City of Oceanside

Water Quality Report 2021

The City of Oceanside's Tap Water Supply **Met All State and Federal Health Standards in 2021**

The City of Oceanside is committed to providing you with safe and reliable drinking water

Your water is routinely tested for about 90 different substances to ensure that the water is of the highest quality. This report lists the substances that were detected during 2021 and includes details about where your water comes from. For more information about your water, contact Lori Rigby at (760) 435-5912.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse a la ciudad de Oceanside a (760) 435-5912 para asistirlo en español.

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 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 at (800) 426-4791.

Water Sources

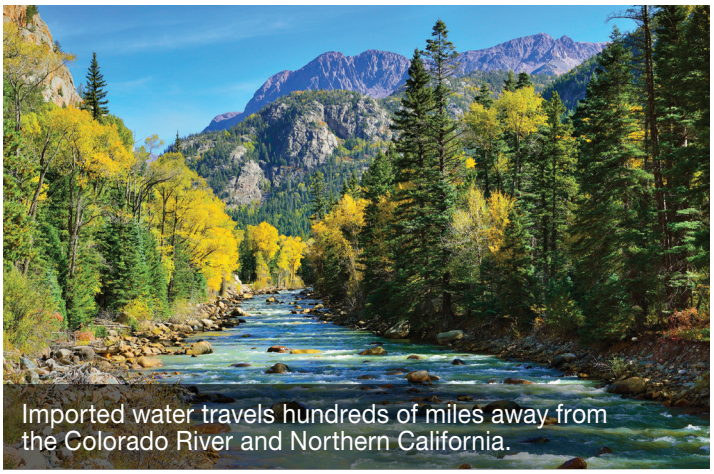
The City of Oceanside has three sources of drinking water.

One source of water supply is **imported water** that is purchased untreated from the San Diego County Water Authority (SDCWA). This raw water is then treated at Oceanside's **Robert A. Weese (R.A. Weese) Water Treatment Plant**. This facility filters and disinfects water from lakes and rivers, supplying about 80% of the drinking water used in Oceanside.

The second source is **treated drinking water** purchased directly from the **SDCWA** which is blended with water from the **Carlsbad Desalination Plant** — this is about 10% of Oceanside's water supply.

The remaining 10% of water supply comes from Oceanside's **Mission Basin Groundwater Purification Facility (MBGPF)**. This facility treats brackish groundwater from wells located in the San Luis Rey River Valley. The groundwater is purified by reverse osmosis and then disinfected.

The R.A. Weese Water Treatment Plant is maintained and operated by highly trained and certified individuals.



Imported water travels hundreds of miles away from the Colorado River and Northern California.

The Mission Basin Groundwater Purification Facility uses reverse osmosis to treat local brackish groundwater extracted from the Mission Basin Aquifer.

Oceanside delivers . . .

20 MILLION
gallons per day
of clean drinking water to homes and businesses

Where Our Water Comes From

In 2021, approximately 90% of the water we used in Oceanside was imported from hundreds of miles away. This is "surface water" from lakes and rivers in Northern California and the Colorado River Basin. The Metropolitan Water District (MWD) imports this water to Southern California via a 242-mile-long aqueduct that carries Colorado River water from Lake Havasu and a 444-mile-long aqueduct bringing water from the Sacramento-San Joaquin Delta. Both aqueducts terminate in Lake Skinner in Riverside County where these waters are combined. The SDCWA purchases this imported water from MWD and distributes it to water agencies throughout San Diego County, including the City of Oceanside.

Source Water Assessment

In December 2002, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A summary of the assessment can be obtained by contacting MWD at (213) 217-5696. The Carlsbad Desalination Plant (CDP) completed a source water assessment (Watershed Sanitary Survey) in August 2005. The survey was performed to investigate potential contaminant sources in the Pacific Ocean in the vicinity of the intake structure and in the watershed of the Agua Hedionda Lagoon. The potential contaminant sources evaluated in the Watershed Sanitary Survey are not likely to impact the water quality at the desalination plant. A summary of the assessment can be obtained by contacting CDP at (702) 606-8742.

Ground Water Assessment

An assessment of the current groundwater sources for the City was completed in February 2002. The sources are considered most vulnerable to contamination from sewer collections and/or agricultural/ irrigation wells. A copy of the complete assessment is available at the City of Oceanside Water Utilities Department at 300 North Coast Highway in Oceanside. You may adso request a summary of the assessment by contacting (760) 435-5800.

