

Annual Drinking Water Quality Report for - 2016

City of Iona
PWS #7100041

As your back-up licensed Drinking Water Operator and Mayor I am pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve and protect our water resources. We are committed to ensuring the quality of your water. Our water source is (i.e., groundwater, well) from the East Snake River Plain Aquifer.

I am pleased to report that your drinking water is safe and meets federal and state requirements. A source water assessment was completed for your water system. Your system received a rating of "moderate" because of past historical data and where your water source is located (i.e., agriculture area). If you would like a copy of this report you can contact the Division of Environmental Quality (DEQ) or the City of Iona. If you have any questions about this report or concerning your water utility, please contact **Zech Prouse our Public Works Director and license Drinking Water Operator at 523-5600**. We want our valued customers to be informed about their water utility. Please contact the City of Iona of the next scheduled city council meeting.

City of Iona routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2016. As water travels over the land or underground it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

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.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Pico curies per liter (pCi/L) - Pico curies per liter are a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

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

Treatment Technique (TT) - (mandatory language) a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - (mandatory language) The "Maximum Allowed" (MCL) is 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.

Maximum Contaminant Level Goal - (mandatory language) The "Goal" (MCLG) is 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.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria	N*	Present	Presence or Absent	0	> 1	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	N	Absent	Presence or Absent	0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
3. Turbidity	N	0	NTU	n/a	TT	Soil runoff
Radioactive Contaminants						
4. Beta/photon emitters #2 well	N	4.85 pCi/L	mrem/yr	0	4	Decay of natural and man-made deposits
5. Alpha emitters #1,#2 well/#3	N	2.5,2.9 2.39	pCi/1	0	15	Erosion of natural deposits
6. Combined radium #1,#2 well/#3	N	.58,1.2, 0.08	pCi/1	0	5	Erosion of natural deposits
Inorganic Contaminants						
7. Antimony	N	0	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic Well #1/#3	N	1.0	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Asbestos	N	0	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
10. Barium Well #1/#2	N	0.122 & 0.102	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
11. Beryllium	N	0	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
12. Cadmium	N	0	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal

						refineries; runoff from waste batteries and paints
13. Chromium	N	0	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper 10 samples collected	N	.063	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	N	0	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	N	0	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead 10 samples collected	N	1	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
18. Mercury (inorganic)	N	0	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
19. Nitrate (as Nitrogen) Well #1,#2, & #3	N	1.94, 1.69 , & 1.90	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
20. Nitrite (as Nitrogen)	N	0	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
21. Selenium	N	0	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
22. Thallium	N	0	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Synthetic Organic Contaminants including Pesticides and Herbicides

23. 2,4-D	N	0	ppb	70	70	Runoff from herbicide used on row crops
24. 2,4,5-TP (Silvex)	N	0	ppb	50	50	Residue of banned herbicide
25. Acrylamide	N	0		0	TT	Added to water during sewage/wastewater treatment
26. Alachlor	N	0	ppb	0	2	Runoff from herbicide used on row crops
27. Atrazine	N	0	ppb	3	3	Runoff from herbicide used on row crops
28. Benzo(a)pyrene (PAH)	N	0	nanograms/l	0	200	Leaching from linings of water storage tanks and distribution lines
29. Carbofuran	N	0	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
30. Chlordane	N	0	ppb	0	2	Residue of banned termiticide
31. Dalapon	N	0	ppb	200	200	Runoff from herbicide used on rights of

