

# Annual **Drinking** **Water Quality** Report

Quality • Value • Reliability • Customer Service

# 2016



# A Message from the Director

Our top priority is providing a safe, reliable supply of drinking water for our 1.3 million customers. This 2016 annual Drinking Water Quality Report is a testament to the hard work and dedication of our employees who ensure high-quality drinking water.

Delivering water to our customers is a job we take very seriously; in more than 100 years we've never sold a drop of unsafe drinking water. You, our customer, trust us to deliver a healthful product and we work diligently to maintain that trust through our comprehensive water quality testing and monitoring program.

Water from the treatment plants flows through the water distribution system and more than 3,000 miles of pipeline before ending up at your tap. It is a complex system that requires constant monitoring and adjusting.

In accordance with regulations, water quality staff test water for several hundred chemical compounds at multiple points in the distribution system, as well as in our treatment plants, watersheds and our reservoirs. All of our tests are closely monitored by local, state and federal authorities and the results are reported to the public and the state.

Every year we conduct nearly 300,000 tests on both raw and treated water to ensure the water we deliver is safe for all members of our community.

The City of San Diego Public Utilities Department is committed to keeping the City's drinking water safe. From monitoring the watersheds to testing on a daily basis, the Department ensures a safe, reliable water supply at the lowest possible cost.

Sincerely,  
  
Halla Razak  
Director of Public Utilities

## City of San Diego's Tap Water Meets Health Standards in 2016

The City of San Diego Public Utilities Department is pleased to present the annual Drinking Water Quality Report for 2016, also known as the Consumer Confidence Report. The U.S. Environmental Protection Agency and the California Division of Drinking Water require that all water agencies produce an annual report on the previous year informing customers about the quality of their drinking water.

The annual Drinking Water Quality Report includes details about where the City water supply comes from, what it contains, and how it compares to state standards. In 2016, the City of San Diego's tap water met all state and federal drinking water health standards (primary standards for treating and monitoring water).

The City of San Diego Public Utilities Department safeguards City water supplies and has never violated a maximum contaminant level or any other water quality standard. This report provides details of last year's drinking water quality.

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### Contact Us

Emergency Hotline.....	619-515-3525
General and Billing Information.....	619-515-3500
Water Quality Lab.....	619-668-3232
	<a href="mailto:drinkingwaterquality@sandiego.gov">drinkingwaterquality@sandiego.gov</a>
Capital Improvements Projects.....	619-533-4207
City Lakes Recreation.....	619-465-3474
Pure Water Speakers Bureau.....	619-533-6638
Storm Water Pollution Prevention.....	619-235-1000
Water-Waste/Recycled Water.....	619-533-5271
	<a href="mailto:waterwaste@sandiego.gov">waterwaste@sandiego.gov</a>

### Visit Us

City of San Diego Public Utilities.....	<a href="http://sandiego.gov/publicutilities">sandiego.gov/publicutilities</a>
San Diego County Water Authority.....	<a href="http://sdcwa.org">sdcwa.org</a>
Metropolitan Water District.....	<a href="http://mwdh2o.org">mwdh2o.org</a>
CA Division of Drinking Water.....	<a href="http://waterboards.ca.gov">waterboards.ca.gov</a>
Think Blue.....	<a href="http://thinkblue.org">thinkblue.org</a>
U.S. EPA.....	<a href="http://water.epa.gov/drink">water.epa.gov/drink</a>
American Water Works Association.....	<a href="http://awwa.org">awwa.org</a>
Be Water Wise.....	<a href="http://bewaterwise.com">bewaterwise.com</a>

### Engage



[instagram.com/sdpubutilities](https://www.instagram.com/sdpubutilities)





# Water Supply

## WHAT'S IN MY WATER BEFORE IT'S TREATED?

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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.

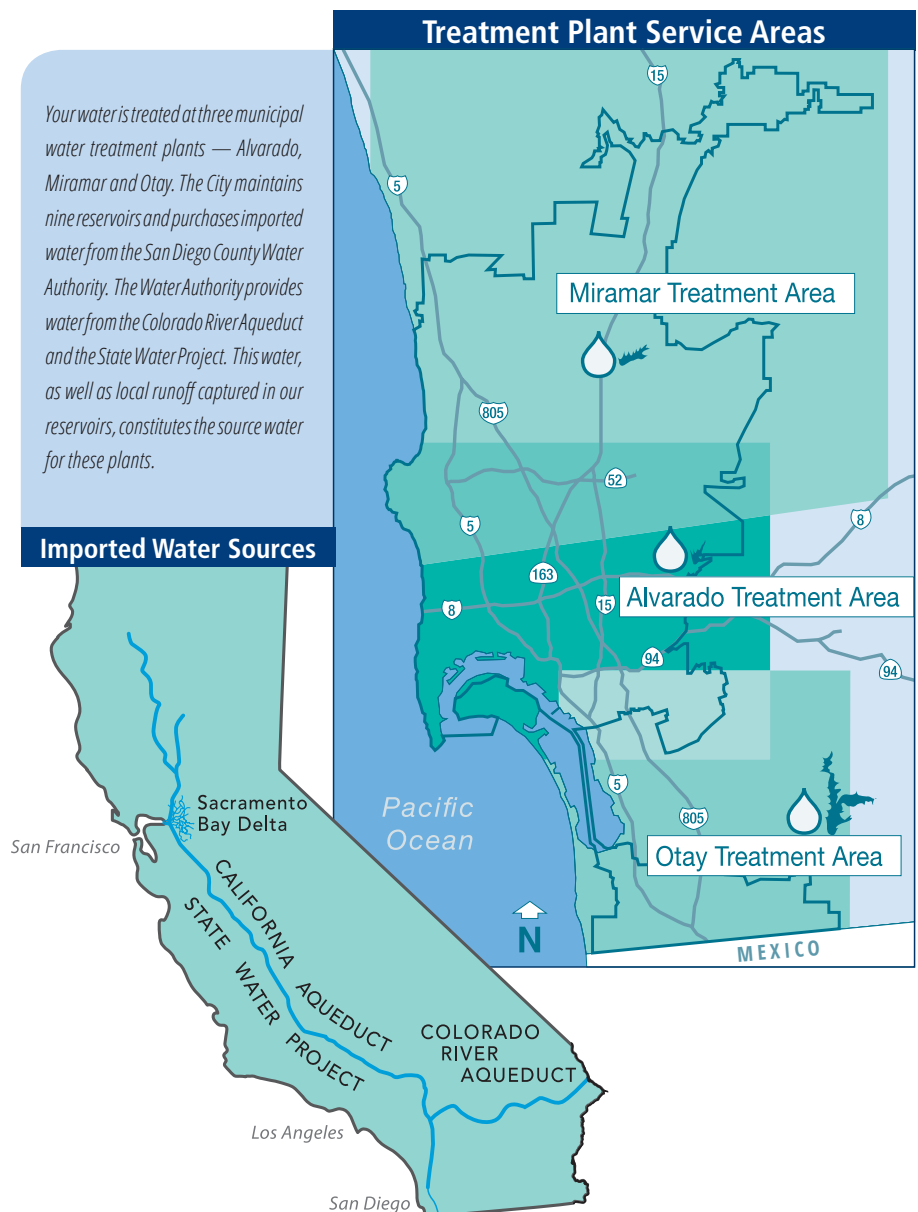
• **Radioactive contaminants** that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (FDA) regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

## IMPORTED WATER SUPPLY AND THE IMPACT ON WATER QUALITY

The City of San Diego imports an average of 85 percent of its water supply, the majority of which is raw water purchased from the San Diego County Water Authority (Water Authority). All raw water is treated before entering the City's drinking water distribution system. A small amount (less than 10 percent) of the imported water purchased from the Water Authority is a blend of treated water from the Metropolitan Water District (MWD) Skinner Water Treatment Plant, the Water Authority's Twin Oaks Water Treatment Plant or the Carlsbad Desalination Plant.

