For water testing performed in 2023

FIND OUT MORE ABOUT YOUR WATER DISTRICT: www.PIDWater.com

Paradise Irrigation District
Annual Consumer Confidence Report

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

Learn about our community's water quality

This annual "consumer confidence" water quality report covers all Paradise Irrigation District testing performed between Jan. 1 and Dec. 31, 2023, or earlier. The State Water Board allows certain chemicals to be monitored less than on a yearly basis because the concentrations of the substances are not expected to change significantly. In these cases, the most recent sample data are included, along with the year in which the sample was taken. Both "regulated" and "unregulated" contaminants are tested for; this report provides results only for contaminants detected in PID's system—tests with non-detected (ND) results are not listed.

For information, contact Rebekah Sorensen at (530) 877-4971 or visit PID at 6332 Clark Road, Paradise; we are open from 9 am to 4 pm, Monday - Friday.

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2019. All water systems are required to comply with the state Total Coliform Rule. Beginning April 1, 2016, all water systems were also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (e.g., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

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 plants, 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 State Water Resources Control Board (State Board) prescribe regulations limiting the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same level of 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. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Additional information on bottled water is available on the California Department of Public Health website (https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx).

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.

Lead and copper

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. PID is 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 [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants]. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/lead.

DEFINITIONS USED:

RAL (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 (health-related) 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 aesthetic appearance and use of the 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/cloudiness—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.

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.

pCi/L (picocurries per liter): A measurement of radioactivity.

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

Sampling results

Paradise Irrigation District has taken thousands of regulated and unregulated water samples during the past years to determine the presence of any radioactive, biological, inorganic, volatile and synthetic organic contaminants and monitor the treatment process. The tables below show only those contaminants that were detected in the water; some that were not detected are listed because our customers may be interested in seeing the results. The State Water Resources Control Board (State Board) requires us to monitor for certain substances less than once per year because the concentrations of these substances do <u>not</u> change significantly. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

SECONDARY AESTHETIC STANDARDS		Surface Water Supply			Groundwater Supply			
CHEMICAL (UNIT OF MEASURE)	**MCL**	**YEAR SAMPLED**	**AVERAGE DETECTED**	**RANGE *LOW-HIGH***	**YEAR SAMPLED**	**AVERAGE DETECTED**	**RANGE *LOW-HIGH***	**MAJOR SOURCE IN DRINKING WATER**
Chloride (ppm)	500	2020	2	2	2023	ND	ND	Natural occurring substance.
Hardness (ppm)	~	2020	31.4	31.4	2023	77	77	Natural occurring substance.
Sulfate (ppm)	500	2020	1.4	1.4	2023	ND	ND	Natural occurring substance.
Total Dissolved Solids (ppm)	1000	2020	70	70	2023	160	160	Natural occurring substance.
CORROSIVITY								
Specific Conductance (uS/cm)	1600	2020	89	89	2023	171	171	A measurement of water's conductance.
Langelier Saturation Index *	Non-Corrosive	2020	-2.2	-2.2	2023	-1.2	-1.2	Indicator of corrosiveness of water.
Aggressive Index	Non-Corrosive	2020	9.6	9.6	2023	10.7	10.7	Indicator of corrosiveness of water.
Zinc (ppm)(TT)	5	2023	0.37	.21-.44	2023	ND	ND	Water additive used to control corrosion.
Orthophosphate (ppm)(TT)	~	2023	1.18	.96-1.53	NA	NA	NA	Water additive used to control corrosion.
Iron (fe) (ppm)	300	2020	ND	ND	2023	880	880	Leach natural deposits; industrial waste.
Color (units)	15	2020	ND	ND	2023	12	12	Natural occurring organic materials.

* The Langelier Saturation and Aggressive Indices and Specific Conductance are tests to measure the corrosivity of water. The results indicate that PID water is mildly corrosive. Zinc orthophosphate (ZOP) is added at the treatment plant in an attempt to control corrosion of metallic piping in the distribution system.

No ground water used; the well is run (to waste) strictly for sampling purposes. Iron levels can be elevated due to sitting water in iron well casing with no use.

