

INTRODUCTION

The City of West Sacramento is dedicated to supplying its customers with a safe and reliable supply of high quality drinking water. We are pleased to present this annual report, which conforms to a federal regulation that requires community water systems to provide customers with detailed information about their drinking water. It includes information about water supply sources, water treatment, water quality, drinking water regulations and source water protection programs. We hope that the information in this report increases your understanding of the water treatment process and your confidence in the quality of the water you drink.

Landlords who receive this report should forward it to tenants residing within the city, for their information. Additional copies are available upon request. Please contact the City of West Sacramento Public Works Department, (916) 617-4850. This report is also available at the city of West Sacramento web site **Este informe contiene información importante sobre su agua potable. Tradúzcalo, o hable con alguien que pueda entenderlo.**

Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.

WATER SUPPLY SOURCES

The City of West Sacramento's main water supply is the Sacramento River. Our intake structure is located at Bryte Bend, upstream of the confluence of the Sacramento and American rivers. To ensure an adequate water supply for West Sacramento's current and future needs, the City maintains water supply contracts with the federal Bureau of Reclamation, the state Central Valley Project and with the North Delta Water Agency.

In addition to surface water, the City has two ground water wells. These wells are currently on standby status and are available to supply additional water during emergencies. The City did not utilize ground water in 2012.

SOURCE WATER PROTECTION

A community's drinking water supply is a valuable resource and needs protection. The quality and reliability of source water can have a significant impact on a community's economy and quality of life. Given the importance of the Sacramento River to West Sacramento's continuing growth and to the health and well-being of our residents, the City actively participates in several source water protection programs.

■ **The Rice Pesticide Workgroup**, in partnership with the City of Sacramento, the County of Sacramento and the East Bay Municipal Utility District, keeps us up to date on this important water quality issue. Our program of frequent monitoring at our raw water intake during rice season has been expanded to include new rice pesticides. In addition, we continually voice our concerns about the impact of rice growing activities on source water quality in meetings with the California State Department of Pesticide Regulation, the Regional Water Quality Board (RWQCB), the California Rice Commission, and Agriculture Commissioners of the major rice growing counties. We have also presented our concerns directly to the RWQCB and to rice growers.

■ **The Keep the Waters Clean Campaign**, in partnership with the City of Sacramento, the County of Sacramento and the East Bay Municipal Utility District, protects water quality by encouraging boaters and other recreational users of the Sacramento River to use pumpouts and public restrooms rather than the river to dispose of wastes.

■ **The Sanitary Survey of the Sacramento River Watershed**, an ongoing project in partnership with the City of Sacramento, the County of Sacramento, the Placer County Water Agency, the City of Roseville and East Bay Municipal Utility District, keeps us up to date on developments in the Sacramento Valley watershed. The Sanitary Survey of 2010 was completed and is available for review at the Public Works Department, 1110 West Capitol Avenue in West Sacramento.

■ **The Drinking Water Source Assessment Program (DWSAP)** allows us to identify sources of contamination and respond to possible contamination near our water treatment plant and throughout the watershed. Our Source Water Assessment was completed in November 2000. The DWSAP survey identified agricultural drainage as the activity to which West Sacramento's surface water source is most vulnerable. A copy of the survey is available for your review at the Public Works Department, 1110 West Capitol Avenue in West Sacramento.

■ **The Regional Water Authority Water Efficiency Program** partners with water agencies throughout the Greater Sacramento Region working to help agencies better meet regulations in water conservation programs. Water conservation programs include education, water efficiency surveys for residents, commercial, industrial, and institutional water users. Wise water use such as landscaping with low water demanding plants and water timers. Recent legislation of regional water management and water supply issues resulted in the implementation of these water conservation programs.

WATER TREATMENT: SURFACE WATER

Water withdrawn from the Sacramento River is treated at the City's Bryte Bend Water Treatment Plant (BBWTP), which is operated 24 hours a day by state-certified Water Treatment Plant Operators. Over 4.6 billion gallons of Sacramento River water was treated in 2012.

