



Paradise Irrigation District

6332 Clark Rd, Paradise, CA 95969 · 530-877-4971 · Fax: 530-876-0483 · www.pidwater.com

August 23, 2022

Via Electronic Mail to:



Re: Request for Paradise Irrigation District
Water Quality Reports from 2000 - 2011

Dear 

This letter is to acknowledge your Public Records Act Request ("Request") dated August 19, 2022 and received by the Paradise Irrigation District (PID) via Email that same day wherein you request PID Water Quality Reports from 2000 – 2011.

Provided herein, are the following responsive documents attached hereto as Exhibit A and identified as follows:

PID Water Quality Reports from 2000 – 2011 (PDF file - 44 pages)

These responses reflect our diligent effort to interpret the requests set forth in your Request. Please let me know if you have any questions or require assistance with your request.

Sincerely,

Georgeanna Borrayo
District Secretary

Attachments: Exhibit A

Paradise Irrigation District Water Quality Report 2000





Commitment to Quality

Once again, we are proud to present to you our annual Water Quality Report. With a focus on customer service and efficiency in operations, we continue to strive for excellence through new water quality programs that will ensure a reliable drinking water supply for years to come. To maintain our commitment to you, we routinely collect and test water samples every step of the way — from the source waters right to your home — checking purity and identifying potential

problems. We work with only state-certified laboratories to perform required testing to maintain our quality assurance program. Staffed by highly trained scientists and technicians, these labs have the latest, most sophisticated instruments, and can measure substances down to one part in a billion! We are committed to providing you with this information about your water supply, because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

What's Inside?

This report outlines the processes involved in delivering to you the highest quality drinking water available. In it, we will answer these important questions:

- What is in my drinking water?
- Where does my water come from?
- Where can I get additional information?



Questions?

Call U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791

Substances Expected to be in Drinking 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.

Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Inorganic Contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

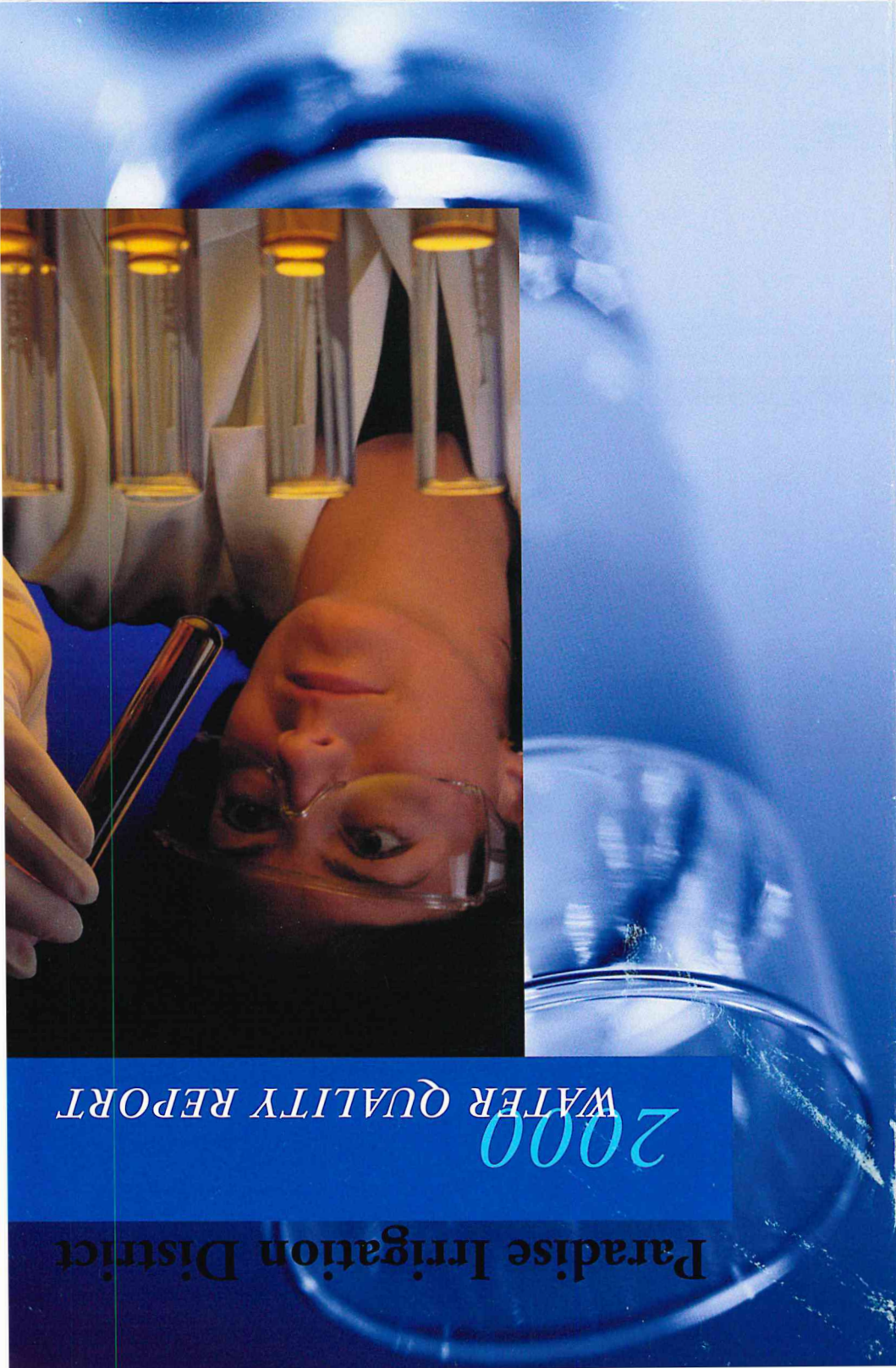
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems;

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

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which 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. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).



2000 WATER QUALITY REPORT
Paradise Irrigation District

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Returns
P. O. Box 71649
Durham, NC 27722-9990

Paradise Irrigation District 2000 Water Quality Consumer Confidence Report

What’s In My Water?

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. For your information, we have compiled a list in the table below showing what substances were detected in our drinking water during 2000. Although all of the substances listed below are under the Maximum Contaminant Level (MCL) set by U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. For additional information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at 530.877.3554.

PRIMARY DRINKING WATER STANDARD (Regulated in order to protect against possible adverse health effects.)							
SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	1996	1	NA	0.05	NA	No	Naturally occurring in the environment and associated with coagulants, such as aluminum sulfate
TTHMs [Total trihalomethanes](ppb)	2000	100	NA	18.8	5.7-24.0	No	By-product of drinking water chlorination
Turbidity (NTU)	1998	0.5	NA	0.06	NA	No	Soil runoff

SECONDARY DRINKING WATER STANDARD (Regulated in order to protect the odor, taste and appearance of drinking water.)							
SUBSTANCE (UNITS)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	1995	250	NS	0.8	NA	No	Runoff/leaching from natural deposits; sea water influence
Sulfate (ppm)	1995	250	NS	0.6	NA	No	Runoff/leaching from natural deposits; industrial wastes
TDS (ppm)	1999	1,000	NS	39	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	1996	5	NS	0.308	NA	No	Added to the water as a corrosion inhibitor, also helps control leaching of lead and copper from plumbing systems

LEAD & COPPER (Tap water samples were collected from 30 homes throughout Paradise.)							
SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED	NUMBER OF HOMES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1999	1.3	0.17	0.398	0	No	Internal corrosion of household water plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	1999	15	2	5.3	0	No	Internal corrosion of household water plumbing systems; Discharge from industrial manufacturers;Erosion of natural deposits

UNREGULATED SUBSTANCES				
SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Haloacetic Acid (ppb)	2000	19.5	6.9 - 28.0	By-product of drinking water chlorination
Hardness (ppm)	1999	25	NA	Caused mainly by the salts of calcium and magnesium. Water can be considered hard if it measures over 100 ppm
Sodium (ppm)	1995	1.3	NA	Occurs abundantly in nature

Table Definitions:

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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 (SMCL) 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.

Environmental Protection Agency.

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 Environmental Protection Agency.

Primary Drinking Water Standard or PDWS: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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

NA: Not applicable.

NS: No standard established.

NTU (nephelometric turbidity units): Measurement of the clarity, or turbidity, of water.

ppb (parts per billion): One part per billion (or micrograms per liter) is equivalent to one penny in \$10,000,000.

ppm (parts per million): One part per million (or milligrams per liter) is equivalent to one penny in \$10,000.

Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy an abundant water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated which contributes to the high quality water we serve.

The District drilled and developed a groundwater source at the "D" tank reservoir site. This well produces 450 gallons per minute (gpm) and is used as a drought management tool. Although this source is not used on a routine basis, water quality testing has been done to qualify as an approved source.

Microbiological Water Quality

Testing for bacteriological contaminants in the distribution system is required by State regulations. This testing is done regularly (40 samples required per month) to verify that the water system is free from coliform bacteria and other pathogens. In 2000 NO samples containing coliform bacteria were found.

What is Turbidity?

Turbidity is a measure of the water clarity and is a good indicator of filtration system performance. State maximum allowable turbidity standards require turbidity to be under 5 NTU on any one sample. Also it is required that we never exceed 0.5 NTU 95% of the time. We are pleased to announce that we did not exceed this requirement. Our annual average turbidity is 0.034 NTU well below the required 0.5 NTU maximum.

Drinking Water Improvement Projects

The District has in its budget \$600,000 per year for pipeline replacement. This has resulted in a significant drop in unaccounted for water over the past few years.

We received a \$500,000 grant to study the feasibility of additional water supply. This grant will allow us to study various options, i.e., raising Paradise Dam, analyzing Magalia Dam and developing more wells and other options.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Board of Directors meets the 1st Wednesday of the month at 7:00 p.m. and the third Wednesday of the month at 1:30 p.m. at 5325 Black Olive Drive, Paradise, CA.

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

Paradise Irrigation District Water Quality Report 2001



Our Mark of Excellence

We are once again proud to present

water quality report. Over the years, we have dedicated ourselves to producing drinking water that meets or does better than all state and federal drinking water standards. We continually strive to adopt new and better methods of delivering the best quality drinking water to you. As regulations and drinking water standards change, it is our commitment to you to incorporate these changes system-wide in an expeditious and cost-effective manner.



Administration Building

As new challenges to drinking water safety emerge, we will be vigilant in maintaining our objective of providing quality drinking water at an affordable price. If you have any health concerns relating to the information in this report, we encourage you to contact your health care provider.

What's Inside?

This report outlines the processes involved in delivering to you the highest quality drinking water available. In it, we will answer three important questions:

- Where does my water come from?
- How is my water treated and purified?
- What is in my drinking water?

We will also provide information on other available resources that will answer questions about water quality and health effects.

Got Questions?

Call the U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791

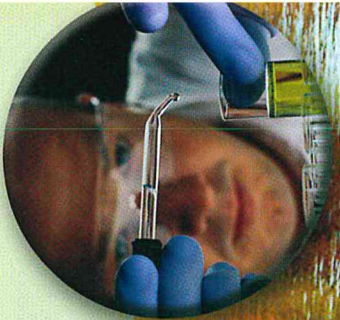


Paradise Irrigation District

PWS ID#: CA0410007



2001 WATER QUALITY REPORT



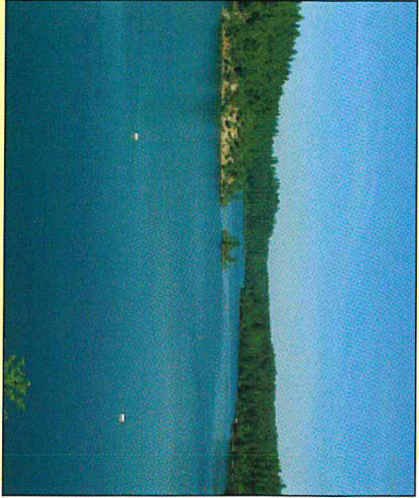
Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high quality water supply from a surface water source.

The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of the Little Butte Creek watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high quality water we serve.

Detailed information concerning watershed protection is available in two documents titled Watershed Sanitary Survey and Drinking Water Source Assessment Plan. These documents are available for review at the District Office.

The District drilled and developed a groundwater source at the "D" tank reservoir site. This well produces up to 450 gallons per minute (gpm) and will be used as a drought management and emergency tool. Although this source is not used on a routine basis, water quality testing has been done to qualify as an approved source.



Paradise Lake

How Is My Water Treated And Purified?



Water Filtration Basins

Raw water from Magalia Reservoir is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration and disinfection. Particles in the raw water are coagulated into larger particles that are easily filtered. Alum and Polymer are added to the raw water to enhance the coagulation process. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers.

The coarse media enhances further coagulation of particles in the water to remove most of the coagulated particles. Clarified water flows

downward through tri-media filters consisting of anthracite, sand and fine garnet to remove the remaining particulates and "polish" the finished water.

A minimum amount of chlorine is added to the finished water to meet California State requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to offsite reservoirs for distribution to residents of Paradise.

Special Recognition

In March 1998, Paradise Irrigation District (PID) received a certificate of achievement from the Department of Health Services because the water produced by PID during calendar year 1997 was consistently less than 0.1 NTU as recommended by the DHS Cryptosporidium Action Plan.

Paradise Irrigation District
P.O. Box 2409
Paradise, CA 95967-2409



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Community Participation



You are invited to participate in our public forum and voice your concerns about your drinking water. The Board of Directors meets the first Wednesday of the month at 7:00 p.m. and the third Wednesday of the month at 1:30 p.m. at 5325 Black Olive Drive, Paradise, California.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water and energy bills. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

The Paradise Irrigation District offers water audits free of charge. Contact the District Office for an appointment.

What’s in My Water?

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. For your information, we have compiled a list in the table below showing what substances were detected in our drinking water during 2001. Although all of the substances listed below are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554.

This publication conforms to the regulation under the Safe Drinking Water Act requiring water utilities to provide detailed water quality information to each of their customers annually. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.



REGULATED SUBSTANCES							
SUBSTANCE (UNITS)	YEAR SAMPLED¹	MCL	PHG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Primary							
Aluminum (ppm)	1996	1.0	0.6	0.05	NA	No	Naturally occurring in the environment and associated with coagulants, such as aluminum sulfate
Turbidity (NTU)²	2001	TT	TT	0.03	0.03-0.05	No	Soil runoff
Secondary							
Chloride (ppm)	1995	250	NS	0.8	NA	No	Runoff/leaching from natural deposits
Sulfate (ppm)	1995	250	NS	0.6	NA	No	Runoff/leaching from natural deposits
Total Dissolved Solids [TDS] (ppm)	1995	1,000	NS	39	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	1996	5.0	NS	0.308	NA	No	Addition to the water as a corrosion inhibitor; also helps control leaching of lead and copper from plumbing systems
Disinfection By-Products							
Haloacetic Acids (ppb)	2001	60	NA	24.2	11.4-39.6	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	2001	100	NA	23.0	16-25	No	By-product of drinking water chlorination

Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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 (2nd MCL) 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.

NA: Not applicable
NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

PDWS (Primary Drinking Water Standard): MCLs 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. The California EPA sets PHGs.

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).