The majority of imported water from the Water Authority is a blend of Colorado River water and State Water Project water (see map). Throughout the year, the ratio of water from each source changes. Several forces potentially impact the quality of water from the Colorado River and State Water Project. The Colorado River winds through thousands of miles of unprotected watershed containing towns, farms, old mining sites and industrial sites. Water from the State Water Project is subject to potential contaminants such as pesticides and herbicides. This water source also has a higher organic carbon and bromide level than the Colorado River water. As organic carbon and bromide levels increase, the potential for creating higher levels of disinfection byproducts exists. The City continually alters its treatment process to adjust for changing water supplies.



# Water Treatment

The City's Public Utilities Department provides high-quality drinking water by utilizing proven technology, updated facilities and state-certified operators. Water is treated using several processes, with each process providing additional water quality improvements. Using several treatment processes provides multiple barriers for added levels of safety.

Our treatment plants employ a combination of time-tested conventional water treatment processes and innovative disinfection strategies. Conventional water treatment consists of coagulation, flocculation, sedimentation and sand/multi-media filtration; this cost-effective, proven method of treatment is used throughout the modern world.



## THE WATER TREATMENT PROCESSES WE USE ARE:

**Watershed protection:** Protecting the watersheds prevents contamination of our water supply and is the most cost effective process in water treatment. Extensive measures are being taken to prevent contamination of our local and imported water. If you see "No Swimming" or "No Dumping" signs posted near water supplies, this is for the protection of your drinking water. The 2015 Watershed Sanitary Survey, which contains information on the City's watersheds, is available at: [sandiego.gov/water/quality/environment/sanitarysurvey.shtml](http://sandiego.gov/water/quality/environment/sanitarysurvey.shtml)

**Coagulation:** This is the chemical process of rapidly mixing coagulants to the water entering the water treatment plant. Many of the particles in the source water have negative charges causing them to repel each other, much like two magnets when the negative ends are put together. Coagulation changes these negative charges to neutral.

**Flocculation:** Coagulated water is slowly mixed causing the neutral particles to collide. When the collisions occur the particles clump together forming floc. As the floc is formed, particles in the water are trapped within the floc. The floc now looks like snowflakes suspended in the water.

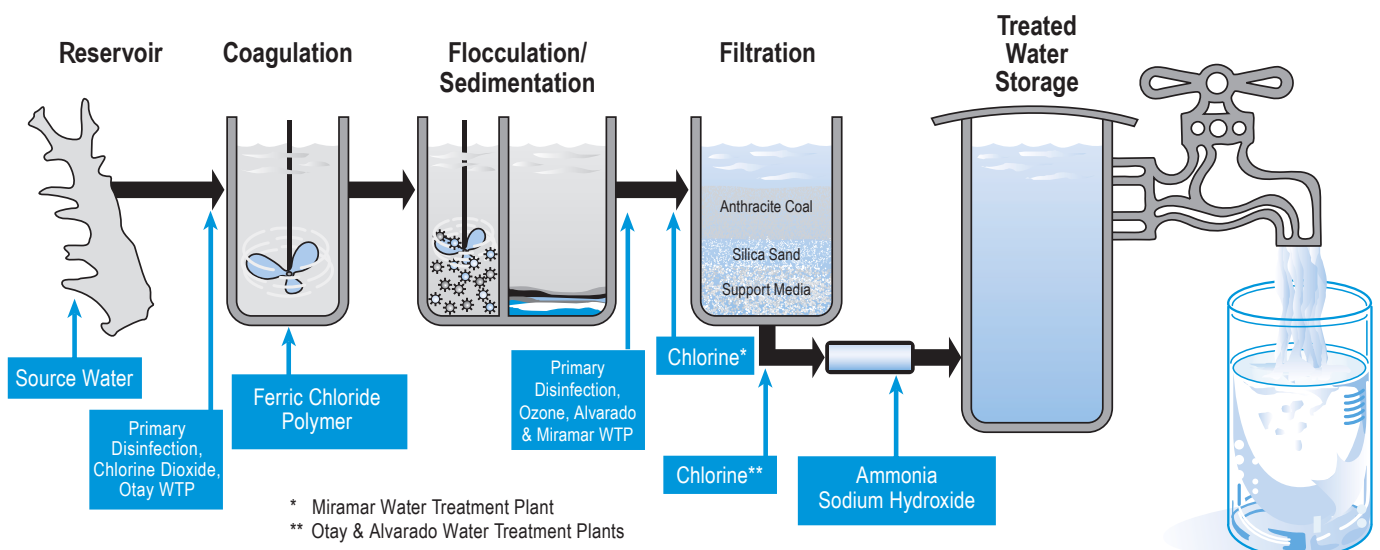
**Sedimentation:** The floc particles are heavier than water. Mixing is stopped and the water is allowed to slowly flow through the sedimentation basins. The floc settles to the bottom and is removed. The clear water is collected from the top of the sedimentation basins and sent to the filters.

**Filtration:** Water is passed through deep filtration beds to produce water that is crystal clear. Extremely small particles are removed during this process. San Diego's water treatment plants produce water with turbidities (cloudiness) significantly better than drinking water standards.

**Disinfection, Primary:** Drinking water is further treated to remove or inactivate viruses, bacteria and other pathogenic organisms. Disinfection is accomplished in a variety of methods. The Alvarado and Miramar Water Treatment Plants use ozone as the primary disinfectant. The Otay Water Treatment Plant uses chlorine dioxide as the primary disinfectant. These are advanced disinfection processes and have the advantage of providing higher quality water with better taste.

**Disinfection, Secondary:** Chloramines are created by adding chlorine and ammonia to the water. Chloramines help prevent microbial contamination from occurring in the water distribution system.

**Corrosion Control:** The corrosivity of the water is controlled by adjusting the pH.





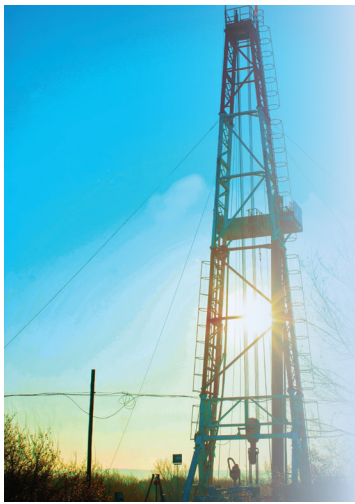
# Sustainability

The City of San Diego is committed to sustainability and the efficient use of resources, which are cornerstones of the City's Sustainability Program. The Public Utilities Department plays an important role in helping achieve the City's goal of sustainability in two key areas: water and energy.



## RECYCLED WATER PROGRAM

To help meet future water demands while reducing dependence on imported water, the City of San Diego built the North City Water Reclamation Plant and the South Bay Water Reclamation Plant. These plants treat wastewater to a level that is approved for irrigation, manufacturing and other non-drinking purposes. The North City Plant has the capability to treat 30 million gallons a day, and the South Bay Plant can treat 15 million gallons a day. Recycled water gives San Diego a dependable, year round, locally controlled water resource. The City continues to serve customers along the recycled water distribution system, with approximately 700 connections in place. For more information, visit [sandiego.gov/water/recycled](http://sandiego.gov/water/recycled).



