

# 2013 WATER QUALITY REPORT

## FOR

### Sioux Rapids, Iowa

This report contains important information regarding the water quality in our water system. The source of our water is ground water. Our groundwater is drawn from the alluvial aquifer(s).

Our water quality testing shows the following results: **Year 2012**

| CONTAMINANT                      | MCLG       | MCL      | DETECTED LEVEL | DATE SAMPLED | RANGE OF DETECTION | VIOLATION | SOURCE                                                                                                                              |
|----------------------------------|------------|----------|----------------|--------------|--------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|
| Barium (ppm)                     | 2          | 2        | 0.1            | 3/27/2012    |                    | NO        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits                                          |
| Copper (ppm)                     | 1.3        | AL=1.3   | 0.09           | 9/30/2012    | 0.05 - 0.14        | NO        | Corrosion of household plumbing systems; Erosion of natural deposits                                                                |
| Fluoride (ppm)                   | 4          | 4        | 0.44           | 3/27/2012    |                    | NO        | Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories           |
| Lead (ppb)                       | 0          | AL=15    | 2              | 9/30/2012    | 2 - 4              | NO        | Corrosion of household plumbing systems; erosion of natural deposits                                                                |
| Nitrate [as N] (ppm)             | 10         | 10       | 7.0            | 12/31/2012   | 0.5 – 7.0          | NO        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                                         |
| Chlorine (ppm)<br>RAA            | MRDLG =4.0 | MRDL=4.0 | 1.8            | 12/31/2012   | 1.6 - 2.0          | NO        | Water additive used to control microbes                                                                                             |
| Sodium (ppm)                     | N/A        | N/A      | 110            | 3/29/2012    |                    | NO        | Erosion of natural deposits; Added to water during treatment process                                                                |
| Alpha Emitters (pCi/L)           | 0          | 15       | 1.7            | 6/27/2012    |                    | NO        | Erosion of natural deposits                                                                                                         |
| Chromium (ppb)                   | 100        | 100      | 10             | 3/27/2012    |                    | NO        | Discharge from steel and pulp mills; Erosion of natural deposits                                                                    |
| Cadmium (ppb)                    | 5          | 5        | 2              | 3/27/2012    |                    | NO        | Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints |
| Arsenic (ppb)                    | N/A        | 10       | 1              | 3/27/2012    |                    | NO        | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes                               |
| p-Dichlorobenzene                | 75         | 75       | 2              | 6/30/2012    | ND - 2             | NO        | Discharge from industrial chemical factories                                                                                        |
| Nitrite [asN] (ppm)              | 1          | 1        | 0.2            | 12/31/2012   |                    | NO        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                                         |
|                                  |            |          |                |              |                    |           |                                                                                                                                     |
| TOTAL Trihalomethanes (TTHM) ppb | N/A        | 80       | 6.30           | 8/26/2010    |                    | NO        | By-products of drinking water chlorination                                                                                          |

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

## DEFINITIONS

- Maximum Contaminant Level (MCL) – 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 (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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Residual Disinfectant Level Goal (MRDLG) - 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 contaminants.
- 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.

## GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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. The City of Sioux Rapids 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 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 INFORMATION

The Sioux Rapids water supply obtains its water from the alluvial aquifer. The alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials allow contaminants to move through the aquifer fairly quickly. The wells will be most susceptible to activities such as dry cleaners, gas stations, industrial sites, and municipal wastewater dischargers. A detailed evaluation of your source water was completed by the IDNR, and is available from Sioux Rapids Water Department at City Hall at 712-283-2737.

## ADDITIONAL HEALTH INFORMATION

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.

## OTHER VIOLATIONS

In June 2012 we failed to monitor for Metolachlor. Adverse health effects, if any, are not known. Monitoring procedures have been corrected to avoid future violations.

In June 2012 we failed to monitor for p-Dichlorobenzene. Adverse health effects, if any, are not known. Monitoring procedures have been corrected to avoid future violations.

## **CONTACT INFORMATION**

For questions regarding this information, please contact Rich Haldin at Water Plant 712-283-2770 or City Hall at 712-283-2737 during the following hours: 8:00 am – 5:00 pm.

Decisions regarding the water system are made at the Water Committee or City Council meetings held on second Wednesday of each month at 6:30 p.m. at City Hall and are open to the public.