

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018

*Presented By*



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

PWS ID#: 0710009

## Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water. If you have any questions about this report or concerns about your water services, please contact the Town of Discovery Bay Water & Wastewater Manager at (925) 634-1131 or visit our website at [www.todb.ca.gov](http://www.todb.ca.gov). We want you to be informed about your water quality and water services, and we welcome any questions or concerns.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or <http://water.epa.gov/drink/hotline>.



## Where Does Our Water in Discovery Bay Come From?

The Town of Discovery Bay CSD obtains its water from six groundwater wells underlying the community. It then flows through two water treatment facilities that remove iron and manganese present in our groundwater sources. The average depth of our wells is approximately 400 feet.

## Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the 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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. 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 regulations and California law 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 that water poses a health risk.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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

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

## Making Water Conservation a California Way of Life

The past five years have brought both historic drought and flooding to California, which experiences the most extreme variability in yearly precipitation in the continental United States. Although recent rains have significantly improved our water supply, variability marks California water resources not just year to year, but also by season and location. Our water systems routinely move water hundreds of miles to serve large cities and immense agricultural productivity but also must help sustain ecologically valuable river and estuary systems. Widespread, careful use of water will help us cope no matter how conditions change. We must always be prepared for extreme fluctuations and use water more wisely, eliminate waste, strengthen local drought resiliency, and improve agricultural water use efficiency and drought planning.

## Water Conservation Is Part of the California Lifestyle

### AROUND THE YARD

On average, Californians use 30 to 60 percent of their water outdoors. Here are some easy outdoor tips to reduce water use.

#### WHAT SHOULD I PLANT?

- ◆ Drought-resistant trees and plants save 30 to 60 gallons per 1,000 square feet each time.
- ◆ Install drip irrigation and add a smart controller: Saves 15 gallons each time you water and saves 24 or more gallons per day.
- ◆ Set mower blades to 3 inches: Encourages deeper roots and saves 16 to 50 gallons per day.
- ◆ Reimagine your yard. Feed your vegetables and fruit water first because they feed you!
- ◆ Water-wise plants and shade trees use little or no water once established. Thirsty plants such as lawn and container plants are the lowest priority. If you have to cut back, start here.
- ◆ Adjust sprinkler heads and fix leaks: Saves 12 to 15 gallons each time you water. A leak about as small as the tip of a ballpoint pen can waste about 6,300 gallons of water per month!
- ◆ Use a broom to clean outdoor areas: Saves 8 to 18 gallons a minute.
- ◆ Use mulch: Saves 20 to 30 gallons per 1,000 square feet each time you water.

### AROUND THE HOUSE

- ◆ Californians use an average of 196 gallons of water per day. Here are some easy ways to reduce water use.
- ◆ Fix leaks: Saves 110 gallons each month.
- ◆ Fill the bathtub halfway or less: Saves 12 gallons per bath.
- ◆ Recycle indoor water and use for plants: Saves gallons of water each month.
- ◆ Install a high-efficiency toilet: Saves 19 gallons per person per day.
- ◆ Turn off water when brushing teeth or shaving: Saves 10 gallons per person per day.
- ◆ Wash full loads of clothes and dishes: Washer saves 15 to 45 gallons per load. Dishwasher saves 5 to 15 gallons per load.
- ◆ Install aerators: Saves 1.2 gallons per person per day.



## Getting Involved with the Community

If you want to learn and get involved with your community, please attend the regularly scheduled meetings of the Town of Discovery Bay Community Services District Board of Directors. They are held on the first and third Wednesday of each month at 7:00 p.m. at the Town of Discovery Bay Community Center, located at 1601 Discovery Bay Boulevard. Please also check our website at [www.todb.ca.gov](http://www.todb.ca.gov) for news, current and past agendas and minutes of our board meetings, and issues that affect our community.

### Board Members for 2019

## Source Water Assessment

Vulnerability assessments are required for all new sources under the California Waterworks Standards (Chapter 16 of Title 22, CA Code of Regulations). Well 1B is considered most vulnerable to automobile gas stations and unauthorized dumping, which are not associated with any detected contaminants. Well 2 is considered most vulnerable to automobile gas stations, historic gas stations, known contaminant plumes, unauthorized dumping, and photo processing/printing waste, which are not associated with any detected contaminants. Well 4A is considered most vulnerable to unauthorized dumping, automobile gas stations, and agricultural drainage, which are not associated with any detected contaminants. Wells 6 and 7 are considered most vulnerable to known contaminant plumes, dry cleaners, and unauthorized dumping, which are not associated with any detected contaminants. A source assessment is not available for Well 5A.

A copy of the complete assessment may be viewed at the California State Water Resources Control Board Division of Drinking Water, 850 Marina Bay Parkway, Building P-2, Richmond, California. You may request a summary of the assessment by contacting Eric Swing, Associate Sanitary Engineer, at (510) 620-3604 or [Eric.Swing@waterboards.ca.gov](mailto:Eric.Swing@waterboards.ca.gov).

