CITY OF WHITTIER 2015 ANNUAL WATER QUALITY REPORT

DEAR CUSTOMER, The City of Whittier is committed to keeping you informed on the quality of your drinking water. This report is provided to you annually. It includes information describing where your drinking water comes from, the constituents found in your drinking water and how the water quality compares with the regulatory standards. During 2015, the drinking water provided by the City of Whittier to its service area complied with all Federal and State drinking water quality standards. We remain dedicated to providing you with a safe and reliable supply of high quality drinking water.

The information that follows represents only a fraction of the activity in which the City of Whittier engages to provide you, the consumer, a high level of confidence in the water that you drink. We, along with our State-certified laboratories, routinely scrutinize our water supplies for the entire range of elements that have the potential to degrade the quality of your water.

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 United States Environmental Protection Agency (USEPA) Safe Drinking Water Hotline (1-800- 426-4791).

Some people, however, may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people with cancer undergoing chemotherapy, people who have undergone organ transplants and people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections are among those that may be more vulnerable. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline (1-800 426-4791).

This report is intended to provide information for all water users. If received by an absentee landlord, a business or school, please share the information with tenants, employees or students. We will be happy to make additional copies of this report available for review by the public upon request.

If you would like additional information regarding water quality, please call Mr. Jared Macias, Water Manager, at (562) 567-9549.

Our City Council meets on the second and fourth Tuesday of each month at 6:30 p.m. in the City Council Chambers located in City Hall at 13230 Penn Street. Please feel free to participate in these meetings.

Este informe contiene información muy importante sobre su agua potable. Para mas información ó traducción , favor de contactar a Mr. Jared Macias. Telefono: (562) 567-9549.

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

Sincerely,

David Schickling, PE

Director of Public Works

WHERE DOES YOUR WATER COME FROM?

And how is it treated?

During 2015, the City of Whittier pumped 100 percent of our source water from four (4) active deep wells located in the Whittier Narrows area. These wells draw water from the Main San Gabriel groundwater basin and the Central groundwater basin. This water is then treated, pressurized and delivered to the City of Whittier's eleven reservoirs for your use. In addition, the City of Whittier assists in the operation of a groundwater treatment facility located in the Central Basin and receives treated water from the Central Basin Plant as a drinking water supply. The treatment facility removed Volatile Organic Chemicals (VOCs) to non-detectable levels. During 2015, the City of Whittier's water supply came from the groundwater located in the Main San Gabriel Basin and Central Basin.

DROUGHT UPDATE

California is enduring a fifth year of record drought. El Nino did little to bring relief to southern California as our groundwater supplies are still near record lows. Whittierites have done a tremendous job conserving water thus far ensuring that our City maintains adequate supplies. Together we can continue the wise use of this precious resource and make conservation a way of life! For tips on ways to save or to report water waste, please visit our website at www.cityofwhittier.org or contact our Public Works Department at (562) 567-9530.

Marshall Bowen Pumping Plant under construction, 2015

WHAT IS IN YOUR DRINKING WATER?

The chart in this report shows the average and range of concentrations of the constituents tested in your drinking water during year 2015 or from the most recent tests. The State allows the City of Whittier to monitor for some contaminants less than once per year because the concentrations of these contaminants in groundwater do not change frequently. Some of our data, although representative, are more than one year old. The chart lists all the contaminants detected in your drinking water that have Federal and State drinking water standards. Detected unregulated contaminants of interest are also included.

DRINKING WATER SOURCE ASSESSMENT

In accordance with the Federal Safe Drinking Water Act, an assessment of the drinking water sources for the City of Whittier was completed in December 2002. The assessment concluded that the City of Whittier's sources are considered vulnerable to the following activities or facilities associated with contaminants detected in the water supply: research laboratory, known VOC contamination plumes, and parking lots/mall. In addition, the sources are considered most vulnerable to the following activities or facilities not associated with contaminants detected in the water supply: research laboratories and parks. A copy of the complete assessment is available at the City of Whittier Public Works counter at 13230 Penn Street, Whittier, California 90602. You may request a summary of the assessment to be sent to you by contacting Customer Service at (562) 567-9530.

