

CITY OF QUINCY

2005 WATER QUALITY REPORT



INTRODUCTION

This Water Quality Report is provided to all users of the Quincy Municipal Water System to provide information about your water system, the sources of water and the quality of drinking water supplied to you. Water Quality Reports are required to be published annually under the 1996 Safe Drinking Water Act Amendments administered by the United States Environmental Protection Agency.

The City of Quincy has historically provided full disclosure of information about the City's water supply to interested parties and views the Water Quality Report as an opportunity to enhance its public awareness program. Information provided in this report includes the following:

- ◆ Regulations concerning water quality and safety that protect your health.
- ◆ City programs that protect the high quality of our water sources.
- ◆ Treatment processes that ensure the City's drinking water meets or exceeds all state and federal standards.
- ◆ Current and historic water quality data.

Water Quality Reports Translations Available

"Este Informe contiene información muy importante. Tradúscalo o hable con un amigo quien lo entienda bien."

Where can I find out more information about my drinking water?

Additional questions or comments about the City's water supply, the quality of City's drinking water, or other general drinking water issues can be directed to the following contacts:

City of Quincy

Lorin N. Lowry
Director of Public Works
21 A Street NW
Quincy, WA 98848
(509) 787-4131 ext. 402

Environmental Protection Agency

Safe Drinking Water Act Hotline
(1-800-426-4791)

Department of Health

Suite 305
1500 West Fourth Avenue
Spokane, WA 99204
(509-456-3115)

DEFINITIONS

The Environmental Protection Agency requires the following terms to be defined to establish a baseline of terminology for understanding the Water Quality Report.

- ◆ **Action level.** "The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow."
- ◆ **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."
- ◆ **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."

- ◆ **Part per million (ppm).** “One part per million or one milligram per liter (mg/L) corresponds to one penny in \$10,000.”
- ◆ **Part per billion (ppb).** “One part per billion or one microgram per liter (µg/L) corresponds to one penny in \$10,000,000.”
- ◆ **Part per trillion (ppt).** “One part per trillion or one nanogram per liter (ng/L) corresponds to one penny in \$10,000,000,000.”
- ◆ **State Reporting Level (SRL).** “The concentration that Washington State Department of Health requires laboratory equipment to be able to go down to when looking for a specific chemical.”
- ◆ **Treatment technique.** “A required process intended to reduce the level of a contaminant in drinking water.”
- ◆ **Variance and exemption.** Both of these terms are defined as “State or EPA permission not to meet an MCL or a treatment technique under certain conditions.”

DESCRIPTION OF THE CITY’S WATER SYSTEM

The City of Quincy water supply system consists of five wells all located within the City. Well #1 is located adjacent to City Hall at 104 B St. SW, well #2 is located on the site of the Public Works Building at 21 A St. NW, well #3 is located at the intersection of West Division and 7th Avenue NW, well #4 is located south of Division St. between 3rd Avenue SW and 7th Avenue SW, and well #5 is located at 300 Columbia Way. Each of the sites has a well pump, aeration or reservoir tank, and either one or two booster pumps.

Water storage consists of four reservoirs: an elevated reservoir at well #1 holding 100,000 gallons, two one million gallon steel reservoirs at well #4, and a one million gallon reservoir on Road Q approximately 1 mile north of the City Limits. The City has approximately 290,140 lineal feet of supply line, serving over 1300 services.

The State Department of Health requires the City to chlorinate the drinking water supplied. This is done by introducing a diluted 12.5% Sodium Hypochlorite solution. Household bleach contains 6% Sodium Hypochlorite.

WATER QUALITY MONITORING REQUIREMENTS

Existing state law regulates the levels of bacteriological contaminants, inorganic chemicals, nitrates, lead and copper, physical characteristics, trihalomethanes, volatile organic chemicals, synthetic organic chemicals, and radionuclides that may be present in the public water systems. A number of additional federal drinking water regulations have been adopted over the past several years and more are expected within the next ten years. These regulations will define new or additional water quality requirements. The City is currently in compliance with existing water quality monitoring requirements. The following table summarizes the City’s water quality monitoring requirements.

Contaminant Type	Monitoring Requirement [1]
Bacteriological contaminants	7 Samples per month
Inorganic chemicals	1 Sample per well site in a 3-year monitoring period.
Nitrates	1 per well site annually
Lead and Copper	As directed by the Department of Health
Volatile organic chemicals	1 Sample per well site in a 3-year monitoring period.
Synthetic organic chemicals	Well #1 & #4 quarterly. Well #2, #3 & #5 annually.
EDB and other soil fumigants	2 sample every 3 years per source
Asbestos	1 distribution sample every nine (9) years.
Radionuclides	1 Sample per well site in a 4-year monitoring period.

[1] Increased monitoring is required for any chemicals detected above an “Action Level” or a “MCL”.

WATER QUALITY MONITORING RESULTS

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The City has historically provided high quality water to its customers. The City monitors and tests for 71 contaminants, but has recorded detectable levels for only nine (9) contaminants in any of the City's wells in the most recent monitoring period. Absence of contaminants on the following list means either: 1) the contaminants are not present in the City's drinking water; or 2) the contaminants are present in the City's drinking water in quantities below the state reporting level (SRL) or below the testing procedure's minimum detectable level.

The City has detected some contaminants in its drinking water, most of which are naturally occurring minerals found in groundwater and, in the levels detected, pose no health risk to City residents.

The City also failed to complete a required fourth quarter nitrate sample at its Well #3 location and is noted below in the violation notes.