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

Tap water samples were collected for lead and copper analyses from 30 homes in the service area							
SUBSTANCE (UNITS)	YEAR SAMPLED	AL	PHG	AMOUNT DETECTED	HOMES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1999	1.3	0.17	0.398	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	1999	15	2	5.3	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

UNREGULATED SUBSTANCES				
SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness (ppm)	1995	25	NA	Caused mainly by the salts of calcium and magnesium; water can be considered hard if it measures over 100 ppm
Sodium (ppm)	1995	1.3	NA	Occurs abundantly in nature
Vanadium (ppb)³	2001	16	NA	Runoff/leaching from natural deposits

¹The 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.
²Turbidity is a measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.
³Detected from samples at "D" Tank Well. This source is only used in a drought/emergency.

Substances Expected to be In Drinking 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 United States Environmental Protection Agency (U.S. EPA) and the California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain substances in water provided by public water systems. CDHS 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 substances. The presence of these substances does not necessarily indicate that water poses a health risk. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which 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 can also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which 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 (800) 426-4791.



Student Intern

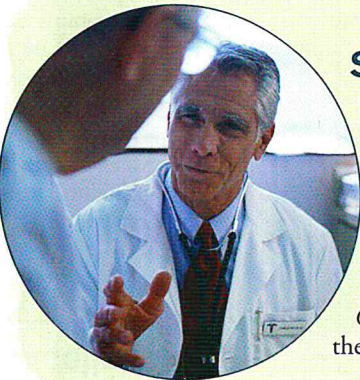
Contamination From Cross-connections

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, wells, irrigation systems) or water sources of questionable quality.

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also oversee the inspection and testing of each backflow preventer to make sure that it is providing maximum protection.

For more information, visit the Web site of the American Backflow Prevention Association for a discussion on current issues at www.abpa.org.



Special 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, exposure to radon, and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Paradise Irrigation District Water Quality Report 2002





Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2002. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Board of Directors meets the first and third Wednesday of each month at 6:30 p.m. at 5325 Black Olive Drive, Paradise, CA.

Water Rate Increase

In an effort to maintain our current level of service, the Board of Directors has adopted an increase in water rates effective with July 1, 2003 bills. Contact the District Office for details or concerns.

L00014001 ID: # CA0410001



Proudly Presented by

2002 WATER QUALITY REPORT



Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/wathome) 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 California Department of Health Services Division of Drinking Water and Environmental Management has a Web site (www.dhs.ca.gov/ps/ddwem) that provides complete and current information on water issues in our own state. Paradise Irrigation District also offers an information Web site. Visit us at www.paradisecirrigation.com.

Special 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, exposure to radon, and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high quality water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The Water Treatment Plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated which contributes to the high quality water we serve.

The District drilled and developed a groundwater source at the "D" tank reservoir site. This well produces up to 450 gallons per minute (gpm) and will be used as a drought management and emergency source. Although this source is not used on a routine basis, water quality testing has been done to qualify it as an approved source.

A source water assessment has been completed for the two sources serving Paradise Irrigation District. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: **Well at "D" Tank:** High-density septic systems and automobile repair shops.

Magalia Reservoir: High-density septic systems and historic mining operations.

A copy of the complete assessment may be viewed at: DHS Valley District Office, 415 Knollcrest Drive, Suite 110, Redding, CA 96002, Attention: Gunther Sturm, (530) 224-4866; OR Paradise Irrigation District Office, 5325 Black Olive Drive, Paradise, CA 95969, Attention: Ray Auerbach, (530) 877-4971.



Paradise Lake



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

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Paradise Irrigation District
P.O. Box 2409
Paradise, CA 95967

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. The District offers individual water audits at no cost. Contact our office for details. Several other suggestions are available on our Web site at www.paradisecirrigation.com.



How Is My Water Treated And Purified?

Raw water from Magalia Reservoir is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration, and disinfection. The coagulation process consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downward through trimedia filters consisting of anthracite, sand, and fine garnet to remove the remaining particulates and "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California state requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to offsite reservoirs for distribution to residents of Paradise.

What's In My Water?

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. For your information, we have compiled a list in the table below showing what substances were detected in our drinking water during 2002. Listed below are the substances detected in our water. We feel it is important that you know exactly what was detected and how much of the substance was present in the water. Forty bacteriological samples are collected each month from our distribution system. No samples collected during 2002 indicated any presence of bacteria.

PRIMARY DRINKING WATER STANDARD (Regulated in order to protect against possible adverse health effects)

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Arsenic (ppb) ¹	2002	50	NA	3.0	2-3	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Cadmium (ppb)	2002	5.0	0.07	1.6	1-1.6	No	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories and metal refineries; runoff from waste batteries and paints
Haloacetic Acids (ppb)	2002	60	NA	23.25	10-25	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2002	80	NA	27.25	23-30	No	By-product of drinking water disinfection
Turbidity (NTU) ²	2002	TT	NA	0.06	0.02-0.06	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 60 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %TILE)	NO. OF HOMES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2002	1.3	0.17	1.3	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2002	15	2	<2	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY DRINKING WATER STANDARD (Regulated in order to protect the odor, taste and appearance of drinking water)

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2002	250	NS	2.2	2.2	No	Runoff/leaching from natural deposits
Iron (ppb)	2002	300	NS	472	472	Yes ³	Leaching from natural deposits; industrial wastes
Sulfate (ppm)	2002	250	NS	1.8	1.8	No	Runoff/leaching from natural deposits
Total Dissolved Solids [TDS] (ppm)	2002	1,000	NS	44	44	No	Runoff/leaching from natural deposits (Source: Magalia Reservoir)
Total Dissolved Solids (TDS) (ppm) ¹	2002	1,000	NS	162	162	No	Runoff/leaching from natural deposits (Source: "D" Tank Well. This source is only used in a drought/emergency.)
Zinc (ppm)	2002	5.0	NS	0.096	0.096	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE (LOW-HIGH)	TYPICAL SOURCE
Boron (ppb) ¹	2002	213	100-213	Erosion of natural deposits
Chromium VI (ppb) ¹	2002	3.8	1.0-3.8	Erosion of natural deposits; glass and electronics production wastes
Hardness (ppm)	2002	27	NA-27	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)
Sodium (ppm)	2002	1.3	NA-1.3	Occurs abundantly in nature
Vanadium (ppb) ¹	2002	12.0	3.0-12.0	Runoff/leaching from natural deposits

¹Detected from samples at "D" Tank Well. This source is only used in a drought/emergency.
²Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity fell below 0.3 for the year.
³Detected from samples at "D" Tank Well. This source is only used in a drought/emergency. Records indicate that the "D" Tank Well exceeds the MCL for iron. Iron is on the state's Secondary Standards list of chemicals and there is no associated health risk for these levels of iron in the drinking water, and the state has requested no further action on our part at this time.

Substances Expected to be in Drinking 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. EPA and the California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain substances in water provided by public water systems. CDHS 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 substances. The presence of contaminants does not necessarily indicate that the water poses a health risk. Substances that may be present in source water include:

- Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic Contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- Pesticides and Herbicides**, which 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 can also come from gas stations, urban stormwater runoff, and septic systems;
- Radioactive Contaminants**, which 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.



Student Intern

Table Definitions

- AL (Action Level):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which 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 (2nd MCL) 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.
- NA:** Not applicable
- ND:** Not detected
- NS:** No standard
- NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.
- 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).
- TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

What is Chromium 6?

Chromium is an inorganic chemical that exists primarily in two forms. Chromium 3 occurs naturally in food and water and is a required nutrient. Chromium 6 may occur naturally in groundwater, but can also enter drinking water sources through industrial pollution.

The levels of total chromium in our tap water have always been very low. Until more is known about the actual risk of Chromium 6, our staff will continue to monitor the district's water and keep a close watch on this and other emerging water quality issues.

New Arsenic Regulation

Arsenic contamination of drinking water sources may result from either natural or human activities. Low levels of arsenic are naturally present in water—about 2 parts per billion parts of water (ppb). Thus, you normally take in small amounts of arsenic in the water you drink. Some areas of the country have unusually high natural levels of arsenic in rock, which can lead to unusually high levels of arsenic in water.

In January 2001, the U.S. EPA lowered the arsenic Maximum Contaminant Level (MCL) from 50 to 10 ppb in response to new and compelling research linking high arsenic levels in drinking water with certain forms of cancer. All water utilities are required to implement this new MCL starting in 2006. For a more complete discussion visit the U.S. EPA's Web site at www.epa.gov/safewater/arsenic.html.

Paradise Irrigation District Water Quality Report 2003



Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January 2003 through December 2003. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554.

Working Hard For You



Under the Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (U.S. EPA) is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Each system continually monitors for these substances and reports to the U.S. EPA if they were detected in the drinking water. The U.S. EPA uses these data to ensure that consumers are receiving clean water.

This publication conforms to the regulation under SDWA requiring water utilities to provide detailed water quality information to each of their customers annually. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Board of Directors meets the first and third Wednesday of the month at 6:30 p.m. at 5325 Black Olive Drive, Paradise, California.

Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high quality water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high quality water we serve.

The District drilled and developed a groundwater source at the "D" tank reservoir site. This well produces up to 450 gallons per minute (gpm) and will be used as a drought management and emergency source. Although this source was not used in 2003, water quality testing has been done to qualify as an approved source.

About Our Violation:

Iron was detected from samples at "D" Tank Well. This source is only used in a drought/emergency. Records indicate that the "D" Tank Well exceeds the MCL for Iron. Iron is on the state's Secondary Standards list of chemicals. There is no associated health risk for these levels of iron in drinking water, and the state has requested no further action on our part at this time.

How Is My Water Treated And Purified?

Raw water from Magalia Reservoir is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration and disinfection. The coagulation process consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downward through tri-media filters consisting of anthracite, sand and fine garnet to remove the remaining particulates and "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California State requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to offsite reservoirs for distribution to residents of Paradise.

Source Water Assessment

Source Water Assessment has been completed for the two sources serving Paradise Irrigation District. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

WELL AT "D" TANK: High-density septic systems and automobile repair shops. MAGALIA RESERVOIR: High-density septic systems and historic mining operations.

A copy of the complete Assessment may be viewed at: DHS Valley District office, 415 Knollcrest Drive, Suite 110, Redding, CA 96002, Attention: Gunther Sturm, (530) 224-4866 OR Paradise Irrigation District Office, 5325 Black Olive Drive, Paradise, CA 95969, Attention: Ray Auerbach, (530) 877-4971.

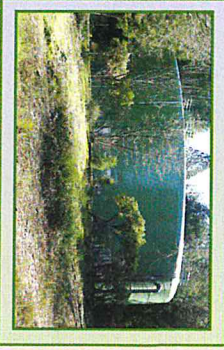
Water Awareness Day 2004

ON FRIDAY, MAY 21, THE DISTRICT WILL SPONSOR WATER AWARENESS DAY 2004. THIS EVENT IS DESIGNED TO INFORM OUR CUSTOMERS AND THE COMMUNITY OF VARIOUS WATER QUALITY, CONSERVATION AND OPERATIONAL ACTIVITIES. THIS IS A FREE EVENT WITH FOOD AND INFORMATIVE DISPLAYS, DEMONSTRATIONS AND HANDOUTS.



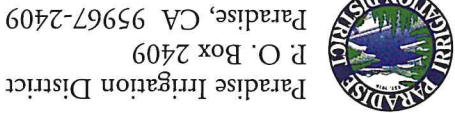
Tank Rehabilitation

During 2003, two of the District's steel storage tanks were recoated and seismically retrofitted to comply with current regulations. Plans are in place to finish an additional steel tank in the near future.



www.paradiseirrigation.com. Visit us at information Web site. Paradise Irrigation District also offers an water conservation and public health. Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Centers for Disease Control and Prevention (www.cdc.gov) and the U.S. EPA Office of Water (www.epa.gov/watthome) provide information on the Internet.

Information on the Internet



Paradise Irrigation District
P.O. Box 2409
Paradise, CA 95967-2409

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

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Is it Safe to Drink Water From a Garden Hose?

This is not recommended because substances used in vinyl garden hoses to keep them flexible can get into the water as it passes through the hose. These chemicals are not good for you nor are they good for your pets. If you must drink from a hose, allow the water to run for a short time in order to flush the hose before drinking or filling your pets' drinking containers. There are hoses made with "food-grade" plastic that will not contaminate the water. Check your local hardware store for this type of hose.

Safe Drinking Water Hotline at (800) 426-4791.

guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the

EPA/CDC (Centers for Disease Control)

These people should seek advice about drinking water from their health care providers. The U.S.

infants can be particularly at risk from infections. other immune system disorders, some elderly, and

organ transplants, people with HIV/AIDS or chemotherapy, persons who have undergone

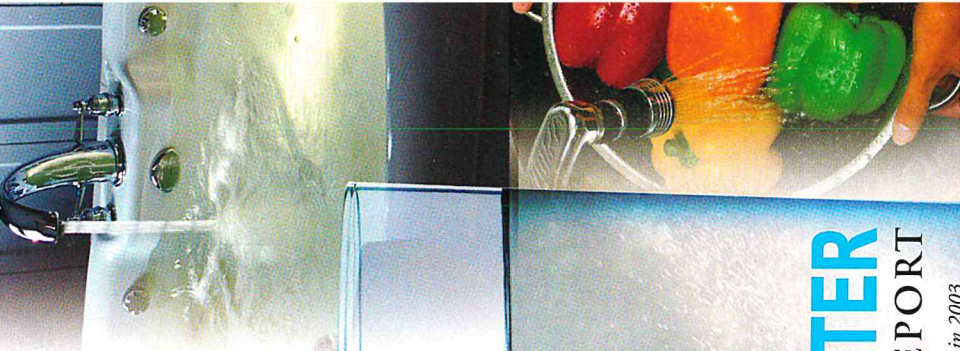
persons such as persons with cancer undergoing general population. Many unocompromised

contaminants in drinking water than the

Some people may be more vulnerable to

Important Health Information

Water testing performed in 2003
ANNUAL QUALITY REPORT
WATER



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Sampling Results

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. 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 from both sources, even though water from “D” Tank well was not an active supply. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present 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.

PRIMARY DRINKING WATER STANDARD (Regulated in order to protect against possible adverse health effects.)

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Arsenic (ppb) ¹	2002	50	NA	3.0	2-3	No	Erosion of natural deposits; Runoff from orchards; Glass and electronics production wastes
Cadmium (ppb)	2002	5	0.07	1.6	1-1.6	No	Internal corrosion of galvanized pipes; Erosion of natural deposits; Discharge from electroplating and industrial chemical factories and metal refineries; Runoff from waste batteries and paints
Halocetic Acids (ppb)	2003	60	NA	28.5	20.6-38	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2003	80	NA	35.0	26-48	No	By-product of drinking water chlorination
Turbidity (NTU) ²	2003	TT	NA	0.05	0.02-0.05	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 60 homes throughout the service area. Lead was not detected at the 90th percentile.

SUBSTANCE (UNITS)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90 TH %TILE)	HOMES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2002	1.3	0.17	1.3	0	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

SECONDARY DRINKING WATER STANDARD (Regulated in order to protect the odor, taste and appearance of drinking water.)