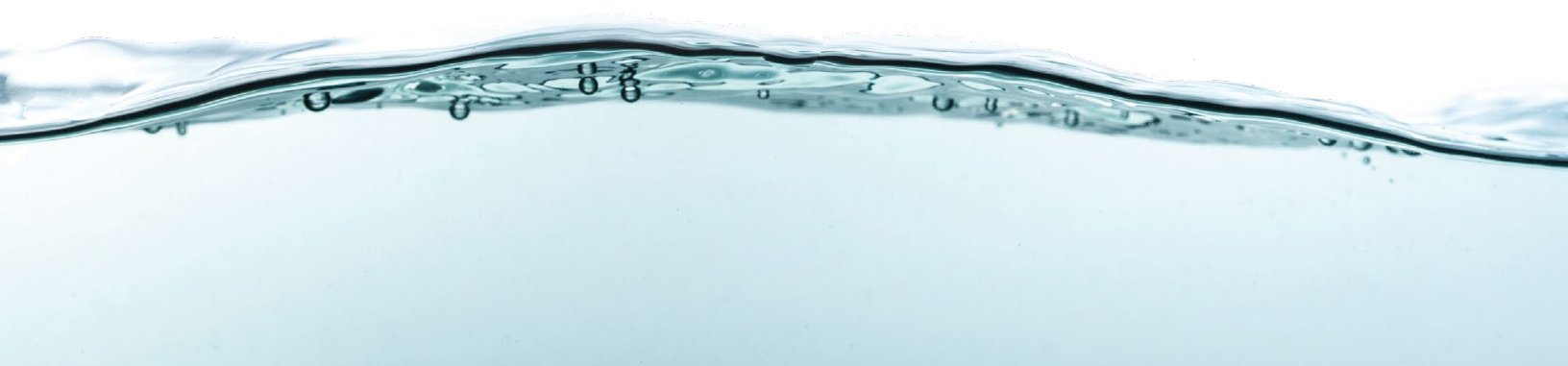
## Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water,

but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead

exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

We remain vigilant in delivering the best-quality drinking water



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Arsenic</b> (ppb)	2018	10	0.004	3	ND–5	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
<b>Barium</b> (ppm)	2018	1	2	ND	ND–0.30	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
<b>Chlorine Residual</b> (ppm)	2018	[4.0]	[4]	0.54	0.43–0.70	No	By-product of drinking water disinfection
<b>Fluoride</b> (ppm)	2018	2.0	1	0.3	0.2–0.4	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Gross Alpha Particle Activity</b> (pCi/L)	2018	15	(0)	3	ND–5.27	No	Erosion of natural deposits
<b>Haloacetic Acids</b> (ppb)	2018	60	NA	8	5–10	No	By-product of drinking water disinfection
<b>Selenium</b> (ppb)	2018	50	30	ND	ND–8	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2018	80	NA	46	23–57	No	By-product of drinking water disinfection
<b>Tap water samples were collected for lead and copper analyses from sample sites throughout the community</b>							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
<b>Copper</b> (ppm)	2018	1.3	0.3	0.34	0/40	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead</b> (ppb)	2018	15	0.2	3.8	0/40	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

## SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Chloride</b> (ppm)	2018	500	NS	189	86–594	No	Runoff/leaching from natural deposits; seawater influence
<b>Color</b> (Units)	2018	15	NS	3	ND–10	No	Naturally occurring organic materials
<b>Odor–Threshold</b> (TON)	2018	3	NS	ND	ND–1	No	Naturally occurring organic materials
<b>Specific Conductance</b> (µmho/cm)	2018	1,600	NS	1,301	937–2,660	No	Substances that form ions when in water; seawater influence
<b>Sulfate</b> (ppm)	2018	500	NS	80	40.8–108	No	Runoff/leaching from natural deposits; industrial wastes
<b>Total Dissolved Solids</b> (ppm)	2018	1,000	NS	745	540–1,470	No	Runoff/leaching from natural deposits
<b>Turbidity</b> (NTU)	2018	5	NS	0.3	0.1–0.5	No	Soil runoff

## UNREGULATED AND OTHER SUBSTANCES<sup>1</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Aggressiveness Index</b>	2018	12.5	12.2–12.6	NA
<b>Alkalinity</b> (ppm)	2018	295	250–350	NA
<b>Boron</b> <sup>2</sup> (ppm)	2018	2.8	2.2–4.1	NA
<b>Calcium</b> (ppm)	2018	47	29–75	NA
<b>Hardness</b> (ppm)	2018	214	130–356	Sum of polyvalent cations present in the water, generally magnesium and calcium, usually naturally occurring
<b>Langelier Index</b>	2018	0.6	0.4–0.7	NA
<b>Magnesium</b> (ppm)	2018	24	14–41	NA
<b>pH</b> (Units)	2018	8	7.8–8.2	NA
<b>Sodium</b> (ppm)	2018	208	126–442	Naturally occurring in the environment
<b>Vanadium</b> <sup>3</sup> (ppm)	2018	ND	ND–0.003	NA

<sup>1</sup>Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

<sup>2</sup>Some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of having babies with developmental effects, based on studies in laboratory animals.

<sup>3</sup>Vanadium exposures resulted in developmental and reproductive effects in rats.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

**µmho/cm (micromhos per centimeter):** A unit expressing the amount of electrical conductivity of a solution.

**µS/cm (microsiemens per centimeter):** A unit expressing the amount of electrical conductivity of a solution.

**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 (SMCLs) 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. EPA.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**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

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NS:** No standard

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**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 EPA.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**SMCL (Secondary Maximum Contaminant Level):** These standards are developed to protect aesthetic qualities of drinking water and are not health based.

**TON (Threshold Odor Number):** A measure of odor in water.