The City of West Sacramento maintains the high quality of our treatment process through the following:

- A vigorous program of preventative maintenance helps us to operate equipment at maximum efficiency.
- Membership in local, regional and national water industry organizations allows us to draw on expertise and experience outside of our own city.
- Monitoring current research on water treatment, and continuing education and training at our treatment plant assures you of a motivated, professional staff focused on producing the best quality water possible.

For further information about the water treatment process, please contact the BBWTP at (916) 617-4860.

WATER EFFICIENCY

The City of West Sacramento promotes water conservation at all times. Wise water use is foremost in our commitment to the community. Considering the many uses of our drinking water in our day-to-day lives, water efficiency is now a way of life. For more information on this topic visit:

www.cityofwestsacramento.org/city/depts/pw/public_works_operations/environmental_prog

Your efforts to improve water efficiency will save energy in your home and in the community. Landscapes will be healthier and better-looking. A reduction in pollution in our streams by stopping wasteful runoff from our landscapes to storm drains will insure cleaner waters for fish, flora and fauna.

ADDITIONAL INFORMATION

- **For questions about this report:**
Dan Mount
Public Works Operations Manager
(916) 617-4860
- **For additional copies of this report:**
Public Works Department
(916) 617-4850
- **To report problems after hours:**
Public Works Department
(916) 372-3375
- **For billing questions:**
Finance Department
(916) 617-4589
- **For water meter retrofit program:**
Dereck Goodwin
(916) 617-4750
- **For water quality complaints:**
Bryte Bend Water Treatment Plant
(916) 617-4860
- **EPA Safe Drinking Water Hotline**
(800) 426-4791
- **City of West Sacramento web site:**
www.cityofwestsacramento.org
- **City Council Meetings:**
Twice monthly - Wednesdays at 7 p.m. in the City Council Chambers, 1110 West Capitol Ave. For specific dates check the "City Calendar" on www.cityofwestsacramento.org or phone (916) 617-4500.



Bryte Bend Water Treatment Plant
Sacramento River Intake Pumps

WATER CONSERVATION

Over 4.6 billion gallons of high quality drinking water was produced at the BBWTP in 2012. Most of this water was not used for drinking, but for landscape watering. An easy and effective way to conserve water is to follow the City's water conservation ordinance by using an odd-even watering schedule for outdoor landscaping. If your home address is an odd number, water on Mondays, Wednesdays or Fridays. If your address is an even number, water on Tuesdays, Thursdays or Saturdays. Remember, most lawns will be healthier if watered thoroughly once a week or twice weekly during the hot summer months. Consult a lawn care professional for further information.