## GROUNDWATER

The City continues to explore the feasibility of using local groundwater basins for augmenting water supply and providing water storage. Currently, the City is generating 500 acre-feet of water, enough to sustain 2,000 houses for a year, from existing wells in East County. The City is partnering with the Sweetwater Authority on a groundwater desalination facility expansion that will provide up to 2,600 acre-feet of water to San Diego per year by 2018. The City is also actively exploring other areas of the region, including coordination with the U.S. Geological Survey and the U.S. Bureau of Reclamation. For more information, visit [sandiego.gov/water/gen-info/watersupply.shtml](http://sandiego.gov/water/gen-info/watersupply.shtml).



## OCEAN DESALINATION

The City receives water from the Claude "Bud" Lewis Carlsbad Desalination Plant -- the largest, most technologically advanced and energy-efficient seawater desalination plant in the nation.

The \$1 billion San Diego County Water Authority project provides a major drought-resilient supply that meets less than 10 percent of the city's water demands and accounts for one-third of all water generated in San Diego County. For more information, go to [carlsbaddesal.sdcwa.org](http://carlsbaddesal.sdcwa.org).



## Regional Emergency Storage Project

The City of San Diego is working closely with the San Diego County Water Authority's Emergency & Carryover Storage Project, a system of reservoirs, interconnected pipelines and pumping stations designed to make water available in the event of an interruption in imported water deliveries. It will also allow the City to better capture rain water runoff in local reservoirs.

As part of this project, the Water Authority raised the height of the dam of the City's San Vicente Reservoir. San Vicente dam originally stood at 220 feet and could store up to 90,000 acre-feet of water. The dam raise project increased the height of the dam by 117 feet, making it the tallest dam raise in the United States and the tallest of its type in the world. The raised dam stores up to an additional 152,000 acre-feet of water, more than doubling the capacity of the original reservoir.

The new dam reached its full height in late 2012, and new instrumentation and outlet facilities were completed in summer 2014. Site improvements and restorations were completed in 2016 and the reservoir reopened for public recreation in September 2016.

The design and construction of the dam raise was closely monitored by the California Department of Water Resources and the Division of Safety of Dams, to ensure the dam is built to the highest safety standards. For more information, visit [sandiego.gov/water/recreation/reservoirs/sanvicente](http://sandiego.gov/water/recreation/reservoirs/sanvicente).



## Renewable Energy & Efficiency Program

The Public Utilities Department has a dynamic Renewable Energy and Efficiency Program that generates more renewable energy than any other San Diego Gas & Electric customer. This impressive standing contributes to the Department's environmental stewardship, moves the City forward in energy independence, helps reduce operating costs and ultimately helps keep rates lower for customers.

In fact, some of the Public Utilities facilities produce enough energy to operate the facilities and still sell excess energy back to SDGE to generate revenue. The City's excess energy production helps supply energy to important institutions such as the Marine Corps Air Station Miramar and the University of California San Diego. Public Utilities Department facilities, along with private partners, utilize a number of energy sources to generate energy, including digester gas, landfill gas, bio methane, hydroelectric, solar and fuel cells.

This commitment to sustainability has not gone unnoticed. In 2015, the City received the Grand Champion Award from SDGE for its continuous efforts on energy efficiency projects and producing power from renewable sources. In fiscal year 2016, the Public Utilities Department utilized 77 percent of that energy to offset the purchase of non-renewable energy.

For more detailed information on the Public Utilities Renewable Energy and Efficiency Program, visit [sandiego.gov/mwwd/environment/energy](http://sandiego.gov/mwwd/environment/energy).





## Water Conservation

Efficient water use is a big part of living in San Diego. Did you know that regardless of the current drought status, there are permanent water restrictions in place? These rules are designed to encourage San Diegans to make water conservation a way of life. Water conservation helps eliminate water waste and save you money.

- Avoid excessive irrigation and repair leaks in your irrigation system.
- Repair or stop all water leaks upon discovery or within 72 hours of notification by the City of San Diego.
- Avoid using a running hose to wash down sidewalks, driveways, patios or other hard surface areas.
- Water landscape before 10 a.m. or after 6 p.m.
- All decorative and cascading water fountains must use a recirculating pump.
- Residents washing vehicles (cars, trucks, trailers, boats, RVs) must implement procedures to conserve water and prevent excessive runoff, such as:
  - washing vehicles at a commercial car wash;
  - washing vehicles on a lawn or other pervious surface or directing water flow to a lawn or pervious area;
  - damming wash water for collection and disposal to a pervious area or to the sanitary sewer;
  - using a hose with an automatic shutoff nozzle; and/or using a handheld water container.
- Restaurants and food establishments shall only serve and refill water for patrons upon request.
- Guests in hotels, motels and other commercial lodging are provided the option of not laundering towels/linens daily.



### No-Cost Residential and Commercial Water Surveys

Free residential and commercial water surveys are available to City of San Diego water ratepayers. Through this program, a City staff member visits your home or business and helps to pinpoint water-saving options, including possible leaks and other water waste. The residential surveys are offered to eligible single family and multi-family (up to eight units) water customers. Participants can receive water-saving equipment and information, including low-flow shower heads, faucet aerators and other free items. The representative will also evaluate your landscape and irrigation systems.



### Rebates and Incentives

Customers may qualify for various water conservation rebates and incentives, both locally and regionally. One of the most popular rebates is for grass replacement. Removing traditional grass lawns and replacing them with drought tolerant landscaping is one of the most effective ways to reduce your overall water usage. Rebates are offered when funding becomes available through the City of San Diego.

Visit **WasteNoWater.org** for information on surveys, rebates and much more.



## Do-It-Yourself

Things you can do on your own to ensure you're living water smart.

- Check your garden hose connection to ensure it is tight and the nozzle is not broken or leaking. If there is a puddle or a muddy spot under your garden hose a leaky nozzle is most likely the cause.
- Check your toilet to see if it "runs" between flushes. A running toilet is caused when there's a leak between the tank and the toilet bowl.
- Use your water meter as a leak detector.

Your water meter is generally located near the curb in front of your home. However, the meter may also be located in an alley behind your property. Turn off every faucet in and around your home, making sure washing machines and dishwashers are also turned off. Look at the meter and write down the total you see on the dial. Wait at least 15 minutes, then check your meter again. If the numbers have changed, you've got a leak.

- Make sure every faucet and fixture is water efficient. Are there aerators on every faucet throughout the house? Are there low-flow heads on every shower? Are the toilets water efficient (using less than 2 gallons per flush)? Does the washing machine adjust water levels for each load (small, medium and large)? Does the dishwasher have an efficiency setting to help conserve water?
- Learn more about your garden. The majority of residential water waste results from over watering landscapes. You may be surprised how well your garden will do with less water. Give it a try by choosing one flower bed, a part of your lawn or some other small space for less irrigation. You will see the results soon and can make adjustments for the rest of your yard.



Report Water Waste by calling 619-533-5271 or email [WaterWaste@san Diego.gov](mailto:WaterWaste@san Diego.gov).

## How Can I Get More Involved?

Public Utilities Department issues are often discussed at San Diego City Council meetings. Meetings are held Monday and Tuesday of most weeks. The meetings can also be viewed on CityTV - Channel 24 on Cox Communications and Time Warner Cable, or Channel 99 on AT&T. For meeting location, date, time and items involving the Public Utilities Department, visit [sandiego.gov/city-clerk/officialdocs/legisdocs/dockets](http://sandiego.gov/city-clerk/officialdocs/legisdocs/dockets) for the current Council agenda.