SUBSTANCE (UNITS)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2002	250	NS	2.2	NA	No	Runoff/leaching from natural deposits; Seawater influence
Iron (ppb)	2002	300	NS	472	NA	Yes	Leaching from natural deposits; Industrial wastes
Sulfate (ppm)	2002	250	NS	1.8	NA	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids [TDS] (ppm)	2002	1000	NS	44	NA	No	Runoff/leaching from natural deposits (Source: Magalia Reservoir)
Total Dissolved Solids [TDS] (ppm) ¹	2002	1000	NS	162	NA	No	Runoff/leaching from natural deposits (Source: “D” Tank Well. This source is only used in a drought/emergency.)
Zinc (ppm)	2002	5.0	NS	0.096	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE (LOW-HIGH)	TYPICAL SOURCE
Boron (ppb) ¹	2002	213	100-213	Erosion of natural deposits
Chromium VI (ppb) ¹	2002	3.8	1.0-3.8	Erosion of natural deposits; Glass and electronics production wastes
Hardness (ppm)	2002	27	NA	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)
Sodium (ppm)	2002	1.3	NA	Occurs abundantly in nature
Vanadium (ppb) ¹	2002	12.0	3.0-12.0	Runoff/leaching from natural deposits

¹Detected from samples at “D” Tank Well. This source is only used in a drought/emergency.
²Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.

Substances That Might Be in Drinking 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. EPA and the California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain substances in water provided by public water systems. CDHS 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 substances. The presence of contaminants does not necessarily indicate that water poses a health risk.

- Substances that may be present in source water include:
- Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
 - Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
 - Pesticides and Herbicides**, which 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 can also come from gas stations, urban stormwater runoff, and septic systems;
 - Radioactive Contaminants**, which 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.



Table Definitions

- AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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.
- NA:** Not applicable
- ND:** Not detected
- NS:** No standard
- NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.
- PDWS (Primary Drinking Water Standard):** MCLs 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).
- TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

What Causes the Pink Stain on Bathroom Fixtures?



The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, toothbrush holders and on pets’ water bowls is caused by the growth of the bacterium *Serratia marcesens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including man). The bacteria can be introduced into the house through any of the above-mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to continually clean and dry the involved surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help to eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence.

Serratia will not survive in chlorinated drinking water. CA1393

Paradise Irrigation District Water Quality Report 2004



News From The District:

PID welcomed its new District Manager, George Barber, in 2004. He brings 10 years of experience in managing water operations and is looking forward to leading the District into the future. Mr. Barber lives in Paradise with his family and has been an area resident for over 35 years. He obtained his civil engineering degree from California State University, Chico. Mr. Barber enjoys meeting District customers to discuss the important issues the District faces. He can be reached during business hours at (530) 877-4971.

Mission Statement: "PID is dedicated to the business of producing and delivering a safe, dependable supply of quality water in an efficient, cost effective manner with service that meets or exceeds the expectation of our customers."



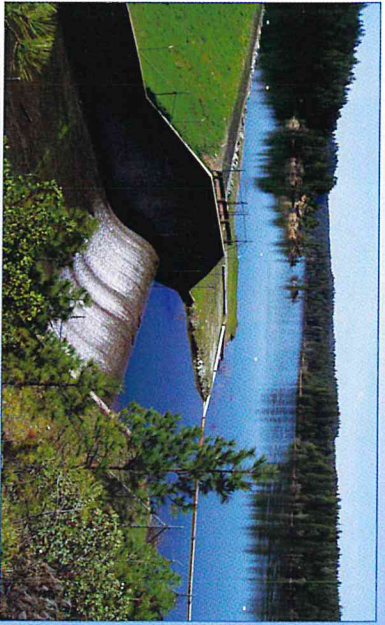
Pipeline Replacement: For the year of 2004, the District completed the replacement of approximately 11,000 feet or about 50% of the pipeline replacement which was funded through a 3-year, \$1.3mil Urban Water Conservation Grant from the State of California. Other District pipeline projects replaced an additional 4,000 feet for the year.

Would you like to find ways to save water? Water Audits are available to all of our customers. Contact the District office to schedule an appointment.

Water Leak? If you have a major water leak that creates a financial hardship, contact the District office. Help may be available.

What Makes Water "Hard"?

If substantial amounts of calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be "hard". Hard water does not dissolve soap readily, so making a lather for washing and cleaning is difficult. Water is considered "hard" if it measures over 100 ppm. Conversely, water containing little calcium or magnesium is called "soft" water. Our water is considered very soft at 27 ppm.



Paradise Lake

Filtered water is routed through a treated-water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to off-site reservoirs for distribution to residents of Paradise.

How Is My Water Treated and Purified?

Raw water from the Magalia Reservoir is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration, and disinfection. The coagulation process consists of adding alum and polymer to the water to chemically bond very small particles in the water to larger particles. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downward through tri-media filters consisting of anthracite, sand, and fine garnet to remove the remaining particles and "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California state requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated-water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to off-site reservoirs for distribution to residents of Paradise.



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 can 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) 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.

Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high quality water supply from a surface water source. The treatment plant draws water from the Magalia Reservoir and Paradise Lake, which hold a combined total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of the Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high quality water we serve.

The District drilled and developed a groundwater source at the D tank reservoir site. This well produces up to 450 gallons per minute (gpm) and will be used as a drought management and emergency source. Although this source was not used in 2004, water quality testing has been done to qualify it as an approved source.

Source Water Assessment

A Source Water Assessment has been completed for the two sources serving Paradise Irrigation District. These sources are considered most vulnerable to the following activities not associated with any detected contaminants:

Well at D Tank (Groundwater Supply): High-density septic systems and automobile repair shops.

Magalia Reservoir (Surface Water Supply): High-density septic systems and historic mining operations.

A copy of the complete Assessment may be viewed by contacting Richard Hinrichs, (530) 224-4866, at the DHS Valley District Office, 415 Knollcrest Drive, Suite 110, Redding, California, 96002; or George Barber, (530) 877-4971, at the Paradise Irrigation District Office, 5325 Black Olive Drive, Paradise, California, 95969.



Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2004. The Paradise Irrigation District (District) tests for several hundred substances regularly and we are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554.

Working Hard For You

Under the Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (U.S. EPA) is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Each system continually monitors for these substances and reports to the U.S. EPA if they were detected in the drinking water. The U.S. EPA uses these data to ensure that consumers are receiving clean water.

This publication conforms to the regulation under SDWA requiring water utilities to provide detailed water quality information to each of their customers annually. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

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

Paradise Irrigation District
P. O. Box 2409
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Annual Water
Quality Report

Water testing performed in 2004



Sampling Results

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. 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 from both water sources even though water from the D tank well was not an active supply. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present 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 is included, along with the year in which the sample was taken.

PRIMARY DRINKING WATER STANDARD (Regulated in order to protect against possible adverse health effects)									
SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	PHG	Surface Water Supply		Groundwater Supply		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Asbestos (MFL)	2004	7	NS	0.2	NA	NA	NA	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Arsenic (ppb)	2002	10	NA	NA	NA	3	2-3	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	2002	2	2	NA	NA	0.1	NA	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2004	60	NA	24.3	20-28	NA	NA	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2004	80	NA	25.8	23-29	NA	NA	No	By-product of drinking water chlorination
Turbidity¹ (NTU)	2004	TT	NA	0.04	0.03-0.04	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 80 homes throughout the service area in 2002							
SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	PHG	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2002	1.3	0.17	1.3	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SECONDARY DRINKING WATER STANDARD (Regulated in order to protect the odor, taste and appearance of drinking water)									
SUBSTANCE (UNITS)	YEAR SAMPLED	SMCL	PHG	Surface Water Supply		Groundwater Supply		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Chloride (ppm)	2002	250	NS	2.2	NA	1.1	NA	No	Runoff/leaching from natural deposits
Iron* (ppb)	2002	300	NS	NA	NA	472	NA	Yes	Leaching from natural deposits; industrial wastes
Sulfate (ppm)	2002	250	NS	1.8	NA	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS]² (ppm)	2002	1,000	NS	44	NA	162	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2002	5.0	NS	0.096	NA	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES						
SUBSTANCE (UNITS)	YEAR SAMPLED	Surface Water Supply		Groundwater Supply		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW HIGH	AMOUNT DETECTED	RANGE LOW HIGH	
Boron² (ppb)	2002	NA	NA	213	100-213	Erosion of natural deposits
Chromium VI² (ppb)	2002	NA	NA	3.8	1.0-3.8	Erosion of natural deposits; Glass and electronics production waste
Hardness (ppm)	2002	27	NA	22³	NA	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)
Sodium (ppm)	2002	1.3	NA	NA	NA	Occurs abundantly in nature
Vanadium² (ppb)	2002	NA	NA	12.0	3.0-12.0	Runoff/leaching from natural deposits

Substances Expected to Be in Drinking 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. EPA and the California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain substances in water provided by public water systems. CDHS 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 substances. The presence of contaminants does not necessarily indicate that water poses a health risk.

Substances that may be present in source water include:

Microbial Contaminants , such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;	runoff, and residential uses;
Inorganic Contaminants , such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;	Organic Chemical Contaminants , including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems;
Pesticides and Herbicides , which may come from a variety of sources such as agriculture, urban stormwater	Radioactive Contaminants , which 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.	

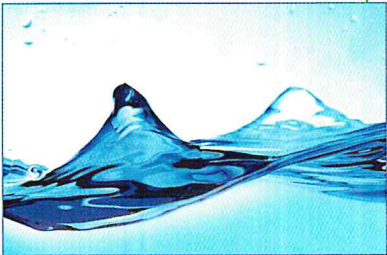


Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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 (SMCL) 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.

MFL (Million Fibers per liter): Measurement of the amount of fibrous material in one liter of sample.

NA: Not applicable

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

PDWS (Primary Drinking Water Standard): MCLs 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).

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

Footnotes

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. For this process the turbidity limits are 0.1 NTU, 95% of the time, and no turbidity reading over 5.0 NTU. During 2004, 97% of the time we achieved average delivered water turbidity levels of less than 0.03 NTU.

² This source is only used in a drought/ emergency. No water was delivered from this source in 2004.

³ Sampled in 1995.

About Our Violation*

Our records indicate that the D tank well exceeds the SMCL for iron. Iron is on the state's Secondary Standards list of chemicals and there is no associated health risk for these levels of iron in the drinking water; the state has requested no further action on our part at this time.

Community Participation

YOU ARE INVITED TO PARTICIPATE IN OUR PUBLIC FORUM AND VOICE YOUR CONCERNS ABOUT YOUR DRINKING WATER. WE MEET THE FIRST AND THIRD WEDNESDAY OF EACH MONTH BEGINNING AT 6:30 P.M. AT 5325 BLACK OLIVE DRIVE, PARADISE, CALIFORNIA.



Paradise Irrigation District Water Quality Report 2005



Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2005. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the first and third Wednesday of each month beginning at 6:30 p.m. at 5325 Black Olive Drive, Paradise, California.



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 can 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) 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.



Working Hard for You

Under the Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (U.S. EPA) is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Each system continually monitors for these substances and reports their findings to the U.S. EPA. The U.S. EPA uses the data to ensure that consumers are receiving clean water.

This publication conforms to the regulation under SDWA requiring water utilities to provide detailed water quality information to each of their customers annually. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.



Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high quality water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high quality water we serve.

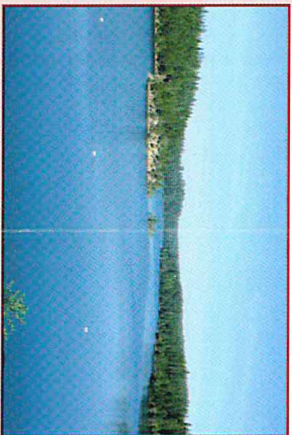
The District drilled and developed a groundwater source at the "D" Tank reservoir site. This well produces up to 450 gallons per minute (gpm) and will be used as a drought management and emergency source. This source was used during the months of November and December 2005 and water quality testing has been done to qualify as an approved source.

Source Water Assessment

Source Water Assessment has been completed for the two sources serving Paradise Irrigation District. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

Well at "D" Tank (Groundwater Supply): High-density septic systems and automobile repair shops.

Magalia Reservoir (Surface Water Supply): High-density septic systems and historic mining operations.



How Is My Water Treated and Purified?

Raw water from Magalia Reservoir is treated before being distribute to Paradise residents. The treatment process consists of coagulation, clarification, filtration and disinfection. The coagulation process

consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downwar through tri-media filters consisting of anthracite, sand and fine garnet to remove the remaining particulates and to "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California state requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to our five offsite reservoirs for distribution to the residents of Paradise. In 2005, the District invested \$450,000 in the rehabilitation of our 3-million-gallon "B" reservoir.

Paradise Lake remove the remaining particulates and to



for 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.

Paradise Irrigation District
P.O. Box 2409
Paradise, CA 95967

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

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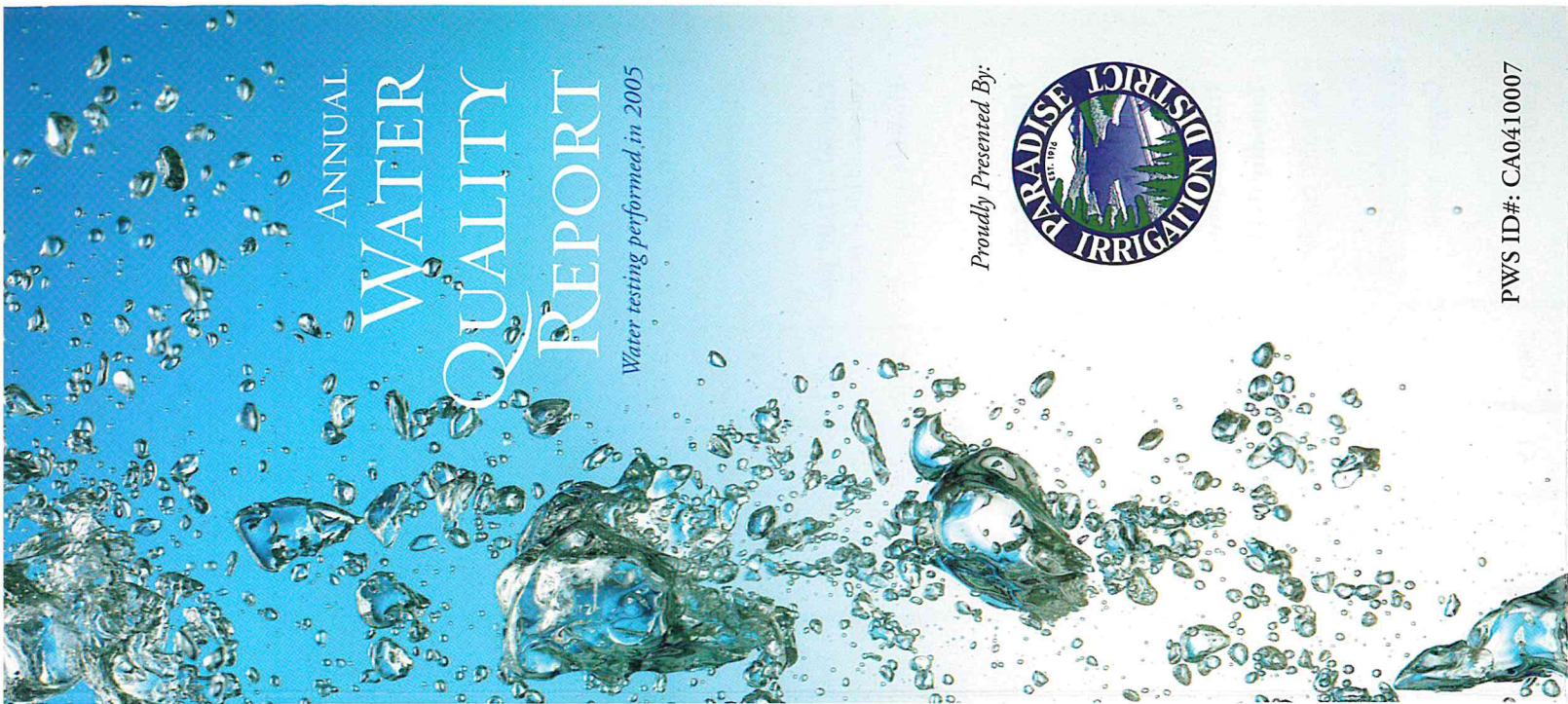


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ANNUAL WATER QUALITY REPORT

Water testing performed in 2005



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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. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present 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.