PRIMARY HEALTH STANDARDS

SUBSTANCE (UNIT OF MEASURE)	MCL	Surface Water Supply YEAR SAMPLED	Surface Water Supply AVERAGE DETECTED	Surface Water Supply RANGE *LOW-HIGH*	Groundwater Supply YEAR SAMPLED	Groundwater Supply AVERAGE DETECTED	Groundwater Supply RANGE *LOW-HIGH*	MAJOR SOURCE IN DRINKING WATER
INORGANIC								
Chromium (Total) (ppb)	50	2020	ND	ND	2023	ND	3.4	Erosion of natural deposits
Hexavalent Chromium (ppb)	~	2015	ND	ND	2017	2.5	2.5	Oxidized Chromium. Erosion of Natural Deposits
CLARITY								
Turbidity (NTU) (prior to treatment, raw water)	~	2023	11.8	0.25-21.8	2023	0.8	0.18	Soil runoff
Turbidity (NTU) (TT) (treated water)	0.2	2023	0.04	0.02-0.23	NA	NA	NA	Soil runoff
Turbidity is a measurement of the cloudiness of the water. Turbidity measurement is a good indicator of the effectiveness of the filtration system. PID's permit with State Drinking Division requires PID to deliver water with no more than 0.2 NTU.								
RADIOLOGICAL								
Radium 228 (pCi/L)	5	2017	2.2	2.2	2017	2.93	2.93	Erosion of natural deposits.
DISINFECTANT								
Chlorine, Free Residual as Cl2 (ppm) (TT)	4	2023	0.78	0.19-1.57	NA	NA	NA	Water additive used to control microbes.
DISINFECTANT BY-PRODUCTS								
Trihalomethanes, Total (ppb)	80	2023	35.3	30-40	NA	NA	NA	Drinking water disinfection.
Haloacetic Acids, Total (ppb)	60	2023	45.5	30-56	NA	NA	NA	Drinking water disinfection.
DISINFECTANT BY-PRODUCT PRECURSOR								
Total Organic Carbon (prior to treatment)	~	2023	1.1	0.6-1.4	NA	NA	NA	Decay of natural organic matter.

UNREGULATED AND OTHER SUBSTANCES

CHEMICAL (UNIT OF MEASURE)	Surface Water Supply YEAR SAMPLED	Surface Water Supply AVERAGE DETECTED	Surface Water Supply RANGE *LOW-HIGH*	Groundwater Supply YEAR SAMPLED	Groundwater Supply AVERAGE DETECTED	Groundwater Supply RANGE *LOW-HIGH*	MAJOR SOURCE IN DRINKING WATER
Alkalinity as CaC03 (ppm)	2020	30	30	2023	90	90	Natural occurring substance.
Bicarbonate Alkalinity (ppm)	2020	40	40	2023	110	110	Natural occurring substance.
Calcium (ppm)	2020	6	6	2023	16	16	Natural occurring substance.
Magnesium (ppm)	2020	4	4	2023	9	9	Natural occurring substance.
Sodium (ppm)	2020	3	3	2023	6	6	Natural occurring substance.
Chlorate (ppb)	2015	260	120-400	NA	NA	NA	Sodium Hypochlorite used for disinfection.
pH	2023	7.2	7.-7.2	2023	7.4	7.1-7.6	Slightly basic water.
Potassium (K) mg/L	2020	ND	ND	2023	2	2	Natural occurring substance.
Vanadium (µg/L)	2020	ND	ND	2023	15	15	Natural occurring substance.

Fluoride is <u>not</u> added to the District's drinking water; fluoride concentration in the raw water is not detectable.
No ground water used; the well is run (to waste) strictly for sampling purposes.

TOTAL COLIFORM AND E.COLI SAMPLING IN 2023

MICROBIOLOGICAL CONTAMINANTS (AND REPORTING UNITS)	HIGHEST NUMBER DETECTED	# MONTHS IN VIOLATION	MCL	IN COMPLIANCE?	MAJOR SOURCE IN DRINKING WATER
Total Coliform	0	0	1 sample	Yes	Naturally present in environment.
Fecal Coliform or E.coli (State Total Coliform rule)	0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E. coli positive	Yes	Human and animal fecal waste.
Fecal Coliform or E.coli (Federal Revised Total Coliform rule)	0	0	Routine and repeat samples are total coliform-positive and either is E. coli positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli	Yes	Human and animal fecal waste.

LEAD & COPPER ANALYSES

Every three years PID is required to sample at the customers' faucets for lead and copper. This monitoring ensures our water is not too corrosive and does not leach unsafe levels of these metals into your dinking water. Compliance measurements are from the 90th percentile (the level measured at 90% of homes sampled). See "Corrosivity" section.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	VIOLATION?	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	TYPICAL SOURCE
Copper (ppm at the 90th percentile)	2023	No	1.3	0.3	0.073	0/20	Internal corrosion of household plumbing.
Lead (ppb at the 90th percentile)	2023	No	15	0.2	ND	0/20	Internal corrosion of household plumbing.

UNREGULATED CONTAMINANT MONITORING RULE 5 (UCMR5)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated monitoring is to assist EPA in determining the occurence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2023, Paradise Irrigationi District participated in the fifth round of UCMR5. For a copy of the results, please call Rebekah Sorensen at (530) 877-4971. Shown below are the contaminants which were sampled for; all of the chemicals were non-detect. Samples were taken at the PID Treatment Plant as well as at the district's well.