# A CHANGE FOR THE BETTER . . .

## BEGINS WITH YOU.

When it rains or when runoff is created as a result of over-irrigation, trash, debris, sediments, metals, pesticides and other pollutants can flow untreated into our storm drains, waterways and eventually the ocean. You can make a difference and help keep our rivers, beaches and bays clean by employing the following easy steps:

### PREVENT POLLUTION

One of the best ways to prevent the flow of pollution into our local waterways is to prevent water from leaving your property as you perform daily activities. Eliminate over-irrigation by sweeping hard surfaces instead of using running water.

### AROUND YOUR HOME

Sweep up trash, dirt and debris and dispose of in the trash. Reduce bacteria in our waterways by picking up litter from around your yard and neighborhood and carry bags to pick up after your pet.

### IN YOUR YARD

Yard waste has the potential to carry hazardous landscaping chemicals like pesticides, herbicides and fertilizers into the storm drain system. It also generates a large amount of bacteria if left to decompose in curbs, catch basins and local waterways.

Sweep up yard waste instead of hosing it away and keep curb gutters free of leaves and grass clippings. Replace lawns with native plants to conserve water and reduce the need for landscape chemicals. Stop irrigation runoff by adjusting sprinklers and reducing watering times.

During the rainy season, redirect rain gutter downspouts to landscaped areas where the water can be absorbed and replenish groundwater. Or, connect your downspout to a rain barrel to store the water for later use.

### FROM YOUR CAR

Your car can be a source of automotive pollutants such as motor oil, antifreeze, transmission fluids and heavy metals. It is important to check your vehicle regularly for fluid leaks and keep it serviced. Use a funnel to prevent spills and keep rags and absorbents within reach. Use drip pans, drop cloths or containers to collect fluids when making repairs or collecting leaks. Wash your car on your lawn or direct wash water to a landscaped surface to avoid releasing automotive pollution into our waterways.

**Make a pledge to implement the above practices daily. Think Blue appreciates everything you do to help protect our local waterways.**



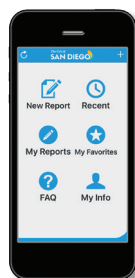
think **BLUE**  
SAN DIEGO

[thinkblue.org](http://thinkblue.org)

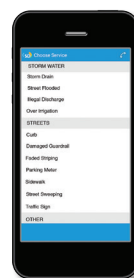
## KEEP POLLUTANTS OUT OF STORM DRAINS

Many people think that when water flows into a storm drain it is treated, but the storm drain system and the sanitary sewer system are not connected. Everything that enters storm drains flows untreated directly into our creeks, rivers, bays, beaches and ultimately the ocean. Storm water often contains pollutants, including chemicals, trash and automobile fluids, all of which pollute our beaches and harm fish and wildlife.

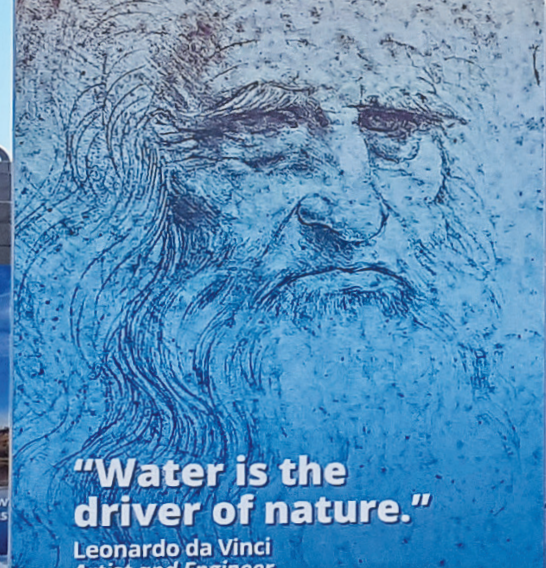
To report storm water pollution in San Diego, call the Think Blue Hotline 619-235-1000 or report it at [sandiego.gov/getitdone](http://sandiego.gov/getitdone).



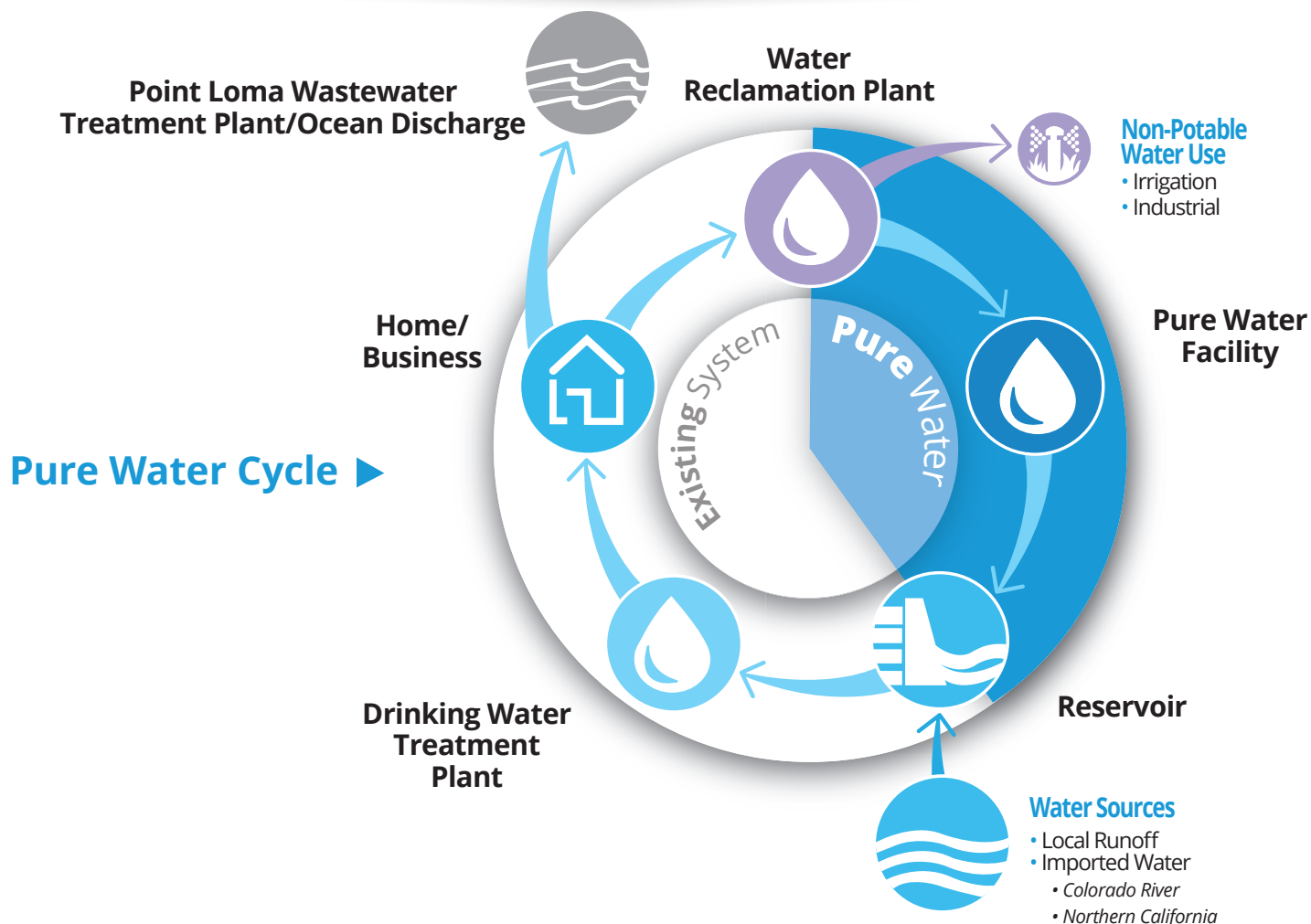
Get It Done App







Pure Water San Diego will produce a new, safe and sustainable drinking water supply by purifying recycled water to an advanced level using state-of-the-art technology. At full implementation in 2035, Pure Water San Diego will provide one-third of the City's water supply locally and reduce the City's ocean wastewater discharges by more than 50 percent.



