

CITY OF PLYMOUTH 2005 WATER SYSTEM REPORT



WATER SYSTEM ENHANCEMENTS
The City of Plymouth has made major investments in its water system. These enhancements have added capacity, increased storage and improved technology. Upgrades to Plymouth's two water treatment plants, which remove dissolved iron and manganese from source water, are complete. Phase two of the Zachary Plant is finished. This has increased its pumping capability to 15 million gallons of water a day. The Central Plant, which was put into service in 1974, was replaced with a new facility using new technology. Construction on the expanded capacity Central Plant was completed in 2005.

Two new wells and pump houses have been added to the water system. Both wells have a new telemetry system. This allows for remote monitoring and management of water supplies.

A six million gallon underground reservoir and pumping station at the northwest corner of Schmidt Lake Rd. and Vicksburg Ln. went into service in June. It increases the City's storage capacity from 7.5 million to 13.5 million gallons of water.

The City of Plymouth provides drinking water to residents from a groundwater source. The City has 16 wells ranging from 302 to 473 feet deep, which draw water from the Prairie Du Chien-Jordan aquifer and the Prairie Du Chien Group aquifer.



Other Exceptions - Businesses and organizations that need to irrigate turf or playfields to prevent unreasonable damage due to frequent use may submit a written request for an exemption to the City water system.

Non-City Water Customers - The restrictions do not apply to people who use sources of water other than the City water system.

New Sod/Landscaping - If you have new sod, seed or landscaping, you do not need to follow the odd-even restrictions for unattended watering during the first 30 days following planting. You must, however, still abide by the midday ban from noon to 5 p.m.

Hand-Held Watering - City water customers may wash vehicles and do hand-held hose watering of shrubs, flowers and trees on any day and at any time if the hose has a nozzle with automatic shutoff.

EXCEPTIONS
City water customers should adjust their automatic irrigation systems accordingly.

THE RESTRICTIONS
Plymouth prohibits outdoor lawn watering from noon to 5 p.m. on all days. At other times, water customers must also follow an odd/even schedule when sprinkling lawns. Homeowners and businesses with addresses ending in an odd-number may water on odd-numbered calendar days. Those with addresses ending in an even number may water on even-numbered days. The restrictions apply to all City water customers. Property owners with automatic irrigation systems should adjust their systems accordingly.

OUTDOOR WATER RESTRICTIONS
To help conserve water, Plymouth has annual restrictions on outdoor water use that are in effect from May 1 through Sept. 30.



City of Plymouth
3400 Plymouth Boulevard
Plymouth, MN 55447-1482
(763) 509-5000 TDD (763) 509-5065
Hours: M, W, Th, F, 8 a.m. - 4:30 p.m.
Tues.: 8 a.m. - 6 p.m.
Web Site: www.ci.plymouth.mn.us

ECRWSS
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- If your grass springs back when you step on it, it doesn't need watering.
- If it rains an inch or more, wait at least five days to water again.
- Use a sprinkler that delivers large drops, rather than a fine mist.
- Mow your grass to a length of 2" to 3", and leave the clippings on the ground. This shades the soil to prevent evaporation.
- Let your lawn go dormant during the hot summer months. This saves money and time spent mowing.

HELP US CONSERVE WATER

Over-depletion of our groundwater resources is a real threat in this region. Lawn watering is the single biggest residential use of water. You can have a green lawn and save water by following these tips:

If drought conditions require any changes to the restrictions, they will be announced on the City web site, www.ci.plymouth.mn.us, and on the Water Restriction Information Line, 763-509-5512. Area media will also be notified.

CHANGES

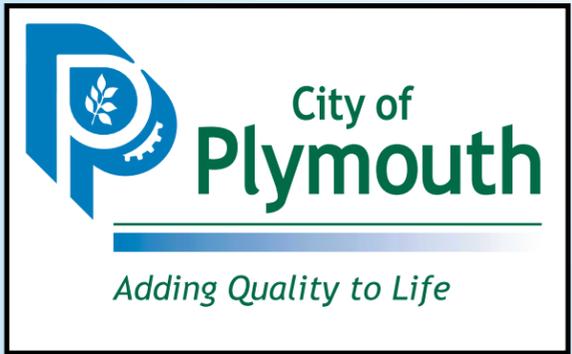
City employees will enforce the water restrictions when they see violations. The penalty for violating restrictions is \$100 for each day of violation. You will receive one written warning before you are penalized.

ENFORCEMENT

The Minnesota Department of Natural Resources (DNR) requires cities to address water conservation proactively. This is especially true when a city seeks a permit from the DNR to construct new wells, which Plymouth has had to do to meet the growing demand for water. The restrictions also ensure that water is available for fire emergencies.

WHY RESTRICTIONS?

public works director. Intermittent sprinkling that is exclusively for recreational use is also exempt from the restrictions.



LEARN MORE ABOUT TAP WATER

The City of Plymouth strives to provide safe, quality drinking water and high quality service to residents and businesses. We encourage you to call us with questions or concerns about your water quality and service. For more information about the Plymouth water system, such as test results, customer service questions, and opportunities for public participation in meetings where drinking water decisions are made, call Utilities Supervisor Scott Newberger at 763-509-5999 or Utilities Senior Engineer Technician Greg Cook at 763-509-5997.

