing Chamber to supplement the Fire Flow for the Wing Memorial Hospital and the North End of the Low Pressure Distribution System.

SUBSTANCES FOUND IN TAP WATER

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 of the land or through the ground, it dissolves naturally occurring mineral and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal or from human activity. 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 agricultural, 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 -which can be naturally occurring or be the result of oil and gas production and mining activities.

Turbidity – which is a measure of the cloudiness of the water. It is monitor because it is a good indicator of water quality.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All 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. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 800-426-4791.

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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at 800-426-4791.

IMPORTANT DEFINITIONS

Maximum Contaminant Level (MCL) – the highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health.

Non Detectable Level (N/D) – The level of the specific substance that is either non-existent or lower than the detection level (accuracy of the testing apparatus).

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

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Parts per Million (ppm) – Parts per Million or Milligrams per Liter (mg/l). A concentration of a substance in the water.

Parts per Billion (ppb) - Parts per Billion or Micrograms per Liter (ug/l). A concentration of a substance in the water

90th Percentile Level – This value is the 90 % of the values taken from the 2006 Sampling Round.

Action Level (AL) – The concentration of a contaminant which, when exceeded triggers treatment or other requirements which a water system must follow.

Water Quality Testing Results

Below the Consumer will find the Water Analysis results for your information on substances that were detected in the water during 2006. The Commonwealth of Massachusetts, Department of Environmental Protection, (DEP) sets forth the sampling schedule.

The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

All water testing conducted during Calendar Year 2006, there were no substances that exceeded any MCL.

The Palmer Water District # 1 has met all present regulatory testing requirements as set forth by DEP. The District did not receive any Notices of Non-Compliance during the Calendar Year 2006.

2006 Water Quality Data

Contaminant (Units)	Level Detected	Range Detected	MCL	MCLG	Violations (Yes / NO)	Possible Source of Contamination
Clarity of Treated Water						
Turbidity (NTU)	0.08	0.02 - 0.08	TT = 0.50	None	No	Soil Runoff
There were no Turbidity Samples taken during the year that exceeded the 0.50 NTU MCL.						
Bacteria Monitoring						
There were <u>no</u> positive Bacterial Samples on the finished water during the year						
Inorganic Contaminant						
Nitrate (ppm)	0.26	0.21 - 0.26	10.00	10.00	No	Runoff from fertilizer use; Leaching from septic tanks, sewage
Fluoride (ppm)	0.07	0.07	4.00	4.00	No	Naturally Occurring Promotes Stronger Teeth
Lead and Copper*						
Copper (ppm)	0.046 = 90th Percentile level		AL = 1.3	1.30	No	Corrosion of household plumbing systems
Lead (ppb)	0.0 = 90th Percentile Level		AL = 15	0.00	No	Corrosion of household plumbing systems
Unregulated Contaminants						
Sodium (ppm)	11.00	11.00	These are unregulated contaminants that we are required to monitor for			

Sulfate (ppm)	11.00	11.00	These are unregulated contaminants that we are required to monitor for			
Disinfection Byproducts						
Total Haloacetic Acids (ppb)	5.50	1.0 - 5.5	60.00	-----	No	Disinfection ByProduct from Chlorination of Water
Total Trihalomethane (ppb)	15.50	7.1 - 15.5	80.00	-----	No	Disinfection ByProduct from Chlorination of Water

Note: *: Ten homes were sampled in 2006 for lead and copper. Due to low levels, monitoring for lead and copper has been reduced to only once every three years.
No Samples exceeded the Action Level.