PBMI Annual Water Quality Report

2022

PALA BAND OF MISSION INDIANS [PBMI] – 2022 CONSUMER CONFIDENCE REPORT

IN THIS ISSUE

How Do You Know Pala's Water Is Safe to Drink?

by Pala Environmental Department [**published: June 08, 2023**]

This report is a snapshot of your water quality. Every year, the Pala Band of Mission Indians provides their Annual Water Quality Report, with all of the previous year's data.

Included are details about:

- **WHERE** your water comes from,
- **WHAT** it contains
- **HOW** it compares to standards set by regulatory agencies.

Pala is committed to providing you with this information because informed customers are our best allies....and you have the right to know what you are drinking.

The US Environmental Protection Agency (USEPA) sets standards on the levels of each contaminant allowed in your drinking water. They also determine at what levels these contaminants may cause your water to be unsafe. The Pala Utilities Department (PUD) works very hard to make sure that your water meets these standards, and is ultimately safe for everyone to drink.

Some of the ways that Pala ensures the safety of your water includes:

- PUD chlorinates the water and maintains the wells, storage tanks, pipelines, and distribution systems.
- Pala Environmental Department (PED) staff helps test the water quality every month to make sure that the water is free from harmful bacteria & other contaminants.

Finally, Pala Environmental Department makes sure that our water complies with all Federal USEPA laws & regulations. Our staff have also done a number of different reports to protect our groundwater source:

- Source Water Assessment Report & Protection Plan
- Pala Water Conservation Guidelines
- Pala Well & Septic System Guidelines

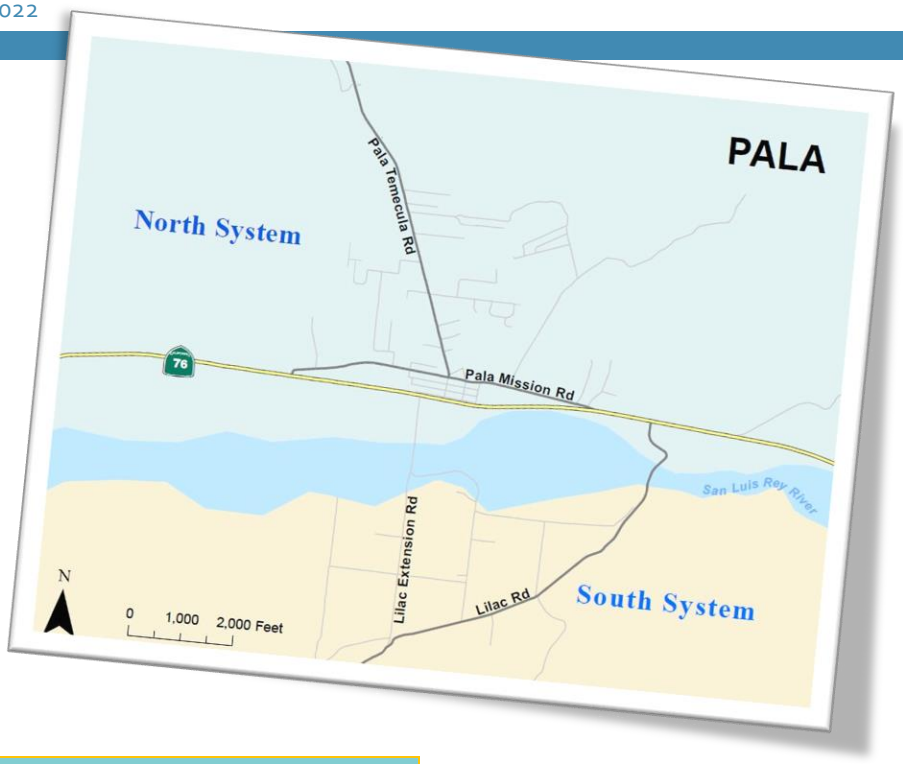
So, let's learn about the quality of your water in these easy-to-read charts. Pala Environmental Department is happy to share our 2022 Drinking Water Quality Report with you, which complies with the Safe Drinking Water Act (SDWA).

Where Does My Water Come From?