QUESTIONS AND COMMENTS

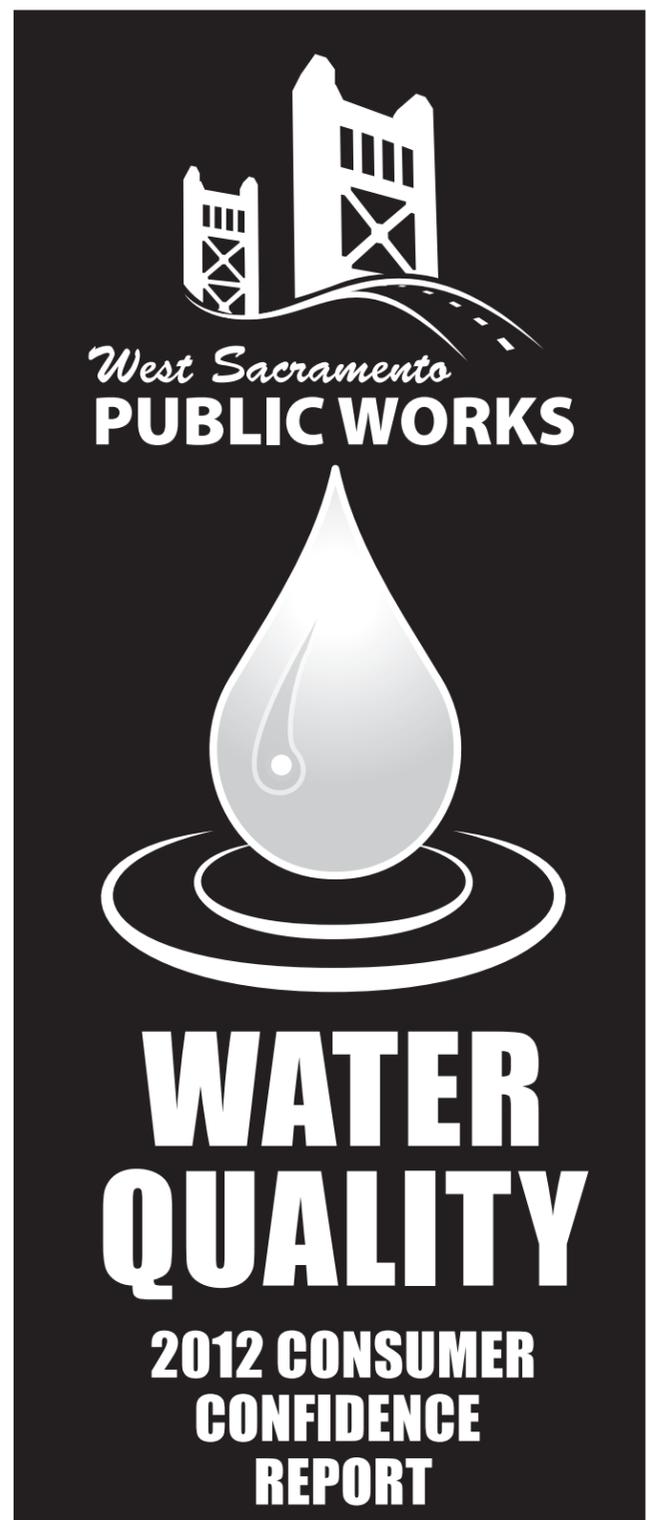
We hope you find this report to be useful and informative. If you have any questions or comments about this report or about your drinking water, please call Dan Mount, Public Works Operations Manager, (916) 617-4862.

OUR COMMITMENT TO YOU

The City of West Sacramento has delivered over 30 billion gallons of high quality, treated water to our residents since the opening of the Bryte Bend Water Treatment Plant in 1988. Today, as West Sacramento grows, our commitment to you continues. We are proud of the service we provide and promise to continue to deliver the highest quality drinking water to you and your family.



Bryte Bend Water Treatment Plant
400 North Harbor Blvd.
West Sacramento, CA 95605
JUNE, 2013



WATER QUALITY ANALYSIS RESULTS

The City of West Sacramento routinely monitors your drinking water according to federal and state laws. The following table shows selected results of our monitoring tests for the period of January 1st to December 31st, 2012. A complete and detailed listing of water quality analysis results for the four most recent quarters is available on the City of West Sacramento web site, www.cityofwestsacramento.org/community/Detail2012WaterReport.pdf

To help you better understand the terms and abbreviations used in the report, we've provided the following definitions:

California detection level for purposes of reporting (DLR) - the concentration of a contaminant in drinking water at or above which is reported to the California Department of Public Health

Parts Per Million (PPM) or milligrams per liter (mg/L) - A measurement of chemical concentration.

Parts Per Billion (PPB) or micrograms per liter (µg/L) - A measurement of chemical concentration.

Picocuries per liter (pci/l) - A unit of measurement of a chemical concentration.

Regulatory action level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.

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

Maximum Contaminant Level (MCL) - The maximum level of a contaminant that is allowed in drinking water. It is set as close to the Maximum Contaminant Level Goal as feasible, using the best available treatment technology.

Maximum residual disinfectant level (MRDL) - The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants

Maximum residual disinfectant level goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants

Micro ohms per centimeter (umhos/cm) - A unit of measurement.

N/A - Not applicable.

Nephelometric Turbidity Unit (NTU) - A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.

Primary Drinking Water Standard (PDWS) - MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment techniques.

Public Health Goal (PHG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. The California Environmental Protection Agency sets Public Health Goals.

Secondary Drinking Water Standard - MCLs for contaminants that may influence consumer acceptance of water, but are not otherwise harmful. These standards relate to taste, odor, color, mineral content and clarity.

Treatment technique (TT) - a required process intended to reduce the level of a contaminant in drinking water

HARDNESS There is no MCL for hardness. We are frequently asked for the hardness of West Sacramento water in grains per gallon. One grain/gallon is equal to 17.1 mg/L of hardness.