						way
32. Di(2-ethylhexyl) adipate	N	0	ppb	400	400	Discharge from chemical factories
33. Di(2-ethylhexyl) phthalate	N	0	ppb	0	6	Discharge from rubber and chemical factories
34. Dibromochloro-propane	N	0	nanograms/l	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
35. Dinoseb	N	0	ppb	7	7	Runoff from herbicide used on soybeans and vegetables
36. Diquat	N	0	ppb	20	20	Runoff from herbicide use
37. Dioxin [2,3,7,8-TCDD]	N	0	picograms/l	0	30	Emissions from waste incineration and other combustion; discharge from chemical factories
38. Endothall	N	0	ppb	100	100	Runoff from herbicide use
39. Endrin	N	0	ppb	2	2	Residue of banned insecticide
40. Epichlorohydrin	N	0		0	TT	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
41. Ethylene dibromide	N	0	nanograms/l	0	50	Discharge from petroleum refineries
42. Glyphosate	N	0	ppb	700	700	Runoff from herbicide use
43. Heptachlor	N	0	nanograms/l	0	400	Residue of banned termiticide
44. Heptachlor epoxide	N	0	nanograms/l	0	200	Breakdown of heptachlor
45. Hexachlorobenzene	N	0	ppb	0	1	Discharge from metal refineries and agricultural chemical factories
46. Hexachlorocyclopentadiene	N	0	ppb	50	50	Discharge from chemical factories
47. Lindane	N	0	nanograms/l	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
48. Methoxychlor	N	0	ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
49. Oxamyl [Vydate]	N	0	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
50. PCBs [Polychlorinated biphenyls]	N	0	nanograms/l	0	500	Runoff from landfills; discharge of waste chemicals
51. Pentachlorophenol	N	0	ppb	0	1	Discharge from wood preserving factories
52. Picloram	N	0	ppb	500	500	Herbicide runoff
53. Simazine	N	0	ppb	4	4	Herbicide runoff
54. Toxaphene	N	0	ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants

55. Benzene	N	0	ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
56. Carbon tetrachloride	N	0	ppb	0	5	Discharge from chemical plants and other industrial activities
57. Chlorobenzene	N	0	ppb	100	100	Discharge from chemical and agricultural chemical factories
58. o-Dichlorobenzene	N	0	ppb	600	600	Discharge from industrial chemical factories
59. p-Dichlorobenzene	N	0	ppb	75	75	Discharge from industrial chemical factories
60. 1,2-Dichloroethane	N	0	ppb	0	5	Discharge from industrial chemical factories
61. 1,1 - Dichloroethylene	N	0	ppb	7	7	Discharge from industrial chemical factories
62. cis-1,2-Dichloroethylene	N	0	ppb	70	70	Discharge from industrial chemical factories
63. trans - 1,2 - Dichloroethylene	N	0	ppb	100	100	Discharge from industrial chemical factories
64. Dichloromethane	N	0	ppb	0	5	Discharge from pharmaceutical and chemical factories
65. 1,2-Dichloropropane	N	0	ppb	0	5	Discharge from industrial chemical factories
66. Ethylbenzene	N	0	ppb	700	700	Discharge from petroleum refineries
67. Styrene	N	0	ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
68. Tetrachloroethylene	N	0	ppb	0	5	Leaching from PVC pipes; discharge from factories and dry cleaners
69. 1,2,4-Trichlorobenzene	N	0	ppb	70	70	Discharge from textile-finishing factories
70. 1,1,1 - Trichloroethane	N	0	ppb	200	200	Discharge from metal degreasing sites and other factories
71. 1,1,2 - Trichloroethane	N	0	ppb	3	5	Discharge from industrial chemical factories
72. Trichloroethylene	N	0	ppb	0	5	Discharge from metal degreasing sites and other factories
73. TTHM [Total trihalomethanes]	N	0	ppb	0	100	By-product of drinking water chlorination
74. Toluene	N	0	ppm	1	1	Discharge from petroleum factories
75. Vinyl Chloride	N	0	ppb	0	2	Leaching from PVC piping; discharge from plastics factories
76. Xylenes	N	0	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories
77. Uranium	N	1.70	ppb	0	30	Erosion of natural deposits.

As you can see by the table, our system had no violations, but there was a detection of total coliform bacteria in the month of February. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

***Total Coliform:** The Total Coliform Rule requires water systems to meet a strict limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. January 19th, 2016 total coliform bacteria was detected in one sample. The positive sample was due to stagnant water because of the limited use of the sample point. Since the disinfecting of the tank and water system there has not been any detection of bacteria since February 2016.

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. Rate adjustments may be necessary in order to address these improvements. Thank you for understanding.

Please call our City of Iona Office if you have questions.

City of Iona works around the clock to provide top quality water to every tap, "said **Public Works Supervisor Zech Prouse.**" We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call **Zech Prouse @ 523-5600** if you have any questions.

Sincerely,

Brad D. Andersen, Mayor