Contaminants in Source Water

The sources of drinking water – tap and bottled – 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 substances resulting from the presence of animals and/or human activity.

Utilities Commission Meetings

The Oceanside Utilities Commission meets bi-monthly in the City Council Chambers at 300 North Coast Highway. The public is welcome to participate in these meetings. For more information, please call (760) 435-5800.

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 stormwater 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 gas stations, urban stormwater runoff, agricultural application and septic systems.

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

2021 Report of DETECTED Compounds

OCEANSIDE

	Unit	MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Source Waters: R.A. Weese surface water	Source Waters: MBGPF ground water	Source Waters: SDCWA surface water	Source Waters: MWD surface water	Source Waters: Carlsbad Desalination Plant	Sources in Drinking Water
PRIMARY DRINKING WATER STANDARDS (PDWS) -- Mandatory Health-related Standards											
Combined Filter Effluent Turbidity (a)	NTU	TT=1 NTU	NA	NA	Highest	0.14	NA	0.05	0.09	0.09	Soil runoff.
					%<0.3 NTU	100	NA	100	100	100	
INORGANIC											
Aluminum (b)	mg/L	1	0.6	0.05	Range	0.027 - 0.15	NA	ND - 0.06	ND - 0.2	ND	Erosion of natural deposits; residue from surface water treatment process.
					Average	0.068	ND	ND	0.12	ND	
Arsenic	µg/L	10	0.004	2	Range	NA	NA	NA	ND	ND	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
					Average	1.1	ND	2	ND	ND	
Barium	mg/L	1	2	0.1	Range	NA	NA	NA	ND	ND	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.
					Average	0.08	0.04	ND	ND	ND	
Fluoride Natural	mg/L	2	1	0.1	Range	0.29 - 0.35	0.11 - 0.13	0.2 - 0.3	0.2 - 0.3	0.8 - 0.93	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
					Average	0.3	0.1	0.2	0.2	0.9	
Fluoride (c) Added	mg/L	2.0	Optimal 1	Control 0.1	Range	NA	NA	0.6 - 1.2	0.6 - 0.7	ND - 0.8	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
					Average	Not added	Not added	0.7	0.6	0.6	
Selenium	µg/L	50	30	5	Range	NA	NA	NA	ND	ND	Discharge from mines, chemical manufacturers and refineries; erosion of natural deposits.
					Average	1.7	2.7	ND	ND	ND	
Nitrate as N	mg/L	10	10	0.4	Range	0.04 - 0.36	0.76 - 2.18	ND - 0.5	ND	ND	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
					Average	0.2	1.15	ND	ND	ND	
Copper (d)	mg/L	1.3 (AL)	0.3	0.05	Range for 50 homes sampled = ND - 0.450 90th percentile for 50 homes sampled = 0.245						Internal corrosion of household plumbing; leaching of wood preservatives; erosion of natural deposits.
Lead (d)	µg/L	15 (AL)	0.2	5	Range for 50 homes sampled = ND 90th percentile for 50 homes sampled = ND						Internal corrosion of household plumbing; discharges from industrial manufacterers; erosion of natural deposits.
MICROBIOLOGICAL											
Total Coliform Bacteria (e)	%	5.0	(0)	NA	Range	Distribution System = ND - Present					Naturally present in the environment.
					Average	Distribution System = ND					
RADIOLOGICAL (f)											
Gross Alpha	pCi/L	15	(0)	3	Range	ND	NA	ND - 4	ND - 3	ND	Erosion of natural deposits.
					Average	ND	5.5	ND	ND	ND	
Gross Beta	pCi/L	50	(0)	4	Range	NA	NA	4.9 - 5.1	ND - 7	ND	Decay of natural and man-made products.
					Average	NA	NA	5	4	ND	
Uranium	pCi/L	20	0.43	1	Range	NA	3.7 - 5	2.3 - 3.0	ND - 2	ND	Erosion of natural deposits.
					Average	1.10	4.4	2.6	ND	ND	
Combined Radium	pCi/L	5	0	1	Range	NA	NA	ND	ND	-0.07 - 0.48	Erosion of natural deposits.
					Average	0.42	2.76	ND	ND	0.2	
Disinfection by Products (DBP)											
Total Chlorine (g)	mg/L	(RAA) [4.0]	[4.0]	NA	Distribution System wide range = 0.1 - 3.7 Distribution System highest RAA = 0.1						Drinking water disinfectant added for treatment.
HAA5 (h)	µg/L	(LRAA) 60	NA	1	Distribution System wide range = 6.3 - 17.2 Distribution System highest LRAA = 14						By-product of drinking water disinfection.
Total Trihalo-methanes (h)	µg/L	(LRAA) 80	NA	1	Distribution System wide range = 12.0 - 27 Distribution System highest LRAA = 30						By-product of drinking water disinfection.

