# ONGOING MAINTENANCE & IMPROVEMENT PROGRAMS

Residents in our District may observe several ongoing projects which are part of LFPWD's scheduled activities to ensure a reliable

supply of quality water now and in the future:

Each month samples are collected from seven separate locations throughout the District. These samples are tested by AM Test Inc., an independent laboratory, for any bacterial contaminates.



♦ Annual flushing of water mains – ensures that



mineral sediments
like iron and
manganese oxides do
not accumulate in the
pipes. On occasion
customers may notice
sediments in the tap
while flushing is

underway. These are not hazardous to your health.

• Water meters require periodic replacement to ensure accurate operation. We replace a percentage of all meters each year. If your meter is replaced, you will be contacted in advance by our staff. ♦ Reservoirs are cleaned, disinfected and maintained on a periodic basis. The District's 200,000 gallon "High Zone"



standpipe reservoir will be re-painted in the coming year and mixing baffles will be installed to promote circulation.

- ◆ Customers are encouraged to stop in and review the District's Comprehensive System Plan which outlines all planned improvements.
- ♦ The District is implementing a long term plan to replace old steel pipes with ductile iron pipe which is more resistant to rust and leaks. You



may on occasion see our crews working on pipe replacement.
During 2005 we replaced pipe on 45<sup>th</sup> Place and 51<sup>st</sup>

Place and are planned for 2006 on N.E. 187<sup>th</sup> St., 37<sup>th</sup> Ave., Ballinger and several other locations. All new water mains are disinfected, flushed and sampled before they are put into service.

 Upgrades are also being carried out on our pumping and control facilities located in the District's wellhead protection area.

#### **CONTACT INFORMATION**

LAKE FOREST PARK WATER DISTRICT Roy Blackwell, Operations Manager 4029 N.E. 178<sup>th</sup> St., Lake Forest Park, WA 98155 Phone:(206)-365-3211 FAX: (206)-365-3357 e-mail: office@lfpwd.org

District web address has ongoing information and news: <a href="http://www.lfpwd.org">http://www.lfpwd.org</a>

Washington State Department of Health Environmental Protection Agency Safe Drinking Water Hotline Website: www.doh.wa.gov/gov/ehp/dw Website: www.epa.gov/safewater

Phone: 1-800-426-4791

e-mail: <a href="mailto:hotline-sdwa@epamail.epa.gov">hotline-sdwa@epamail.epa.gov</a>

Participate in District Board Meetings! The District Board of Commissioners has regular meetings on the second Monday of each month at 9:00 AM in the District office on 178<sup>th</sup> Street. We invite any interested resident to participate in these meetings.





# ANNUAL WATER QUALITY REPORT

**JUNE 2006** 

# **KEEPING OUR CUSTOMERS INFORMED!**

### WHAT'S IN THIS REPORT?

This report has information on the quality of your drinking water over calendar year 2005. Your water meets all safety requirements. If you have any questions or comments please call Lake Forest Park Water District at (206) 365-3211.

#### WHERE DOES YOUR WATER COME FROM?

Lake Forest Park Water District (LFPWD) water comes from two well fields, located on District owned acreage in the northern end of the community. There are eight artesian aquifer wells less than 30 feet deep that produce a combined flow of around 100 gallons per minute (gpm) and three drilled wells that are over 200 feet deep. LFPWD pumps water from the wells to two steel reservoirs with a combined capacity of 440,000 gallons. The system uses an average of 250,000 gallons per day; during hot summer days that figure has risen to 1,000,000 gallons per day in past years. Through conservation and leak repairs our usage has been reduced substantially in recent years. Interested customers are welcome to receive a full field tour of our production facilities. Just call the District office to arrange your visit.

#### PROTECTING OUR WATER SOURCES

Our District is very protective of it's water sources and our first defense is the careful attention of our customers and neighbors to activities near our wellhead protection area. We encourage residents that are in the groundwater recharge zone to avoid commercial fertilizers and all synthetic pesticides and herbicides as these have the potential to enter our aquifer...

We also have a Wellhead Protection Program and are covered by the Ground Water Contamination Susceptibility Assessment Survey. Our artesian wellfield is classified as "highly susceptible" while the deep well field is rated as moderately susceptible, based on the depth of the wells. From a groundwater protection standpoint, the wellhead area is considered relatively safe from contamination because there are limited potential sources of contamination in the watershed. The District owns and controls around 12 acres of land immediately surrounding the wells. Access is limited via a locked gate.

# WATER QUALITY TESTING

The State Department of Health and the EPA require water purveyors to sample their water on a regular basis to ensure its safety. Specific testing requirements are established by the Department of Health (DOH) for each water purveyor, based on their risk assessment for each contaminant. Because of this, many tests are infrequent for reason of economy. Our District is required to test for bacterial contamination three times per month. To insure high quality water the District actually averages 15 bacterial tests per month. During 2005 there was one coliform positive test result. We immediately re-tested on each side of the sample station and confirmed that we did not have contamination of the system. We subsequently upgraded all of our sampling stations to a more reliable above ground type.

