

## Annual Water Quality Report - Reporting Year 2015

Town of Discovery Bay CSD  
1800 Willow Lake Road  
Discovery Bay, CA 94505

PWSID#: 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.

### 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 Director's regularly scheduled meetings. They are held on the 1st and 3rd Wednesday 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 website for news, current and past agendas and minutes of our Board meetings, and issues that affect our community at [www.todb.ca.gov](http://www.todb.ca.gov).

### Board Members for 2016

Bill Pease, President

Bob Leete, Vice President

Kevin Graves, Director

Mark Simon, Director

Chris Steele, Director

### 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>.

### 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.

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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, which then flows through two (2) water treatment facilities that remove Iron and Manganese from our groundwater sources. The average depth of our wells are approximately 400 feet.

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 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 is 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 Possible Contaminating Activities (PCAs) identified in this preliminary Drinking Water Source Assessment and Protection (DWSAP) 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 will provide 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,

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however the new wells, like the existing supply wells, is still considered vulnerable to the above PCAs due to proximity.

**Acquiring 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 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](http://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 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 — 36.2% conservation, exceeding 32% conservation goal;

January conservation was 26.4% measurably better than the region but below the standard.

February conservation was 35.1%

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March conservation was 50%

April conservation was 37%

Although the snowpack water content readings were more positive this year than in the previous four years, they were still below the historic average. As such, 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 only allowed if part of a recirculating system;
- The use of a hose that dispenses potable water to wash a motor vehicle 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 prohibits 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 website at [www.todb.ca.gov](http://www.todb.ca.gov) and click on the Drought link and visit [www.saveourwater.com](http://www.saveourwater.com) for more water saving tips.

#### Town of Discovery Bay Water Meter Installation Update

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.

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Those homes that are fitted with water meters pay for actual use on an annual rate established rather than paying based on the average residential consumption.

Currently the water meter and automated reader system project is in the planning stages and 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 water use on any computer or mobile device, from anywhere in the world.

Those that conserve water or otherwise use less will see this reflected on their water bill.

Watch for upcoming updates and check the Town's website at [www.todb.ca.gov](http://www.todb.ca.gov) for more information.

(Call-out box)

Fines for Non-Compliance

Failure to comply with the new regulation may result in fines of up to \$500! 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.

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Also, Would you be able to add the definition of SMCL in the "Secondary Substance" header bar? This may give more info as to what a Secondary Substance is. Right now the definition is mixed in with MCL definition. -or- maybe it would be good to give this substance it's own description in the Definition box?

\*\* Insert (Spanish) Translation Text \*\*

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 table below shows only those contaminants that were detected in the water.

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The state requires us to monitor 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  
Town of Discovery Bay CSD**

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]	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	2015	15	(0)	1.58	ND - 4.79	No	Erosion of natural deposits
Haloacetic Acids - Stage 2 (ppb)	2015	60	NA	8	2 - 22	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] - Stage 2 (ppb)	2015	80	NA	53	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  
Town of Discovery Bay CSD**

Substance (Unit of Measure)	Year Sampled	AL	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;

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							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

## Town of Discovery Bay CSD

Substance (Unit of Measure)	Year Sampled	SMCL	PHG (MCLG)	Amount Detected	Range Low-High	Violation	Typical Source
Chloride (ppm)	2015	500	NA	116	45 - 480	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2015	15	NA	3	ND - 13	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 ( $\mu$ S/cm)	2015	1,600	NA	1021	489 - 2190	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2015	500	NA	77	41 - 98	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2015	1,000	NA	591	250 - 1250	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2015	5	NA	0.14	ND - 1.2	No	Soil runoff
Zinc (ppm)	2015	5.0	NA	ND	ND - 0.12	No	Runoff/leaching from natural deposits; industrial wastes

## Unregulated Substances

## Town of Discovery Bay CSD

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Typical Source
Boron (ppm)	2015	2.3	1.2 - 3.5	NA
Sodium (ppm)	2015	145	84 - 293	Salt present in the water and is generally naturally occurring

## Other Unregulated Substances

## Town of Discovery Bay CSD

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Typical Source
Chlorate (ppb)	2014	148	120 - 170	NA
Hardness (ppm)	2015	179	99 - 360	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Strontium (ppb)	2014	743	660 - 820	NA



**DRAFT****Boron Footnote for Town of Discovery Bay CSD**

The 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.

**Table Definitions**

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

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

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

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.

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

$\mu$ S/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

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

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

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.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

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.