*Footnotes on page 7

The data tables above and on the following page list all the substances that were detected in the drinking water during 2021 or the most recent sampling within the last five years. The presence of these substances does not necessarily constitute a health risk. The tables contain the name of each substance, unit of measurement, highest level allowed, ideal goals, detection level, range of detection and usual source of the substance. Some substances are not tested each year because the concentrations do not vary significantly from year to year. For these substances, the tables include data from the most recent testing completed.

2021 Report of DETECTED Compounds

OCEANSIDE

	Unit	MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Source Waters: R.A. Weese surface water	Source Waters: MBGPF water	Source Waters: SDCWA surface water	Source Waters: MWD surface water	Source Waters: Carlsbad Desalination Plant	Sources in Drinking Water
SECONDARY STANDARDS -- Aesthetic Standards											
Chloride	mg/L	500	NA	NA	Range	82 - 100	101 - 130	NA	92 - 97	54 - 96	Runoff/leaching from natural deposits; seawater influence.
					Average	90	109	99	94	73	
Color	Units	15	NA	NA	Range	ND - 3	ND - 3	ND	NA	ND	Naturally occurring organic materials.
					Average	ND	ND	ND	1	ND	
Odor	Units	3	NA	NA	Range	ND	ND	NA	NA	ND	Naturally occurring organic materials.
					Average	ND	ND	ND	2	ND	
Sulfate	mg/L	500	NA	NA	Range	130 - 250	120 - 150	NA	197 - 221	10 - 14	Runoff/leaching from natural deposits; industrial wastes.
					Average	201	129	220	209	12	
Total Dissolved Solids	mg/L	1000	NA	NA	Range	NA	NA	NA	557 - 604	140 - 278	Runoff/leaching from natural deposits.
					Average	546	503	610	580	209	
Turbidity (i)	Units	5	NA	NA	Distribution System wide range = 0.10 - 2.8 Distribution System wide average = 0.14						Soil runoff.
Iron (j)	µg/L	300	NA	NA	Range	NA	ND - 610	ND	ND	ND	Leaching from natural deposits; industrial wastes.
					Average	NA	19.2	ND	ND	ND	
Manganese	µg/L	50	NA	NA	Range	NA	ND - 51	ND	ND	ND	Leaching from natural deposits.
					Average	NA	3.6	ND	ND	ND	
UNREGULATED CONTAMINANTS (UCMR4) (k)											
Manganese	µg/L	NA	NA	NA	Range	ND	NA	NA	NA	NA	Leaching from natural deposits.
					Average	ND	0.97	NA	NA	NA	
HAA9	µg/L	NA	NA	NA	Range Average	Distribution System wide range = 10 - 32 Distribution System wide average = 23					By product of drinking water chlorination.
Total Organic Carbon (l)	mg/L	NA	NA	NA	Range	NA	NA	NA	NA	NA	Naturally occuring element.
					Average	2.6	NA	NA	NA	NA	
Bromide (l)	µg/L	NA	NA	NA	Range	NA	NA	NA	NA	NA	Naturally occuring element.
					Average	58.0	NA	NA	NA	NA	
ADDITIONAL PARAMETERS											
Alkalinity as $CaCO_3$	mg/L	NA	NA	NA	Range	100 - 136	80 - 96	NA	121 - 123	46 - 92	Leaching from natural deposits.
					Average	125	87	120	122	63	
Boron	µg/L	1000(NL)	NA	100	Range	NA	NA	NA	NA	400 - 810	Fertilizer and pesticide runoff; Leaching from natural deposits.
					Average	NA	NA	120	140	590	
Calcium	mg/L	NA	NA	NA	Range	46 - 76	44 - 56	NA	62 - 64	17 - 35	Leaching from natural deposits.
					Average	67	50	67	63	21	
Magnesium	mg/L	NA	NA	NA	Range	18 - 29	24 - 30	NA	23 - 25	0.86 - 1.2	Leaching from natural deposits.
					Average	24	26	24	24	1.06	
pH	pH units	NA	NA	NA	Range	7.9 - 8.5	8.0 - 8.3	8.1 - 8.2	8.1 - 8.2	8.10 - 8.70	Measure of the acidic or basic character of water.
					Average	8.1	8.2	8.2	8.1	8.5	
Sodium	mg/L	NA	NA	NA	Range	NA	NA	NA	92 - 95	53 - 67	Salt present in the water, usually naturally occuring.
					Average	93	74	93	94	59	
Total Hardness	mg/L	NA	NA	NA	Range	190 - 310	210 - 260	NA	264 - 273	42 - 87	Sum of magnesium and calcium, naturally occuring in the environment.
					Average	266	232	270	268	52	
Total Hardness	grains/ gal	NA	NA	NA	Range	11 - 18.1	12 - 15	NA	15.4 - 15.9	2.44 - 5.10	Sum of magnesium and calcium, naturally occuring in the environment.
					Average	15.5	14.0	15.8	15.7	3.5	

