

## 2012 Consumer Confidence Report

**Water System Name:** Naval Air Facility (NAF) El Centro **Report Date:** June 2013

*We test the drinking water quality for many constituents as required by State and Federal Regulations. This report shows the results of our monitoring for the period of January 1- December 31, 2012.*

**Este reporte contiene informacion importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.**

**Type of water source(s) in use:** Colorado River Surface Water

**Name and location of source(s):** The Imperial Irrigation District (I.I.D.) supplies NAF El Centro with raw water via the All American Canal and Central Main Canal, through the Elder Canal near NAF El Centro Gate 104B.

**Drinking Water Source Assessment information:** NAF El Centro inspects regularly the source water to ensure that raw water coming into the treatment plant continues to be safe. A copy of this source water assessment completed in 2003 may be viewed at: Office of Drinking Water, 1350 Front Street, Room 2050, San Diego, CA 92101. You may request a summary of the assessment be sent to you by contacting the California Department of Public Health at (619) 525-4922. This source is considered most vulnerable to these activities, for which no associated contaminant has been detected: concentrated animal feeding operations, agricultural activities such as pesticide use and farm chemical distribution, mining, geothermal wells, landfills/dumps, and illegal dumping.

**Time and place of regularly scheduled board meetings for public participation:** For additional information about your water or any scheduled meetings for public participation contact Mr. Bill Kagele, Water Program Manager, at (760) 339-2532.

### **TERMS USED IN THIS REPORT:**

**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. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG):** 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 (USEPA).

**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.

**Maximum Residual Disinfectant Level (MRDL):** 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.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of 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.

**Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**TERMS USED IN THIS REPORT (Continued):**

**Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

**Variations and Exceptions:** Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**Running Annual Average:** is the arithmetic average of results calculated at the end of every quarter for the previous consecutive four-quarter period.

**N/A:** not applicable

**ND:** not detectable at testing limit.

**ppm:** parts per million or milligrams per liter (mg/L).

**ppb:** parts per billion or micrograms per liter (ug/L).

**ppt:** parts per trillion or nanograms per liter (ng/L).

**ppq:** parts per quadrillion or picograms per liter (pg/L)

**pCi/L:** picocuries per liter ( a measure of radiation)

**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.

**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 result from urban storm water 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 storm water runoff, and residual uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- *Radioactive contaminants* that 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**, the USEPA and the California Department of Drinking Water 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.

Tables 1, 2, 3, 4, 4A, 5, 5A, 6 and 7 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessary indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

<b>TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA</b>					
<b>Microbiological Contaminants</b>	<b>Highest Number of Detections</b>	<b>No. of months in violation</b>	<b>MCL</b>	<b>MCLG</b>	<b>Typical Sources of Bacteria</b>
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or E. Coli	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. Coli	0	Human and animal fecal waste

<b>TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER</b>						
<b>Lead and Copper</b>	<b>No. of samples collected August 2011</b>	<b>90<sup>th</sup> percentile level detected</b>	<b>No. sites exceeding AL</b>	<b>AL</b>	<b>PHG</b>	<b>Typical Source of Contaminant</b>
Lead (ppb)	10	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	14	ND	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

<b>TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS</b>						
<b>Chemical or Constituent</b>	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL</b>	<b>PHG (MCLG)</b>	<b>Typical Source of Contaminant</b>
Sodium (ppm)	2012	120	110-120	N/A	N/A	Generally found in ground and surface water
Hardness (ppm)	2012	320	240-320	N/A	N/A	Generally found in ground and surface water

<b>TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD</b>						
<b>Chemical or Constituent</b>	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL (MRDL)</b>	<b>PHG (MCLG) (MRDLG)</b>	<b>Typical Source of Contaminant</b>
Uranium (pCi/L)	2010	ND-2.0	2.0	20	0.43	Erosion of natural deposits
Arsenic (ppb)	2012	ND	ND	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	2012	0.6	0.4-0.6	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Perchlorate (ppb)	2012	ND	ND	6	6	Perchlorate is an inorganic rocket propellant, fireworks, explosives, flares, matches, and a variety of industries