Primary Drinking Water Standard (Regulated In Order To Protect Against Possible Adverse Health Effects)									
Substance (Units)	Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]	Surface Water Supply ¹		Groundwater Supply ²		Violation	Typical Source
				Amount Detected	Range Low-High	Amount Detected	Range Low-High		
Arsenic (ppb)	2002	50	0.004	NA	NA	3	2-3	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Asbestos (MFL)	2004	7	7	0.2	NA	NA	NA	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Chlorine (ppm)	2005	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.7	0.42-1.14	NA	NA	No	Drinking water disinfectant added for treatment
Chromium (ppb)	2002	50	(100)	NA	NA	3.8	1-3.8	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Control of DBP pre-cursors [TOC] (ppm)	2002	TT	NA	0.69	0.76-1.7	NA	NA	No	Various natural and manmade sources
Fluoride (ppm)	2002	2.0	1	NA	NA	0.1	NA	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2005	60	NA	25.9	24-32	NA	NA	No	By-product of drinking water disinfection
Nitrite (as nitrogen, N) (ppm)	2005	1	1	NA	NA	0.07	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2005	80	NA	27.5	18-33	NA	NA	No	By-product of drinking water chlorination
Turbidity (NTU) ³	2005	TT	NA	0.033	0.03-0.05	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 80 homes throughout the service area

Substance (Units)	Year Sampled	Action Level	PHG	Amount Detected (90th%tile)	Homes Above Action Level	Violation	Typical Source
Copper (ppm)	2005	1.3	0.17	0.210	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2005	15	2	3.7	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Secondary Drinking Water Standard (Regulated In Order To Protect The Odor, Taste And Appearance Of Drinking Water)

Substance (Units)	Year Sampled	SMCL	PHG (MCLG)	Surface Water Supply ¹		Groundwater Supply ²		Violation	Typical Source
				Amount Detected	Range Low-High	Amount Detected	Range Low-High		
Chloride (ppm)	2005	500	NS	2.2	NA	1.1	NA	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µmhos/cm)	2005	1,600	NS	62.9	NA	165	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2002	500	NS	1.8	NA	0.3	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (ppm)	2002	1,000	NS	44	NA	142	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2002	5.0	NS	0.096	NA	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES

Substance (Units)	Year Sampled	Surface Water Supply ¹		Groundwater Supply ²		Typical Source
		Amount Detected	Range Low-High	Amount Detected	Range Low-High	
Boron (ppb)	2002	NA	NA	213	100-213	Erosion from natural deposits
Calcium (ppm)	2005	4.5	NA	14.6	NA	Occurs abundantly in nature
Chromium VI (ppb)	2002	NA	NA	3.8	1.0-3.8	Erosion of natural deposits; Glass and electronics production waste
Hardness (ppm)	2005	27	27-48	70	NA	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)
Magnesium (ppm)	2005	4.4	NA	8.2	NA	Occurs abundantly in nature
Sodium (ppm)	2005	1.3	NA	5.3	NA	Occurs abundantly in nature
Vanadium (ppb)	2002	NA	NA	12	3-12	Runoff/leaching from natural deposits

Naturally Occurring Bacteria

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us: in our food; on our skin; in our bodies; and, in the air, soil and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested more than 500 samples for coliform bacteria. In that time, none of the samples came back positive for the bacteria. Federal regulations now require that public water testing positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliforms are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliforms to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.



Table Definitions

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

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCL are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCL) 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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

MFL (Million Fibers per liter): Measurement of the amount of fibrous material in one liter of sample.

NA: Not applicable

ND: Not detected

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

PDWS (Primary Drinking Water Standard): MCLs 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).

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

µmhos/cm (micromhos per centimeter)
A measure of electrical conductance.

Footnote:
¹ Represents 99% of the total water delivered.
² Represents 1% of the total water delivered.
³ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.

Updated Urban Water Management Plan (UWMP)

The Paradise Irrigation District has recently updated its Urban Water Management Plan. The plan was adopted by the board of directors on December 20, 2005. The purpose of the UWMP is to inform Paradise water customers on the status of current and future water supplies and to discuss actions taken by the District for efficient use of water. This report has been prepared according to the guidelines established by the California Department of Water Resources.

The UWMP is required by the Urban Water Management Planning Act as part of the California Water Code and is updated every five years. The UWMP is submitted to the Department of Water Resources (DWR) and can be viewed at the Paradise Library, at the Paradise Irrigation District Main Office at 5325 Black Olive Drive, or online at www.paradiseirrigation.com.

Paradise Irrigation District Water Quality Report 2006



Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2006. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554. Information is also available on our website at www.paradiseirrigation.com.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the third Wednesday of each month beginning at 6:30 p.m. at 5325 Black Olive Drive, Paradise, California.

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.

How Is My Water Treated and Purified?

Raw water from Magalia Reservoir is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration and disinfection. The coagulation process consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downward through tri-media filters consisting of anthracite, sand and fine garnet to remove the remaining particulates and to "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California state requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to our five offsite reservoirs for distribution to the residents of Paradise.

Playground

The playground at Paradise Lake's day use area is being updated to current standards and improved with new equipment. The Paradise Rotary Club has provided the material and labor to install a retaining wall at the site and is considering the donation of a major piece of playground equipment. If you would like to donate to this project for other needed items, you may contact the District at 877-4971.



Substances That Might Be in Drinking 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 Health Services (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, which 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.

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ANNUAL WATER
QUALITY
REPORT

Water testing performed in 2006

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Paradise Irrigation District
P.O. Box 2409
Paradise, CA 95967-2409

Source Water Assessment



Assessment has been completed for the two sources serving the Paradise Irrigation District. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: Well at "D," Tank "D," Groundwater Supply): High-density septic systems and automobile repair shops. Magalia Reservoir (Surface Water Supply): High-density septic systems and historic mining operations. A copy of the complete assessment may be viewed at DHS Valley District Office, 415 Knollcrest Drive, Suite 110, Redding, CA 96002, Attention: Richard Hinrichs, (530) 224-4866; or Paradise Irrigation District Office, 5325 Black Olive Drive, Paradise, CA 95966, Attention: George Barber, (530) 877-4971.

The Paradise Irrigation District drilled and developed a groundwater source at the "D," Tank reservoir site. This well produces up to 450 gallons per minute (gpm) and will be used as a drought management and emergency source. This source was used during the month of December 2006, and water quality testing has been done to qualify as an approved source.

Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high quality water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high quality water we serve.

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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. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present 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				Surface Water Supply ¹		Groundwater Supply ²			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb) ³	2004	10	0.004	ND	NA	3	2-3	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Asbestos (MFL)	2004	7	7	0.2	NA	NA	NA	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Chlorine (ppm)	2006	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.71	0.43-1.12	NA	NA	No	Drinking water disinfectant added for treatment
Chromium (ppb)	2004	50	(100)	ND	NA	3.8	NA	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Control of DBP precursors [TOC] (ppm)	2002	TT	NA	0.69	0.76-1.7	NA	NA	No	Various natural and manmade sources
Haloacetic Acids (ppb)	2006	60	NA	23.5	15-29	NA	NA	No	By-product of drinking water disinfection
Nitrite [as nitrogen] (ppm)	2005	1	1	ND	NA	0.07	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2006	80	NA	21.8	19.0-27.0	NA	NA	No	By-product of drinking water chlorination
Turbidity (NTU) ⁴	2006	TT	NA	0.05	0.033-0.05	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2006	TT	NA	100	NA	NA	NA	No	Soil runoff

Tap water samples were collected from 80 sample sites throughout the community							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	PHG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2005	1.3	0.17	0.21	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2005	15	2	3.7	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES				Surface Water Supply		Groundwater Supply			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2005	500	NS	2.2	NA	1.1	NA	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2005	1,600	NS	62.9	NA	165	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2005	500	NS	1.8	NA	0.3	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2005	1,000	NS	44	NA	142	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2002	5.0	NS	0.096	NA	ND	NA	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES			Surface Water Supply		Groundwater Supply		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2002		NA	NA	213	100-213	NA
Calcium (ppm)	2005		4.5	NA	14.6	NA	Occurs abundantly in nature
Chromium VI [Hexavalent Chromium] (ppb)	2004		ND	NA	3.8	1.0-3.8	Erosion of natural deposits; Glass and electronics production waste
Hardness (ppm)	2005		27	27 - 48	70	NA	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)
Magnesium (ppm)	2005		4.4	NA	8.2	NA	Occurs abundantly in nature
Sodium (ppm)	2005		1.3	NA	5.3	NA	Occurs abundantly in nature
Vanadium (ppb)	2002		NA	NA	12	3-12	Runoff/leaching from natural deposits

Magalia Reservoir Raw Water Bypass Pipeline Project 2007

The District’s current project involves bypassing Magalia Reservoir with a 36 inch pipeline which will deliver gravity flow raw water from Paradise Lake to the treatment plant. The primary objective is to provide a safer more reliable raw water supply while reducing or eliminating the energy required to pump raw water to the District’s treatment plant. The project is estimated to cost \$2.5m and will be completed by late 2007.

The safety advantage the bypass provides is to allow water to bypass Magalia Reservoir in the event of an accidental contaminant spill that might occur along Skyway as it crosses Magalia Reservoir. Long term advantages include the ability to supply water to the treatment plant, while repairs or new construction is underway on Magalia Dam.



Table Definitions

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

Action Level (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.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment that may not be exceeded at the consumer’s tap.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. EPA.

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.

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).

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

Footnotes:

- ¹ Represents 99% of the total water delivered
- ² Represents 1% of the total water delivered.
- ³ Effective 01/23/2006, the federal arsenic MCL is 10 ppb. A new state MCL has not yet been adopted and remains at 50 ppb.
- ⁴ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.

Paradise Dam Spillway Bladder Project

The District is working to seek approvals for the installation of a three-foot bladder dam in the spillway of Paradise Dam. The bladder dam is a structure consisting of extremely strong rubber air bladders that can be inflated to back up additional water for storage at Paradise Dam. The District has negotiated the additional use of land from the only property owner that may be flooded as a result of the installation. The Department of Water Resources, Division of Safety of Dams is currently reviewing our proposal.

Paradise Irrigation District Water Quality Report 2007



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) describe 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.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the third Wednesday of each month beginning at 6:30 p.m. at 5325 Black Olive Drive, Paradise, California.

How Is My Water Treated and Purified?
Raw water from Magalia Reservoir is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration and disinfection. The coagulation process consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downward through tri-media filters consisting of anthracite, sand and fine garnet to remove the remaining particulates and to "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California state requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to our five offsite reservoirs for distribution to the residents of Paradise.



Source Water Assessment

A Source Water Assessment has been completed for the two sources serving Paradise Irrigation District. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: Well at "D" Tank (Groundwater Supply); High-density septic systems and automobile repair shops.

Magalia Reservoir (Surface Water Supply): High-density septic systems and historic mining operations.

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The District drilled and developed a groundwater source at the "D" Tank reservoir site. This well produces up to 450 gallons per minute (gpm) and will be used as a drought management and emergency source. This source was used during the months of September through December 2007, and water quality testing has been done to qualify as an approved source.



Meeting the Challenge

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2007.

Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

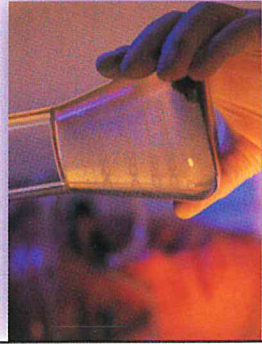
Important Health Information

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.

SWS ID#: 0410007

PARADISE IRRIGATION DISTRICT

PARADISE



Water testing performed in 2007

ANNUAL WATER QUALITY REPORT

Paradise Irrigation District
P.O. Box 2409
Paradise, CA 95967-2409

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Sampling Results

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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				Source Water Supply ¹		Groundwater Supply ²			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic ³ (ppb)	2004	10	0.004	ND	NA	3	2–3	No	Erosion of natural deposits; Runoff from orchards; Glass and electronics production wastes
Asbestos (MFL)	2004	7	7	0.2	NA	NA	NA	No	Internal corrosion of asbestos cement water mains; Erosion of natural deposits
Chlorine (ppm)	2007	[4.0 (as Cl2)]	[4.0 (as Cl2)]	0.63	0.40–0.88	NA	NA	No	Drinking water disinfectant added for treatment
Chromium (ppb)	2004	50	(100)	ND	NA	3.8	NA	No	Discharge from steel and pulp mills and chrome plating; Erosion of natural deposits
Control of DBP precursors [TOC] (ppm)	2002	TT	NA	0.69	0.69–1.7	NA	NA	No	Various natural and man-made sources
Haloacetic Acids (ppb)	2007	60	NA	21.75	16.0–30.0	NA	NA	No	By-product of drinking water disinfection
Nitrite [as nitrogen] (ppm)	2005	1	1	ND	NA	0.07	NA	No	Runoff and leaching from fertilizer use; Leaching from septic tanks and sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2007	80	NA	25.0	17–29	NA	NA	No	By-product of drinking water chlorination
Turbidity ⁴ (NTU)	2007	TT	NA	0.04	0.03–0.07	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2007	TT	NA	100	NA	NA	NA	No	Soil runoff

Tap water samples were collected from 80 sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2005	1.3	0.17	0.21	0	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2005	15	2	3.7	0	No	Internal corrosion of household water plumbing systems; Discharges from industrial manufacturers; Erosion of natural deposits

SECONDARY SUBSTANCES				Surface Water Supply ¹		Groundwater Supply ²			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2005	500	NS	2.2	NA	1.1	NA	No	Runoff/leaching from natural deposits; Seawater influence
Odor–Threshold (TON)	2007	3	NS	2	ND–3	NA	NA	No	Naturally-occurring organic materials
Specific Conductance (µS/cm)	2005	1,600	NS	62.9	NA	165	NA	No	Substances that form ions when in water; Seawater influence
Sulfate (ppm)	2005	500	NS	1.8	NA	0.3	NA	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (ppm)	2005	1,000	NS	44	NA	142	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2002	5.0	NS	0.096	NA	ND	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED AND OTHER SUBSTANCES		Surface Water Supply ¹		Groundwater Supply ²		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2002	NA	NA	213	100–213	Occurs abundantly in nature
Calcium (ppm)	2005	4.5	NA	14.6	NA	Occurs abundantly in nature
Chromium VI [Hexavalent Chromium] (ppb)	2004	ND	NA	3.8	1.0–3.8	Erosion of natural deposits, glass and electronics production waste
Hardness (ppm)	2005	27	27–48	89.3	70.0–89.3	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)
Magnesium (ppm)	2005	4.4	NA	8.2	NA	Occurs abundantly in nature
Sodium (ppm)	2005	1.3	NA	5.3	NA	Occurs abundantly in nature
Vanadium (ppb)	2002	NA	NA	12	3.0–12.0	Runoff/leaching from natural deposits

¹ Represents 99% of the total water delivered.
² Represents 1% of the total water delivered.
³ Effective 01/23/2006, the Federal Arsenic MCL is 10 ppb. A new state MCL has not yet been adopted and remains at 50 ppb.
⁴ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.