25 PFAS: EPA METHOD 533

CONTAMINANTS SAMPLED FOR	MRL* (µg/L)**	ADDITIONAL INFORMATION
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	0.005 µg/L	PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications including: non-stick cookware, water-repellant clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water, and oil. PFAS are found in the blood of people and animals and in water, air, fish, and soil at locations across the United States and the world.
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	0.002 µg/L	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	0.003 µg/L	
hexafluoropropylene oxide dimer acid (HFPO DA)	0.005 µg/L	
nonafluoro-3,6-dioxaheptanoic acid (NF-DHA)	0.02 µg/L	
perfluorobutanoic acid (PFBA)	0.005 µg/L	
perfluorobutanesulfonic acid (PFBS)	0.003 µg/L	
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	0.005 µg/L	
perfluorodecanoic acid (PFDA)	0.003 µg/L	
perfluorododecanoic acid (PFDoA)	0.003 µg/L	
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	0.003 µg/L	
perfluoroheptanesulfonic acid (PFHpS)	0.003 µg/L	
perfluoroheptanoic acid (PFHpA)	0.003 µg/L	
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	0.003 µg/L	
perfluorohexanesulfonic acid (PFHxS)	0.003 µg/L	
perfluorohexanoic acid (PFHxA)	0.003 µg/L	
perfluoro-3-methoxypropanoic acid (PFM-PA)	0.004 µg/L	
perfluoro-4-methoxybutanoic acid (PFMBA)	0.003 µg/L	

25 PFAS: EPA METHOD 533

CONTAMINANTS SAMPLED FOR	MRL* (µg/L)**	ADDITIONAL INFORMATION
perfluorononanoic acid (PFNA)	0.004 µg/L	See informattion about PFAS at left table.
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	0.005 µg/L	
perfluorooctanesulfonic acid (PFOS)	0.004 µg/L	
perfluorooctanoic acid (PFOA)	0.004 µg/L	
perfluoropentanoic acid (PFPeA)	0.003 µg/L	
perfluoropentanesulfonic acid (PFPeS)	0.004 µg/L	
perfluoroundecanoic acid (PFUnA)	0.002 µg/L	

4 PFAS: EPA METHOD 537.1

CONTAMINANTS SAMPLED FOR	MRL* (µg/L)**	ADDITIONAL INFORMATION
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.005 µg/L	See informattion about PFAS at left table.
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.006 µg/L	
perfluorotetradecanoic acid (PFTA)	0.008 µg/L	
perfluorotridecanoic acid (PFTrDA)	0.007 µg/L	

METAL/ PHARMACEUTICAL: EPA METHOD 200.7: SM 3120 B (2017); 3120 B-99 (1999); ASTM**** D1976-20***

CONTAMINANTS SAMPLED FOR	MRL* (µg/L)**	ADDITIONAL INFORMATION
lithium	9 µg/L	Naturally occuring metal that may concentrate in brine waters; lithium salts are used as pharmaceuticals, used in electrochemical cells, batteries, and in organic syntheses.