2012 TEST RESULTS

Contaminant	Type of MCL	Violation Y/N	Maximum Level Detected	Units of Measurement	DLR	MCL	California PHG	Likely Source of Contamination
Inorganic Contaminants								
Fluoride	Primary	N	1.05	PPM	0.1	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium	N/A	N	6.0	PPM	N/A	N/A	N/A	naturally occurring in the environment
Total Hardness	N/A	N	46	PPM	N/A	N/A	N/A	erosion of naturally occurring mineral deposits
Aluminum	Primary	N	30	PPB	50	1,000	600	erosion of natural deposits; residue from some surface water treatment processes
Barium	Primary	N	19	PPB	100	1,000	2,000	discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chloride	Secondary	N	6.0	PPM	N/A	250	N/A	runoff/leaching from natural deposits; seawater influence
Arsenic	Primary	N	ND	PPB	2	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Other								
Specific Conductance	Secondary	N	124	UMHOS/CM	N/A	900	N/A	substances that form ions when in water; seawater influence
Sulfate	Secondary	N	5.0	PPM	0.5	250	N/A	runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	Secondary	N	80	PPM	N/A	500	N/A	runoff/leaching from natural deposits
Calcium	N/A	N/A	10	PPM	N/A	N/A	N/A	runoff/leaching from natural deposits
Magnesium	N/A	N/A	5.0	PPM	N/A	N/A	N/A	runoff/leaching from natural deposits
Potassium	N/A	N/A	1.0	PPM	N/A	N/A	N/A	runoff/leaching from natural deposits
Disinfection Byproducts								
Total Trihalomethanes	Primary	N	25	PPB	N/A	80	N/A	by-product of drinking water disinfection

WATER HARDNESS SCALE

Grains Per Gallon	Miligrams Per Litre (mg/L) Parts Per Million (PPM)	Classification
1.0 - 3.5	LESS THAN 17.1	SOFT
LESS THAN 1.0	17.1 - 60	SLIGHTLY HARD
3.5 - 7.0	60 - 120	MODERATELY HARD
7.0 - 10.5	120 - 180	HARD
OVER 10.5	OVER 180	VERY HARD

2012 WEST SACRAMENTO WATER HARDNESS

Grains Per Gallon	Miligrams Per Litre (mg/L) Parts Per Million (PPM)	Classification
2.69	46	SLIGHTLY HARD

WATER QUALITY

All public water supplies must meet stringent federal and state standards. Treated water delivered to you and your family not only meets, but surpasses state and federal standards for quality and safety. We know this because we continually test our water using modern equipment and procedures, in our own state-certified laboratory and commercial laboratories. This regular program of water analysis, including sampling at over fifty representative households throughout the city, assures safe water for you and your family.

WHAT YOU SHOULD KNOW ABOUT...

FLUORIDE

The city water system treats your water by adding FLUORIDE to the naturally occurring level in order to promote dental health in consumers. The fluoride levels in the treated water for 2012 were maintained within an average monthly range of 0.78 to 0.93 mg/L. The maximum level of Fluoride measured in West Sacramento during 2012 was 1.05 mg/L. The California MCL for fluoride is 2.0 mg/L. A Public Health Goal (PHG) of 1 ppm (1,000 ppb) is developed for fluoride in drinking water. This level is intended to be an approximate year-round average. The U.S. Environmental Protection Agency's (U.S. EPA's) Maximum Contaminant Level (MCL) for fluoride is 4 mg/L. U.S. EPA's MCL was set to protect against crippling skeletal fluorosis, with a secondary MCL of 2 mg/L to protect against dental fluorosis (in mild cases, fluorosis is a slight discoloration of teeth, in more severe cases it can lead to pitting and breaking of the teeth). Moderate to severe dental fluorosis is rare when the drinking water fluoride level is in the range of 1 mg/L, but begins to become significant at concentrations close to 2 mg/L. The PHG is based on a no-observed-adverse effect-level (NOAEL) of 1 mg/L for dental fluorosis in children. A relative source contribution of 100% (1) was applied yielding a calculated PHG of 1 mg/L. This level is judged to be the optimum level for reducing the prevalence of dental fluorosis while providing protection against dental caries. In reviewing the available data on health effects of fluoride, studies have been found which provide some indication that there may be a causative relationship between lifetime consumption of fluoridated drinking water and increased incidence of hip fracture in the elderly. However, this health endpoint is not sufficiently established at present to provide the basis for calculating a PHG. Therefore, OEHHA calculates a PHG of 1 mg/L (1 ppm) for fluoride in drinking water.