Pala's drinking water comes from groundwater pulled from the Pala Groundwater Basin. This basin lies directly underneath the San Luis Rey River & the Pala village area. It is replenished by rain events & surface water flows from local creeks and rivers. During our current drought, it is very important to conserve our groundwater resources, since we have not had the rains that would normally fill the basin up.

Pala's two different water distribution systems are separated by the San Luis Rey River, which flows east to west through the center of the reservation. All residents living north of the SLR River, belong to the NORTH Public Water System. There are 4 wells in this system, which pull water up from the groundwater basin, and stores it in large storage tanks. All water is treated with chlorine to kill any bacteria and gravity-fed down from the storage tanks to your tap.

All residents living south of the SLR River, belong to the South Public Water System, which is fed by 4 wells.



PALA NORTH WATER SYSTEM

- All residents & Pala Casino Patrons/Employees living NORTH of the San Luis Rey River
- 4 wells
- NORTH PWS ID# 0605153

PALA SOUTH WATER SYSTEM

- All residents living SOUTH of the San Luis Rey River
- 4 wells
- SOUTH PWS ID# 0600144

Do I Need To Take Special Precautions?

IF you would like to learn more about drinking water contaminants & potential health effects, you can call:

US EPA's Safe Drinking Water Hotline (800-426-4791)

All drinking water from the tap, and even bottled water, is expected to contain at least a small amount of certain contaminants. This does not automatically mean that the water is unsafe to drink.

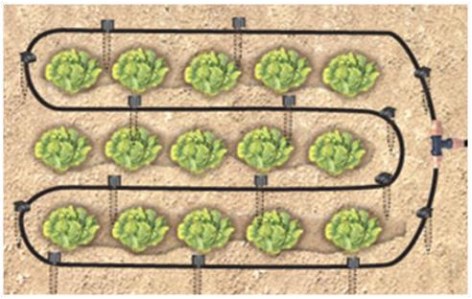
However, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can all be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers. The US Environmental Protection Agency (US EPA) and the Centers for Disease Control (CDC) have guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants, which are all available from the Safe Drinking Water Hotline (800-426-4791).

WATER CONSERVATION FACTS

Water-Wise Landscaping

By reducing the amount of water-thirsty grass in your yard, and replacing it with water-wise landscaping, you can reduce the amount of water you use, AND help bring in hummingbirds & butterflies to your yard.



Drip Irrigation

Drip Irrigation is a great way to save water. Not only does it reduce outdoor water use by only watering plants where they need it, it is also easier to manage than traditional landscaping irrigation practices.

DROUGHT FACTS

Less than 1%

Of water on Planet Earth can be used by people
[source: US EPA Water Sense website]

200 gallons/day

If your toilet has a leak, this is how much water you could be wasting every day – that's like flushing 50 times a day! *[source: US EPA Water Sense website]*

FOR MORE INFORMATION

Want to learn more about how to conserve? Check out this local San Diego County resource.

http://www.watersmartsd.org/

Contaminants can be found in all types of water, which is why we test our water. Often, those contaminant levels are lower than what might be harmful for you.

Why Are There Contaminants In My Drinking Water?

Drinking water, as well as 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 & potential health effects can be obtained by calling the US Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).

The sources of drinking water (both tap & bottled water) include: rivers, lakes, streams, ponds, reservoirs, springs, and groundwater. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or human activity, including:

Microbial Contaminants	•viruses & bacteria •source: sewage treatment plants, septic systems, agricultural livestock operations, wildlife
Organic Chemical Contaminants	•synthetic & volatile organic chemicals (VOC's) •source: by-products of industrial processes & petroleum production; gas stations, urban stormwater runoff, & septic systems
Inorganic Contaminants	•salts & metals •source: naturally occuring or from urban stormwater, industrial or domestic wastewater, oil & gas production, mining, farming
Pesticides & Herbicides	•source: agriculture, urban stormwater runoff, residential uses
Radioactive Contaminants	•source: naturally occuring or the result of oil & gas production, mining activities

In order to ensure that tap water is safe to drink, the USEPA sets regulations that limit the amount of certain contaminants in water provided by Public Water Systems. Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Pala's Water Quality Tables

The tables on the next few pages list all of the drinking water contaminants detected during the 2020 calendar year. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables are from testing done in the calendar year of the report. The US EPA requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Results for the NORTH PUBLIC WATER SYSTEM are in **BLUE**. Results for the SOUTH PUBLIC WATER SYSTEM are in **YELLOW**.