You Can **Count on Oceanside** to . . .

DELIVER
clean, safe and reliable water every day

PROVIDE
affordable, cost effective and cost-competitive rates

SUPPLY
a reliable source of drinking water

MAINTAIN
water services to improve your quality of life, safeguard the economy and sustain the environment

Fluoride

Oceanside has three sources of water: raw water that is treated at the R.A. Weese water treatment plant, groundwater that is treated at the MBGPF and treated water purchased from SDCWA. Oceanside does not add fluoride during treatment at R.A. Weese or the MBGPF. The fluoride found in these raw water sources is naturally occurring. The third source is imported treated water from SDCWA. Only the imported treated water has added fluoride. The area south of Oceanside Blvd. usually receives this fluoridated water with an average concentration of 0.7 ppm. The water delivered to all other areas in the City usually has an average fluoride level of 0.24 ppm. However, when the City's treatment plants are not operating at full capacity, some or all of the water supply for Oceanside can contain added fluoride up to 0.7 ppm.

Lead

The City's drinking water is tested for lead every three years and was last tested in 2021. Samples were collected inside fifty-two private homes and at the entry points to the water distribution system. **There was no lead detected in the water entering the distribution system and no detections of lead collected in private homes.** Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Oceanside is responsible for providing high quality drinking water but cannot control the variety of materials used in home 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 **www.epa.gov/safewater/lead.**

Contaminants in Drinking Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) 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. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for 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 the 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 (800) 426-4791 or at **www.epa.gov/safewater.**

Drinking Water Disinfection

It is important to disinfect treated drinking water in order to destroy pathogens that can make people sick. The disinfectant must be present in the drinking water system all the way to each home, business and industry. To achieve this long-lasting residual, the City uses chloramines to disinfect the drinking water from each source. **Chloramines provide a stable disinfectant residual throughout the distribution system delivering safe drinking water to every customer.**

Terms and Abbreviations

AL - Regulatory Action Level, *the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.*

DLR - Detection Limit for purposes of Reporting, *the lowest level that can be reliably detected and quantified.*

Grains Per Gallon - *is a unit of water hardness defined as 1 grain (64.8 milligrams) of calcium carbonate dissolved in 1 US gallon of water (3.785 liters). It translates to 17.1 parts per million.*

HAA5 - *Sum of Five Regulated Haloacetic Acids (HAAs), i.e., Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid and Trichloroacetic Acid.*

HAA9 - *Sum of Bromochloroacetic Acid, Bromodichloroacetic Acid, Chlorodibromoacetic Acid, Dibromoacetic Acid, Dichloroacetic Acid, Monobromoacetic Acid, Monochloroacetic Acid, Tribromoacetic Acid and Trichloroacetic Acid.*

LRAA - *Locational Running Annual Average*

MCL - Maximum Contaminant Level, *the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.*

MCLG - Maximum Contaminant Level Goal, *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.*

MRDL - Maximum Residual Disinfectant Level, *the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.*

MRDLG - Maximum Residual Disinfectant Level Goal, *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.*

NA - Not Applicable *or not specified*

ND - Not Detected

NTU - Nephelometric Turbidity Units, *reflecting the lack of clarity in water.*

pCi/L - Picocuries per liter, *a measure of radiation.*

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

PHG - Public Health Goal, *the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.*

RAA - Running Annual Average, *the monthly average of all samples computed each quarter and averaged for four consecutive quarters.*

TT - Treatment Technique, *a required process intended to reduce the level of a contaminant in drinking water.*