<b>TABLE 4A – RUNNING ANNUAL AVERAGE ON SYSTEM WIDE BASIS TRIHALOMETHANES (TTHM)/HALOACETIC ACIDS (HAA5)</b>						
<b>TTHM (ppb)</b>	<b>1st Quarter 2012</b>	<b>2nd Quarter 2012</b>	<b>3rd Quarter 2012</b>	<b>4th Quarter 2012</b>	<b>MCL (MRDL)</b>	<b>Major Sources in Drinking Water</b>
Building 325	26.0/6.7	34.0/12.0	79.0/18.0	27.0/10.0	80.0/60.0	By-Product of drinking water disinfection
Building 227	33.0/9.5	37.0/13.0	43.0/11.0	47.0/13.0	80.0/60.0	
Building 504	65.0/7.2	41.0/13.0	73.0/16.0	36.0/12.0	80.0/60.0	
Building 529	49.0/7.8	47.0/14.0	75.0/16.0	43.0/12.0	80.0/60.0	
Building 436	34.0/9.5	36.0/11.0	40.0/9.6	38.0/12.0	80.0/60.0	
Quarterly Average	41.4/8.1	39.0/12.6	62.0/14.1	38.2/11.8	80.0/60.0	
Running Annual Average	43.2/7.0	41.0/8.0	43.2/9.3	45.2/11.7	80.0/60.0	

<b>TABLE 5 – DETECTION OF CONTAMINANTS WITH SECONDARY DRINKING WATER STANDARD</b>						
<b>Chemical or Constituent</b>	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL (MRDL)</b>	<b>PHG (MCLG) (MRDLG)</b>	<b>Typical Source of Contaminant</b>
Color (Units)	2012	5	ND-5	15	N/A	Naturally-occurring organic materials
Chloride (ppm)	2012	120	110-120	500	N/A	Runoff/leaching from natural deposits; seawater influence

**TABLE 5 (continued) – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) (MRDLG)	Typical Source of Contaminant
Manganese (ppb)	2012	ND	ND	50	N/A	Leaching from natural deposits
Sulfate (ppm)	2012	280	240-280	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2012	780	590-780	1000	N/A	Runoff/leaching from natural deposits
Specific Conductance (uS/cm)	2012	1200	1100-1200	1600	N/A	Substances that form ions when in water; seawater influence

**TABLE 5A - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
		Raw Water			Treated Water				
Aluminum (ppb)	3 quarterly samples in 2012	1200*	150-1200	12 monthly samples in 2012	220	62-220*	200	N/A	Erosion of natural deposits; residue from some surface water treatment processes
Iron (ppb)	3 quarterly samples in 2012	1300*	140-1300*	12 monthly samples in 2012	<100	ND-<100	300	N/A	Leaching from natural deposits; industrial wastes

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**VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT**

Violation	Explanation	Duration	Action Items to Correct the Violation	Health Effects Language	Aesthetic Effects
Aluminum Secondary Standard	Canals contained high levels of sediment. Our plant also adds an aluminum-based coagulant as part of the process. Most aluminum should have been filtered out during treatment.	2 out of 3 samples in 2012	System began monthly sampling of treated water to show that it is being removed below the secondary standard	N/A	Aluminum levels over the secondary standard may cause colored water
Iron Secondary Standard	Canals contained high levels of sediment. Most iron particles should have been filtered out during treatment.	2 out of 3 samples in 2012	System began monthly sampling of treated water to show that it is being removed below the secondary standard	N/A	Iron levels over the secondary standard may cause rusty color; sediment; metallic taste; reddish or orange staining

<b>TABLE 6 –SAMPLING RESULTS SHOWING TREATMENT LEVELS OF SURFACE WATER SOURCES</b>	
Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Dual-Media
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	<u>Turbidity of the filtered water must:</u> 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours while the plant is in operation. 3 – Not exceed 5.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard	100 %
Highest single turbidity measurement during the year	0.27
Number of violations of any surface water treatment requirements	N/A

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

<b>TABLE 7 – DETECTION OF CONTAMINANTS WITH NO MAXIMUM CONTAMINANT LEVELS</b>			
Chemical or Constituent	Sample Date	Level Detected	Notification Level
Boron (ppm)	2012	0.19	1.0
Chromium VI (ppb)	2012	0.095	N/A

#### **Additional General Information on Drinking Water**

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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). The website is <http://www.epa.gov/safewater/>.

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. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to decrease the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). The website is <http://www.epa.gov/safewater>.

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. The Naval Air Facility El Centro 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 thirty seconds to two 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 to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.