2024
Consumer Confidence Report

NTC Fort Irwin, CA
PWD ID# 3610705

Prepared June 2025

2024 NTC Fort Irwin Water Quality

Fort Irwin remains dedicated to ensuring a safe and dependable drinking water supply for its community. From January 1 to December 31, 2024, the installation conducted routine water monitoring in full compliance with federal and state regulations. Over the year, more than 10,821 tests were performed on 96 different contaminants, confirming that the water met all U.S. EPA and California State drinking water health standards. Due to the stability of certain contaminant levels, the state permits less frequent monitoring for specific substances. While some data in the report is more than a year old, it remains representative of current water quality conditions.

It is important that the customers be informed about the water quality on the installation.

MUY IMPORTANTE

Este informe contiene informacion muy importante sobre su agua potable.

Traduzcalo 'o hable con alguien que lo entienda bien.

If you have questions concerning this report contact:

Environmental Division
P.O. Box 105085
Fort Irwin, CA 92310-5085
Phone: 760-380-3737

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General Information on Drinking Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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.

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 the water poses a health risk. To understand the risk of possible health effects described for regulated contaminants, a person would have to drink 2 liters of water every day at the Maximum Contamination Level (MCL) during a lifetime, to have a one-in-a-million chance of having the described health issues.

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. U.S. EPA/Centers for Disease Control (CDC) have guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants.

Guidelines are available from the Safe Drinking Water Hotline (1-800-426-4791) or at their web site www.epa.gov/safewater/

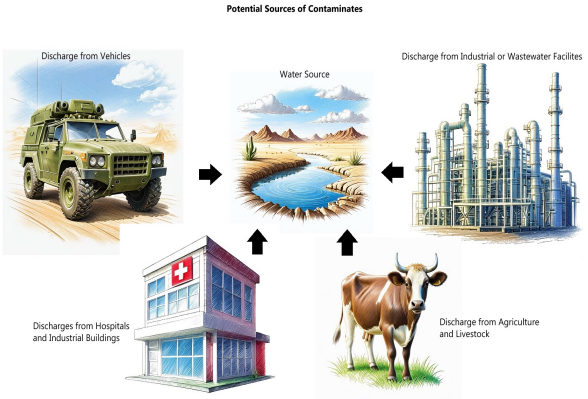
Terms Used in This Report

- **Disinfection Byproducts** - Results from adding chlorine to the water to kill or suppress bacteria and other harmful organics. When chlorine is added it reacts with the organic material forming byproducts that the USEPA and CA DDW believe are harmful.
- **Maximum Contaminant Level (MCL)** - 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.
- **Maximum Contaminant Level Goal (MCLG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's are set by the U.S. Environmental Protection Agency (USEPA).
- **Non-Detects (ND)** - Laboratory analysis indicates that the constituent is not present at or above the minimum detection limit for the analytical method.
- **Nephelometric Turbidity Unit (NTC)** - Nephelometric turbidity units are a measure of the clarity of water. Turbidity in excess of NTU is just barely noticeable to the average person.
- **Parts per billion (ppb) or Micrograms per liter (µg/L)** - One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- **Parts per million (ppm) or Milligrams per liter (mg/L)** - One part per million corresponds to one minute in two years, or a single penny in $10,000.
- **Primary Drinking Water Standards (PDWS)**- MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements.
- **Public Health Goal (PHG)** - 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.
- **Regulatory Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Secondary Maximum Contamination Levels (SMCL) -** guidelines for aesthetic considerations in drinking water such as taste, color and odor. Contaminates with a SMCL do not present a health risk.

Source of Contaminants

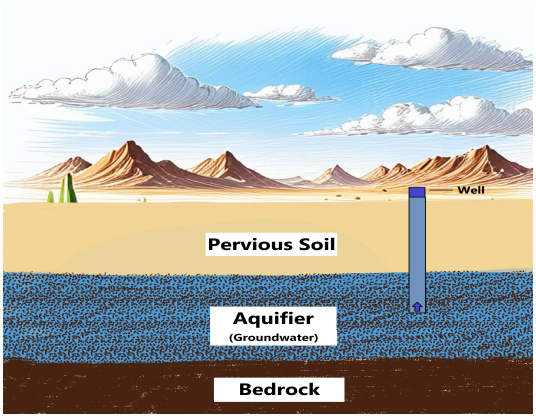
Source of drinking water (both tap water and bottled water), include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

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



Fort Irwins Water Source

Fort Irwin's water supply comes from groundwater drawn from three key aquifers: Bike Lake Basin, Langford Lake Basin, and Irwin Basin. Two of these sources are located roughly two miles northeast and southeast of cantonment, while the third lies directly beneath it. Last year, approximately 600 million gallons of raw water were extracted from these aquifers to support operations and daily needs.