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CITY OF WHITTIER 2015 ANNUAL WATER QUALITY TABLE

CONSTITUENT AND (UNITS)	MCL or [MRDL]	PHG (MCLG) or [MRDLG]	DLR	GROUNDWATER SOURCES		MCL Violations?	Most Recent Sampling Date	TYPICAL ORIGINS
				Results (a)	Range (Min-Max)			
PRIMARY DRINKING WATER STANDARDS--Health-Related Standards								
ORGANIC CHEMICALS								
Tetrachloroethylene (PCE) (µg/l)	5	0.06	0.5	<0.5	ND - 1.6	No	Monthly	Discharge from industrial activities
DISINFECTANT AND DISINFECTION BY PRODUCTS (b)								
Total Triholomethanes (TTHM) (µg/l)	80	NA	1	38	15 - 46	No	Quarterly	Byproduct of drinking water chlorination
Haloacetic acids (five) (HAA5) (µg/l)	60	NA	1 - 2	4.7	1.2 - 4.9	No	Quarterly	Byproduct of drinking water chlorination
Chlorine Residual (mg/l)	[4]	[4]	NA	0.42	0.12 - 0.95	No	Weekly	Drinking water disinfectant
INORGANIC CHEMICALS								
Chromium, Hexavalent (µg/l)	10	0.02	1	<1	ND - 1.6	No	2014	Erosion of natural deposits; industrial waste discharge
Copper (mg/l) (c)	AL = 1.3	0.3	0.05	0.44	0 / 30 Samples Exceeded the AL	No	2013	Corrosion of household plumbing system
Fluoride (mg/l)	2	1	0.1	0.22	0.17 - 0.33	No	2015	Erosion of natural deposits
Lead (µg/l) (c)	AL = 15	0.2	5	5.6	0 / 30 Samples Exceeded the AL	No	2013	Corrosion of household plumbing system
Nitrate as N (mg/l)	10	10	0.4	2.1	1.4 - 3.4	No	2015	Runoff and leaching from fertilizer use
BACTERIOLOGICAL								
Coliform Bacteria (d)	5%	(0)	NA	1.8%	--	No	Weekly	Naturally present in the environment
RADIOACTIVE CHEMICALS								
Gross Alpha (pCi/l)	15	(0)	3	<3	ND - 8.1	No	2012	Erosion of natural deposits
Uranium (pCi/l)	20	0.43	1	1.9	1.2 - 2.9	No	2014	Erosion of natural deposits
SECONDARY DRINKING WATER STANDARDS--Aesthetic Standards, Not Health-Related								
Chloride (mg/l)	500	NA	NA	100	68 - 120	No	2015	Erosion of natural deposits
Foaming Agents (MBAS) (µg/l)	500	NA	NA	<50	ND - 56	No	2015	Municipal and industrial waste discharges
Odor (TON)	3	NA	1	1.1	1 - 2	No	2015	Naturally occurring organic materials
Specific Conductance (µmho/cm)	1,600	NA	NA	940	710 - 1,100	No	2015	Substances that form ions in water
Sulfate (mg/l)	500	NA	0.5	140	87 - 190	No	2015	Erosion of natural deposits
Total Dissolved Solids (mg/l)	1000	NA	NA	550	420 - 670	No	2015	Erosion of natural deposits
Turbidity (NTU)	5	NA	0.1	<0.1	ND - 0.24	No	2015	Erosion of natural deposits
ADDITIONAL CHEMICALS OF INTEREST/UNREGULATED								
Alkalinity, total as CaCO3 (mg/l)	NA	NA	NA	180	150 - 230	NA	2015	Erosion of natural deposits
Calcium (mg/l)	NA	NA	NA	91	73 - 110	NA	2015	Erosion of natural deposits
Hardness, total as CaCO3 (mg/l)	NA	NA	NA	300	230 - 360	NA	2015	Erosion of natural deposits
Magnesium (mg/l)	NA	NA	NA	16	12 - 19	NA	2015	Erosion of natural deposits
pH (pH units)	NA	NA	NA	7.8	7.6 - 8.2	NA	2015	Hydrogen ion concentration
Sodium (mg/l)	NA	NA	NA	73	48 - 95	NA	2015	Erosion of natural deposits

