

CITY COUNCIL
Doug Cox – Mayor
Rick Breland – Mayor Pro Tem
Geoff Dale
Mark Gran
Betty Sampson

CITY CLERK
Debra Jackson

CITY TREASURER
Stacey Cox

CITY OF IMPERIAL

INCORPORATED 1904



CITY HALL
420 South Imperial Avenue
Imperial, California 92251
City Hall (760) 355-4371
Fax (760) 355-4718
<http://www.imperial.ca.gov>

CITY ATTORNEY
Dennis H. Morita A.P.C.

May 16, 2013

TO: WATER CUSTOMERS

FROM: CITY OF IMPERIAL

SUBJECT: 2012 ANNUAL WATER QUALITY REPORT

CITY OF IMPERIAL WATER CUSTOMERS:

The California Domestic Water Quality and Monitoring Regulations (Title22, California Code of Regulations) adopted January 1, 1989; require that each community water system distribute an annual report of the quality of water served to its customers. Though this is a mandated requirement, the City of Imperial welcomes the opportunity to inform its citizens of the methods of treatment and the quality of water delivered.

The City receives its water supply from the Colorado River via the All American Canal and the facilities of the Imperial Irrigation District. Our treatment process for the surface water consists of “complete” treatment including sedimentation, coagulation, flocculation, filtration and disinfection. The City currently provides nearly 3.855 million gallons per day at peak flows and over 106 million gallons of water annually to its citizens.

At the present time the City of Imperial meets all applicable California Department of Health Services and United States Environmental Protection Agency domestic water quality standards, the raw water we receive from the All American Canal exceeded standards for aluminum and Iron. Water quality data for the reporting period ending December 31, 2012 is attached. Recent 2012 water quality information is available for review upon request.

A copy of the document is available in English/Spanish on our City website at www.cityofimperial.org If you desire further information or have any questions, please contact Jackie Loper at (760) 355-3336.



How much water do I use?

The average Californian uses about 192 gallons per day.

Typical water-use patterns vary according to geography, climate, lot size and other factors. As a general rule, per capita water use is higher in hotter, inland regions than in cooler, coastal locations.

If you live in a single-family home, 50% or more of the water you use every day may be going to your lawn or landscaping. Since a thirsty lawn can be the largest user of water in a home, finding ways to save water outdoors can make a big difference in your water bill.

Indoors, activities such as bathing, cleaning and flushing toilets account for more than half of all water used inside the home. Toilets alone account for about 32% of typical residential water use.



Handy Tips To Conserve Water:

- 1. Take shorter showers*
- 2. Only do full loads of wash*
- 3. Run dishwasher when fully loaded*
- 4. Water lawn & garden early A.M.*

www.saveourh2o.org/

Imperial - Source Water Quality

Constituent (units)	PRIMARY	MCL	PHG (MCLG)	Range of Detection	Average	Level	MCL Violation?	Most Recent Sampling date	Typical Source of Constituent
Turbidity*									
Highest single measurement of the Treated Surface Water (NTU)	TT = 5.0		n/a	0.04-39	0.1		No	2012	Soil runoff
Lowest Percent of all Monthly Readings less than 0.5 NTU (%)	TT = 95		n/a	100	100		No	2012	Soil runoff
Inorganic Constituents									
Aluminum (ug/l)	200		n/a	140	140		No	2012	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride (ppm)	2		1	0.36	0.36		No	2012	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Radioactive Constituents									
Gross Alpha particle activity (pCi/l)	15		n/a	n/a	N/A		No	2012	Erosion of natural deposits
Uranium (pCi/l)	20		n/a	n/a	N/A		No	2012	Erosion of natural deposits
Constituent (units)	SECONDARY MCL	PHG (MCLG)	Range of Detection	Average	Level	MCL Violation?	Most Recent Sampling date	Typical Source of Constituent	
Total Alkalinity (as CaCO3) (mg/L)	Not Regulated	n/a	170	170		No	2012	Leaching from natural deposits	
Arsenic (ppm)	50		n/a	2.3	2.3		No	2012	Naturally-occurring organic materials
Barium (ug/l)	1000	-2	110	110		No	2012	Discharge of oil/drilling waste from metal refineries; erosion of natural deposits	
Bicarbonate	Not Regulated	n/a	190	190		No	2012	Leaching from natural deposits	
Iron (ug/l)	300		n/a	140	140		No	2012	Leaching from natural deposits; industrial wastes
Manganese (ug/l)	50		n/a	N/D	N/D		No	2012	Leaching from natural deposits
Color (units)	15		n/a	12.5	12.5		No	2012	Naturally-occurring organic materials
Odor Threshold (Units)	3		n/a	N/D	N/D		No	2012	Naturally-occurring organic materials
Total Dissolved Solids (ppm)	1,000		n/a	600	600		No	2012	Runoff/leaching from natural deposits
Specific Conductance (micromhos)	1,600		n/a	1200	1200		No	2012	Substances that form ions when in water; seawater influence
Chloride (ppm)	500		n/a	120	120		No	2012	Runoff/leaching from natural deposits; seawater influence
Silver	2		n/a	N/D	N/D		No	2012	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500		n/a	290	290		No	2012	Runoff/leaching from natural deposits; industrial wastes
pH (pH units)	Not Regulated	n/a	8.2	8.2	n/a		No	2012	Leaching from natural deposits
Unregulated Constituent Requiring monitoring (units)									
MCL	PHG (MCLG)	Range of Detection	Average	Level	MCL Violation?	Most Recent Sampling date	Typical Source of Constituent		
Hardness as CaCO3 (ppm)	Not Regulated	n/a	360	360	n/a		2012	Leaching from natural deposits	
Vanadium (ug/l)	Not Regulated	n/a	N/D	N/D	n/a		2012	Leaching from natural deposits	
Sodium (ppm)	Not Regulated	n/a	130	130	n/a		2012	Leaching from natural deposits	
Potassium (ppm)	Not Regulated	n/a	5.3	5.3	n/a		2012	Leaching from natural deposits	
Calcium (ppm)	Not Regulated	n/a	89	89	n/a		2012	Leaching from natural deposits	
Boron (ug/l)	Not Regulated	n/a	150	150	n/a		2012	Leaching from natural deposits	
Magnesium (ppm)	Not Regulated	n/a	32	32	n/a		2012	Leaching from natural deposits	
Perchlorate (ppb)	Not Regulated	4	N/D	N/D	n/a		20201110	Perchlorate is a chemical used by industries in the manufacturing of rocket fuels, pyrotechnics (fireworks), matches, pharmaceuticals, and as a lab-grade chemical.	