System Improvement Projects:

Magalia Reservoir Raw Water Bypass Pipeline Project

The District has completed the 36 inch pipeline that allows us to bypass the Magalia Reservoir and will deliver gravity flow raw water from Paradise Lake to the treatment plant. The primary objective is to provide a safer more reliable raw water supply while reducing or eliminating the energy required to pump raw water to the District’s treatment plant. The final project cost was about \$2.75 million.

The bypass pipeline allows a safety advantage for water to bypass Magalia Reservoir in the event of an accidental contaminant spill that might occur along Skyway as it crosses Magalia Reservoir. Long term advantages include the ability to supply water to the treatment plant, while repairs or new construction is underway on Magalia Dam. We will still use water from Magalia Reservoir but will pump this water off peak when energy costs are lower.



Pipeline Completion

Paradise Dam Spillway Bladder Project

The District continues to work to seek approvals for the installation of a three-foot bladder dam in the spillway of Paradise Dam. The bladder dam is a structure consisting of extremely strong rubber air bladders that can be inflated to back up additional water for storage at Paradise Dam. This would provide an additional 750 acre-feet of storage or a 6% increase.

Definitions

Action Level (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.

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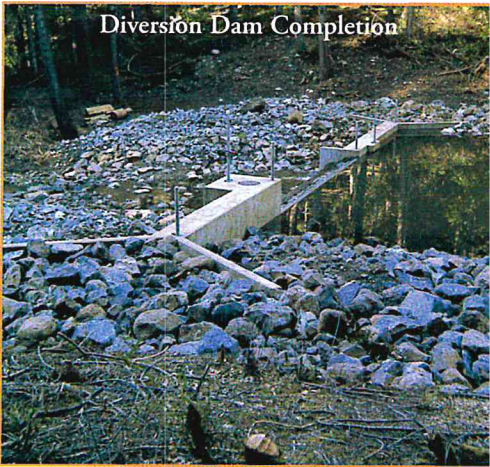
ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

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



Diversion Dam Construction



Diversion Dam Completion

Lime Saddle District And Magalia District Potential Acquisition

The District has been evaluating the option of acquiring these Districts from Del Oro Water Company to improve our opportunity to obtain additional supplies and deliver water more efficiently to our customers. We have concluded that additional storage at Paradise Lake and Magalia Reservoir alone is not enough to carry us through extended drought periods. Therefore, the need to explore options for securing additional supplies for our District is necessary. These potential acquisitions do not include the Paradise Pines area.

Paradise Irrigation District Water Quality Report 2008



What's happening with Magalia Dam?

Shortly after the Paradise Irrigation District was formed by a group of farmers on the ridge, Magalia dam was completed in 1917. The dam was constructed by washing thick mud from the hillsides through flumes and piling up the mud to create the dam. As it turned out, this was not the best way to construct a dam in earthquake-prone California, but compaction equipment was not available in those days. The original construction of Magalia Dam provided the storage of 2,574 acre feet of water or about 30% of the nearly 8,400 acre-feet we use each year.

In 1997, the Department of Water Resources Division of Safety of Dams (DSOD) required the District to lower the reservoir 25 feet because the dam could not withstand a potential earthquake. The dam was constructed with wet muddy soils and no compaction. In the event of an earthquake, the soil when shaken can act like liquid and begin the process of collapse. With the lowered water level, the extent and speed of damage from an earthquake is significantly reduced. This 25 foot decrease in the water level of the reservoir dropped our storage amount by 1,778 acre-feet down to 796 acre-feet. We lost nearly 70% of our storage capacity in the Magalia reservoir.

The Butte County Public Works department has developed a plan to increase the number of lanes currently traversing Magalia Dam from two to four. This included a \$6 million “major-Fix” to Magalia dam. The “major-fix” would include removing the upstream portion of the dam, drying out the materials, and then returning the material with the proper compaction. The plan included work that was estimated to cost \$1.5 million just to provide a **temporary** water supply to the PID’s treatment plant. This Skyway Widening Project is ready to proceed, but no funding is available at this time.

The PID decided to move forward with a plan for a **permanent** solution to deliver water to the treatment plant by gravity, thereby generating substantial energy-cost savings. The “Magalia Bypass Pipeline” is also the answer to delivering water to our customers during any future work on the Magalia dam.

The Magalia Bypass Pipeline was completed in 2008 at a total cost of \$2.75 million. The PID applied for, and received a grant for\$480,000. We also borrowed \$2.0 million at a very favorable interest rate of 2.77% , and used reserve funds for the remaining cost of the project. The annual debt service for the next twenty years for this project is \$130,000 dollars. However, the PID saved over \$68,000 in energy costs in the first year the Magalia Bypass was operational. With the way energy costs continue to escalate, energy cost **savings** will continue to grow each additional year.

However, the task of “fixing” the Magalia dam remains. PID has met with the Division of Safety of Dams (DSOD) to discuss the Magalia dam and what could be done to repair it. DSOD has looked at Butte County’s solution for fixing the dam, but has not completed a formal review. DSOD has said that they may issue a permit allowing us to fix the dam, (at an estimated cost of \$5 million), but DSOD would not guarantee that we would be allowed to refill the dam.

When the material is removed from the dam and a physical inspection is completed, the repair “plan” may not be adequate enough to allow PID to refill the reservoir. DSOD concerns were increased when PID excavated through a portion of the dam (during the Magalia Bypass Project), and found wet clay in the core of a section that had not held water for seven years. DSOD has characterized Magalia Dam as the “worst dam in California” and has recommended the PID investigate construction of a new dam upstream of the old dam.

PID has water rights that would support the construction of a new dam that could store a total of 6,000 acre-feet of water. This dam would likely cost more than \$30 million dollars and PID is evaluating a rate structure that would begin to set aside funds for this project in the future. Such reserved funds, along with new debt acquired after a major portion of our existing debt is retired in 2015, could be used to complete the new dam.

Lead and Drinking Water

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.



ANNUAL
WATER
QUALITY
REPORT

Water testing performed in 2008

PARADISE IRRIGATION
DISTRICT

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REGULATED SUBSTANCES ¹									
				Surface Water Supply		Ground Water Supply			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Asbestos (MFL)	2004	7	7	0.2	NA	NA	NA	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Chlorine (ppm)	2008	[4.0 (as Cl2)]	[4 (as Cl2)]	0.73	0.52–1.05	NA	NA	No	Drinking water disinfectant added for treatment
Chromium (ppb)	2004	50	(100)	ND	NA	3.8	NA	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Control of DBP precursors [TOC] (ppm)	2002	TT	NA	0.69	0.69–1.7	NA	NA	No	Various natural and man-made sources
Haloacetic Acids (ppb)	2008	60	NA	21.9	19.0–29.0	NA	NA	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2008	80	NA	22.65	20.0–28.0	NA	NA	No	By-product of drinking water chlorination
Turbidity ² (NTU)	2008	TT	NA	0.043	0.03-0.07	0.01	0.01–0.1	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2008	TT	NA	100	NA	NA	NA	No	Soil runoff

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	0.3	0.165	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2008	15	2	4.3	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES									
				Surface Water Supply		Ground Water Supply			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2005	500	NS	2.2	NA	1.1	NA	No	Runoff/leaching from natural deposits; seawater influence
Odor–Threshold (TON)	2007	3	NS	2	NA	ND ³	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2008	1,600	NS	82	NA	170	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2005	500	NS	1.8	NA	0.3	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2005	1,000	NS	44	NA	142	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2008	5	NS	0.043	0.03–0.07	NA	NA	No	Soil runoff
Zinc (ppm)	2002	5.0	NS	0.096	NA	ND ³	NA ³	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED AND OTHER SUBSTANCES						
		Surface Water Supply		Ground Water Supply		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2002	NA	NA	213	100–213	Occurs abundantly in nature
Calcium (ppm)	2005	4.5	NA	14.6	NA	Occurs abundantly in nature
Chromium VI [Hexavalent Chromium] (ppb)	2004	ND	NA	3.8	1.0–3.8	Erosion of natural deposits; glass and electronics production waste
Hardness (ppm)	2005	27	27–48	89.3	70.0–89.3	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)
Magnesium (ppm)	2005	4.4	NA	8.2	NA	Occurs abundantly in nature
Sodium (ppm)	2005	1.3	NA	5.3	NA	Occurs abundantly in nature
Vanadium (ppb)	2002	NA	NA	12	3.0–12.0	Runoff/leaching from natural deposits

¹ We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water.

² Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.

³ Sampled in 2008.

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.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment that may not be exceeded at the customer’s tap.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. EPA.

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.

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.

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

How is the Water Supply Outlook for PID?

Thanks to a series of storms in late February and early March, the water supply for 2009 is good and no reductions in delivery to our customers are anticipated. However, all customers need to be aware that even with our current water supplies and storage facilities, all PID customers are still exposed to droughts in the future.

The PID completed the 2008 Water Supply Report in August that was intended to provide information to the Board of Directors and the public regarding the current available water supply for the District and evaluate options for securing additional water supplies in the future. The analyses in this report are based on 99 years of historical rainfall data. This rainfall data was used to estimate the amount of water that would be provided to the District’s reservoirs. The model then evaluates the water available through that period of time for a given customer demand, available reservoir storage and potential imported water availability.

This analysis shows that in two years out of ten, our customers can anticipate a required reduction of up to 15% of their needs. In about one year out of ten that cut back could be 30%. In looking at 99 years of data, PID customers could be required to cut back 50% of their water use in two years out of 100. Since about half of the water we deliver is used for outside watering, this means that our customer’s landscaping may be in jeopardy.

One clear result for the report was that the PID needs to secure an additional imported water supply. Even if the PID constructed a new Magalia dam to hold the additional 6,000 acre-feet of water rights we currently have, we still could experience droughts that would require reductions in deliveries to our customers. PID has exhausted the potential of acquiring Del Oro Water Company’s Lime Saddle District that would have provided direct access to Lake Oroville for an imported water supply. The acquisition price together with the anticipated infrastructure improvement costs was too high to continue to pursue as an option.

PID is currently working with PG&E to explore the potential of using water from the Miocene Canal as an imported water supply. The water would be pumped from the beginning of the Miocene Canal at the diversion in the West Branch of the Feather River. This option could provide 3,600 acre-feet of water to PID annually, on an “as needed” basis. Although pumping water this far would be costly, there would be enough water to provide for all of our customer’s needs. This source would be important for PID in the future as it would help mitigate droughts we still yet experience, even with the additional water storage of a future new Magalia dam.

In addition to pursuing the Miocene Canal, PID is working toward drilling a test well on the Ridge to determine if it’s feasible to construct an additional well for dry year needs. We currently have been using the one production well we have available during the past two dry seasons. An additional well could provide us with more flexibility in water supply options.

Another water supply option the PID is actively pursuing is the installation of a bladder dam in the spillway of Paradise Lake. A bladder dam provides additional storage, but allows PID to release water downstream in emergency situations. The bladder dam would automatically inflate and deflate to maintain a set storage level above our current spillway elevation. This construction would be a very cost effective alternative to provide up to an additional 1,000 acre-feet of storage at Paradise Lake. It would involve the installation of a bladder dam and minimal modifications to the existing dam. Current cost estimate for this project is \$750,000.

Meeting the Challenge

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2008. Over the years, we have dedicated ourselves to producing drinking water that meets and exceeds all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high-quality water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high-quality water we serve.

The District drilled and developed a groundwater source at the "D" tank reservoir site. This well produces up to 450 gallons per minute (gpm) and is used as a drought management and emergency source. This source was used during the months of May through December 2008, and water quality testing has been done to qualify it as an approved source.

What's Your Water Footprint?

You may have some understanding about your carbon footprint but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses about 100 gallons of water daily. At P.I.D. we deliver on average about 260 gallons per person per day. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.h2oconserve.org, or visit www.waterfootprint.org to see how the water footprint of other nations compare.

Community Participation

You are invited to participate in our public forum and to voice your concerns about your drinking water. The Board of Directors meets the third Wednesday of each month beginning at 6:30 p.m. at 5325 Black Olive Drive, Paradise, California.

Source Water Assessment

A Source Water Assessment has been completed for the two sources serving Paradise Irrigation District. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

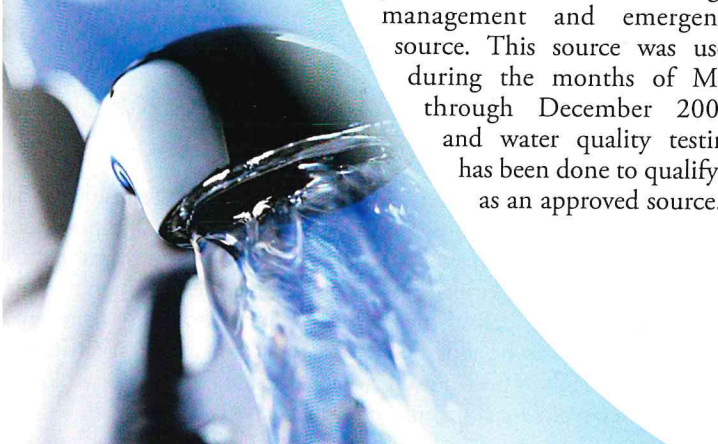
Well at "D" Tank (Groundwater Supply): High-density septic systems and automobile repair shops.

Magalia Reservoir (Surface Water Supply): High-density septic systems and historic mining operations.

A copy of the complete assessment may be viewed at DHS Valley District Office, 415 Knollcrest Drive, Suite 110, Redding, CA 96002, Attention: Richard Hinrichs, (530) 224-4866, or Paradise Irrigation District Office, 5325 Black Olive Drive, Paradise, CA 95969, Attention: George Barber, (530) 877-4971.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Rick Terrano, Treatment Plant Superintendent, at (530) 877-3554.



Sampling Results

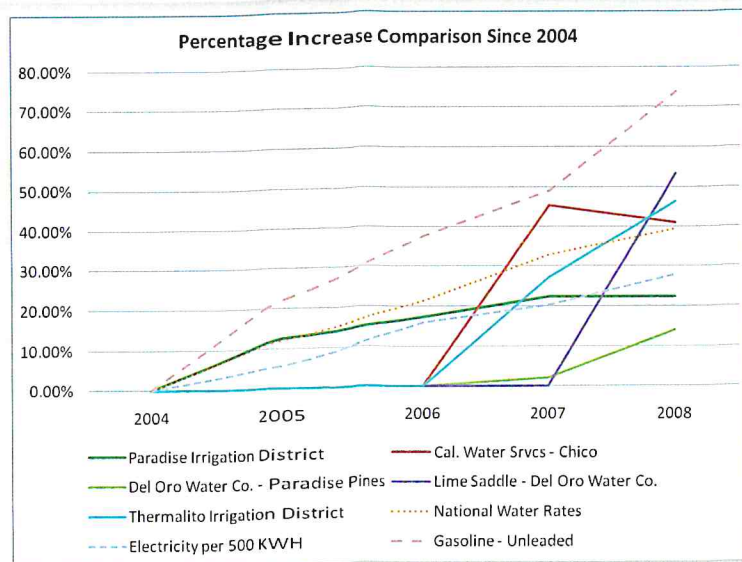
During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present 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.