	Sampling Requirements	Sampling Conducted *(months)*	Total E.Coli Positives	Assessment Triggers	Assessments Conducted	Typical Sources in Drinking Water
Microbiological Contaminants						**tested in 2022**
North PWS# 0605153	15 samples / monthly	12 out of 12	0	0	0	(total coliform) naturally present in the environment; (fecal coliform/e.coli) human & animal waste
South PWS# 0600144	2 samples / monthly	12 out of 12	0	0	0	

We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called **assessments** and potentially the issuance of public health advisories. **Assessments** could lead to required corrective actions. The information above summarizes the results of those tests.

Units: ppm = parts per million, or milligrams per liter (mg/L) **N/A** = Not Applicable
Units: ppb = parts per billion, or microgram per liter (ug/L) **ND** = Not Detected
TT = Treatment Technique: required process intended to reduce the level of a contaminant in drinking water

A NOTE ON MICROBIOLOGICAL CONTAMINANTS / COLIFORM DATA

Coliforms are bacteria that are naturally present in the environment & are used as an indicator that other (potentially harmful) waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. Coliforms were found, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we conduct a Level 1 Assessment.

Positive samples = positive samples/year: the # of positive coliform samples taken that year.

Positive test results could lead to follow-up investigations, called **Assessments**.

Assessment Triggers = the number of Assessment Reports / Public Health Advisories conducted this year.

	Violation	Units	MCL Goal (MCLG)	Maximum Contaminant Level (MCL)	North PWS# 0605153		South PWS# 0600144		Typical Sources in Drinking Water
					Your Water	Range	Your Water	Range	
Disinfectants									**tested in 2022**
Chlorine	No	ppm	4	4	**0.669**	0.02 - 1.9	**0.444**	0.08 - 2.1	Drinking water additive used for disinfection
Disinfection By-Products									**tested in 2022**
5 Haloacetic Acids (HAA5s)	No	ppb	n/a	60	**ND**	n/a	**ND**	n/a	by-product of drinking water chlorination
Total Trihalomethanes (TTHMs)	No	ppb	n/a	80	**9.1**	n/a	**11**	n/a	

A NOTE ON DISINFECTION BY-PRODUCTS

Chlorine was first used to treat drinking water in 1850 (to counter a cholera epidemic in London), and is still the most widely used treatment technique to remove waterborne diseases. It can sometimes react within the distribution network, forming disinfection by-products, which is why we monitor this parameter at community households every year.

Inorganics & Radiological Contaminants

During 2022, Pala Utilities Department sampled for inorganic and radiological contaminants, as required by the Safe Drinking Water Act (SDWA), on an annual basis. The items listed below are just a few of the items sampled. Sampling requirements are determined by the USEPA.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

	Violation	Units	MCL Goal (MCLG)	Maximum Contaminant Level (MCL)	North PWS# 0605153		South PWS# 0600144		Typical Sources in Drinking Water
					Your Water	Range	Your Water	Range	
Inorganics									tested in 2018 & 2022
Barium	No	ppm	2	2	**0.053**	0.036 - 0.053	**0.04**	0.019-0.04	Discharge of oil drilling wastes & metal refineries; erosion of natural deposits
Fluoride	No	ppm	4	4	**0.38**	ND - 0.38	**0.22**	0.21 - 0.22	Erosion of natural deposits; water additivie which promoties strong teeth; discharge from fertilizer & aluminum factories
Nitrate (as Nitrogen)	No	ppm	10	10	**8.4**	2.9 - 8.4	**2.2**	2.1 - 2.2	runoff/leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	No	ppb	50	50	**3.5**	ND-3.5	**8.4**	4.8 - 8.4	Discharge - petroleum, glass, metal refineries; natural deposit erosion; discharge - mines/chemical manufacturers; runoff
Sodium	n/a	ppm	n/a	n/a	**90**	52 - 90	**46**	n/a	Erosion of natural deposits; salt water intrusion
Radiological Contaminants									tested in 2017
Adjusted Gross Alpha (excl. radon/uranium)	No	pCi/L	0	15	**6.21**	ND - 6.21	**1.2**	0.54 - 1.87	erosion of natural deposits
Uranium *(combined)*	No	ppb	0	30	**6.3**	ND - 6.25	**1.8**	ND - 1.78	