## How does the Pure Water program work?

With San Diego's existing water system, only a portion of the wastewater leaving homes and businesses is recycled; the rest is treated and discharged into the ocean. Pure Water San Diego transforms the City's water system into a complete water cycle that maximizes our use of the world's most precious resource—water.



# Pure Water San Diego



safe, reliable, **sustainable**

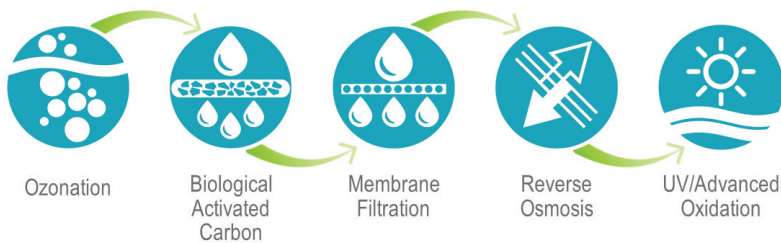
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**Goal:**

producing  
**1/3** of our  
water supply

**What** are the steps of the Pure Water process?

## FIVE-STEP WATER PURIFICATION PROCESS



**When** will the new facilities be built?

Phase	<b>1</b>	30 mgd by 2021	<b>North City</b>
		Output	Location
Phases	<b>2&amp;3</b>	Additional 53 mgd by 2035	<b>Central Area South Bay</b> (as needed)
<b>Total: 83 million gallons per day (MGD)</b>			

## Do You Support Pure Water San Diego?

Local residents, community groups, environmental organizations and local businesses support the Pure Water Program. Like us, follow us:



@PureWaterSD

## Want to Learn More?

Visit [www.PureWaterSD.org](http://www.PureWaterSD.org) to sign up for a free tour of the Demonstration Pure Water Facility or request a presentation for your organization.





## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 of infections. These people should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (EPA)/Centers for Disease Control 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). During calendar year 2016, the water supply to each of the City's water treatment plants was monitored for *Cryptosporidium* and *Giardia*, and neither was detected.

Drinking water, including bottled water, may reasonably be expected to contain 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 EPA Safe Drinking Water Hotline (1-800-426-4791). For detailed information on drinking water regulations, visit the Division of Drinking Water (DDW) website at [waterboards.ca.gov/drinking\\_water](http://waterboards.ca.gov/drinking_water).

### HOW TO READ THE TABLES

The tables on the following pages list parameters which DDW requires the City to monitor, which may be associated with primary [health], secondary [aesthetic], or no established standards. These tables summarize monitoring from January – December 2016, with minor exceptions where some 2015 data are included (see LRAA definition below). The tables list all parameters that were detected at or above DDW's Detection Limit for Purposes of Reporting (DLR). The map on page 3 of this report can be used to determine the treatment plant or plants that supply water to your residence. Purchased Treated Water, which is a blend of water treated at the MWD Skinner Water Treatment Plant, the Water Authority Twin Oaks Water Treatment Plant, and the Carlsbad Desalination Plant, represents less than 10 percent of total water use.

#### DEFINITION OF TERMS

**Action Level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

**Location-based Running Annual Average (LRAA):** The average of the most recent four quarters of monitoring performed at a distinct location in the distribution system. Location-based Running Annual Average are calculated quarterly using 12 months of data and may include values obtained in 2015.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary Maximum Contaminant Levels are set as close to the Public Health Goals or Minimum Contaminant Level Goals as is economically and technologically feasible. Secondary Maximum Contaminant Levels 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 health risk. Maximum Contaminant Level Goals are set by the EPA.

**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. Maximum Residual Disinfectant Level Goals do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Notification Level (NL):** Health-based advisory levels established by DDW for chemicals in drinking water that lack maximum contaminant levels. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected health risk. Public Health Goals are set by the EPA.

**Primary Drinking Water Standard (PDWS):** Maximum Contaminant Levels and Maximum Residual Disinfection Levels for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

#### ABBREVIATIONS

**A:** absent

**CA SMCL:** California Secondary Maximum Contaminant Level

**CSD MDL:** (City of San Diego Water Quality Lab)

**Method Detection Limit:** lowest quantifiable concentration of a measured analyte detectable by the lab

**CU:** Color Units

**DLR:** Detection Limit for Reporting

**gr/Gal:** grains per gallon

**ml:** milliliter

**n/a:** not applicable

**ND:** not detected (less than DLR, where applicable)

**NTU:** Nephelometric Turbidity Units

**OU:** Odor Units

**pCi/L:** picocuries per liter (a measure of radiation)

**ppb:** parts per billion or micrograms per liter ( $\mu\text{g/L}$ ) – [1 ppb = 0.001 ppm]

**ppm:** parts per million or milligrams per liter ( $\text{mg/L}$ ) – [1 ppm = 1,000 ppb]

**TT (treatment technique):** a required process intended to reduce the level of a contaminant in drinking water

**$\mu\text{S/CM}$ :** micro-siemens/centimeter

< less than

> greater than



# ENVIRONMENTAL MONITORING AND TECHNICAL SERVICES

## CONSUMER CONFIDENCE REPORT DATA - 2016

### PRIMARY STANDARDS (MANDATORY HEALTH RELATED STANDARDS)

CHEMICAL PARAMETERS	UNITS	MCL	PHG (MCLG)	DDW DLR	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		MAJOR SOURCES IN DRINKING WATER
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Aluminum	ppm	1	0.6	0.05	ND	ND - ND	ND	ND - ND	ND	ND - ND	ND	ND - 0.05	Erosion of natural deposits; residue from some water treatment processes
Arsenic	ppb	10	0.004	2	ND	ND - ND	ND	ND - ND	ND	ND - ND	ND	ND - 2.4	Erosion of natural deposits; glass and electronics production waste
Barium	ppm	1	2	0.1	0.11	ND - 0.14	0.13	0.11 - 0.14	0.1	ND - 0.14	ND	ND - 0.13	Erosion of natural deposits
Dichloromethane (Methylene Chloride)	ppb	5	4	0.5	ND	ND - ND	ND	ND - ND	ND	ND - ND	ND	ND - 0.7	Discharge from pharmaceutical and chemical factories
Fluoride (naturally occurring)	ppm	2	1	0.1	0.3	0.2 - 0.3	0.3	0.2 - 0.4	0.4	0.3 - 0.5	0.5	0.2 - 1.0	Erosion of natural deposits
Fluoride (treatment-related)	ppm	2	1	0.1	0.7	0.5 - 0.8	0.7	0.6 - 0.7	0.4	0.3 - 0.6	0.7	0.5 - 1.5	Water additive that promotes strong teeth
Nitrate (as N)	ppm	10	10	0.4	ND	ND - ND	ND	ND - ND	ND	ND - ND	ND	ND - 0.6	Runoff and leaching from fertilizer use; erosion of natural deposits

Note: Optimal Fluoride Level as established by US Dept. of Health and Human Services and DDW is 0.7 ppm.

Primary standards (MCLs) are developed for the purpose of protecting the public from possible health risks associated with long-term exposure to contaminants. In general, no health hazard is reasonably expected to occur when contaminant levels are below a Primary MCL.