UNREGULATED CHEMICALS REQUIRING MONITORING				
CONSTITUENT AND (UNITS)	NL	Results	Range (Min-Max)	Most Recent Sampling Date
AT ENTRY POINT TO THE DISTRIBUTION SYSTEM				
1,4-Dioxane (µg/l)	1	0.52	0.52	2014
Chlorate (µg/l)	800	46	46	2014
Chromium, Hexavalent (µg/l) (e)	MCL = 10	0.92	0.92	2014
Chromium, Total (µg/l) (f)	MCL = 50	0.97	0.97	2014
Cobalt, Total (µg/l)	NA	2.5	2.5	2014
Molybdenum, Total (µg/l)	NA	1.1	1.1	2014
Strontium, Total (µg/l)	NA	570	570	2014
Vanadium, Total (µg/l)	50	4	4	2014
IN DISTRIBUTION SYSTEM				
Chlorate (µg/l)	800	33	33	2014
Chromium, Hexavalent (µg/l) (e)	MCL = 10	0.67	0.67	2014
Chromium, Total (µg/l) (f)	MCL = 50	0.7	0.7	2014
Cobalt, Total (µg/l)	NA	2.6	2.6	2014
Molybdenum, Total (µg/l)	NA	1.6	1.6	2014
Strontium, Total (µg/l)	NA	590	590	2014
Vanadium, Total (µg/l)	50	3.8	3.8	2014

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 are set by the USEPA.

PUBLIC HEALTH GOAL (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by California Environmental Protection Agency.

MAXIMUM CONTAMINANT LEVEL (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

REGULATORY ACTION LEVEL (AL): The concentration of a contaminant which, if exceeded, triggers a treatment or other requirements which a water system must follow.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL): The highest level of a 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.

PRIMARY DRINKING WATER STANDARD: MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

NOTIFICATION LEVEL (NL): An advisory level which, if exceeded, requires the drinking water system to notify the governing body of the local agency in which users of the drinking water reside (i.e. city council, county board of supervisors).

(a) The results reported in the table are average concentrations of the constituents detected in your drinking water during year 2015 or from the most recent tests, except for Coliform Bacteria, Chlorine Residual, TTHM, HAA5, Lead, and Copper which are described below.

(b) Samples were collected in the distribution system. For Chlorine Residual, TTHM, and HAA5, the running annual average is reported as "Results" while the maximum and minimum of the individual results are reported as "Range."

(c) Concentrations were measured at the tap. The 90th percentile concentration is reported in the table. None of the thirty sampling locations for Lead and Copper exceeded the Action Levels. The samples were collected in 2013.

(d) Over seven hundred (700) Coliform Bacteria samples were collected in the distribution system in 2015. One of 57 samples was positive for Coliform Bacteria in November 2015 (1.8%), and one of 70 samples was positive for Coliform Bacteria in December 2015 (1.4%). The result in the chart is the percentage of Coliform-positive samples out of all samples collected in the month the detection was made. Coliform Bacteria are used as an indicator that if present, indicates other potentially harmful microorganisms may be present. No more than 5.0% of the monthly samples may be Coliform-positive; therefore, the MCL was not violated in 2015.

(e) Hexavalent chromium was included as part of the unregulated chemicals requiring monitoring.

(f) Total chromium is regulated with an MCL of 50 µg/l but was not detected, based on the DLR of 10 µg/l. Total chromium was included as part of the unregulated chemicals requiring monitoring.

WHAT KIND OF CONTAMINANTS MIGHT BE FOUND IN DRINKING WATER?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surfaces 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 from human activity. Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban storm 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 stormwater 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 gasoline stations, urban stormwater runoff, agricultural application and septic systems.

Radioactive contaminants, that can be naturally- occurring or be the result of oil and gas productions and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the State Water Resources Control Board, Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

If present, elevated levels of lead can cause serious problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Whittier is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at: https://www.epa.gov/lead.

WHAT DOES A 20% REDUCTION *in water use look like?*

OUTDOOR WATER

The average Californian uses 196 gallons of water per day and 30-60% of their water outdoors. Here are some easy outdoor tips to reduce water use. Find the right combination for you to reduce by 20% or 39 gallons a day.

USE A BROOM TO CLEAN OUTDOOR AREAS

saves

8-18 GALLONS

per minute

ADJUST SPRINKLER TO WATER PLANTS, NOT DRIVEWAY

saves

12-15 GALLONS

each time you water

USE MULCH ON SOIL SURFACE

saves

20-30 GALLONS

per 1,000 sq. ft. each time

WATER PLANTS EARLY IN THE AM

saves

25 GALLONS

each time you water

SET MOWER BLADE TO 3" (ENCOURAGES DEEPER ROOTS)

saves

16-50 GALLONS

per day

PLANT DROUGHT-RESISTANT TREES AND PLANTS

saves

30-60 GALLONS

per 1,000 sq. ft. each time

INSTALL DRIP-IRRIGATION

saves

15 GALLONS

each time you water

INSTALL A "SMART" CONTROLLER

saves

24+ GALLONS **per day**