Units: ppm = parts per million, or milligrams per liter (mg/L)
Units: ppb = parts per billion, or microgram per liter (ug/L)
Units: pCi/L = picoCuries per liter (pCi/L)(unit of radioactivity)

N/A = Not Applicable
ND = Not Detected
NR = Monitoring not required, but recommended

DEFINITIONS

MCL = Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 allow for a margin of safety.

Waterwise Landscapes
- use native & low-water plants
- use drip irrigation & water early in the am

Fix ALL leaks
- toilets, faucets, showerheads
- check for outdoor leaks & hoses

Energy Star Appliances
- EnergyStar uses less water & less energy
- dishwasher, washing machine, showerheads

For more WATER CONSERVATION TIPS...

See Planet Pala's FB or Instagram page, or visit the Pala Environmental Office

Creating a Low-Water Garden

Creating a Waterwise Garden

	Goal	How to Achieve Your Goal
Healthy Soil	Goal: Create Healthy Soils	Step-by-Step Guide
	Soil with good bugs & lots of nutrients	Test your soil to see what nutrients you might be missing (so you can add them)
	Soil with air circulation & room for deep roots	Till your soil to a depth of 6" to break up compacted soil
	Soil that can hold moisture	Add organic materials, compost, & shredded leaves after tilling it
	Correct balance of nutrients	Add soil amendments & missing nutrients (eg: bat gauna, seaweed, etc)
Plants	Goal: Finding the Right Plants	Step-by-Step Guide
	Use plants native to our area	These plants are disease-resistent & attract all of our local pollinators
	Use low-water plants	These are colorful, attract wildlife, & don't take a lot of water or maintenance
	Create interesting looking landscapes	Mixing succulents & flowers/grasses can add interest & movement in your yard
	Consider the size of the plants & their watering needs	Mixing together plants of all different sizes can create visual interest
	Plant trees to shade the hottest parts of your house & your air conditioner	Plant trees along west/northwest to provide mid-afternoon shade
Irrigation	Goal: Setting Up Your Irrigation	Step-by-Step Guide
	Use	Use drip irrigation
	Don't overwater your landscape	Arrange plants with similar water needs together on the same waterline
	Turn OFF irrigation when it rains	Use an automated irrigation system with real-time weather sensors
	No surface runoff to roads/walkways	Consider breaking up your watering schedule to allow water to soak in
	Don't waste water	Fix any wayward sprinklers. Water in the early morning
Maintenance	Goal: Maintaining Your Garden	Step-by-Step Guide
	Reduce Weeds	Put down 3-5" of mulch; replenish yearly
	Rain water harvesting - use more of Mother Nature's free water	Rain Barrels/Cisterns, Rain Gardens
	Keep plants blooming longer	Deadhead (cut off dead blooms) & pruning will keep your plant blooming
	Check your irrigation yearly	Check for leaks & fix promptly
	Designate Your Garden a Certified Wildlife Habitat	https://www.nwf.org/Garden-for-Wildlife/Certify

Lead & Copper

Are you concerned about lead and copper in your 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. Public Water Systems are responsible for providing high quality drinking water, but they 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 – 2 minutes before using water for drinking or cooking. Here are the results for Pala's most recent Lead & Copper sampling, in summer 2022. We had no violations for Lead and Copper in our drinking water. If you are interested in having your home tested during our next round of Lead & Copper sampling, contact the Pala Environmental Department office to get on our list (760-891-3510).

