

Annual
WATER
QUALITY
REPORT

Reporting Year 2013



Presented By
Town of
Discovery Bay CSD

PWS ID#: 0710009

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

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2013. 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 to assist you should you ever have any questions or concerns about your water.



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. in the Town of Discovery Bay CSD office located at 1800 Willow Lake Road behind the Delta Community Presbyterian Church.

Please also view our Web site for news, current and past agendas and minutes of our board meetings, and issues that affect our community: www.todb.ca.gov.

Board Members for 2014

Mark Simon, *President*
Chris Steele, *Vice President*
Kevin Graves, *Director*
Bill Pease, *Director*
Marianne Wiesen, *Director*

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 California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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 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, that are by-products of industrial processes and petroleum production and that 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.

QUESTIONS?

If you have any questions about this report or concerns about your water utility, please contact Virgil Koehne at the Town of Discovery Bay CSD office at (925) 634-1131 or Veolia Water at (925) 634-8818. We want our valued customers to be informed about your water utility.

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>.

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. The Town of Discovery Bay is 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 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 <http://www.epa.gov/safewater/lead>.

In the News

This year the Town of Discovery Bay Community Services District was recognized by the California Special Districts Association for achieving two milestone awards. The first, the District Transparency Certificate of Excellence, recognizes those public agencies that promote and practice transparency and open government. The District was also recognized as a District of Distinction. One of only 20 special districts statewide to achieve this status, the award acknowledges the Town's efforts in demonstrating that the Town's fiscal management policies and practices are strong and that the Town conducts its business in a manner consistent with industry best practices. The review process to receive these awards was comprehensive and indicates that the Town of Discovery Bay is well managed and practices good governance.

In January, the Discovery Bay Community Center opened its doors to offer a wide variety of programs for residents of all ages. From Aqua Aerobics to Zumba, the Center has something for everyone. To find out more about the programs and services offered, call or visit the Community Center at 634-1733 or check us out on the Web at www.todb.ca.gov. You'll be pleasantly surprised!

In light of the Governor's Emergency Drought Declaration in January, the Town is encouraging all residents to conserve our most valuable resource. Although water is abundant throughout our community, the fact remains that the multiyear drought has put a strain on water systems statewide. While Discovery Bay's drinking water comes from a series of wells hundreds of feet underground, the water in those aquifers originates in the Sierras and eventually winds its way into our homes.

State and local water managers are working on long-term solutions, including investments in our water infrastructure. One example of this is that the Town is currently preparing to construct a small reclaimed-water system for use at our wastewater treatment plant. Once complete, the system will save millions of gallons of water annually in Discovery Bay by reusing treated wastewater for our on-site treatment needs. In the meantime, however, California needs to save every drop of water it can get. We all need to do more to conserve water. The good news is that it's not difficult to save water in our daily lives. Just as we embrace compact-fluorescent light bulbs and recycling, we can adopt habits to reduce our water use inside and outside our homes on a daily basis.

Did you know that the typical Californian uses much more water outdoors than indoors? Watering the lawn, washing cars, and cleaning off the driveway and patio use significantly more water than you might think. Simple changes to our behavior, such as watering only when your landscape needs it or using a broom instead of the hose on the driveway, can add up to big water savings for the state.

To learn more about everyday water use, please visit the Save Our Water Web site at www.saveourh2o.org. Created in 2009 by the California Department of Water Resources and the Association of California Water Agencies, the program offers ideas and inspiration for permanently reducing water use, regardless of whether California is in a drought.

For more information about the Town of Discovery Bay, its services and programs, please visit our Web site at www.todb.ca.gov.

Where Does Our Water in Discovery Bay Come From?

The Town of Discovery Bay CSD obtains its water from five (5) 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.

Water Source 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 06 of the TOWN OF DISCOVERY BAY water system in MAY 2009.

Well 06 is considered most vulnerable to the following activities not associated with any detected contaminants: known contaminant plumes; unauthorized dumping.