California state law requires water agencies with more than 10,000 water service connections to supplement naturally occurring fluoride in their drinking water. Our water system complies with this requirement to help prevent dental

cavities in consumers. For more information, visit <http://www.sandiego.gov/water/quality/fluoridation.shtml>.

In 2016, the City of San Diego's source waters contained naturally occurring fluoride between 0.2 and 1.0 ppm. State regulations require fluoride in treated water to be maintained at an optimum dose of 0.7 ppm. Treated water had fluoride concentrations ranging from 0.3 to 1.5 ppm, with average values of 0.4 to 0.7 ppm. Information about fluoridation, oral health and current issues is available at <https://www.cdc.gov/fluoridation/index.html>.

Radioactive Parameters	Units	MCL	PHG (MCLG)	DDW DLR	CITY OF SAN DIEGO TREATMENT PLANTS						Purchased Treated Water		Major Sources in Drinking Water
					Alvarado		Miramar		Otay		Average	Range	
					Average	Range	Average	Range	Average	Range			
Gross Alpha Particle Activity	pCi/L	15	(0)	3	ND	n/a	3.3	n/a	6.4	n/a	ND	ND - 7	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50*	(0)	4	ND	n/a	5.7	n/a	ND	n/a	6.7	ND - 28.6	Decay of natural and manmade deposits
Uranium	pCi/L	20	0.43	1	2.1	n/a	2.4	n/a	1.8	n/a	2.3	1 - 3.1	Erosion of natural deposits

\* DDW considers 50 pCi/L to be the level of concern for beta particles. \* Monitoring required every three years (Gross Alpha and Beta data for Otay from 2015; Uranium data for Otay and Miramar from 2014)

As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive material. Radioactive materials can be naturally-occurring near the earth's surface or brought to the surface as a result of oil and gas mining activities. The results in the table above are presented

in units of picocuries per liter (pCi/L), a standard measurement that represents an amount of radiation per liter of water. San Diego's drinking water is substantially lower than the MCL for all radioactive parameters.

MICROBIOLOGICAL	UNITS	MCL	PHG (MCLG)	DDW DLR	CITY OF SAN DIEGO DISTRIBUTION SYSTEM		MAJOR SOURCES IN DRINKING WATER
					AVERAGE	RANGE*	
Total Coliform Bacteria State Total Coliform Rule	/100ml	< 5% Positive	(0)	n/a	0.3%	0 - 0.7%	Naturally present in the environment

\* Based on Monthly Percentages of Positive Total Coliform samples

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. DDW regulations require the City to test a minimum of 85 samples per week throughout our distribution system for total coliform bacteria, and to report the results, including the percentage of total coliform positive samples in a given month. To meet this requirement, in 2016 the City of San Diego collected and analyzed 6,798 total coliform samples from the distribution system (an average of over 130 per week). The test also examines the presence of *E. coli*, which is a subgroup of Total Coliform. The MCL for total coliform is the presence of coliform in 5 percent or more of the samples analyzed

in one month, meaning that if 100 samples are collected in a single month and five contain total coliform, a violation of the MCL has occurred. The regulations are written as a percentage of monthly samples because multiple variables can cause a positive result, including localized contamination at the tap. In 2016 the City did not exceed the monthly MCL for total coliform. In fact, this has never occurred in the City's system since this rule was established in 1989. The maximum value recorded in 2016 was 0.7 percent of monthly samples. When any sample tests positive for total coliform, three additional samples are collected and the cause of the positive result is investigated. All samples obtained from our distribution system in 2016 were absent of *E. coli*.

TURBIDITY	UNITS	MCL	PHG (MCLG)	CITY OF SAN DIEGO TREATMENT PLANTS			PURCHASED TREATED WATER	MAJOR SOURCES IN DRINKING WATER
				ALVARADO	MIRAMAR	OTAY		
Turbidity	NTU	TT = 1 NTU	n/a	Max Level Found = 0.12	Max Level Found = 0.09	Max Level Found = 0.09	Max Level Found = 0.5	Soil runoff
Turbidity	NTU	TT = 95% of samples ≤ 0.3 NTU	n/a	100% of samples ≤ 0.3	100% of samples ≤ 0.3	100% of samples ≤ 0.3	n/a	Soil runoff

Turbidity is a measure of the cloudiness of the water and is a good indicator of the effectiveness of our filtration systems. The City's three water treatment plants monitor turbidity every 15 minutes to ensure consistent, high-quality drinking water production for our customers. Treatment Technique performance goals established by DDW state that all samples should have turbidity less than 1 NTU, and 95 percent of the samples should have turbidity less than 0.3 NTU. All three of our treatment plants had 100 percent of turbidity values less than 0.3 NTU; the maximum values measured in 2016 were 0.12 NTU for Alvarado WTP, 0.09 NTU for Miramar WTP, and 0.09 NTU for Otay WTP.

These consistent and very low turbidity results have led to our treatment plants receiving performance awards. For example:

- The Otay Water Treatment Plant has been awarded the Director's Award from the American Water Works Association Partnership for Safe Water Program for nine consecutive years.
- The Miramar Water Treatment Plant has received the Director's Award for five years and the President's Award for four consecutive years.
- Our award-winning Alvarado Water Treatment Plant participates in the Partnership for Safe Water Program, meeting all turbidity standards.



**CONTINUED: PRIMARY STANDARDS (MANDATORY HEALTH RELATED STANDARDS)**

2014 SYSTEMWIDE LEAD AND COPPER STUDY	UNITS	ACTION LEVEL	PHG (MCLG)	DDW DLR	SAMPLES TAKEN FROM CUSTOMER TAPS				MAJOR SOURCES IN DRINKING WATER
					90th PERCENTILE CONCENTRATION	SAMPLING SITES	NUMBER EXCEEDING AL	VIOLATION	
Copper	ppm	1.3	0.3	0.05	0.49	54	1	NO	Internal corrosion of household plumbing systems
Lead	ppb	15	0.2	5	ND	54	1	NO	Internal corrosion of household plumbing systems

Note: Monitoring mandated every three years. Most recent monitoring conducted in 2014.

In addition to the EPA Lead and Copper study, the City of San Diego analyzed 64 samples from our drinking water treatment plants in 2016. All results were below the DLR.

**2016 SPECIAL LEAD AND COPPER MONITORING**

LEAD AND COPPER STUDY	UNITS	ACTION LEVEL	PHG	DDW DLR	SAMPLES TAKEN FROM CUSTOMER TAPS				SAMPLING SITES	NUMBER EXCEEDING AL	VIOLATION	MAJOR SOURCES IN DRINKING WATER
					May/June 2016 AVERAGE	May/June 2016 RANGE	September 2016 AVERAGE	September 2016 RANGE				
Copper	ppm	1.3	0.3	0.05	0.29	ND-0.74	0.24	ND-0.52	21	0	NO	Internal corrosion of household plumbing systems
Lead	ppb	15	0.2	5	ND	ND-ND	ND	ND-ND	21	0	NO	Internal corrosion of household plumbing systems

If present, elevated levels of lead can cause serious health 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 San Diego 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 two 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

Lead and copper are at non-detectable levels in the drinking water we produce, but can enter drinking water through plumbing materials used in homes or businesses. Exposure to lead and copper may cause health problems ranging from stomach distress to brain damage. In 1991, the EPA published the Lead and Copper Rule (LCR) which, along with corrosion control and other treatment practices, requires monitoring of lead and copper at customer taps. The purpose of the LCR is to assess the potential of lead and copper to leach into drinking water in homes and businesses from the

plumbing installed between the water meter and the tap. If lead concentrations at customer taps exceed an Action Level (AL) of 15 ppb or copper concentrations exceed an AL of 1.3 ppm in more than 10 percent of taps sampled, we are required to inform the public and undertake a number of additional actions to ensure comprehensive corrosion control. Less than 2 percent of samples collected in these two monitoring programs have concentrations of copper or lead that exceed an AL.