In 2017, the U.S. Geological Survey (USGS) conducted an assessment of groundwater hydrology and water quality in the Irwin Basin at Fort Irwin.

"**Ground Water Hydrology and Water Quality of Irwin Basin at Fort Irwin and the National training Center, California**"- Assessed by US Geological Survey Information Services Center, California.

Mailing Address:
USGS-IS
PO Box 25286
Federal Center, Denver, CO 80255
Email: pubswarehouse@usgs.gov

Irwin Basin assessment viewing location: The Drinking Water Division-District 13
464 West 4th Street, Suite 437
San Bernardino, CA 92401

Request a assessment summary contact:
DDW District Engineer- 1(909) 383-4328

Source water assessments for Langford Lake and Bicycle Lake are not available.

Water Treatment

Fort Irwin is committed to providing a safe and reliable supply of drinking water to its customers. In 2016, the Irwin Water Works (IWW) treatment facility was constructed to enhance the treatment of Fort Irwin's groundwater and efficiently serve an estimated population of 16,000 people. The facility processes between 2 million and 2.5 million gallons of water per day, ensuring compliance with federal and state regulations by effectively removing contaminants.

System Improvements

Irwin Water Works (IWW) plays a crucial role in conserving resources, saving over 280 million gallons of water each year while delivering superior water quality compared to the previous facility. Fort Irwin remains committed to improving its system, continuously refining treatment processes to maximize efficiency and recover more valuable water. One key initiative involves collaborating with the United States Geological Survey (USGS) to explore additional potential water sources, ensuring long-term sustainability for the installation.

Water Conservation

Water conservation at the National Training Center Fort Irwin is essential for sustaining army operations and preserving resources. The installation relies heavily on aquifers, pumping out more water than is naturally replenished through rainfall each year. This ongoing overdraft gradually poses a long-term risk to the water supply. Alternative solutions to meet Fort Irwin's needs would come at a significant financial cost. Implementing efficient water-saving practices can help extend the available supply, ensuring the installation's continued viability. See suggestions below:

Shorten your shower time. Cut back your shower time to five minutes.

Don't pre-rinse your dishes. Most dishwashers do not require pre-rinsing.

Only wash full loads of laundry. Full loads of laundry use less water and conserves energy.

Reuse clean household water. Use wasted running faucet water and water outside plants.

Turn the water off. Turn faucets off while in the process of brushing teeth, shaving or washing dishes.

Use recycled water car wash. Fort Irwins car wash recycles its water. Use a auto shut off water nozzle when washing cars at home.

http://www.epa.gov/watersense

Report Water Leaks

If you need to report a water leak or any water-related issue at Fort Irwin, you can contact the appropriate departments:
Water/leaks found outside: **(760) 386-7906**, Jacobs (CH2MHILL).
Indoor leaks in Housing: **(855) 646-6420**, Residential Communities Initiative (RCI).
Indoor leaks in Cantonment: **(760) 386-3539**, https://armymaintenance.com/arma, High Desert Support Services.

Cross Connection Program

Fort Irwin's Cross Connection Program plays a vital role in safeguarding the installation's water supply from contamination caused by backflow. This initiative helps ensure that drinking water remains safe and free from pollutants. Cross connections occur when potable water systems come into direct contact with non-drinkable liquids or gases, creating potential hazards. Backflow, the unintended reversal of water flow, can introduce contaminants into the clean water supply. By taking steps to control cross connections and prevent backflow, individuals contribute to maintaining a reliable and protected water system at Fort Irwin.

Most common cross connections occure with the everyday garden hose:

- Forcing it into a clogged gutter, downspout, or sewer pipe to flush out the clog.
- Connecting it directly to a hose-end sprayer to apply pesticide or fertilizer.
- Connecting it to a soap-and-brush attachment to wash your car, boat, or siding.
- Letting the end of the hose lie in a puddle or pool of water on the ground.