Discussion of Vulnerability

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 Well No. 06). 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 depth 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. In September 2010, the State of California Regional Water Quality Control Board found concentrations to be "limited in extent and appear to be stable and declining in concentration." The Regional Board deemed the site "low risk" and removed the site from further monitoring requirements.

The PCA 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.

The PCAs identified in this preliminary DWSAP have the greatest potential to affect groundwater in the shallow aquifer. The proposed well will be completed in deeper confined aquifer units. The proposed well seal consists of a 180-foot grouted conductor casing. Similar to the 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; however, the proposed new source, 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

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. Results list all of the drinking water contaminants that were detected during the most recent sampling for each constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less often than once per year because the concentrations of these contaminants do not change frequently. Some of the data, although representative of the water quality, are more than one year old. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

* This symbol indicates a single result. Well 4A was the only source for which sampling was required for 2012. Radiological sampling frequency is based on the results of initial sampling. Some of our wells are on a 6-year frequency and some are on a 9 year frequency rate. The ranges reported for Gross Alpha and Uranium in the Regulated Substances table represent sampling from all sources for the period from 2006 to 2012.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2013	10	0.004	1.9	ND-6	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2012	1	2	0.09	ND-0.2	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	2012	15	(0)	*1.60	ND-9	No	Erosion of natural deposits
Haloacetic Acids (HAAs)-Stage 2 (ppb)	2013	60	NA	6	3-12	No	By-product of drinking water disinfection
Selenium (ppb)	2013	50	30	5.2	ND-17	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTTHMs [Total Trihalomethanes]-Stage 2 (ppb)	2013	80	NA	65.4	23.8-77.8	No	By-product of drinking water disinfection
Total Coliform Bacteria [Total Coliform Rule] (# positive samples)	2013	No more than 1 positive monthly sample	(0)	1/mo	NA	No	Naturally present in the environment
Uranium (pCi/L)	2012	20	0.5	1.3	ND-5	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	PHG (MCLG) AL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2012	1.3	0.3	0.510	0/32	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2012	15	0.2	2.60	0/32	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	EXCEEDANCE	TYPICAL SOURCE
Chloride (ppm)	2012	500	NS	168	45-480	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2012	15	NS	5	ND-13	No	Naturally occurring organic materials
Foaming Agents [MBAS] (ppb)	2012	500	NS	80	ND-400	No	Municipal and industrial waste discharges
Iron (ppb)	2013	300	NS	20	ND-200	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2013	50	NS	28	ND-140	Yes	Leaching from natural deposits
Odor-Threshold (TON)	2012	3	NS	0.8	ND-2	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2012	1,600	NS	1,220	489-2,220	Yes	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2012	500	NS	76.6	41-98	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2012	1,000	NS	698	250-1,240	Yes	Runoff/leaching from natural deposits
Zinc (ppm)	2012	5.0	NS	0.006	ND-0.12	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron ¹ (ppm)	2012	3	1-4	NA
Hardness (ppm)	2012	216	99-321	Sum of polyvalent cations present in the water, generally magnesium and calcium; usually naturally occurring
Sodium (ppm)	2012	197	84-401	Salt present in the water; generally naturally occurring

¹Manganese was found at levels that exceed the secondary MCL. The manganese SMCL was set to protect you against unpleasant aesthetic effects such as color, taste, odor, and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. Violating this SMCL does not pose a risk to public health.

²The conductivity of your water was found at levels that exceed the secondary MCL. The secondary MCLs were set to protect you against unpleasant aesthetic effects such as color, taste, and odor. Violating this SMCL does not pose a risk to public health.

³The TDS or total dissolved solids in your water was found at levels that exceed the secondary MCL. The TDS SMCL was set to protect you against unpleasant aesthetic effects such as color, taste, or hardness. Violating this SMCL does not pose a risk to public health.

⁴The 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 which, 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.

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

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).

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