

# Oreana Public Water Supply Annual Drinking Water Quality Report

Oreana  
IL 6150450

Annual Water Quality Report  
for the period of January 1 to  
December 31, 2014

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. The source of drinking water used by Oreana is Purchased Ground Water.

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Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

## Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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, 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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.

Safe Drinking Water Hotline at (800) 426-4791

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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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/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 (800-426-4791).

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. We 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 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>.

## Source Water Assessment

A Source Water Assessment summary is included below for your convenience.

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by Village Hall or call our water operator at 217-877-7182. To view a summary version of the completed Source Water Assessment, including: Importance of Source Water; Susceptibility to Contamination

Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at [www.epa.gov](http://www.epa.gov). To determine Forsyth's susceptibility to groundwater contamination, a Well Site Survey, published in 1989 by the Illinois EPA, and Source Water Protection Plan were reviewed. Based on the information contained in these documents, eight potential sources of groundwater

contamination are present that could pose a hazard to groundwater pumped by the Forsyth community water supply wells. These include an above ground fuel storage, a water treatment plant, a store/sales, an auto body, an exterminator, an auto repair, a grain elevator, and a fertilizer warehouse. Based on information provided by Forsyth's water supply officials, the following facilities, also indicated as potential sources in the site data table, have changed their status: Keller Oil Co. is now Bigfoot #45 Nova Scotia, Beddingfield Buick GMC BMW is now Poage Auto Mall Inc, Isringhausen Imports Decatur is now Coziahr Harley Davidson, Edwards Fertilizer is not in the vicinity of the wells, and a new fuel station has been built on the north side of Book Barn. Based upon this information, the Illinois EPA has determined that Forsyth Wells #3, #4, and #5 are not susceptible to IOC, VOC, or SOC contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data for the wells. In anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined

that Forsyth's community water supply wells are not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver

Process: the community's wells are properly constructed with sound integrity and proper site conditions; there is a hydrogeologic barrier that restricts pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. However, having stated this, the U.S. EPA is proposing to require States to identify systems in karst, gravel and fractured rock aquifer systems as sensitive. Water systems utilizing these aquifer types would be required to perform routine source water monitoring. Because the community's wells are constructed in a confined aquifer, which should provide an adequate degree of protection to prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the vulnerability determination.



## 2014 Regulated Contaminants Detected

Lead & Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contaminant
Copper	2014	1.3	1.3	0.437	0	ppm	No	Runoff from fertilizer use; Leaching from wood preservatives; Corrosion of household plumbing system
Lead	2014	0	15	0	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

## Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Chlorine	12/31/2014	0.8	0.5 - 1.0	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	2014	1	0 – 1.43	No goal for the total	60	ppb	No	By-product of drinking water disinfection

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Arsenic — While your water meets EPA standards for arsenic, it does contain low levels of arsenic. EPAs standard balances the current understanding of arsenics possible health effects against the cost of removing arsenic from drinking water. EPA continue 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.	04/30/2012	6.37	6.37 – 6.37	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes.
Barium	04/30/12	0.137	0.137 - 0.137	2	2	ppm	No	Discharge of drill ing wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	04/30/2012	0.988	0.988 - 0.988	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Sodium	04/30/2012	66.4	66.4 – 66.4			ppm	No	Erosion from naturally occurring deposits; Used in water softener regeneration.
Iron	04/30/2012	0.366	0.366 – 0.366		1.0	ppm	No	This contaminant is not currently regulated by the USEPA. However, the State regulates. Erosion of Natural deposits.
Nitrate [measured as Nitrogen]	01/24/2012	0.122	0.122 – 0.122	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

<i>Radioactive Contaminants</i>	<i>Collection Date</i>	<i>Highest Level Detected</i>	<i>Range of Levels Detected</i>	<i>MCLG</i>	<i>MCL</i>	<i>Units</i>	<i>Violation</i>	<i>Likely Source Of Contaminant</i>
Combined Radium 226/228	04/26/2010	1.28	1.28 – 1.28	0	5	pCi/L	No	Erosion of natural deposits
Gross alpha excluding radon and uranium	04/26/2010	1.1	1.1 – 1.1	0	15	pCi/L	No	Erosion of natural deposits

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.

## Water Quality Test Results

*Definitions: The tables inside this report contain scientific terms and measures, some of which may require explanation.*

**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 allow for a margin of safety.

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

**Maximum Residual Disinfectant Level Goal (MRDLG)** The level of disinfectant in drinking water 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.

**Maximum Residual Disinfectant Level (MRDL)** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary from control of microbial contaminants:

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water

na: not applicable.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

**Disinfection By-Products testing for Haloacetic Acids and Total Trihalomethanes Note:** Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

# FORSYTH DATA

## Source Water Information

Source Water Name	Report Status	Type of Water	Location
WELL 3 (40033)	Active	GW	AT SE CORNER OF SCHOOL
WELL 4 (40034)	Active	GW	N WELL OF 2, 2 MI N OF TOWN
WELL 5 (47842)	Active	GW	S WELL OF 2, 2 MILES N OF TOWN
WELL 6 (01426)	Active	GW	NB Co 18 & BRUSH COLLEGE R

## 2014 Regulated Contaminants Detected

**Definitions:** Action Level Goal (ALG) : the level of a contaminate in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	No. of sites over AL	Units	Violation	Likely Source of Contaminant
Copper	9/24/2013	1.3	1.3	0.137	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives, Corrosion of household plumbing systems

## Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Chlorine	12/31/2014	0.8	0.4-1.1	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Arsenic	2014	7	7.01 - 7.01	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes
Barium	7/9/2012	0.00748	0.00748-0.00748	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	7/9/2012	0.976	0.976-0.976	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Sodium	7/9/2012	66500	66500 - 66500			ppm	No	Erosion from naturally occurring deposits: Used In water softener regeneration.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Combined Radium 226/228	1/13/2010	0.29	0.29-0.29	0	5	pCi/L	No	Erosion of natural deposits

Gross alpha excluding radon and uranium	1/13/2010	0.49	0.49-0.49	0	15	pCi/L	No	Emission of natural deposits
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