

ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2015



Presented By
Town of Discovery Bay CSD

Board Members for 2016

Bill Pease, President
Bob Leete, Vice President
Kevin Graves, Director
Mark Simon, Director
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Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: 0710009

Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2015. 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 your homes and businesses. 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 of our water users.

Please remember that we are always available to assist you 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 CSD district office at (925) 634-1131. We want you to be informed about your water quality and water services, and we welcome any questions or concerns.

Where Does Our Water in Discovery Bay Come From?

The Town of Discovery Bay CSD obtains its water from six (6) groundwater wells underlying the community. The water then flows through two (2) water treatment facilities that remove iron and manganese from our groundwater sources. The average depth of our wells is approximately 400 feet.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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>.

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. State Board regulations also establish limits for contaminants in bottled water that must 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 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 by-products 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.

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.

Getting Involved with the Community

If you want to learn and get involved with your community, please attend the Town of Discovery Bay Community Services District Board of Directors' regularly scheduled meetings. They are held on the 1st and 3rd Wednesdays of each month, starting at 7:00 p.m. at the Town of Discovery Bay Community Center located at 1601 Discovery Bay Blvd. Please also view our Web site for news, current and past agendas and minutes of our Board meetings, and issues that affect our community at www.todb.ca.gov.

Source Water Assessment

Vulnerability assessments are required for all new sources under the CA Waterworks Standards (Chapter 16 of Title 22, CA Code of Regulations), which became effective March 9, 2008. Because Wells 1, 2, 4A, and 5A were all constructed and permitted prior to this date, they are exempt. A source water assessment was conducted for the Well 6 of the Town of Discovery Bay water system in April 2011, and our newest Well 7 was added in December 2015.

Discussion of Vulnerability

Well 6 is considered most vulnerable to the following activities not associated with any detected contaminants: Known Contaminant Plumes.

A known contaminant plume of MTBE exists beneath a site on the corner of Discovery Bay Boulevard and Willow Lake Road, which used to be a gas station (located southwest of the Well No. 6). Since the removal of three former underground storage tanks, piping, and dispenser islands in 1998, remediation efforts have been underway for the removal of MTBE in the shallow aquifer. The plume occurs in the shallow aquifer extending to 25.5 feet below ground surface, at which level a low-permeability layer 13 feet thick prevents further vertical migration. The Central Valley Regional Water Quality Control Board approved monitored natural attenuation as a corrective action method in February 2008, in part because of naturally decreasing concentration trends.

Although there is not a reported groundwater contamination associated with an identified dry cleaning business, it is considered a possible contaminating activity due to proximity.

Well 6 and Well 7 are considered most vulnerable to the following:

The Possible Contaminating Activities (PCAs) concerned with unauthorized dumping are associated with boats that have sunk and accidental spills of fuel product into the waterways that are part of Discovery Bay. From 1991 to present, there have been more than 20 reports of sunken vessels and product sheens observed in the waterways. In addition, there was a reported incident of a raw sewage leak from a resident sewer line in 2005.

The PCAs identified in this preliminary Drinking Water Source Assessment and Protection (DWSAP) report have the greatest potential to affect groundwater in the shallow aquifer. Our new wells were completed in deeper, confined aquifer units. Their well seal consists of a 180-foot grouted conductor casing. Similar to the older CSD wells, the proposed seal, along with confining clay strata, provides a barrier to potential vertical migration of shallow contamination sources. There have been no contaminants detected in the water supply to this date in Discovery Bay; however, the new wells, like the existing supply wells, are still considered vulnerable to the above PCAs due to proximity.

Obtaining Information

A copy of the complete assessment may be viewed at CA Department of Public Health Drinking Water Field Operations Branch, 850 Marina Bay Parkway, Bldg. P-2, Richmond, CA 94804.

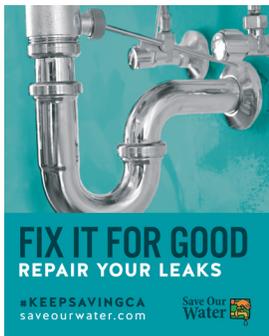
You may request a summary of the assessment be sent to you by contacting Marco Pacheco, P.E., Associate Sanitary Engineer. Phone: (510) 620-3467. Fax: (510) 620-3455. E-mail: Marco.Pacheco@cdph.ca.gov.

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 or at www.epa.gov/lead.

Discovery Bay Community Continues to Conserve Water

The numbers are in, and the Discovery Bay community deserves a round of applause for continuing to conserve our water. The water conservation is measured each month, and the results are monitored by the State. From June of 2015 through April of 2016, the community met the 32 percent water reduction standard.