Lead and Copper Rule monitoring must be conducted every three years. In 2014, 54 customers provided samples from their taps to the City of San Diego for lead and copper analysis. In addition, DDW required agencies receiving treated water from the Carlsbad Desalination Plant to conduct a special two-round monitoring program in 2016. The 2016 study covered a limited section of our distribution system and included 21 residences in each round. The results of these studies are presented in the table above. In 2014, for each parameter, one of the 54 sites had a result above the AL. In 2016, results for all residences were below the ALs. Because less than 10 percent of our results were above the AL for both lead and copper, our water is considered non-corrosive and no additional actions are required. Our next system-wide study will be conducted in 2017.

**DETECTED DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCT PRECURSORS**

	UNITS	MCL	PHG (MCLG)	DDW DLR	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		MAJOR SOURCES IN DRINKING WATER
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Bromate*	ppb	10	0.1	5	ND	ND - 8.5	ND	ND - ND	n/a	n/a	5.1***	ND - 9.1	Byproduct of drinking water disinfection
Chlorate**	ppb	NL=800 PPB		20	n/a	n/a	n/a	n/a	126	71.8 - 201	167	51 - 450	Byproduct of drinking water disinfection
Chlorite**	ppm	1	0.05	0.02	n/a	n/a	n/a	n/a	0.26	0.07 - 0.46	n/a	n/a	Byproduct of drinking water disinfection
Total Organic Carbon [TOC]	ppm	TT	n/a	0.3	2.5	2.1 - 3.6	2.5	2.2 - 2.8	3.0	1.8 - 6.4	1.5	ND - 2.7	Various natural and man-made sources

\*Required for Alvarado, Miramar and Skinner \*\*Required for Otay \*\*\*Highest Running Annual Average

	UNITS	MCL [MRDL]	PHG [MRDLG]	CSD MDL (DLR)	CITY OF SAN DIEGO DISTRIBUTION SYSTEM			MAJOR SOURCES IN DRINKING WATER
Disinfectant Residual [Chloramines as Cl <sub>2</sub> ]	ppm	[4] <sup>A</sup>	[4]	0.1	Distribution system average <sup>2</sup> = 2.0	Range <sup>2</sup> = ND - 3.8	----	Drinking water disinfectant added for treatment
Chlorite <sup>1</sup>	ppm	1	0.05	(0.02)	Distribution system average <sup>2</sup> = 0.19	Range <sup>2</sup> = ND - 0.32	----	Byproduct of drinking water disinfection
Haloacetic Acids [HAA5]	ppb	60 <sup>B</sup>	n/a	----	Maximum LRAA = 13	Range <sup>2</sup> = 1.7 - 16.8	Violation - NO	Byproduct of drinking water disinfection
Total Trihalomethanes [TTHM]	ppb	80 <sup>B</sup>	n/a	----	Maximum LRAA = 53	Range <sup>2</sup> = 6.4 - 68.3	Violation - NO	Byproduct of drinking water chlorination

<sup>1</sup> Chlorite monitoring required only in the Southern section of the distribution system.

<sup>2</sup> Range and average are based upon individual 2016 sample results.

<sup>A</sup> Compliance is determined by the distribution system average.

<sup>B</sup> TTHMs and HAA5 compliance is based on quarterly Locational Running Annual Averages (LRAA)

All drinking water must be disinfected to ensure that any potentially harmful microbes are neutralized. There are a variety of disinfection strategies used throughout the United States. San Diego utilizes some of the more advanced disinfection technologies available. Our Alvarado and Miramar water treatment plants use ozone and chloramines for disinfection. Ozone produces fewer disinfection byproducts than chlorine or chloramines alone and is considered a superior disinfection method. However, all disinfection strategies have the potential to create a byproduct. When ozone is used, bromate is monitored as a disinfection byproduct. The City's Otay Water Treatment Plant uses chlorine dioxide and chloramines for disinfection. When chlorine dioxide is used, chlorite is monitored as a disinfection byproduct in the plant effluent and distribution system. All 2016 results for bromate and chlorite are below the MCLs established by DDW. Total Organic Carbon has no health effects. It is monitored and reported here because it provides an assessment for the potential to form disinfection byproducts.

As drinking water travels from the City's water treatment plants through the distribution system and to homes and businesses, a disinfectant residual must be maintained in order to prevent growth of potentially harmful microbes. In San Diego, chloramines are used for this purpose. The City performs frequent and comprehensive monitoring to ensure that disinfectant levels remain in the proper range throughout our large and complex distribution system. The Maximum Residual Disinfectant Level (MRDL) is 4.0 ppm. In 2016, the City analyzed 7,066 samples for chloramines throughout the distribution system; the average residual was 2.0 ppm and the maximum was 3.8 ppm.

Another category of disinfection byproducts that the EPA and DDW regulate are Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5). Compliance with EPA's Stage 2 Disinfection ByProduct (DBP) rule is based on the running annual average at each location in the distribution system. The City has had no violations of the EPA Stage 1 and Stage 2 DBP MCLs since the program was formalized in 2002. In 2016, our highest LRAA for TTHM was 53 ppb. For HAA5, our highest LRAA was 13 ppb.

## SECONDARY STANDARDS (AESTHETICS STANDARDS)

	UNITS	CA SMCL	CSD MDL (DLR)	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		MAJOR SOURCES IN DRINKING WATER
				ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Aluminum	ppb	200	(50)	ND	ND - ND	ND	ND - ND	ND	ND - ND	ND	ND - 52	Erosion of natural deposits; residue from some water treatment processes
Chloride	ppm	500	0.5	106	94.2 - 110	106	99.3 - 108	127	96.8 - 166	92.3	35.8 - 110	Runoff/leaching from natural deposits; seawater influence
Color	CU	15	1	ND	ND - ND	ND	ND - 4	ND	ND - 2	ND	ND - 2	Naturally occurring organic materials
Iron	ppb	300	(100)	ND	ND - ND	ND	ND - ND	ND	ND - ND	ND	ND - 125	Leaching from natural deposits; industrial wastes
Odor - Threshold	OU	3	(1)	ND	ND - 1	ND	ND - 1	1	1 - 2	2	ND - 3	Naturally occurring organic materials
Specific Conductance	µS/cm	1,600	n/a	975	907-1060	984	823 - 1070	1010	923 - 1110	782	195 - 1030	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	(0.5)	207	154 - 249	232	194 - 250	194	129 - 242	164	10.7 - 240	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	10	597	538 - 667	624	544 - 668	618	590 - 650	485	92 - 650	Runoff/leaching from natural deposits

Secondary standards (Secondary MCLs) are set to protect the odor, taste and appearance of drinking water. If present at or above the Secondary MCL, these parameters may cause the water to appear cloudy or colored, or to have a different or unusual taste or odor. These parameters are not considered to present a risk to human health at or above Secondary MCL levels. Levels of chloride, specific conductance and total dissolved solids were about the same in 2016 as they were in 2015;

this is due to the continued high proportion of Colorado River water in our imported water blend relative to State Project water. None of the samples collected at the City's water treatment plants exceeded the Secondary MCLs for aluminum, chloride, color, iron, odor, specific conductance, sulfate, or total dissolved solids.