To learn more about drinking water issues, connect with the resources listed below to find out more.

CONTACT INFORMATION

EPA Safe Drinking Water Hotline 800-426-4791
Minnesota Department of Health 651-201-5000
Minnesota Department of Natural Resources (DNR) 651-296-6157

INTERNET RESOURCES

EPA www.epa.gov/safewater
DNR www.dnr.state.mn.us/waters
MDH www.health.state.mn.us/divs/eh/water
American Water Works Association
www.awwa.org

SOURCE WATER INFORMATION

This report includes the results of monitoring done on Plymouth's drinking water from Jan. 1 to Dec. 31, 2005. The purpose of this report is to help consumers better understand where their drinking water comes from and how it is monitored.

RESULTS OF MONITORING

No contaminants were detected at levels that violated federal drinking water standards, however some contaminants were detected in trace amounts. The table that follows shows the contaminants that were detected in trace amounts last year or in years prior, since not all contaminants were sampled for in 2005.

HOW TO READ THE WATER QUALITY TABLE

The Level Found can be the highest amount found in the water or the average of all samples analyzed, depending on the regulation. If it is an average, it may contain sampling results from the previous year. If multiple samples were tested in 2005, the lowest and highest detected values are listed under Range of Detections.

Maximum Contaminant Level Goal (MCLG): 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.

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

Action Level (AL): The concentration of a contaminant, which if exceeded, triggers treatment or other actions by the water system provider.

90th Percentile Level: This is the value obtained after disregarding 10 percent of the samples taken that had the highest percentile.

Unregulated substances do not have Maximum Contaminant Levels (MCL). They are assessed by comparing the detected amount to state standards known as health risk limits. If an unacceptable amount of any substance is ever found in our water, the City of Plymouth will notify residents immediately and take corrective action to eliminate the problem.

pCi/l: picoCuries per liter (a measure of radioactivity)

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

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

nd: not detected

MRDL: Maximum Residual Disinfectant Level

MRDLG: Maximum Residual Disinfectant Level Goal

HEALTH INFORMATION FROM THE EPA

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. For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.



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 infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. 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 at 1-800-426-4791.

MONITORED SUBSTANCES

In general, sources of drinking water (both tap water and bottled water) may 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 minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or 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 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, which can be naturally-occurring or be the result of oil and gas production and mining activities.

RADON is a radioactive gas which is naturally-occurring in some groundwater. It poses a lung cancer risk when gas is released from water into air (as occurs during showering, bathing, or washing dishes or clothes) and stomach cancer when it is ingested. Because radon in indoor air poses a much greater health risk than radon in drinking water, an Alternative Maximum Contaminant Level (AMCL) of 4000 pCi/l may apply in states that have adopted an indoor air program which compels citizens, homeowners, schools and communities to reduce the radon threat from indoor air. For states without such an indoor air program once the radon rule is finalized, the MCL of 300 pCi/l may apply. Minnesota plans to adopt an indoor air program once the radon rule is finalized.

HOW REGULATIONS ARE ESTABLISHED

To ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The Minnesota Department of Health has determined that the sources used to supply your drinking water are not particularly susceptible to contamination. If you wish to obtain the entire source water assessment for your drinking water, call 651-201-4700. You can also view it online at: www.health.state.mn.us/divs/eh/water/swp/swa.



Results of Plymouth Water Testing

Detected Substance <i>Units of Measurement</i>	Test Date	MCL: Highest amount allowed	MCLG: No health risk	Level Found in Plymouth Water	Range of Detections	Typical Source of Substance in Drinking Water
Alpha Emitters <i>pCi/l</i>	2003	15.4	0	5.7	—	Erosion of natural deposits
Arsenic <i>ppb</i>	2003	50	0	2.35	—	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium <i>ppm</i>	2003	2	2	0.15	—	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride <i>ppm</i>	2005	4	4	1.13	0.93-1.3	Water additive which promotes strong teeth; erosion of natural deposits; aluminum and fertilizer factories
Combined Radium <i>pCi/l</i>	2003	5.4	0	0.98	—	Erosion of natural deposits
Sodium <i>ppm</i>	2003	No limit set	—	6.6	—	Erosion of natural deposits
Sulfate <i>ppm</i>	2003	No limit set	—	27	—	Erosion of natural deposits
Lead <i>ppb</i>	2003	90% of samples must be below 15 ppb (AL)	—	90% level: 3.0	0 out of 30 homes exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits
Copper <i>ppm</i>	2003	90% of samples must be below 1.3 ppm (AL)	—	90% level: 0.9	1 out of 30 homes exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits
Total Trihalomethanes <i>ppb</i>	2005	80	0	3.5	—	By-product of drinking water disinfection
Radon <i>pCi/l</i>	2001	No limit set	—	579	—	Erosion of natural deposits
Haloacetic Acids (HAA5) <i>ppb</i>	2005	60	0	4.5	—	By-product of drinking water disinfection
Chlorine <i>ppm</i>	2005	MRDL 4	MRDLG 4	0.39 Highest Quarterly Avg	0.2-0.5 Highest and Lowest Monthly Avg.	Water additive used to control microbes