Discovery Bay Conservation Summary:

June 2015 through January 2016, conservation was 36.2%, exceeding the 32% conservation goal. January conservation was 26.4%, measurably better than the region but below the standard. February conservation was 35.1%. March conservation was 50%. April conservation was 37%.

Although the snowpack water content readings were more positive this past year than in the previous four years, they were still below the historic average. That being so, continued efforts to conserve water throughout the State are important.

In compliance with the State's Emergency Water Regulations, the Town adopted Ordinance No. 25, which includes the following:

- The application of potable water to driveways and sidewalks is prohibited;
- Watering in a manner that results in runoff is prohibited;
- The use of water in fountains or other decorative features is allowed only if part of a recirculating system;
- The use of a hose that dispenses potable water to wash a motor vehicle is prohibited except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;
- Outdoor watering is restricted to two days each week;
- Dwellings or establishments with even numbered street addresses may use outdoor water before 1 p.m. and after 7 p.m. on Tuesdays and Saturdays only.
- Dwellings or establishments with odd numbered street addresses may use outdoor water before 1 p.m. and after 7 p.m. on Wednesdays and Sundays only.

The State's Regulations also prohibit the application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall.

The community deserves much credit for stepping up to the plate and being one of the approximately 58 percent of communities within the State that have achieved the water conservation standard. We thank you all for your efforts.

For more information on the drought and water restrictions in Discovery Bay, please visit our Web site at www.todb.ca.gov and click on the Drought link. Visit www.saveourwater.com for more water-saving tips.

Fines for Non-Compliance

The Town may issue a Notice of Violation to any person, business, association, or other party who fails to comply with any condition of the new regulations. A Notice of Violation that is issued is punishable by a fine of \$25 for a first violation, \$50 for a second violation, \$100 for a third violation, and \$500 for a fourth and any subsequent violation.

Update on Water Meter Installation for the Town of Discovery Bay

The State of California law requires that all homes in our community have water meters installed. Approximately one third of the homes in Discovery Bay have water meters installed on their property. Those homes that are fitted with water meters pay for actual use on an established annual rate rather than paying based on the average residential consumption. Currently, the water meter and automated reader system project is in the planning stages. It is expected that the installation will begin in the winter of 2016 for the remainder of homes not currently metered. This new system will allow you to monitor your water use on any computer or mobile device, from anywhere in the world. Those who conserve water or otherwise use less will see their savings reflected on their water bills. Watch for upcoming updates, and check the Town's Web site at www.todb.ca.gov for more information.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often 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]	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2015	10	0.004	ND	ND–4	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2015	1	2	ND	ND–0.21	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2015	2.0	1	0.4	ND–1.5	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2015	15	(0)	1.58	ND–4.79	No	Erosion of natural deposits
Haloacetic Acids (HAAs) (ppb)	2015	60	NA	9.4 (Highest LRAA)	2–17	No	By-product of drinking water disinfection
Selenium (ppb)	2015	50	30	ND	ND–6	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes] (ppb)	2015	80	NA	63.7 (Highest LRAA)	17.9–128	No	By-product of drinking water disinfection
Uranium (pCi/L)	2015	20	0.43	ND	ND–5.35	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	0.3	0.30	0/45	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2015	15	0.2	2.1	0/45	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)	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2015	500	NA	153.7	82–480	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2015	15	NA	4.2	ND–10	No	Naturally occurring organic materials
Iron (ppb)	2015	300	NA	ND	ND–240	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2015	50	NA	ND	ND–170	No	Leaching from natural deposits
Odor–Threshold (TON)	2015	3	NA	1	ND–4	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2015	1,600	NA	1,163	941–2,190	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2015	500	NA	77	47–98	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2015	1,000	NA	678	560–1,250	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2015	5	NA	0.4	ND–1.2	No	Soil runoff
Zinc (ppm)	2015	5.0	NA	ND	ND–0.06	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron ¹ (ppm)	2015	2.5	2.2–3.5	NA
Chlorate (ppb)	2014	148	120–170	NA
Hardness (ppm)	2015	196.3	121–360	Sum of polyvalent cations present in the water, generally magnesium and calcium; usually naturally occurring
Sodium (ppm)	2015	164.5	111–293	Salt present in the water; generally naturally occurring
Strontium (ppb)	2014	743	660–820	NA

¹The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

Definitions

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

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

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 LRAAs.

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): SMCLs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

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