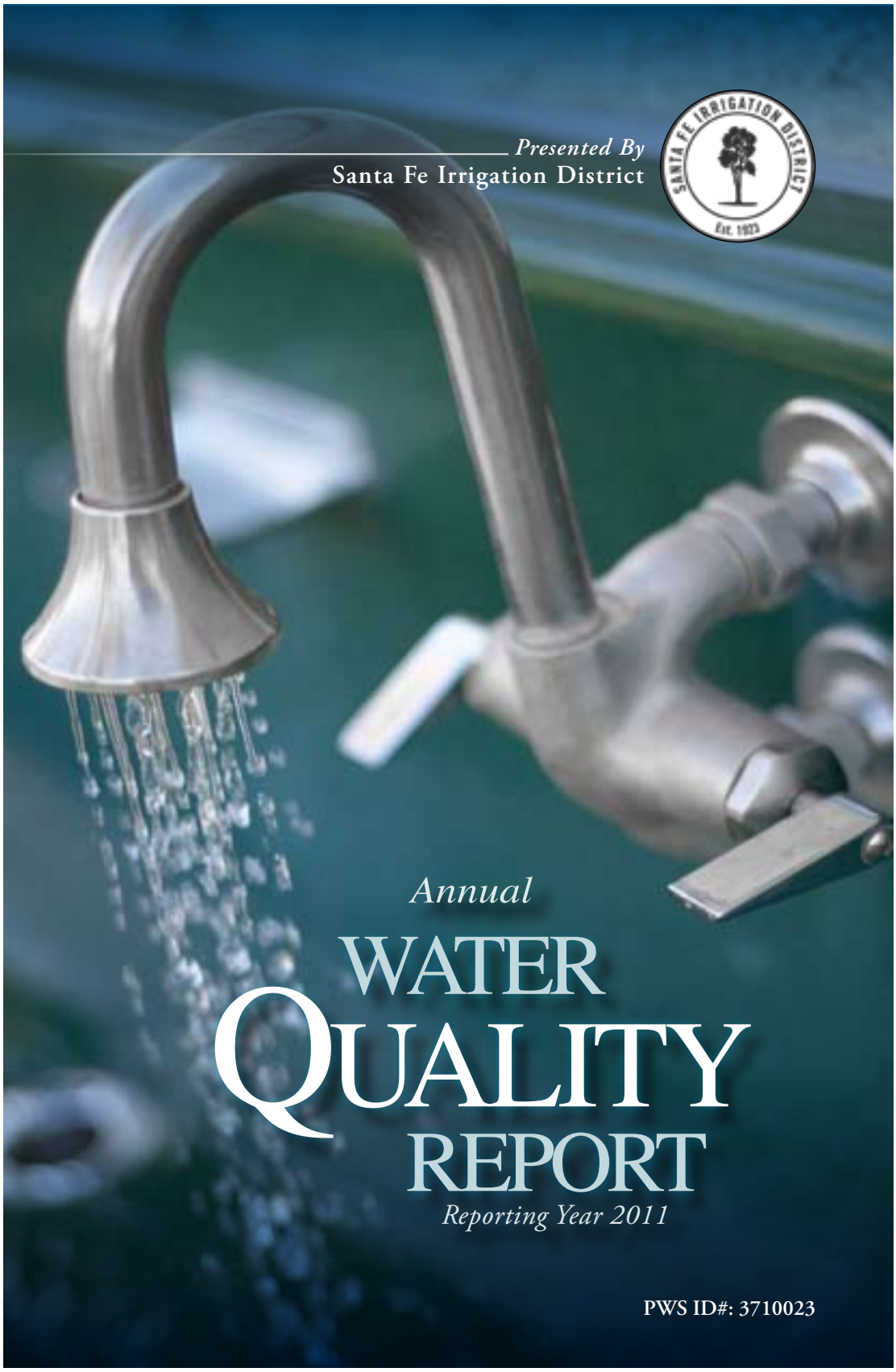
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Santa Fe Irrigation District
SANTA FE IRRIGATION DISTRICT
Est. 1923
Annual
WATER
QUALITY
REPORT
Reporting Year 2011
PWS ID#: 3710023

Santa Fe Irrigation District Water Quality Report for 2011

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2011. As in years past, the Santa Fe Irrigation District is committed to delivering reliable, high-quality drinking water. In support of this commitment, the District continues to make important investments in planned replacements and upgrades to our water distribution and treatment systems. Recent improvements at the R.E. Badger Filtration Plant and Lake Management enhancements at the San Dieguito Reservoir enable the District to increase the use of local water supplies. Efficient use of local water supplies reduces reliance on costly imported water supplies and increases water supply reliability. We continually strive to deliver the best quality drinking water to you and 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 email us your thoughts or concerns about the information in this report at customerservice@sfidwater.org.