Distribution System Water Quality

Micobiological Contaminants (units)	PRIMARY	MCL	PHG (MCLG)	Value	MCL Violation?	Most Recent Sampling date	Typical Source of Constituent
Total Coliform Bacteria (% of monthly positive samples)	More than 5% of monthly samples are positive		(0)	0	No	2012	Naturally present in the environment
Fecal coliform and E. coli Bacteria (number of monthly positive samples)	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive		(0)	0	No	2012	Human and animal fecal waste
THM Total Trihalomethanes (ppb)	80	80	40.3 - 97.5	59.6	No	2012	Byproduct of drinking water disinfection
Anion / Cation Balance							
Total Anions	Calculated	12.7	meq/L	12.7			
Total Cations	Calculated	12.9	meq/L	12.9			

Chemical or Constituent (units)	PRIMARY	MCL	PHG (MCLG)	Range of Detection	Average	Level	MCL Violation?	Typical Source of Constituent
Aluminum (ppb)		1,000		600	150	150	no	Erosion of natural deposits; residue from some surface water treatment processes
Constituent (units)	SECONDARY MCL	PHG (MCLG)	Range of Detection	Average	Level	MCL Violation?	Typical Source of Constituent	
Aluminum (ppb)	200		600	150	150	no	Erosion of natural deposits; residue from some surface water treatment processes	
Iron (ppb)	300		None	140	140	no	Leaching from natural deposits; industrial wastes	

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT

Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language	Aesthetic Effects
Aluminum Standard Secondary	Canals contained high levels of sediment. (if applicable, our plant also adds an aluminum-based coagulant as part of the treatment)	12 out of 12 samples in 2012	Quarterly sampling of treated water to show that it is being removed below the secondary standard	None	Aluminum levels over the secondary standard may cause colored water
Iron Standard Secondary	Canals contained high levels of sediment. (if applicable, our plant also adds an aluminum-based coagulant as part of the treatment)	12 out of 12 samples in 2012	Quarterly sampling of treated water to show that it is being removed below the secondary standard	None	Iron levels over the secondary standard may cause rusty color; sediment; metallic taste; reddish or orange staining

Treated water aluminum water results. At end, no mcl violation and no exceeding substandards.

	Treated Water Results	Aluminum (ppb)	Treated Water Results	Iron (ppb)
January		0.13		<0.05
February		0.17		0.07
March		0.08		<0.05
April		0.08		<0.05
May		0.07		<0.05
June		<0.05		<0.05
July		0.08		<0.08
August		0.28		0.08
September		0.15		<0.05
October		0.14		<0.05
November		<0.05		<0.05
December		<0.05		<0.05
Range :		<0.05 - 0.28		< 0.05
Average :		0.11		< 0.05

UG/L= MICROGRAMS PER LITER (PARTS PER BILLION)
MG/L=MILLIGRAMS PER LITER (PARTS PER MILLION)
N/A=NONE AVAILABLE

MAXIMUM CONTAMINANT LEVEL (MCL): The highest level of contaminant that is allowed in drinking water. Primary MCL's are set as close to the PGHs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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 U.S. Environmental Protection Agency.

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 OR PDWS: MCLs for contaminant's that affect health along with their monitoring and reporting requirements, and water treatment requirements.

TREATMENT TECHNIQUE: a required process intended to reduce the level of a contaminant in drinking water.

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

VARIANCES AND EXEMPTIONS: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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 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 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 be the 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, agricultural application and septic systems.

RADIOACTIVE CONTAMINANTS: that can be naturally-occurring or be the result of oil and gas production and mining activities.

SECONDARY DRINKING WATER STANDARDS: (SDWS) MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Health Service (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection of public health.

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general populations. 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 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 Safe Drinking Water Hotline (1-800-426-4791).

Sources of Water: information and source water assessment available upon request, or contact Jackie Loper at (760) 355-3336.