What Do I Get When I Pay My PID Bill?

PID is a local government within the State of California. We operate to provide a dependable and safe water supply without making a profit. Our goal is to set our rates to meet both current operational needs as well as planning for future infrastructure repair, replacement, drought protection, and growth of the community. We strive to operate PID as a business that provides valuable services to our community. Our main revenue comes from the sale of water, but we try to seek opportunities through state programs to bring some of our state taxes back to our community. In the past two years, through state programs, we have been awarded over \$2 million in grants and were able to secure a 2 million loan for the Magalia Bypass at a favorable interest rate of 2.77%.

In setting rates, the Board of Directors also evaluates the impact to our customers and the current state of the economy. Please see the chart that shows how PID rate increases compare to other utilities and public demand consumables. Remember our PID billing is for Two Months of service.



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.

Water Treatment Process

Raw water from Magalia Reservoir or Little Butte Creek through the Magalia By-Pass is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration, and disinfection. The coagulation process consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles. Coagulated water is passed through a bed of coarse granular media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downward through tri-media filters consisting of anthracite, sand, and fine garnet to remove the remaining particulates and "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California State requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to off-site reservoirs for distribution to residents of Paradise.

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.

Paradise Irrigation District Water Quality Report 2009



ANNUAL WATER QUALITY REPORT

PARADISE IRRIGATION DISTRICT OFFICE
MOVING TO NEW LOCATION
JUNE 2010!

Water testing performed in 2009



Presented By:
PARADISE IRRIGATION DISTRICT

PWS ID#: 0410007

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Paradise, CA 95969

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Maintaining High Standards

Once again we are proud to present our annual water quality report. This report covers all testing performed between January 1, 2009, and December 31, 2009. The events of the past few years have presented many of us with challenges we could not have imagined. Yet in spite of this, we have maintained our high standards in an effort to continue delivering the best quality drinking water possible. There may be other hurdles in the future, but know that we will always stand behind you and the drinking water we work diligently to provide.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions, we are always available to assist you.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Board of Directors meets the third Wednesday of each month at 6:30 p.m. at 6332 Clark Road (new office location), Paradise, California.

Questions? ☎

For more information about this report, or for any questions relating to your drinking water, please call Bill Taylor, Treatment Plant Operations Supervisor, at (530) 877-3554.

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 www.epa.gov/safewater/hotline/.

Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high-quality water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high-quality water we serve.

The District drilled and developed a ground water source at the "D" tank reservoir site. This well produces up to 450 gallons per minute (gpm) and is used as a drought management and emergency source. This source was used during eight of the twelve months in 2009, and water quality testing has been done to qualify it as an approved source.

Lead and Drinking Water

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.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our Office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply's susceptibility to contamination by the identified potential sources.

Well at "D" Tank (Ground Water Supply): High-density septic systems and automobile repair shops.

Magalia Reservoir (Surface Water Supply): High-density septic systems and historic mining operations.

A copy of the complete assessment may be viewed at DHS Valley District Office, 415 Knollcrest Drive, Suite 110, Redding, CA 96002, Attention: Richard Hinrichs, (530) 224-4866, or Paradise Irrigation District Office, 6332 Clark Road, Paradise, CA 95969, Attention: George Barber, (530) 877-4971.



NEW OFFICE LOCATION, 6332 CLARK ROAD

Paradise Irrigation District Office Moving to New Location

In 2007, the Paradise Irrigation District acquired four acres of land on Clark Road just south of Bille Road. The property was purchased to accommodate the future needs of the District, including combining current District operations in one location. Shortly after acquiring the property on Clark Road, the AAA building and property adjacent to our newly acquired land, became available for sale. After analyzing the cost of constructing a new office the District made a successful offer to purchase that building.

We anticipate to be moving to our new location at 6332 Clark Road in mid June of 2010 and hope to break ground on our corporation yard in late 2010.

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.

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.

Water Rights Extension/Sphere of Influence Environmental Impact Report FAQ

The Paradise Irrigation District (PID) is completing an Environmental Impact Report to evaluate the impacts of:

- 1) Extending the time needed to construct additional storage in Magalia or Paradise Reservoirs
- 2) Changing the method of diversion of water from Little Butte Creek
- 3) Add hydropower to the permits purpose of use
- 4) Increase the size of the District’s place of use
- 5) Increase the size of the PID’s Sphere of Influence

The State Water Resources Control Board is responsible for administering water rights in California. The PID needs their approval for more time to execute the previously approved permits to construct an additional 6,000 acre-feet of storage in Magalia or Paradise Reservoir. We need this additional storage capacity to minimize the impacts of potential drought on our existing customers and for the future needs of PID customers. The additional storage is the most important purpose of the EIR, the additional requests for permit changes are necessary to improve the operational capabilities of the PID and assist our neighboring water users with water supplies when the PID’s current needs are met.

Below are answers to questions about the Project:

Why does PID need additional storage?

The PID customers are currently at risk to impacts during drought periods. There have been significant droughts that have occurred during the PID’s history and if those same droughts happened today, our customers could be required to reduce their consumption by 30%-50%. Increased storage allows us to carry water forward from wet years to dry years.

Where would the additional storage be constructed?

PID has evaluated options to increase the level in Paradise Reservoir. The increase of 6,000 acre-feet at Paradise reservoir will have a significant impact on neighboring properties. The PID is looking at alternatives for increasing the dam at Magalia Reservoir, or it may be cost effective to construct a new dam between Magalia and Paradise reservoirs. These options would allow the water level to reach only PID owned land, with the exception of a small piece of US Forest Service property.

We are currently looking at the option of constructing a bladder dam in the spillway of Paradise Dam to increase the reservoir height three feet and provide an additional 750 acre-feet of storage, without the need to acquire additional property.

How much does PID store now and how much do we use?

PID has the ability to store 11,500 acre-feet at Paradise Reservoir and 800 acre-feet at Magalia Reservoir. The use of our customers is very dependent on the weather, particularly on spring rainfall. In recent years our production of water has been as high as 8,500 acre-feet and last year we produced 7,241 acre-feet.

Why do you need to change the method of diversion and what does that mean?

The PID needs to add a direct diversion to their water right to cover short periods of time in the spring and fall that change our ability to take water from storage under the legal definition. Warm weather periods in the spring and fall rainfall events change the way water use is accounted for by the Water Rights Board. Like other municipalities in the state, our goal is to carry as much

water into dry years as possible. We need this change to maximize our ability. This will not impact releases below Magalia Dam.

Will Little Butte Creek flows be changed as a result of the Project?

As part of the EIR an extensive review will be conducted to evaluate Little Butte Creek. Currently the PID releases one half cubic feet per second below Magalia Dam at all times. There is no plan to reduce that amount. It is our continuous release of water that keeps the creek flowing, even in dry summer months when it would not be there naturally (if our dams did not exist).

Is the PID going to build a hydropower project?

PID had an engineering analysis completed for a small ½ megawatt generator at the base of Paradise Dam. It was not financially feasible at the time, but the PID wants to be prepared to construct the hydropower if the pricing and rules change in a way that makes it a worthwhile.

What is the place of use and why is PID increasing it?

The place of use is the area that the Water Rights Board allows the PID to sell water. We need to increase our size to provide for potential future customers. Currently we are unable to sell water to Del Oro Water Company that is captured by our dams, even when the supply is plentiful and surplus to the PID. The increased size will allow us to sell water when available to Del Oro Water Company to allow them to rest their wells and save water for their customers when they need them.

What is the Sphere of Influence and why is PID increasing it?

The Sphere of Influence is a boundary required by the Butte County Local Area Formation Commission. PID is required to review the current boundary and revise it to areas they may serve in the future. Parcels would still be required to annex to PID according to our policy and build the necessary piping to serve their parcel before they would receive water service from PID. In addition, PID proposes to expand the sphere to encompass potential drought water supply locations.

What are the potential drought water supply projects?

PID is evaluating three options of drought supply to provide dry year water to supplement our reservoirs. The first is an agreement with PG&E that would provide water from the Miocene Canal. This would require pumps and pipes to bring the water to our current treatment plant. The second is wells in the valley with a pipeline up Neal Road. This option is currently being reviewed based on comments from the public. The Board may choose to not pursue this option and change the proposed Sphere of Influence. The last option would be water from Lake Oroville that would require pipes, tanks and a treatment plant or some form of agreement with Del Oro Water Company.



REGULATED SUBSTANCES									
				Surface Water Supply		Ground Water Supply			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Asbestos (MFL)	2004	7	7	0.2	NA	NA	NA	No	Internal corrosion of asbestos c erosion of natural deposits
Chlorine (ppm)	2009	[4.0 (as Cl2)]	[4 (as Cl2)]	0.81	0.53–1.18	NA	NA	No	Drinking water disinfectant ad
Chromium (ppb)	2004	50	(100)	ND	NA	3.8	NA	No	Discharge from steel and pulp p plating; erosion of natural depe
Control of DBP precursors [TOC] (ppm)	2002	TT	NA	0.69	0.69–1.7	NA	NA	No	Various natural and man-made
Fecal Indicators [<i>E. coli</i> , enterococci or coliphage-Federal Ground Water Rule] (# positive samples)	2009	TT	NA	1	NA	NA	NA	No	Human and animal fecal waste
Haloacetic Acids (ppb)	2009	60	NA	27.0	24.0–36.0	NA	NA	No	By-product of drinking water c
TTHMs [Total Trihalomethanes] (ppb)	2009	80	NA	23.3	19.0–27.0	NA	NA	No	By-product of drinking water c
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	2009	More than 5.0% of monthly samples are positive	(0)	6.1	NA	NA	NA	Yes	Naturally present in the environ
Turbidity ¹ (NTU)	2009	TT	NA	0.07	0.038–0.07	0.1	0.01–0.1	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2009	TT	NA	100	NA	100	NA	No	Soil runoff
Tap water samples were collected for lead and copper analyses from sample sites throughout the community (Lead was not detected at the 90th percentile)									
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE		
Copper (ppm)	2008	1.3	0.3	0.165	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from		
SECONDARY SUBSTANCES									
				Surface Water Supply		Ground Water Supply			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2005	500	NS	2.2	NA	1.1	NA	No	Runoff/leaching from natural deposits; seawater influen
Odor–Threshold (TON)	2007	3	NS	2	NA	ND ²	NA ²	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2009	1,600	NS	77	NA	170	NA	No	Substances that form ions when in water; seawater influ
Sulfate (ppm)	2005	500	NS	1.8	NA	0.3	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2005	1,000	NS	44	NA	142	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2009	5	NS	0.038	0.03–0.07	NA	NA	No	Soil runoff
Zinc (ppm)	2002	5.0	NS	0.096	NA	ND ²	NA ²	No	Runoff/leaching from natural deposits; industrial wastes
UNREGULATED SUBSTANCES									
		Surface Water Supply		Ground Water Supply					
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE			
Boron (ppb)	2002	NA	NA	213	100–213	Occurs abundantly in nature			
Chromium VI [Hexavalent Chromium] (ppb)	2004	ND	NA	3.8	1.0–3.8	Erosion of natural deposits; glass and electronics production waste			
Vanadium (ppb)	2002	NA	NA	12.0	3.0–12.0	Runoff/leaching from natural deposits			
OTHER UNREGULATED SUBSTANCES									
		Surface Water Supply		Ground Water Supply					
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE			
Calcium (ppm)	2005	4.5	NA	14.6	NA	Occurs abundantly in nature			
Hardness (ppm)	2005	27	27–48	89.3	70.0–89.3	Caused mainly by the salts of calcium and magnesium (water can be considered hard if it measures over 100 ppm)			
Magnesium (ppm)	2005	4.4	NA	8.2	NA	Occurs abundantly in nature			
Sodium (ppm)	2005	1.3	NA	5.3	NA	Occurs abundantly in nature			
<div>¹ Turbidity is a measure of the cloudiness of the water. It is caused by suspended particles in the water, such as silt, clay, and organic matter. It is not a good indicator of the effectiveness of our filtration system. ² Sampled in 2008.</div>									

¹ Turbidity is a measure of cloudiness of the water because it is a good effectiveness of our filter
² Sampled in 2008.

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.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

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.

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

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.

About Our Violation

On January 23, 2009, the Paradise Irrigation District received results of 3 positive tests for coliform, which resulted in our water system exceeding a drinking water standard. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Paradise Irrigation District believes these samples should have been invalidated. We routinely monitor for drinking water contaminants. A total of 49 samples were tested for the presence of coliform bacteria in our water system during January 2009. On January 23, 2009, three (6.1 percent) of our samples tested positive for the presence of total coliform bacteria, exceeding the standard that no more than 5 percent of samples may show the presence of total coliform bacteria. Each positive sample was then immediately followed by taking three more samples in the vicinity of each location which tested positive. In this case the extra nine samples taken and all subsequent samples to date have tested negative. In addition to the three distribution samples, a fourth sample taken on the same day from a well site was collected. All four samples tested positive for the total coliform bacteria. The fact that the positive tests from three different locations in the distribution system and the separate well water source were all taken on the same day and tested at the same time made the Paradise Irrigation District believe that the tests should be invalidated. The Paradise Irrigation District received a letter from the laboratory director at Cranmer Analytical Laboratories explaining how the samples may have been contaminated through cracks in the sample bottles. Therefore he recommended to the California Department of Public Health the sample results should be invalidated. To view and examine all the documents pertaining to this event, please visit the Paradise Irrigation District Web page at www.paradisairrigation.com.

Automated Water Meter Reading Project FAQ

The Paradise Irrigation District (PID) has contracted with Chevron Energy Solutions to replace water meters throughout the district. The Project will replace 7,500 of the District's 10,500 meters and install an automated meter reading radio on all meters.

This Project is an important part of upgrading our water system. The Automated Meter Reading (AMR) system provides for faster, more efficient reading and eliminates the possibility of misreads and transposed numbers. The AMR will allow us to determine precisely how much water is lost annually to leakage. It will provide us the ability to notify customers of leaks on their system quickly.

PID is a nonprofit local government and this project will ensure all customers are paying for the water they consume. Currently, some of our meters are not measuring all of the flow through the meters. These customers will soon be required to pay their fair share to operate and maintain our water delivery system.

The California Legislature has mandated that water systems must reduce usage by 20% by the year 2020. If PID does not work toward that goal, we may become ineligible for future State Grant Funds. In the past several years PID has obtained \$3.35 million dollars of grant funds to improve our system. The AMR system will help customers identify leaks sooner, resulting in less lost water and less water usage.

Why is PID replacing the water meters?

PID is replacing meters that are older than 10 years when our treatment plant was brought online to provide cleaner water to the community. As water meters age, they measure water flow less accurately. This gradual wear and tear may allow water to pass through the meter without measuring all of the flow. Water delivered before the treatment plant was constructed contained dirt and sand that accelerated the wear and tear.

Will my water bill increase?

The AMR Project will not increase your rates. Some customers will pay for additional consumption because their old meter was not reading accurately. The AMR Project will allow the District to move to a monthly billing system which is anticipated to ease the burden of customers having to pay the cost to cover two months of service charges and consumption in one bill.