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, & steps you can take to minimize exposure is available from the USEPA Safe Drinking Water Hotline at 1-800-426-4791 or http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water

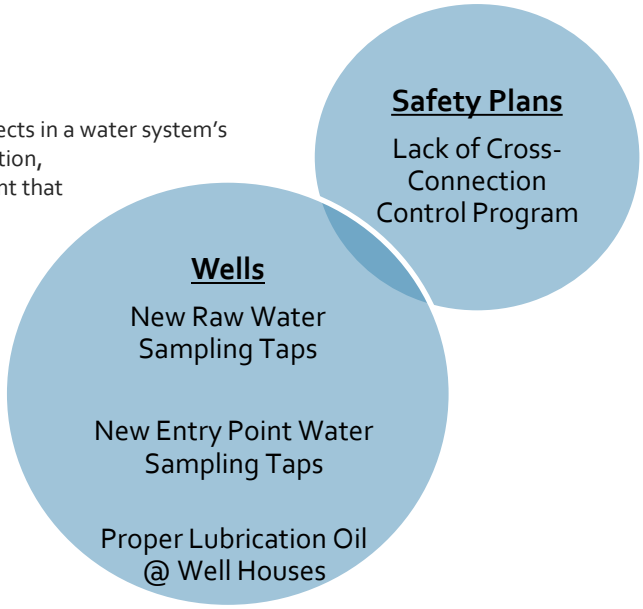
	Violation	Units	MCL Goal (MCLG)	Action Level (AL)	North PWS# 0605153		South PWS# 0600144		Typical Sources in Drinking Water
					Your Water	Range	Your Water	Range	
Lead & Copper Rule (90th Percentile)									tested in 2021 & 2022
Lead	No	ppb	0	15	**0**	0 sites over Action Level	**0**	0 sites over Action Level	corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	No	ppm	1.3	1.3	**0.81**	1 site over Action Level	**0.455**	0 sites over Action Level	

Definition: ***AL = Action Level:*** *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*

Significant Deficiencies

Sanitary deficiencies are defects in a water system's infrastructure, design, operation, maintenance, or management that cause, or may cause interruptions to the "multiple barrier" protection system and adversely affect the system's ability to produce safe and reliable drinking water in adequate quantities. The following is a listing of significant deficiencies that have yet to be corrected. Your public water system is still working correct these deficiencies and interim milestones are shown, as applicable.

See full list of deficiencies/interim milestones can be found on the PED website. http://ped.palatribe.com/documents/



Unregulated Contaminant Monitoring Rule

	Violation	Units	MCL Goal (MCLG)	Maximum Contaminant Level (MCL)	North PWS# 0605153	South PWS# 0600144	Typical Sources in Drinking Water
					Result [Range]	Range	
Unregulated Contaminants Monitored (UCMR3 List)							tested in 2021
HAA5	No	ppb	*Maximum Containment Levels & Goals have not yet been set for these contaminants. Setting these levels will be the outcome of the UCMR program.*		4.34 [2.18 - 4.34]	sampling not required for the South PWS.	
HAA6 Br	No	ppb			5.77 [3.01 - 5.77]		
HAA9	No	ppb			6.7 [3.49 - 6.7]		

Do you want to have your home tested in 2023 for Lead & Copper?

Do you live on the Pala Reservation? Please contact the Pala Environmental Department (PED) to see if your home qualifies to get tested.

- contact: Heidi Brow, PED (760) 891-3514 hbrow@PalaTribe.com

Aerial View of Pala, early 20th Century

	Contaminant Name	Type of Violation	Begin/End Date	Steps Taken to Correct Violation	Return to Compliance	Other Questions
Public Notice for Monitoring/Reporting & Other Violations						
North PWS# 0605153	Nitrate [reported as Nitrogen]	Major monitoring/reporting violation for routine chemical monitoring	**1/1/2022 - 3/31/2022**	Reporting monitoring results as required	YES, done 4/18/2022	What should I do as a consumer? There is nothing you need to do at this time. What is being done by the utility? We'll work with USEPA to conduct all required monitoring as directed.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the period covered by this report, we didn't complete all monitoring/testing for the contaminants listed above, and therefore cannot be sure of the quality of your drinking water during that time. Violations which have not been returned to compliance will be repeated annually. The table lists the contaminants we didn't properly test for during the report period.

FOR MORE INFORMATION *(OR TRANSLATED REPORT IN ANOTHER LANGUAGE)*

For more information, contact the Heidi Brow / **Pala Environmental Department** [35008 Pala Temecula Road, PMB 50, Pala, CA 92059][fax: 760-742-3189].

HBROW@PALATRIBE.COM
760-891-3514

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