Source Water Assessment

Local water supplies are considered most vulnerable to agricultural and urban/storm runoff. A copy of the R.E. Badger Filtration Plant Watershed Sanitary Survey is available for review at the treatment plant. If you have any questions about this report, please call Cor Shaffer, Operations Manager, or Tim Bailey, Water Quality Analyst, at (858) 756-2569.

In December 2007, the Metropolitan Water District of Southern California completed its source water assessment of our imported water from the Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered to be most vulnerable to urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

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 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.

Where Does My Water Come From?

The Santa Fe Irrigation District and San Dieguito Water District jointly own and operate the R.E. Badger Filtration Plant. The plant treats both imported and local water. Imported water is delivered by pipeline from Lake Skinner, located in the City of Hemet. Lake Skinner is a blend of water imported by the Metropolitan Water District of California from the Colorado River and the Sacramento River Delta. Local water originates from Lake Hodges and is either transferred to the San Dieguito Reservoir through a small aqueduct and then to the treatment plant or directly to the treatment plant via the Cielo Pump Station.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Division of Drinking Water and Environmental Management has a Web site (www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx) that provides complete and current information on water issues in California, including valuable information about our watershed.

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.

Public Meetings

The Santa Fe Irrigation District supplies water to the City of Solana Beach and the communities of Rancho Santa Fe and Fairbanks Ranch. The Santa Fe Irrigation District is governed by an elected Board of Directors: one member representing each of the five geographical divisions within the District. The regular monthly meeting of the Board of Directors is held on the third Thursday of each month at the District's Administrative Office and the public is encouraged to attend.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Tim Bailey, Water Quality Analyst, at (858) 756-2569, or Cor Shaffer, Operations Manager, at (858) 756-2424.

Testing for Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal if the level of radon in your air is 4 pCi/L of air or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call California's radon program (1-800-745-7236), the U.S. EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).

Perchlorate Testing

During the summer of 2010, we did not monitor for the presence of perchlorate in the raw water system. Annually we are required to sample the source water for perchlorate, which was not performed in 2010. Upon learning of the lapse, subsequent samples were taken and perchlorate was not detected in any of the samples. Results of the analysis have been received and properly recorded as required by state and federal law. We do not believe that missing this monitoring requirement had any impact on public health and safety. We have already taken the steps to ensure that adequate monitoring and reporting will be performed in the future.

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 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, 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.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. 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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2011	10	0.004	0.68	ND–1.6	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2011	1	2	0.053	0.048–0.060	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chloramines (ppm)	2011	[4.0 (as Cl2)]	[4 (as Cl2)]	3.06	2.0–3.26	No	Drinking water disinfectant added for treatment
Chlorine Dioxide (ppb)	2011	[800 (as ClO2)]	[800 (as ClO2)]	7.67	ND–140	No	Drinking water disinfectant added for treatment
Chlorite (ppm)	2011	1.0	0.05	0.18	ND–0.36	No	By-product of drinking water disinfection
Chromium (ppb)	2011	50	(100)	0.55	ND–2.2	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Combined Radium (pCi/L)	2007	5	(0)	0.23	ND–0.90	No	Erosion of natural deposits
Control of DBP precursors [TOC] (ppm)	2011	TT	NA	5.14	3.29–6.94	No	Various natural and man-made sources
Fluoride (ppm)	2011	2.0	1	0.188	0.14–0.25	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2011	60	NA	18.5	11–36	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2011	45	45	0.3	ND–1.2	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	71.4	48–120	No	By-product of drinking water disinfection
Uranium (pCi/L)	2007	20	0.43	0.625	ND–2.5	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	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2011	1.3	0.3	0.49	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2011	15	0.2	2.2	0/30	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
Chloride (ppm)	2011	500	NS	133	81–170	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2011	15	NS	4.26	1–10	No	Naturally occurring organic materials
Copper (ppm)	2011	1.3	0.3	0.0006	ND–0.0025	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Manganese (ppb)	2011	50	NS	2.48	ND–7.7	No	Leaching from natural deposits
Odor–Threshold (Units)	2011	3	NS	1.5	1–3	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2011	1,600	NS	957	640–1,100	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2011	500	NS	136	95–160	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2011	1,000	NS	572	390–640	No	Runoff/leaching from natural deposits
Turbidity (Units)	2011	5	NS	0.03	0.01–0.27	No	Soil runoff

OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness (grains/gal)	2011	14.5	9.4–16.4	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Hardness (ppm)	2011	247.5	160–280	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Sodium (ppm)	2011	97.3	61–120	Salt present in the water and is generally naturally occurring

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.

grains/gal (grains per gallon): Grains of compound per gallon of water.

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).