What are the benefits to me for the new AMR system?

The new AMR system will help identify leaks on the customer's side by evaluating the usage in the early morning hours. We expect to be able to notify customers of potential leaks in their systems in three days. Currently a customer could have a leak for 60 days or longer before we could inform them of their potential leak. Finding leaks earlier helps save our water supply and save the customer from paying unnecessary water consumption charges.

When will the AMR Project begin and how long will it take?

The AMR Project is scheduled to begin in April 2010 and is expected to take six months.

Do I need to be home during the replacement of the meter?

No. The PID meters are in customer's yards, typically on the street in front of your home. The replacement contractor will not need anyone present and there will be no reason for workers to enter your home.

Will my water be shut off during the replacement and if so, how long?

Yes. The average household will take about 10 minutes to have the meter installed. The work will occur between the hours of 8:00am and 4:30 pm.

What if I am in a mobile home park or apartment?

The notification will be the same, but the amount of time the water needs to be off will likely be more than the 10 minutes for regular households. The contractor will work with the manager or owner to minimize the impacts.

Will you notify me when my meter will be replaced?

The customers will be notified at least 24 hours in advance of the shutoff with a notice placed on their door.

Can I use water during the day of the shutoff?

Yes. The installer will check to see if water is running to the property by checking the meter for usage. If the water is being used, they will skip your meter and come back later in the day or will knock on your door to see if the water can be turned off.

How does the AMR system work?

The meters have a radio device that send their information to the neighboring meter and the information is transferred from meter to meter until it reaches a central collection location. The central collection location transfers the data to a computer that delivers the readings to the PID.

What if I have a problem after the contractor changes my meter?

The notice hung on your door will provide phone numbers to contact in the event there is a problem with the installation.

What will the new meter cost me?

There is no charge to the customer for the replacement of the meter.

Who will replace my water meter?

Chevron Energy Solutions has contracted to replace the meters. Their contact information will be provided in the notification hung on your door and available on the PID website at www.paradiseirrigation.com when the work has begun.



NEW PICNIC & PLAY AREA AT PARADISE LAKE

Water Treatment Process

Raw water from Magalia Reservoir or Little Butte Creek through the Magalia By-Pass is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration, and disinfection. The coagulation process consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles. Coagulated water is passed through a bed of coarse granulated media in the absorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles. Clarified water flows downward through tri-media filters consisting of anthracite, sand, and fine garnet to remove the remaining particulates and "polish" the finished water. A minimum amount of chlorine is added to the finished water to meet California state requirements. Chlorine can be added either to the raw water prior to filtration or to the filtered water. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water. This water is then routed to off-site reservoirs for distribution to residents of Paradise.

Paradise Irrigation District Water Quality Report 2010



Where Does My Water Come From?

The customers of the Paradise Irrigation District are fortunate because we enjoy a high-quality water supply from a surface water source. The treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high-quality water we serve.

The District drilled and developed a ground water source at the D Tank reservoir site. This well produces up to 450 gallons per minute (gpm) and is used as a drought management and emergency source. This source was used during six of the twelve months in 2010, and water quality testing has been done to qualify it as an approved source.

Source Water Assessment

A Source Water Assessment Plan (2010) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply’s susceptibility to contamination by the identified potential sources.

Well at D Tank (Ground Water Supply): High-density septic systems and automobile repair shops.

Magalia Reservoir (Surface Water Supply): High-density septic systems and historic mining operations.

A copy of the complete assessment may be viewed at DHS Valley District Office, 415 Knollcrest Drive, Suite 110, Redding, CA 96002, Attention: Richard Hinrichs, (530) 224-4866, or Paradise Irrigation District Office, 6332 Clark Road, Paradise, CA 95969, Attention: George Barber, (530) 877-4971.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Board of Directors meets the third Wednesday of each month, beginning at 6:30 p.m., at 6332 Clark Road, Paradise, California.

Lead and Drinking Water

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.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Bill Taylor, Treatment Plant Superintendent, at (530) 877-3554.

Annual WATER QUALITY REPORT

Water testing performed in 2010

Presented By Paradise Irrigation District



PWS ID#: 0410007

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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. 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									
				Surface Water Supply		Groundwater Supply			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Asbestos (MFL)	2004	7	7	0.2	NA	NA	NA	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Chlorine (ppm)	2010	[4.0 (as Cl2)]	[4 (as Cl2)]	0.80	0.45–1.32	NA	NA	No	Drinking water disinfectant added for treatment
Chromium (ppb)	2004	50	(100)	NA	NA	3.8	NA	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Haloacetic Acids (ppb)	2010	60	NA	26.8	18–34	NA	NA	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2010	80	NA	24	19–26	NA	NA	No	By-product of drinking water disinfection
Turbidity ¹ (NTU)	2010	TT	NA	0.06	0.03–0.06	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2010	TT=95% of samples<0.3	NA	100	NA	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community (Lead was not detected at the 90th percentile.)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	0.3	0.165	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SECONDARY SUBSTANCES									
				Surface Water Supply		Groundwater Supply			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2002	500	NS	2.2	NA	1.1 ²	NA ²	No	Runoff/leaching from natural deposits; seawater influence
Odor–Threshold (Units)	2007	3	NS	2	NA	NA	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2010	1,600	NS	68	NA	170 ³	NA ³	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2002	500	NS	1.8	NA	0.3 ²	NA ²	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2002	1,000	NS	44	NA	142 ²	NA ²	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2010	5	NS	0.04	0.03–0.06	0.1	0.01–0.1	No	Soil runoff
Zinc (ppm)	2002	5.0	NS	0.096	NA	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED AND OTHER SUBSTANCES

		Surface Water Supply		Groundwater Supply		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2002	NA	NA	213	100–213	Occurs abundantly in nature
Chromium VI [Hexavalent Chromium] (ppb)	2004	NA	NA	3.8	1.0–3.8	Erosion of natural deposits; glass and electronics production waste
Hardness (ppm)	2002	27	27–48	89.3 ²	70.0–89.36 ²	Caused mainly by the salts of Calcium and Magnesium (water can be considered hard if it measures over 100 ppm)
Vanadium (ppb)	2002	NA	NA	12.0	3.0–12.0	Runoff/leaching from natural deposits
Sodium (ppm)	2002	1.3	NA	5.3 ²	NA ²	Occurs abundantly in nature

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
² Sampled in 2005.
³ Sampled in 2009.

Definitions

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

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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.

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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).

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

New Meter Reading System Providing Benefits

A new automated meter reading (AMR) system for Paradise Irrigation District (PID) is providing timely benefits to customers as well making meter reading more cost effective.

Since enabling the automated reading through replacing and retrofitting existing water meters throughout the District in 2010, PID has sent out 2,180 customer leak notices. These notices inform customers they may have a leak at their home or business.

Prior to AMR, customers may have gone 60 days between meter readings, meaning they could have a large bill by the time the leak was discovered. When all the features of the new AMR system are operational by the end of 2011, PID will be alerted within three days of “uninterrupted water usage”—which likely means a leak for the customer.

About 7,500 of PID’s 10,500 meters were replaced during the project; all meters were updated to permit AMR through installation of a radio transmission device.

PID is currently still reading the meters in a semi-manual “drive-by” process that allows reading to be completed more easily so it’s occurring every month rather than every two months. When the system is entirely in place, the meters will send electronic “readings” automatically to specialized radio devices located throughout our community and then on to PID’s office.

The “new” meters are no different in how they measure water use; they simply are able to transmit the data for water use differently than it used to be.

A few customers discovered that, with the new reading system, they had a higher bill. That occurred because their old meters may have been worn out and didn’t accurately report actual water usage. With the new and retrofitted meters, each PID customer is now paying their fair share for water usage.

Questions about AMR or how your meter is read? Give PID a call at 877-4971 and they’ll help you with the information you need.

Same Meter - New Reading Method

The diagram illustrates the transition from manual to automated meter reading. On the left is an 'Old Meter', a traditional analog water meter. In the middle is a 'New Meter', which is similar but includes a radio antenna. To the right is a 'Data Transfer Device', a handheld electronic device with an antenna, connected to the new meter by a cable. An arrow points from the new meter to the data transfer device, indicating the flow of data.

Quality First

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.

We met our goal—10 years early!

Kudos to Paradise residents for stepping up to the plate and making a real difference for our community's future—and the health of California. Thanks to their efforts, our water district, Paradise Irrigation District (PID) is proud to report that our community has met the state-mandated goal of 20% less water usage—and we've done it ten years before the 2020 deadline.

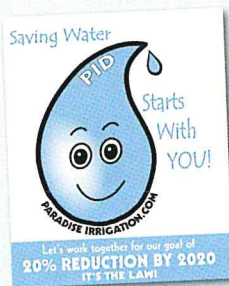
In February 2008, then Governor Schwarzenegger introduced a seven-part comprehensive plan for improving the Sacramento-San Joaquin Delta. As part of this effort, the governor directed state agencies to develop a plan to reduce statewide per capita water use by 20 percent by the year 2020 ("20 x 2020").

PID immediately took a strong role in leak detection and major pipeline improvements as well as educating our community about ways to sensibly reduce water usage—and the efforts paid off handsomely. As of April 2011, PID had met the "20 x 2020" challenge. But the work doesn't stop there.

PID customers need to stay the course and continue their water-wise ways. Decreasing water use not only saves customers real money, but also helps the District to better withstand any future droughts. Water that is saved today is available for next year's needs.

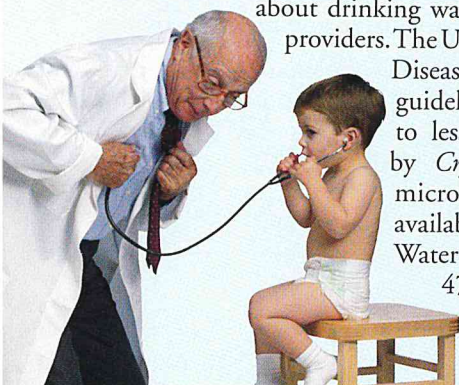
While we've been fortunate lately, ridge old-timers can recall the late 1970s when drought was a very real problem statewide. Looking back, if we experienced a drought equal to a single year's drought in the 1970s, PID would need to call on customers to reduce usage by 50 percent.

Adopting water conservation measures as a continuing, daily lifestyle will help our community now and in the future.



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>.



Rates go up for first time in three years

PID customers will see an increase in their water bills in June 2011—the first increase since January 2008.

Our typical residential customer's overall average increase will grow to \$4.79 per month in 2013, but the initial change will be \$1.24 per month. The increase will help the District maintain service and projects required for District operation.

PID board approval of the rate increase follows three public committee meetings as well as a board meeting to allow for public participation and input. The approved rate structure calls for increased bills starting in June 2011, January 2012 and January 2013.

To maintain District functions since the last increase in 2008, PID tightened its belt, delaying capital projects, enacting a one-year hiring freeze on three vacant positions and using reserve funds. Even with all of those efforts, without a rate increase, all of PID's available reserves would be exhausted by 2014.

Prudent and conservative financial management of PID means the District must increase rates to consumers. Without that action, the District would risk its ability to continue providing good, healthy water to its community.

PID's board opted to enact smaller but more frequent rate increases rather than waiting several years and then putting a too-hefty increase on its consumers.

All PID customers should have received a detailed explanation of the rate change in a mailing sent out in late March. If you have questions about the new rates or how they will affect your PID service, please call the District office at 877-4971.



Water Rights Extension

Your Paradise Irrigation District (PID) is actively planning for the future of our community and its water needs through preparation of an environmental impact report (EIR) to extend its water rights.

While residents have done a good job recently in sensibly reducing their water usage (see “We met our goal—10 years early!”), PID’s directors understand that more than reduction of usage is the answer to future needs: the District must also seek the ability to construct additional water storage in Magalia and Paradise Reservoirs.

To meet future water needs, PID is preparing an EIR to extend the time needed to construct additional storage in Magalia and Paradise Reservoirs. PID is requesting a 25-year extension.

Additionally the District is seeking to improve its operational capabilities and, once our community’s water needs are met, to be able to assist neighboring water users with water supplies. To that end, the EIR also includes requests to:

- Change the method of water diversion from Little Butte Creek.
- Add hydropower to the permit’s purpose of use
- Increase the size of PID’s place of use.
- Increase PID’s “sphere of influence” area.

The EIR is required as part of getting approval from the State Water Resources Control Board to put into action the previously-approved permits to construct an additional 6,000 acre-feet of water storage in either reservoir.

PID currently has 12,300 acre-feet of storage. The additional storage would allow the district to meet its future water needs and manage better during drought conditions. PID has less water storage available to it today—and more people to serve—than it did during drought in the 1970s.

Cost for the EIR to extend water rights is anticipated at \$310,000; the project will take 18 months to complete.



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.

Paradise Irrigation District Water Quality Report 2011





6332 CLARK ROAD
PARADISE, CA 95969

**FIND OUT MORE ABOUT
YOUR WATER DISTRICT:
www.ParadiseIrrigation.com**

*****ECRWSS*****
Postal Customer

**Save money and stop worrying—
tell us how to contact you and we'll
notify you if you have a leak!**

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address with us and we'll have it on file
in case our automated leak monitoring
system detects a leak at your home or business.

We'll contact you as soon as we know about
the leak so you can save money and water from
going down the drain!

Call our friendly customer service

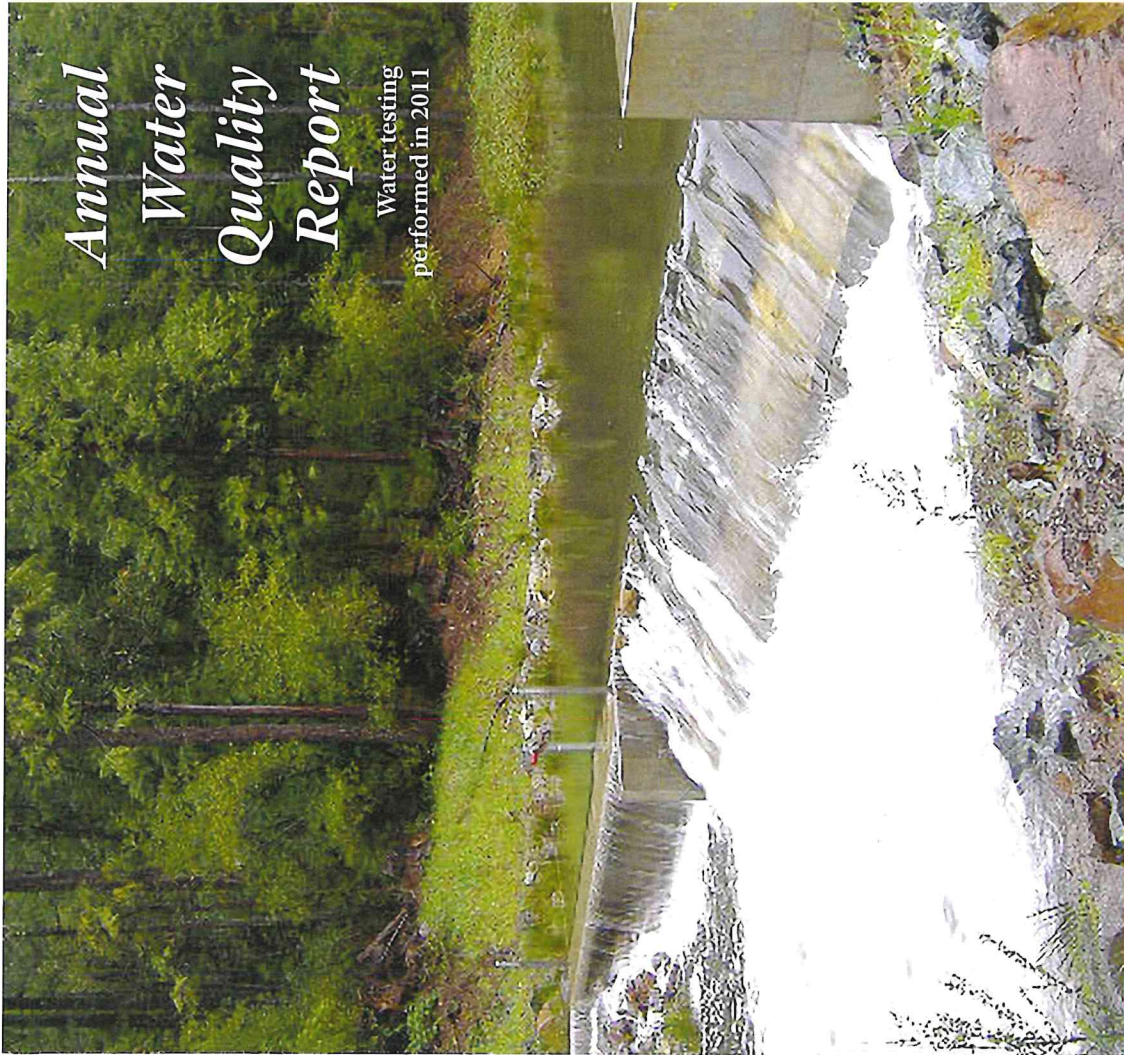
representatives (530/877-4971) or include the
information when you mail in your next bill.