## OTHER PARAMETERS THAT MAY BE OF INTEREST

	UNITS	MCL	PHG (MCLG)	CSD MDL	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER	
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Sodium	ppm	n/a	n/a	20	94.8	80.7 - 99.5	95.8	82.6 - 102	103	89.9 - 122	82.7	25.8 - 104
Total Hardness	ppm	n/a	n/a	10	272	245 - 311	284	248 - 308	273	259 - 299	205	43.5 - 294
Total Hardness	gr/Gal	n/a	n/a	0.6	15.9	14.3 - 18.2	16.6	14.5 - 18.0	15.9	15.1 - 17.5	12.0	2.54 - 17.2
Alkalinity - Total as CaCO <sub>3</sub>	ppm	n/a	n/a	10	127	118 - 133	121	109 - 133	134	108 - 170	99.4	ND - 125
pH	pH	n/a	n/a	n/a	8.02	7.44 - 8.23	8.10	7.55 - 8.46	8.14	6.84 - 8.45	8.48	6.68 - 14.9
Ammonia as Nitrogen	ppm	n/a	n/a	0.03	0.75	0.17 - 1.2	0.74	0.18 - 1.8	0.81	0.28 - 1.9	n/a	n/a

Other parameters that may be of interest but do not have MCLs or PHGs and are not considered to present a risk to human health include sodium, total hardness, alkalinity as CaCO<sub>3</sub>, pH and ammonia as nitrogen. Sodium refers to the salt present in the water and is generally naturally occurring. Hardness is the sum of positively-charged mineral ions present in the

water, essentially the sum of magnesium and calcium. These minerals are usually naturally occurring. Although sodium and hardness do not have MCLs, they are of interest to many consumers who are concerned about sodium intake and may believe that the hardness of the water could affect their health. Therefore, monitoring and reporting are required by DDW.

## DETECTED UNREGULATED PARAMETERS REQUIRING MONITORING

	UNITS	NOTIFI- CATION LEVEL	DDW DLR	CITY OF SAN DIEGO TREATMENT PLANTS						PURCHASED TREATED WATER		
				ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Boron	ppm	1	0.1	0.14	0.11 - 0.15	0.15	0.14 - 0.16	0.16	0.15 - 0.17	0.26	0.13-3.86	
UCMR3 PARAMETERS	UNITS		UCMR3 MRL	CITY OF SAN DIEGO TREATMENT PLANTS						CITY OF SAN DIEGO DISTRIBUTION SYSTEM		MAJOR SOURCES IN DRINKING WATER
				ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Bromochloromethane	ppb	----	0.06	ND	ND - ND	ND	ND - ND	ND	ND - 0.07	n/a	n/a	Fire extinguishers; pesticide solvent
Chlorodifluoromethane (HCFC-22)	ppb	----	0.08	ND	ND - 0.16	ND	ND - ND	ND	ND - ND	n/a	n/a	Refrigerant
Chlorate	ppb	----	20	ND	ND - ND	ND	ND - 25	165	140 - 200	81	0 - 160	Byproduct of drinking water disinfection
Chromium-6	ppb	----	0.03	0.09	0.08 - 0.11	0.16	0.03 - 0.36	0.04	ND - 0.09	0.06	ND - 0.11	Naturally occurring metal; steel; chrome plating
Molybdenum	ppb	----	1	3.6	3.2 - 4.0	3.9	3.4 - 4.2	3.0	2.8 - 3.3	3.7	2.7 - 4.7	Naturally occurring element; in ores and plants
Strontium	ppb	----	0.3	630	550 - 710	843	750 - 920	548	500 - 660	749	490 - 940	Naturally occurring element
Vanadium	ppb	----	0.2	ND	ND - 0.25	ND	ND - 0.26	ND	ND - ND	0.29	ND - 0.84	Naturally occurring metal; used as a catalyst

Note: UCMR3 Samples were collected in 2013 and 2014

As part of the 1996 Safe Drinking Water Act amendments, every five years EPA selects from the Contaminant Candidate List (CCL) up to 30 unregulated contaminants to be monitored by public water systems as part of the Unregulated Contaminant Monitoring Rule (UCMR) program. The CCL is a list of contaminants that are not regulated but are known or anticipated to occur in public water systems, and may warrant future regulation under the Safe Drinking Water Act. The results of UCMR studies provide a basis for future regulatory actions to protect public health. UCMR3 was completed in 2014, and the next study will take place between 2018 and 2020.

Under UCMR3, many parameters were studied at levels that are significantly below those in prior UCMR cycles. UCMR3 Minimum Reporting Levels (MRLs) were established based on the evolving capabilities of available analytical methodology, not based on a level established as significant or harmful. In short, UCMR examines what is in the drinking water, but additional information is needed to determine whether these contaminants pose a health risk.

Results of UCMR3 measurements should be interpreted with this in mind. The detection of a UCMR3 parameter above the MRL does not represent cause for concern in and of itself. Rather, the results should be judged considering available health effects information, which for unregulated contaminants is often still under development or being refined.

San Diego's drinking water was tested by an EPA approved contract laboratory in the last two quarters of 2013 and first two quarters of 2014 for 28 UCMR3 unregulated contaminants. Of these 28 parameters, the seven listed in the UCMR3 Parameters section of this table were detected. The MRLs set for the UCMR studies are based on the lowest level that can be detected using the chosen analytical method. For example, Chromium-6 was detected at levels in the range from <0.03 ppb to 0.36 ppb. DDW recently lowered the MCL for Chromium-6 to 10 ppb. The levels detected in San Diego's water are typically 100 times less than this new MCL.



The City of  
**SAN DIEGO**

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

**Spanish**

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

**Arabic**

”هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب).  
ترجم التقرير، أو تكلم مع شخص يستطيع أن يفهم التقرير.“

**Chinese (Traditional)**

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。

**Chinese (Simplified)**

此份有关你的食水报告，内有重要资料和讯息，请找  
他人为你翻译及解释清楚。

**Farsi**

امل اطلاعات مهمی راجع به آب آشامیدنی است. اگر نمیتوانید این اطلاعات را بزربان انگلیسی  
این اطلاعات به

بخوانید لطفاً از کسی که میتواند یاری بگیرد تا مطالب را برای شما به فارسی ترجمه کند.

**French**

Cé rapport contient des information importantes concernant votre eau potable.  
Veuillez traduire, ou parlez avec quelqu' un qui peut le comprendre.

**Hmong**

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus.  
Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

**Japanese**

この情報は重要です。  
翻訳を依頼してください。

**Korean**

이 안내는 매우 중요합니다.  
본인을 위해 번역인을 사용하십시오.

**Laotian**

ລາຍງານນີ້ມີຂໍ້ມູນສໍາຄັນກ່ຽວກັບນໍ້າປະປາຂອງທ່ານ. ຈົ່ງໃຫ້ຄົນອື່ນຮູ້ເລື່ອນເພື່ອນທ່ານ,  
ຫລືໃຫ້ປຶກສາກັບຄົນໃດຄົນໜຶ່ງທີ່ເຂົາເຈົ້າເຂົ້າໃຈເລື່ອງ.

**Russian**

Этот отчет содержит важную информацию о вашей питьевой воды. Переведите  
его или поговорите с тем, кто это понимает.

**Swahili**

Shauri hii niya kufahamisha uzuri wa maji ya kunyua.  
Shauri nilazima egeuzwe kwa yoyote hajui Kiingereza.

**Tagalog**

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

**Vietnamese**

Chi tiết này thật quan trọng.  
Xin nhờ người dịch cho quý vị.