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# Mountain Home Air Force Base and Strike Dam Recreational Center

## Drinking Water Quality Consumer Confidence Report (CCR) for 2011 Reporting Period

## Executive Summary

Mountain Home Air Force Base is pleased to announce the availability of the annual Drinking Water Consumer Confidence Report (CCR). The base water system produces high quality water and meets Environmental Protection Agency standards to ensure all consumers receive safe drinking water. This report is a summary of water quality during the calendar year of 2011. Included are details about where your water comes from, what it contains, and how it compares to EPA and state standards. We are committed to providing you with information because informed citizens are our best allies.

Last year, we collected numerous samples that were analyzed by a state certified lab, and there were no violations in 2011. Mountain Home Air Force Base carefully safeguards its water supplies and once again we are proud to report that our system maintained excellent drinking water quality standards during the year.

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# 2011 Consumer Confidence Report (CCR)

## I. Water System Information

Water System Name:	Mountain Home Air Force Base Mountain Home AFB Strike Dam Recreational Area	PWS ID #: 4200054 PWS ID #: 4200088
Water System Operator:	Mr. Mike Pope, 366 CES/CEOIU	
Water Program Manager:	Mr. Tom Kendall, 366 CES/CEAN	
Health Compliance Office:	Bioenvironmental Engineering, 366 AMDS/SGPB	
Address:	Civil Engineering Utilities/Operations-1030 Liberator Street Civil Engineering Environmental Office, 366 CES/CEAN 1100 Liberator St, Bldg. 1297 Bioenvironmental Engineering, 366 AMDS/SGPB 90 Hope Drive, Bldg. 6000	Tel #: (208) 828-3391 Tel #: (208) 828-6351 Tel#: (208) 828-7270
City, State, Zip Code:	Mountain Home Air Force Base, ID 83648	
Population Served:	7,500	Number of Connections: 1,200
Date of CCR Distribution:	1 Jul 2012	For Calendar Year: <b>2011</b>
Regularly Scheduled Meeting(s):	Base Water Quality Working Group meets quarterly. For more information, contact Tom Kendall, Water Program Manager, 366 CES/CEAN, Mountain Home AFB, ID. Phone: (208) 828-4297.	

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

## II. Water Sources

Groundwater Sources (springs, wells, infiltration galleries): Wells - The MHAFB well field is completed in, and produces groundwater from, permeable zones within the Bruneau Formation.	
Source #: 2/4	Wells 2/4 Manifold - BPW2/4 Location: Mountain Home AFB
Source #: 6	FKA Well 6/11 Manifold – Shut down Location: Mountain Home AFB
Source #: 9	Well 9 – BPW9 Location: Mountain Home AFB
Source #: 10	Well 10 – BPW10 Location: Mountain Home AFB
Source #: 11	Well 11 – BPW11 Location: Mountain Home AFB
Source #: 12	Well 12 – BPW12 Location: Mountain Home AFB

Source #: 13

Well 13 – BPW13

Location: Mountain Home AFB

Groundwater/Surface Water Contamination Sources (if known):

**POTENTIAL SOURCES OF GROUNDWATER CONTAMINATION:**

The Mountain Home Air Force Base Drinking Water Protection Plan (volume 1, chapter 4) states the following regarding potential (point and non-point) sources of groundwater contamination:

A potential point source of contamination is any facility that stores, uses, or produces, as a product or by-product, regulated contaminants. For a potential point source to be included in the potential contaminant source inventory, it must also have a potential for release of contaminants at levels that could pose a concern relative to drinking water sources. It is important to understand that a release may never occur from a potential contamination source if best management practices are being used. Many potential sources of contamination are regulated at the Federal or State level, or both to reduce the risk of release. Therefore, when a business, military building, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, military building or property is in violation of any local, State, or Federal environmental law or regulation. What this means is that the potential for contamination exists due to the nature of the business, military building operation or type of activity on the property.

Sources that could potentially contaminate the drinking water supply for MHAFB include both point and non-point sources of contamination. Point sources of contamination occur at distinct locations. They are often regulated and require permits or registration for facilities that use, store or sell those materials (such as fueling stations with leaking underground storage tanks). Non-point sources of contamination often occur over large areas and can result from normal everyday activities such as lawn chemical or agricultural activities.

**Potential Point Sources of Groundwater Contamination**

On the basis of the potential point (PCS) inventory at MHAFB, all wells in the MHAFB well field are moderately susceptible to contamination from inorganic chemicals, synthetic organic chemicals, and microbes.

**Potential Non-Point Sources of Groundwater Contamination**

The general land use surrounding MHAFB is a combination of both agricultural and small business/residential. Non-point sources of contamination associated with these land uses are primarily agricultural chemicals including pesticides (insecticides and herbicides) and fertilizers. Additional potential non-point sources within the MHAFB Drinking Water/Wellhead Protection Zone include incorrect usage and disposal of hazardous household chemicals such as cleaning solvents, used motor oil, and degreasers. Throughout the MHAFB Drinking Water/Wellhead Protection Zone, pesticides and small fuel storage cans used by military family housing may also pose threats to groundwater quality.