Your information will remain confidential and
will only be used by Paradise Irrigation District.

*Este informe contiene información muy importante acerca de su agua
portable. Haga que alguien lo traduzca para usted, o hable con alguien
que lo entienda.*

Printed on paper with post-consumer waste and recycled
content, using soy and vegetable-based inks

**Your water—
Clean. Fresh. Pure.**
Paradise Irrigation District



**Annual
Water
Quality
Report**
Water testing
performed in 2011

Our community has great water!

We're proud to present our annual water quality report covering all testing
performed between Jan. 1 and Dec. 31, 2011.

At Paradise Irrigation District we're committed to delivering the best-quality
drinking water possible and we remain vigilant in meeting the challenges of new
regulations, water source protection, water conservation and community outreach

and education while continuing to serve the
needs of our water users.

Thank you for allowing us to continue
providing you and your family with quality
drinking water.

Please share your thoughts with us on the
information in this report. And, if you have
any questions or concerns, we're here to help.
Call George Barber at 530/877-4971.



Paradise Irrigation District is something special—it belongs to all of us

Do you have questions about the water you
drink and use? You don't have to go to a huge
utility company to get the answers you need—
Paradise Irrigation District is a public agency.
It is operated to benefit water consumers in our
area and governed by local people we've elected.

Unlike privately-owned utility companies, PID
makes all of its decisions right here in our com-
munity. PID actively seeks citizen input—both
by attending meetings as well as participating
on the water district's board of directors. Board
members represent one of five divisions in our
service area and are elected in November every
two years (terms are four years and rotate).

Keeping our water supply clean and plentiful is
our community's responsibility; it's our water
and our water district.

Good to know:

Prudent oversight means every time
PID covers its payroll, the district has
met their employee retirement liability.

PID employees are not part of the
state's PERS benefit program.

Have you noticed the progress at PID's corporate yard?

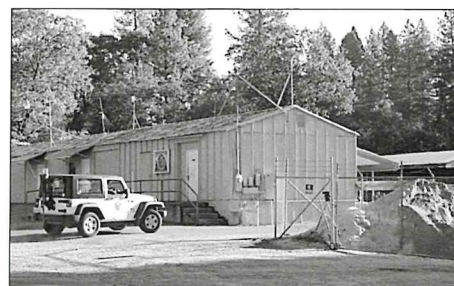
Construction on the "corporation yard" continues at Paradise Irrigation District's 6332 Clark Road
location; plans are for the facility to be fully functional by the end of 2012.

While PID's main office has been at Clark Road for the past few years, the agency's facilities for
equipment and many of its "in the field" employees was across town, on Black Olive (near the Para-
dise Police Station. With a swap of land and construction at Clark Road, though, all of the agency's
operations will be at one central location—making PID more efficient and better able to respond to
consumer needs.

Creation of the 4.5-acre corporate yard included a drainage rechannel as well as cut and fill excava-
tion to create about 2.5 acres of a level pad. Retention storm water basins are in place under the
parking area where they can collect the excess water but not waste the flat space.

Located on the pad will be two buildings (one for an office/employees and one for a maintenance
and operations shop) as well as parking for employee and customer vehicles. While most equip-
ment will be stored in the shop, larger piping will be stored outside the shop.

Landscaping and plantings along the Clark Road frontage—as well as the lowered height of the
building area on that end of the corporation yard—means there will be minimal visual impact of
the corporation yard from Clark Road.



The "old" PID
corporation yard on
Black Olive (above); it
will soon be replaced by a
corporate yard being built
at the PID facility on
Clark Road (right).



Where does my water come from?

Customers of the Paradise Irrigation District are fortunate because we enjoy a high-quality water supply from a surface water source.

The PID treatment plant draws water from Magalia Reservoir and Paradise Lake, which hold a total of 12,293 acre-feet of water. The water treatment plant was constructed in 1995 and provides an average flow of 7.5 million gallons per day. Runoff is collected over 11.2 square miles of watershed located north and east of Magalia Reservoir. This watershed is heavily forested and sparsely populated, which contributes to the high-quality water we serve.

The District drilled and developed a ground water source at the D Tank reservoir site. This well produces up to 450 gallons per minute (gpm) and is used as a drought management and emergency source. This source was used during six of the twelve months in 2011; water quality testing has been done to qualify it as an approved source.

Does your water smell or taste a bit “off” sometimes?

If you turn on the tap in the late fall and early winter months you might notice a bit of a musty odor or an earthy “flavor” to your usually sparkling glass of PID water.

While water quality tests tell us our water is safe to drink and meets all EPA standards, we’re not any happier than you are with water that doesn’t meet our usual high flavor standards.

Two compounds released from soil and algae, methylisoborneol (MIB) and Geosmin, can be detected by humans at levels of less than 10 parts per trillion (one part per trillion would compare to one inch in 16 million miles).

MIB is most commonly found in the bottom layers of lakes; Geosmin is the same substance that gives soil its “dirt” smell. Together, these two lend a temporary and undesirable “bouquet” to our PID water when levels are high in the water we use from Magalia Reservoir. Paradise Lake, because it’s deeper, hasn’t so many issues because the water is colder and therefore “fresher” in odor and taste.

When the seasonal rains begin in late fall, the District goes to work at refilling our reservoirs. It becomes a complex balancing act of slowing the discharge from Paradise Lake (so it can refill for the next year) and using a blend of water from the lake as well as Magalia Reservoir to supply the treatment plant—and our users.

When we have an early rainstorm, the runoff water entering the bypass pipeline overwhelms the amount of water and changes its chemistry to a lower alkaline level. State health standards force us to use water from the reservoir (which remains treatable due to its alkalinity) but there are taste and odor issues even though the water is safe to drink and use.



PID uses four-step process to treat your water

“Raw” water from Magalia Reservoir or Little Butte Creek (through the Magalia Bypass) is treated before being distributed to Paradise residents. The treatment process consists of coagulation, clarification, filtration and disinfection.

Coagulation consists of adding alum and polymer to the water to chemically bond very small particles in the water into larger particles.

Coagulated water is then passed through a bed of coarse, granulated media in the adsorption clarifiers. Coarse media in the clarifier removes most of the coagulated particles.

Clarified water flows downward through tri-media filters consisting of anthracite, sand and fine garnet; this removes remaining particulates and polishes the finished water.

A minimum amount of chlorine is in the finished water to meet California’s requirements. Chlorine is added to the raw water prior to filtration. Filtered water is routed through a treated water storage tank to provide sufficient time for the chlorine to kill any bacteria remaining in the water.

This treated water is then routed to off-site reservoirs for distribution to Paradise residents.

Health information our medically-vulnerable residents need

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 US 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 drinking 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.

To make sure our tap water is safe to drink, the U.S. Environmental Protection Agency (US EPA) and the California Department of Public Health (Department) prescribe regulations limiting 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.

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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.



Lead and drinking water

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.

Source Water Assessment Plan now available

PID’s 2011 Source Water Assessment Plan is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply’s susceptibility to contamination by the identified potential sources.

Ground Water Supply (Well at D Tank): High-density septic systems and automobile repair shops.

Surface Water Supply (Little Butte Creek Watershed): High-density septic systems and historic mining operations.

A copy of the complete assessment may be viewed at CDPH Valley District Office, 364 Knollcrest Drive, Suite 100, Redding, CA 96002, Attention: Reese Crenshaw, (530) 224-4861, or Paradise Irrigation District Office, 6332 Clark Road, Paradise, CA 95969, Attention: George Barber, (530) 877-4971.

DEFINITIONS USED IN THIS REPORT:

AL (Regulatory Action Level): 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 USEPA.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

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): 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.

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.

UNITS WE USED FOR MEASUREMENT:

ppm (parts per million): One part substance per million parts water (or milligrams per liter). Imagine one ping-pong ball in an Olympic-sized swimming pool.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter). Imagine one ping pong ball in 1,000 Olympic-sized swimming pools.

Sampling results Paradise Irrigation District has taken hundreds of water samples during the past year to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables here show 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]	Surface Water Supply		Groundwater Supply		VIOLA- TION?	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Asbestos (MFL)	2004	7	7	0.2	NA	NA	NA	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits.
Chlorine (ppm)	2011	[4.0 (as Cl ₂)	[4 (as Cl ₂)]	0.72	0.41–0.92	NA	NA	No	Drinking water disinfectant added for treatment.
Chromium (ppb)	2011	50	(100)	NA	NA	12	NA	No	Discharge from pulp mills; erosion of natural deposits.
Halocetic Acids (ppb)	2011	60	NA	25.5	22–29	NA	NA	No	Byproduct of drinking water disinfection.
THMs (Total Trihalomethanes) (ppb)	2011	80	NA	21.8	18–27	NA	NA	No	Byproduct of drinking water disinfection.
Turbidity ¹ (NTU)	2011	TT	NA	0.04	0.04–0.06	NA	NA	No	Soil run-off.
Turbidity (Lowest monthly % of samples meeting limit)	2011	TT=95% of samples < 0.3	NA	100	NA	NA	NA	No	Soil run-off.

Tap water samples were collected for lead and copper analyses from sample sites throughout the community (lead was not detected at the 90th percentile).

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90 TH %TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION?	TYPICAL SOURCE
Copper (ppm)	2011	1.3	0.3	0.201	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Surface Water Supply		Groundwater Supply		VIOLATION?	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Chloride (ppm)	2011	500	NS	2.5	NA	NA	NA	No	Run-off/leaching from natural deposits; seawater influence
Odor-Threshold (units)	2007	3	NS	2	NA	NA	NA	No	Naturally-occurring organic materials.
Specific Conductance (µS/cm)	2010	1,600	NS	68	NA	170 ³	NA ³	No	Substances which form ions when in water; seawater influence.
Sulfate (ppm)	2011	500	NS	2.0	NA	NA	NA	No	Run-off/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (ppm)	2002	1,000	NS	44	NA	142 ²	NA ²	No	Run-off/leaching from natural deposits.
Turbidity (NTU)	2011	5	NS	0.04	0.04–0.06	0.1	0.01–0.1	No	Soil run-off.
Zinc (ppm)	2011	5.0	NS	0.25	NA	NA	NA	No	Run-off/leaching from natural deposits; industrial wastes.

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Surface Water Supply		Groundwater Supply		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Boron (ppb)	2002	NA	NA	213	100–213	Run-off/leaching from natural deposits; seawater influence
Chromium VI (Hexavalent Chromium) (ppb)	2004	NA	NA	3.8	1.0–3.8	Naturally-occurring organic materials.
Hardness (ppm)	2011	28	NA	89.3 ²	70.0–89.36 ²	Substances which form ions when in water; seawater influence.
Vanadium (ppb)	2002	NA	NA	12.0	3.0–12.0	Run-off/leaching from natural deposits; industrial wastes.
Sodium (ppm)	2002	1.3	NA	5.3 ²	NA ²	Run-off/leaching from natural deposits.

¹ Turbidity is a measure of water's cloudiness. We monitor it because it's a good indicator of our filtration system's effectiveness.

² Sampled in 2005.

³ Sampled in 2009.

PID seeks community participation

You're invited to participate in our public forum and voice your concerns about your drinking water. Your PID Board of Directors meets the third Wednesday of each month, beginning at 6:30 p.m., at 6332 Clark Road, Paradise.



For more information about this report—or for answers to questions about your drinking water—call the PID Water Treatment Plant at 530/877-3554.

Paradise fourth graders learn about our water—where it's from, how it's processed and why to conserve

It's a lovely May morning and the excitement is contagious as Paradise fourth graders gather on a school field for the day's event—the Wet Festival sponsored by Paradise Irrigation District.

Sure, it may look like a lot of plain old fun with water brigades, lots of “accidental” splashing and even a craft project to make a bracelet. But a lot more is happening than simple fun.

The day-long event includes activity centers featuring information about water sources, the water cycle, conservation, water treatment and even a try at repairing a leaky PID pipe.

It's hands-on learning of the best type, says Wendy Rickards, who's coordinated the school activity for the past five years. Rickards and her team of PID colleagues work closely with local fourth grade teachers to provide background and suggested pre-activities as well as the instruction on the day of the event.

“Kids think of it as one of the highlights of their school year and teachers appreciate all the work that goes into supporting state curriculum standards,” says Rickards. “Those of us with PID really enjoy educating a new generation of water users about the importance of our water resource.

“The kids learn a lot and, in the long run, our whole community will benefit,” she adds. “It's a great program.”

California fourth graders already study the water cycle; the Water Education for Teachers (WET) curriculum develops that further, weaving in science, social studies and geography.

After building their own miniature water filters at the WET Festival, students visit PID's treatment plant in Magalia.

“We provide everything so the program doesn't cost the school district or teachers anything,” Rickards notes. “In addition to the curriculum, the projects and the take-home items like pencils and booklets, we cover the cost of the school bus up to the treatment plant.”

In past years, PID has even brought in a state teaching expert to provide continuing education for teachers in the area of water studies.

Rickards says teaching students about local water and how to conserve it is information that continues beyond the day's event.

“We hear from teachers that students are much more aware of where their water comes from and the importance of conservation,” she says. “When the student shares what they've learned with their family, we realize that what we're doing in the program can carry throughout the whole community.”

In 2012, more than 240 Paradise fourth graders participated in two Wet Festivals. Participating schools included Paradise Elementary, Ponderosa Elementary and Achieve Charter.



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VISITPARADISELAKE.COM – LAKE CLOSED WEDNESDAYS

Draft plan finished



PID's draft Strategic Business Plan will be presented at the June board meeting; attend to hear the details and offer input. The plan is a framework for district decision-making.