Table Footnotes

a) *Turbidity is a measure of the cloudiness of the water. We monitor it because it indicates the effectiveness of our filtration system. Treatment plant effluent turbidity is recorded every 15 minutes. The turbidity of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month. Turbidity for the Carlsbad Desalination Plant effluent is required to be less than or equal to 0.1 NTU in 95% of the measurements taken each month. Turbidity shall not exceed 1.0 NTU at any time.*

b) *Aluminum also has a secondary MCL of 2 mg/L.*

c) *MWD started fluoridation treatment in 2007. Some MWD water is used to supplement Oceanside's treated water. Oceanside does not currently fluoridate during treatment.*

d) *Lead and Copper are sampled every three years at consumer's taps and was last sampled in 2021. If the Action Level is exceeded in 10% of the samples (90th percentile) then the water supplier must modify the treatment process to prevent the leaching of these metals into the water from the plumbing. None of the samples exceeded the Action Levels.*

e) *No more than 5.0% of all monthly samples taken in the distribution system may be Total Coliform positive. In 2021 there were 1,626 samples taken throughout the City and two were positive. All repeat samples were negative.*

f) *Some locations are analyzed once every nine years. Oceanside, SDCWA and MWD all sampled for radiological constituents in 2020. Uranium at MBGPF was sampled in 2021.*

g) *Compliance is based on a running annual average (RAA) of 30 distribution system samples taken each month. The City of Oceanside uses chloramines for disinfection.*

h) *Compliance is based on a locational running annual average (LRAA) of 8 distribution system sample locations taken every quarter.*

i) *Turbidity is also tested at 30 locations each month within the distribution system and reported under Secondary Standards.*

j) *Iron sample was collected after the MBGPF was offline for a period of time and was sampled within the first days of startup. There was an iron result over the sMCL but this is not representative of normal operating conditions.*

k) *UCMR4 = Unregulated Contaminants Monitoring Rule 4. The EPA requires monitoring in order to determine if there is a need to regulate these compounds. Testing for R.A. Weese and MBGPF was completed in 2018 and 2021. All 2021 samples were non-detect and only 2018 values are reflected in the table.*

l) *Total Organic Carbon and bromide results were collected from Weese source water.*

As California is in the midst of an unprecedented drought,

Oceanside's Water Utilities team is hard at work developing strategies to keep our water supplies strong.

California continues to experience one of the driest years on record. Oceanside receives its water from multiple sources, with most coming from hundreds of miles away from the Bay Delta in Northern California and the Colorado River. With both of these sources severely impacted by the current drought, the Governor has issued executive orders that require the State to issue emergency drought regulations to increase water efficiency and conservation to protect water supplies throughout the state.

Oceanside is committed to ensuring a safe and reliable water supply for our customers. The City has invested in local, drought-resistant water supplies for increased resilience including Pure Water Oceanside, the regional Claude "Bud" Lewis desalination plant in Carlsbad and further construction of the City's recycled water system. Oceanside has set a goal to supply 50% of all drinking water with local water supply by 2030. Pure Water Oceanside is capable of providing more than 30% of the City's water supply and brings us closer to this goal. Infrastructure investment and diligent planning have ensured that Oceanside has sufficient supplies to meet demands throughout this drought. We encourage customers to continue efforts to use water wisely.

Oceanside relies on each and every customer to help conserve.

Small changes made in your home go a long way!
Here are some actions everyone can take to help do their part:

Check for leaks inside and outside your home – One leak can cost one home hundreds of gallons of water.

Install water-efficient appliances – Save water by installing new, more water efficient products including weather-based irrigation controllers, rotating sprinkler nozzles, toilets, washing machines and showerheads. Check for rebates at **www.socalwatersmart.com.**

Irrigate without water waste – Adjust your sprinkler times to water no more than 3 times per week for 10 minutes or less per station. Water before 10 a.m. or after 6 p.m. and install drip irrigation systems and smart controllers.

Switch to native plants in your landscape – Native California plants are a great way to save water since many are drought tolerant and require less maintenance. Change up your landscape with some new colorful additions to your yard and reduce the water time.

Save some money – Monitor your water use frequently on the *WaterSmart* customer portal (sign up at **www.Oceanside.WaterSmart.com**). In an ongoing effort Oceanside is installing *WaterSmart* meters throughout Oceanside to help monitor water and alert you of any future leaks.

ALWAYS REMEMBER

the Water Utilities Department and Green Oceanside team are here for you!

To learn more ways to use water efficiently, visit **www.GreenOceanside.org.**

Thank you
Oceanside
for doing it right to be watertight!