There are two inexpensive ways to prevent these cross connections:

- Make sure that the end of your garden hose is never submerged in or connected to a non-potable substance.
- Install a hose bib vacuum breaker on each of your outside faucets.

For more information on preventing cross connections, reach out to DPW-Environmental at 1-760-380-3737. They can provide guidance on safeguarding Fort Irwin's water supply and ensuring safe drinking water for the community.

2024 Monitoring Results

The monitoring results provide an overview of Fort Irwin's water quality and current conditions. The following tables represent the drinking water quality supplied today.

Microbial Monitoring

Weekly microbial monitoring at Fort Irwin ensures the safety and quality of the drinking water. This process uses coliform bacteria as a key indicator for microbial contaminants due to its widespread presence in the environment, resilience compared to other bacteria, and ease of detection. The results from these tests are compiled in Table 1.

Table 1: Microbial Monitoring

Analyte	Unit	Drinking Water		Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
		Highest Number of Positive Results	Number of Months Exceeding MCL			
Total Coliform Bacteria	Positive Samples per month	0*	0	More than 1 positive sample in a month	No Positive	Naturally present in the environment

Table 1 Analyte Notes:

*Results show no positive samples for coliform for calendar year 2024.

Lead and Copper

Fort Irwin conducts lead and copper testing at selected taps throughout its water system to assess the water's corrosiveness, and potential lead and copper leaching. These elements can leach from plumbing inside buildings, particularly in older infrastructure. The results of this monitoring are documented in Table 2, where the 90th percentile level should be compared to the Action Level to determine whether concentrations remain within safe regulatory limits.

Table 2: Lead and Copper Monitoring

Analyte	Unit	Drinking Water			Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
		Detected	90% Level*	Sites Tested			
Lead (ppb)	µg/L	1.8	1	31	AL** = 15	2	Internal corrosion of household water plumbing systems
Copper (Cu)	mg/L	0.019	0.015	31	AL** = 1.3	0.17	

Table 2 Analyte Notes:

* 90% or more of the monitoring results were below this result.

** AL or regulatory action level is set by the California DDW. If exceeded, preventive treatment is required, equivalent to an MCL.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Regulated and Non-Regulated Contaminants

Each year, Fort Irwin conducts testing of regulated contaminants in its drinking water to ensure compliance with the standards set by the state and EPA. Beyond required testing we also test for unregulated contaminants to provide the best water possible. The results of this monitoring are documented on Tables 3 - 5 on the next pages. When reviewing the tables pay attention to the Maximum Contaminant Level (MCL) column and range detection column for comparing.

Table 3: Regulated Contaminants						
Analyte	Unit	Range Detected	Average	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
EPA and State Regulated						
Arsenic (As)*	µg/L	2.0 – 7.1	2.9	10	0.004	Erosion of the natural occurring deposits
Boron (B)** No MCL, State Notification Level (NL)	µg/L	760 – 870	823.3	N/A	1000 (NL)	Erosion of naturally occurring deposits
Chromium VI: Hex Chromium (Cr), Sampled from Source Water	µg/L	0.91 – 6.1	3.8	10	0.02	Erosion of naturally occurring deposits
Fluoride (F)***	mg/L	0.86 -1.8	1.3	2.0	1	Erosion of naturally occurring deposits can promote strong teeth
Haloacetic Acids (HAA5)	µg/L	4.9	4.9	60	N/A	Byproduct of drinking water disinfection
Dibromoacetic Acid	µg/L	1.8 – 2.8	2.3	" "	N/A	Part of HAA5
Dichloroacetic Acid	µg/L	1.2	1.2	" "	0	Part of HAA5
Monobromoacetic Acid	µg/L	ND	ND	" "	N/A	Part of HAA5
Monochloroacetic Acid	µg/L	ND	ND	" "	70	Part of HAA5
Trichloroacetic Acid	µg/L	ND	ND	" "	20	Part of HAA5
Nitrate (NO_3) as N Sampled from Source Water	mg/L	1.3 – 5.0	3.4	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewer systems; erosion of natural deposits
Total Trihalomethanes (TTHM)	µg/L	14 – 51	27.7	80	N/A	Disinfection byproducts
Bromodichloromethane	µg/L	0.61 – 3.3	2.2	" "	N/A	Part of TTHM
Bromoform	µg/L	9 – 34	18	" "	N/A	Part of TTHM
Chloroform	µg/L	0.5 – 1.5	0.97	" "	N/A	Part of TTHM
Dibromochloromethane	µg/L	2.5 – 12	6.9	" "	N/A	Part of TTHM

Table 3 Analyte Notes:

* While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

** The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

*** Some people who drink water containing fluoride in excess of the Federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the State MCL of 2 mg/L may get mottled teeth.