* MRL: Minimum Reporting Level

** µg/l: microgram per liter = 1 part per billion

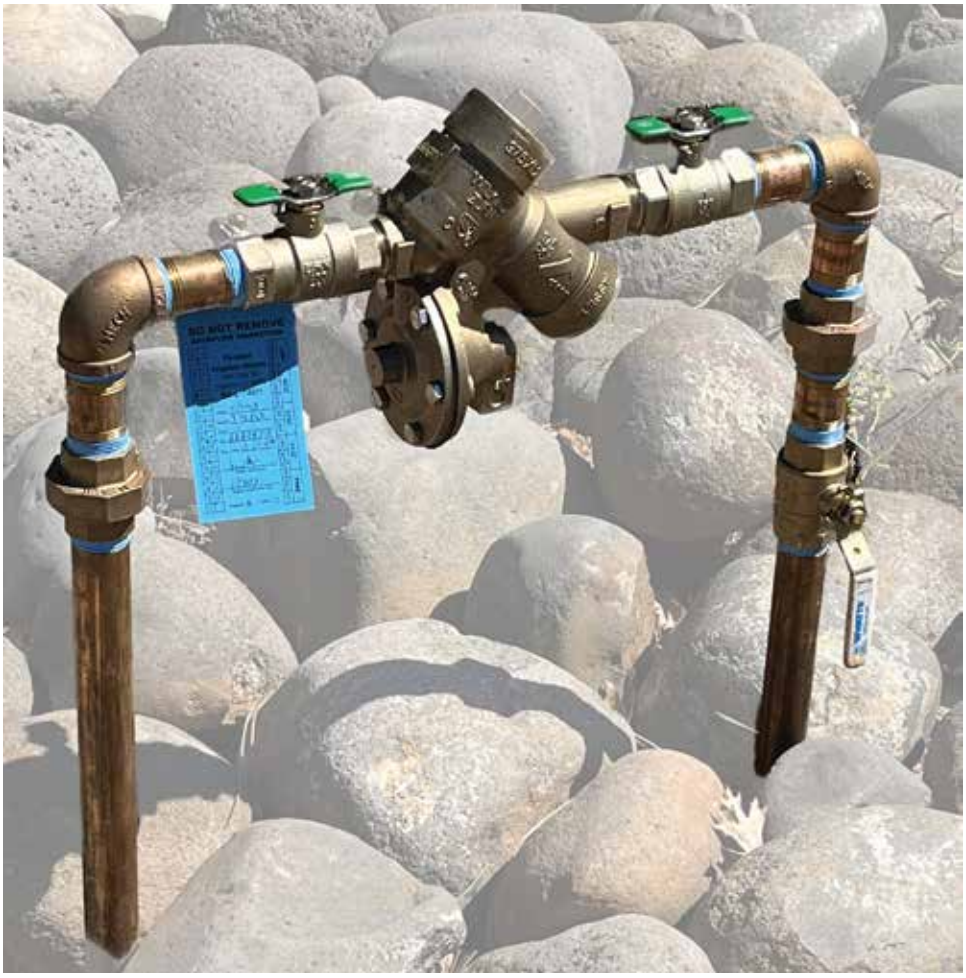
*** SM: Standard Methods

**** ASTM: ASTM International

Good news! All current samples for PFA's (UCMR5) were "non-detect" results. This includes samples from PID's Treatment Plant as well as the district well.

Backflow Device: Your Guide

(and what not to do!)



Your backflow keeps water moving in the right direction to keep our drinking water SAFE.

Your backflow device maintains pressure between PID's treated water distribution system and your home's plumbing to prevent any kind of debris or substance from returning into the water system.

All accounts receiving PID water are required to have a backflow device installed at the meter area. Customers can purchase their own device and maintain it (annual certification is required) or they can opt to have PID install and maintain the backflow device.

If you don't need PID water right now but will in the future, sign the PID maintenance form now to guarantee that FEMA will cover the cost of your backflow when you do need it. Call 530/877-4971 for details.

- Keep the area around the backflow and meter clear of plants and debris for PID access.
- Keep the frost bag on the device to prevent freezing.
- If desired, install a spigot or pressure regulator after the device's ball valve; you can then turn the ball valve off or on to serve your water needs.
- **Do NOT** turn off/on the green handles on the top. This will change the pressure settings and the device will need a full retest before re-establishing service.
- **Do NOT** unplug the metal account meter seals; if you need service, call PID at 530/877-4971
- **Do NOT** unplug the cable attached under the meter cover (it's the GPS unit that sends info to the district about your water use).

CUSTOMERS ARE FINANCIALLY LIABLE IF THEY ALTER THEIR BACKFLOW DEVICE.

Our water. Our future.

Paradise Irrigation District

Keep an eye on your water use this summer

Warm weather is definitely here and that means your landscaping is likely using more water than during the cooler months. Most PID customers are metered now and have returned to billing with "consumption" charges reflecting the amount of water used.

While consumption charges haven't increased since prior to the Camp Fire, to avoid water bill surprises with increased water use, download the Dropcountr app. The app is available for Android or Apple devices; the same data is also available online with computer access.

The data allows you to see when and how much water is used at your household so you aren't surprised with a higher-than-expected bill.

For Dropcountr download—and conservation tips—go to: PIDWater.com/dropcountr

Download Dropcountr app here

Inside...

Our water.
Our future.

Paradise Irrigation District

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Cedar Creek

Source Water Assessment available at PID office

PID's 2021 Source Water Assessment is a report of the area of influence around our listed "raw" water sources through which contaminants, if present, could reach our source water. It includes an inventory of potential sources of contamination within the area and a determination of the water supply's susceptibility to contamination by the identified potential sources including:

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.

The Source Water Assessment is also available at the State Water Resources Control Board Division of Drinking Water (Redding office): 364 Knollcrest Dr., Suite 101; Redding, CA 96002; (530) 224-4800

PID's water treatment process from start to your home:

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. 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 Paradise residents.

Health information for the medically-vulnerable

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those 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 treated 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.

Paradise Irrigation District is a special district governed by a local board of directors elected by community residents. You can get involved with PID's governance by attending PID Board of Director meetings; the regular meeting is held at 5:30 pm on the third Wednesday of each month at the district office, 6332 Clark Road, Paradise. You can also attend online using the Zoom link on this page: PIDWater.com/meetings Meeting agendas s are also posted on the same page.