Source Water Assessment or Protection Plan Available? YES

The Mountain Home Air Force Base (MHAFB) Drinking Water Protection plan was completed in August of 2002. This plan was officially designated as a “State Certified Plan” on 27 Jan 2003. The MHAFB Drinking Water Protection Plan was recognized with a Certificate of Achievement by Idaho Governor, Dirk Kempthorne, on May 27, 2003. A copy of the MHAFB Drinking Water Protection Plan may be obtained from Mr. Tom Kendall, Water Program Manager, 366 CES/CEAN, Mountain Home AFB, ID, phone: (208) 828-4297

### III. Compliance Violations

<b>Treatment Techniques:</b> None
<b>Monitoring/Reporting:</b> None
<b>Public notification/Record keeping:</b> None
<b>Special monitoring requirements:</b> None
<b>Administrative or judicial orders:</b> None
<b>Consent orders:</b> None
<b>Notice of Violations (NOV):</b> None

### IV. Definitions

<b>Action Level (AL):</b> The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
<b>Initial Distribution System Evaluation (IDSE):</b> IDSE is an important part of the Stage 2 Disinfection By-Products Rule (DBPR). The IDSE is a one-time study conducted by some water systems, providing disinfection or chlorination, to identify distribution system locations with concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select monitoring locations for Stage 2 DBPR. Not all water systems were required to perform an IDSE.
<b>Maximum Contamination Level (MCL):</b> 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.
<b>Maximum Contamination Level Goal (MCLG):</b> 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.
<b>Maximum Residual Disinfectant Level (MRDL):</b> The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
<b>Maximum Residual Disinfectant Level Goal (MRDLG):</b> 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 contamination.

## V. 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/Centers for Disease Control and Prevention (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 at 1-800-426-4791 or <http://www.epa.gov/safewater/hotline/>.

**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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or <http://www.epa.gov/safewater/hotline/>.

**In order to ensure that tap water is safe to drink**, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

**Contaminants that may be present** in source water before we treat it 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.

### **Lead Informational Statement (Health effects and ways to reduce exposure)**

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 utility named above* 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. If you are concerned about lead in your drinking 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>.

## VI. Level of Detected Chemical and Radiological Contaminants and Associated Health Effects Language

Unless otherwise noted, the data presented in this water quality table is from testing done between January 1, 2011 - December 31, 2011.

Contaminant	Violation (Y/N)	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Date Tested (mm/yy)	Typical Source of Contamination	Health Effects Language
<b>Combined Radium</b>	No	5 pCi/L	0	<0.87 pCi/L	0.96 pCi/L	Apr 2011	Erosion of natural deposits	Some people who drink water containing radium-226 or -228 in excess of the MCL over many years may have an increased risk of getting cancer.
<b>Nitrate</b> (high at Source 11, low at Source 13)	No	10 ppm	0	2.3	11.1*	Jan 2011	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and methemoglobinemia (blue baby syndrome)
<b>Trichloroethylene</b>	No	5 ug/L	0	0	1.6	Apr 2011	Discharge from metal degreasing sites and other industrial operations	Some people who drink water with trichloroethylene in excess of the MCL over many years could experience problems with their liver and may increase chance of developing liver cancer

\*Nitrate levels were detected above the MCL in January 2011 at Source # 11. Source # 11 was re-sampled within 1 week of receiving the results to confirm the higher than normal level of Nitrates. The result of this confirmation test was 5.5 ppm. The average of these two samples (11.1 ppm and 5.5 ppm) was 8.3 ppm which is below the MCL of 10 ppm. Therefore no Violation was reported for this result in accordance with EPA and Idaho law.

## VII. Level of Detected Contaminants and Associated Health Effects Language for Systems that must comply with the Disinfection/Disinfection by Products Rule, Surface Water Treatment Rule, and the Long Term 1 Enhanced Surface Water Treatment Rule.

Contaminant	Violation (Y/N)	MCL	MCLG	Highest Level Detected	Typical Source of Contamination
Total Trihalomethanes	No	80 ppb	N/A	30.6 ppb	By product of drinking water chlorination
Haloacetic Acid Group 5	No	60 ppb	N/A	< 10 ppb	By product of drinking water chlorination



## VIII. Reporting Bacteria, Fluoride, Lead/Copper, Chromium, Nickel

### Bacteria

	MCL	MCLG	Highest # Positive In a Month	Violation (Y/N)	Typical Source of Contamination
Total Coliform	> 1	0	0	No	Naturally present in the environment
Fecal Coliform or E. coli	*	0	0	No	Human and animal fecal waste.

\* Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

### Fluoride

Inorganic Chemicals to include fluoride and chromium were sampled in Feb 2010 for the 3-year monitoring period 2010 - 2012

Violation (Y/N)	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Date Tested (mm/yy)	Typical Source of Contamination
N	4 mg/L	4 mg/L	<0.1 (Source # 9)	0.81 mg/L (Source # 2/4)	Feb 2010	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
<b>Potential Health Effects from Long-Term Exposure Above the MCL</b>			Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.			

### Lead/Copper

Samples for lead and copper were taken in June 2011 for the 3-year monitoring period 2011 - 2013

Contaminant	Action Level	MCLG	Date(s) Collected	90th Percentile	#of sites above Action Level	Violation Y/N	Possible Source of Contamination
Lead (ppb)	15	0	June 2011	<0.005	0	No	Corrosion of household plumbing systems: Erosion of natural deposits.
Copper (ppm)	1.3	1.3	June 2011	0.7	0	No	Corrosion of household plumbing systems: Erosion of natural deposits.
<b>Health Effects Language</b>	Lead	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.					
	Copper	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.					

## Chromium

Inorganic Chemicals to include fluoride and chromium were sampled in Feb 2010 for the 3-year monitoring period 2010 - 2012

Violation (Y/N)	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Date Tested (mm/yy)	Typical Source of Contamination	Health Effects Language
N	0.1 mg/L	0.1 mg/L	0.003 mg/L (Source #s 6, 9, and 12)	0.005 mg/L (Source # 2/4)	Feb 2010	Discharge from steel and pulp mills; erosion of natural deposits	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

**IX. Specific Contaminant Requirements** Unless otherwise noted, the data presented in this water quality table is from testing done between January 1, 2011 – December 31, 2011

*Informational Statement: “Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six 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 advice from your health care provider.”*