The District staff and commissioners are committed to meeting the most stringent and most recent regulatory standards. At the same time we recognize our customers long standing appreciation and general desire for naturally pure, chemical-free water. We will do our

RESULTS OF LEAD AND COPPER SAMPLING
AT RESIDENTIAL WATER TAPS

Lead and copper monitoring is conducted as directed in ten homes categorized as high risk. The District tests high risk homes under worst case conditions and none of the tests have exceeded the allowable level for lead or copper.

Variable Copper	90th Percentile Values ND	No. of Sites Exceeding Action Levels*  All sample results were below the Action Level	Maximum Contaminant Level (MCL) Exceeds Action Level if more than 10% of the homes tested have copper levels greater than 1.3 parts per million	Maximum Contaminant Level Goal (MCLG)  1.3 parts per million Treatment technique required	Source of Contaminant Corrosion of plumbing systems
Lead	4.6 parts per billion	None of the 10 site samples taken in 2002 exceeded the Action Level	Exceeds Action Level if more than 10% of the homes tested have lead levels greater than 15 parts per billion	Zero parts per billion	Corrosion of plumbing systems

Contaminant	Violation Y/N	Last Sample In Period	Average Value	Maximum Value	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological/Physi	cal Contaminants							
Coliform Bact	Υ	8/5/2005	0.0	0.0	% Positive	0	5	Sampling Station was submerged in runoff
Turbidity	N	4/16/2004	0.72	0.72	NTU	n/a	5	Soil runoff
Inorganic Contaminar	nts							
Arsenic	N	4/16/2004	2.5	3	ppb	n/a	50	runoff from glass and electronics production wastes
Fluoride	N	4/16/2004	0	0	ppm	4		Erosion of natural deposits, water additive, discharge from fertilizer and aluminum factories
Lead	N	12/5/2005	2.80	6.00	ppb	0	15	Corrosion of household plumbing systems
Nitrate	N	4/22/2005	2.10	2.10	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion

Source: raid-2:\Water Quality\CCR\CCR.XLS

best to continue to meet this expectation.



## **Table Definitions**

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 large 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 is feasible using the best available treatment technology.

Nepholometric Turbidity Unit - NTU

The unit of measurement for turbidity. Turbidity is caused by suspended sediments in water.

Parts per million - ppm or Milligrams per liter - mg/l

One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion - ppb or Micrograms per liter -µg/l

One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000. **Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

#### WATER CONTENT AND TREATMENT

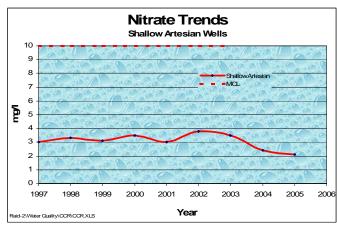
Drinking water, including bottled water, may reasonably be expected to contain at least small amo unts of some contaminants. The laboratory detection of these substances does not necessarily indicate that water poses a health risk. For this reason, State and Federal guidelines have suggested a Maximum Contaminant Level (MCL) for most substances found in water. The tables shown here compare the detected values with MCL for current test results.

LFPWD customers and many residents of the surrounding communities have come to appreciate our long tradition of naturally pure, un-chlorinated water. We have resolved to continue this tradition even in the face of more stringent requirements. The Total Coliform Rule requires water systems to meet a strict limit for

coliform bacteria all the way to the customer connection. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this happens, we will notify the public by written notice, newspaper, television or radio. To comply with the stricter regulation while still maintaining chlorine free water, we have installed automated standby chlorination equipment which can be used immediately in the event contamination with harmful bacteria.

The District has been closely tracking nitrate level trends in our Artesian well source. (see graph)

Nitrate levels remain well below allowable, however in 2002 there appeared to be an increase trend as the maximum increased to 3.8ppm. We are pleased to report that this has steadily *decreased* since then to the present level of 2.1ppm. We appreciate the careful attention of residents in our ground water recharge area who are voluntarily avoiding the use of commercial fertilizers and chemicals to protect our water source.



Our water is not fluoridated. Families with growing children may contact their dentist regarding the use of fluoride supplements such as fluoride containing toothpaste. The District water is tested for arsenic in accordance with federal guidelines but levels remain within guidelines.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as those undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and 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 microbial contaminates are available from the Safe Drinking Water Hotline (1-800-426-4791).

#### **CONSERVATION TIPS**

Lake Forest Park Water District has an excellent supply of pure well water. Nevertheless, water conservation helps to stretch our existing supplies and saves you money. Most homes can conserve water without any significant change in life-style. Here are some tips that will help you make a difference:

- ◆ Take shorter showers and avoid running the water while you brush your teeth.
- ♦ Wash full loads of laundry and dishes.
- ◆ Replace water using appliances with newer water saving models.
- ◆ Repair all plumbing leaks promptly. This is especially important in older homes. A frequent source of leakage is the service line.
- ◆ Water your lawn early in the morning or consider letting your lawn go dormant in the summer.