The following table summarizes those contaminants that have been detected in the City's drinking water and the levels that have been reported. Due to the sampling requirements at all of the five City sources, a range of results is given. The table also details the MCL for each contaminant, the MCLG set by the Environmental Protection Agency, and the major sources of the contaminants. The listed sources of the contaminant are not necessary the source for our water system. For those contaminants that have been detected and exceed either an action level or MCL, further information on monitoring, treatment, and health effects is given in the following section.

Contaminant [1]	Range of Results	MCL	MCLG	Exceeds Limits?	Source	Date Tested
Barium	12.0-18.0	200	200	No	Naturally Occurring	May 2003
Chloride	14.2-22.4	250	N/A	No	Naturally Occurring	May 2003
Fluoride	41-43	400	400	No	Naturally Occurring	May 2003
Nitrate	5.3-10.8*	10	10	Yes*	Naturally Occurring or from Fertilizers	September 2005
Sulfate	57.7-79.2	250	N/A	No	Naturally Occurring	May 2003
Total Nitrate/Nitrite	5.3-10.8*	10	10	Yes*	Naturally Occurring or from Fertilizers	September 2005
DCPA acid metabolites	2.2-16.7	N/A	N/A	N/A	Herbicide	May 2005

[1] Only contaminants which tested at levels at or above the State Reporting Level (SRL) are listed. [2] ND = Not Detected

As a result of the detection of DCPA acid metabolites in the samples taken, the City is required to increase the sampling schedule on these well sites to annually.

Violation Notes:

* September sample for well 3 exceeded MCL. Follow up sample taken upon notification came back within allowable limits.

* Required fourth quarter nitrate sample for well 3 was not taken on time. A sample was taken late and did come back within allowable limits.

* Two coliform samples taken in December came back positive. Resamples were taken and came back normal.

It is assumed that the samples were positive due to recent remodeling at both sample locations.

* The September Nitrate sample exceeded the MCL. Follow up samples came back within allowable limits.

GENERAL HEALTH EFFECTS INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as person 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 (800-426-4791).

WATER QUALITY PROTECTION PROGRAMS

The City is committed to supplying its customers with high quality and aesthetically pleasing drinking water. The City has adopted the following practices to ensure that the drinking water supplied to its customers meets or exceeds all federal and state standards.

- ◆ **2002 Water System Plan Update.** In October 2002 the City completed the 2002 update of the Water System Plan. This update included a comprehensive evaluation of the entire water system including: water quality, distribution system analysis, storage capacity, adequacy of water rights, projected growth in the system, capital improvements necessary to increase capacity or replace aging facilities and the financial viability of the system.
- ◆ **1999 Wellhead Protection Program.** The City has adopted a wellhead protection program that has set protective boundaries around the City's wells, identified potential contamination sources around the wells, provided for notification of these sites and City residents about wellhead protection, and developed contingency planning in case a well becomes contaminated. These wellhead protection zones are also used for zoning and planning decisions
- ◆ **1995 Water Conservation Program.** The City completed a water conservation program in 1995 that identifies ways in which City residents can conserve water. Water conservation helps to preserve existing resources and saves money for both the City and its residents.
- ◆ **2006 Supervisory Control and Data Acquisition System Upgrade Project.** The City completed installing a new SCADA control system for the water system during the spring of 2006. Completion of this project includes increase site security capability, enhanced automated treatment capability.
- ◆ **2006 "AMR" Automated Water Meter Upgrade Project.** The City will be installing new automated radio read water meters on all water services connected to the water system. This project is being completed to provide a more efficient and accurate means to record water consumption. The new system will aid the city to promote the water conservation program as well. When project is completed, the city will be recording water in gallon units rather than cubic feet and will be reading consumer meters on a monthly basis rather than the current bi-monthly system. The new system will also provide better and faster ability to provide leak detection for the consumer.

WATER SYSTEM SAFETY & SECURITY

In the post 9/11 era, security of water system facilities has emerged as an issue of national importance. The City is currently conducting an assessment of the vulnerability of the City's water system as a whole, and critical water production, treatment and conveyance facilities in particular. Currently all of the water system facilities are within secured areas. In the near future all City utility employees will be required to display photo identification at all times. If you see suspicious activity in the vicinity of any of the City's water production, storage or treatment facilities, you are encouraged to contact local law enforcement by

dialing 911. An informed and watchful citizenry is the best protection that the City has against potential threats to the safety and security of your water system.

The City has adopted a new Cross Connection Control (CCC) Program which seeks to limit the possibility of contamination of the water system from backflow events. The City has been implementing the CCC Program during 2003 and will continue further implementation over the next 12-18 months. This program requires that all potential contaminant sources be identified and isolated from the system by means of various types of backflow prevention devices. All residents should expect to be contacted by the City's Cross Connection Control Specialist to assess the in the near future. The goal of this program is to keep your water supply safe and your cooperation will be greatly appreciated.

The City welcomes input from its residents on ways to protect and conserve its water supplies and would be happy to supply you with additional information on ways you can help protect groundwater. Additionally, the City is required to publish an updated Water Quality Report annually and welcomes any input you might offer on how to improve this report. Residents with input on water issues or this report may contact City staff at City Hall or attend the regularly scheduled City Council Meetings on the first and third Tuesday of each month at 7:00 p.m. at City Hall.

This Water Quality Report is required by law to be published and distributed to users of the water system annually.

City of Quincy
Public Works Department
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Quincy, WA 98848