SODIUM

We are also frequently asked about the sodium content of the West Sacramento water. Sodium is a naturally occurring chemical element and is present in our source water. The maximum level of sodium measured in West Sacramento water during 2012 was 6.0 mg/L. At this level an individual will ingest 6.0 mg of sodium for every liter of water consumed. There is no MCL for sodium in drinking water.

Sodium in the diet is also measured in milligrams (mg). There is no recommended dietary allowance for sodium. However, the National Academy of Sciences states that a person should consume at least 500 mg a day and healthy adults should stay within the range of 1,100 to 3,300 mg a day. Individuals concerned with the effect of West Sacramento water on their daily intake of sodium should consult a healthcare professional. **Additional information about potential health effects of drinking water can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.**

LEAD and COPPER

In accordance with federal regulations, the City of West Sacramento tests your water for lead and copper every three years to determine if any leaching has occurred from household plumbing. Our last round of lead and copper testing took place in the summer of 2010. Samples from thirty homes were tested. Results for lead testing ranged from non-detectable to 1.0 PPB. The 90th percentile value for lead was non-detectable. These results are well below the 15 PPB federal Action Level for lead. Results for copper testing ranged from non detectable to 0.03 PPM. The 90th percentile value for copper was 0.027 ppm. These results are below the 1.3 PPM federal Action Level for copper. Our next round of lead and copper testing will take place in the summer of 2013.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in and the age of your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested by a certified commercial laboratory. You may also wish to flush your tap for 30 seconds to two minutes before drinking the tap water. **Additional information is available from the EPA's Safe Drinking Water Hotline at (800) 426-4791.**

NITRATE

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. The 2012 Bryte Bend Water Treatment Plant drinking water results for nitrate was non-detectable.

IMPORTANT INFORMATION FOR IMMUNO-COMPROMISED PERSONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer and 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 healthcare providers. **EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the EPA Safe Drinking Water Hotline, (800) 426-4791.**

DRINKING WATER CONTAMINANTS

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap water and bottles 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 minerals and, in some cases radioactive materials and can pick up substances resulting from the presence of animals or from human activity.

Contaminants in source water may include:

- microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operation, and wildlife.
- inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

WATER METER IMPLEMENTATION PROGRAM

The City of West Sacramento is continuing with the Water Meter Program and is working toward complying with California State Law, Assembly Bill No. 514 (AB 514) by continuing to install meters to be able to quantify the water use of the City. The program has fully implemented the no lead meters being installed to comply with the recently enacted AB 1953. AB 1953 requires water purveyors like the City to reduce the amount of lead in the system. The Water Meter program accomplished this by requiring the installation of environmental brass (EB) meters on both residential and commercial services. The program accomplished the main focus of 2011/12 by fully implementing a Fixed Base System (FBS) that can remotely read meters more readily. The FBS allows both the Finance and Public Works departments to fully access data on any meter. This system allows the City to verify if a meter is not working properly as well as verifying a resident's request to see if there is a potential leak in their system by being able to collect data hourly if needed. The City has also been successful in programming funds for the next 4 years to be able to complete all residential meters that currently do not have one. The City has completed the installation of over 250 meters along with repairing and replacing several feet of backyard water mains in early 2013. Approximately 500 meters will be installed in the fall of 2013. All customers with meters receive a water usage comparison in their City bill. Residents can use this information and can convert over to the metered rate at any time. The City is working on a systematic approach to installing the remainder of the meters in various neighborhoods and should have a map with the target year available. Residents can request a meter be installed at any time prior to their target year. This program, along with other pertinent information, can be viewed on the City's website. **For additional information about the water meter program contact the Project Manager Dereck Goodwin, Associate Civil Engineer at (916) 617-4850.**