Table 4: Non-Regulated Contaminants						
Analyte	Unit	Range Detected	Average	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
EPA and State Non-Regulated						
Alkalinity, Total Sampled from Source Water	mg/L as CaCO3	62 – 160	87.5	N/A	N/A	Erosion of natural occurring deposits
Bicarbonate (HCO_3) Sampled from Source Water	mg/L as CaCO3	35 – 100	84	N/A	N/A	Part of Alkalinity
Carbonate (CO_3) Sampled from Source Water	mg/L as CaCO3	5.1 – 37	13.8	N/A	N/A	Part of Alkalinity
Ammonia as N	mg/L	ND – 1.6*10*	0.08*10*	N/A	N/A	Erosion of natural occurring deposits
Calcium (Ca) Sampled from Source Water	mg/L	12 – 45	17.9	N/A	N/A	Erosion of the natural occurring deposits
Hardness, Total Sampled from Source Water	mg/L as CaCO3	31 – 140	50.2	N/A	N/A	The sum of polyvalent cations, generally magnesium and calcium. Usually naturally occurring.
Silica, Total Sampled from Source Water	mg/L	20 – 88	57.6	N/A	N/A	Erosion of natural occurring deposits, interferes with treatment
Total Suspended Solids	mg/L	110 – 2,200*17*	1,155*17*	N/A	N/A	Measure of filterable solids, generally interferes with treatment.

Table 4 Analyte Notes:

Italicized numbers indicate the year the data is from i.e. (*10* for 2010, *17* for 2017).

Table 5: Regulated Secondary Maximum Contaminants						
Analyte	Unit	Range Detected	Average	Secondary Maximum Contaminant Level (SMCL)	PHGS and MCLGs	Source of Contamination
Water Quality (Regulated, SMCLs)						
Chloride (Cl) Sampled from Source Water	mg/L	53 – 290	95.4	250	N/A	Erosion of the natural occurring deposits
Color (Apparent) Sampled from Source Water	Color Units	< 15 – 25	25	15	N/A	Erosion of the natural occurring deposits
Iron (Fe) Sampled from Source Water	ppb	230 -1,500	ND	300	N/A	Erosion of the natural occurring deposits

Table 5 Analyte Notes:

Secondary Maximum Contaminates do not have PHGs or MCLGs, because secondary MCLs are set to protect the aesthetics of water. PHGs and MCLGs are based on health concerns.

Table 5: Regulated Secondary Maximum Contaminants (Conti.)						
Analyte	Unit	Range Detected	Average	Secondary Maximum Contaminant Level (SMCL)	PHGS and MCLGs	Source of Contamination
Water Quality (Regulated, SMCLs)						
Odor Sampled from Source Water	Thresh-hold Odor Number	< 3 – 15	4.3	3	N/A	Erosion of the natural occurring deposits "Rotten Egg," Smell.
pH Sampled from Source Water	pH Units	7.8 – 8.9	8.2	N/A	N/A	Low pH: bitter metallic taste; corrosion High pH: slippery feel; soda taste; deposits
Sodium (Na) Sampled from Source Water	mg/L	120 – 190	144	N/A	N/A	"Sodium" refers to the salt in the water and is generally naturally occuring
Specific Conductance	mg/L	180 - 230	197.7	1600	N/A	Substances that form ions when in water
Sulfate (SO_4) Sampled from Source Water	mg/L	86 - 170	135.1	250	N/A	Erosion of the natural occurring deposits
Total Dissolved Solids	mg/L	130 - 160	144.7	1000	N/A	Runoff/leaching from natural deposits
Turbidity	NTU	0.1 - 3.3	0.35	5	N/A	Soil Runoff

Table 5 Analyte Notes:

Secondary Maximum Contaminates do not have PHGs or MCLGs, because SMCLs are set to protect the aesthetics of water. PHGs and MCLGs are based on health concerns.

For more information contact:

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