2020 DRINKING WATER QUALITY REPORT

For the Fort McDowell Yavapai Nation

(PWS# 0400088)

Prepared by Mark Frank
Acting CEDD Director
on May 26, 2021
Message to the Community
This Annual Drinking Water Quality Report for calendar year 2020, also known as the Consumer Confidence Report or CCR, summarizes the results of water quality monitoring performed at the Community’s well sites, storage tanks, and throughout the water distribution system. During the year, every effort is made to provide you with dependable, high quality drinking water, consistent with water quality standards established by the U.S. Environmental Protection Agency (EPA). Improvements are continually being made to the water system to improve its performance. Potential threats to the quality of our water have been identified and are consistently monitored by the system operators, Inframark Water Infrastructure Operations, and the Environmental Department.

Your Drinking Water Source
The water you use for drinking, cooking, bathing, and other domestic purposes comes from three large water production wells situated near the Verde River, about 100 yards northeast of the FMYN-Public Works Facility. The water is pumped from the wells, chlorinated (to kill any harmful bacteria), and then transmitted to the water distribution system. Once in the distribution system, the water is delivered to your homes, government buildings and certain enterprises. Water from wells is also delivered to five storage reservoirs throughout the Community to meet high demand or emergency water conditions.

<table>
<thead>
<tr>
<th>COMMUNITY WATER SYSTEM FACTS FOR 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Combined annual water production from the 3 community wells = 165,830,469 gallons</td>
</tr>
<tr>
<td>• Storage capacity of 5 reservoirs = 1,400,000 gallons</td>
</tr>
</tbody>
</table>

Contaminants in Drinking Water
To ensure that your water is safe to drink, the EPA sets limits on the amount of certain contaminants in water provided by your Community System. Drinking 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.

The source of our drinking water (3 wells along the Verde River) is water that has traveled underground and down the Verde River. As this water moves toward our wells, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include the following:

- Microbial contaminants
- Inorganic contaminants
- Pesticides and herbicides
- Organic chemical contaminants
- Radioactive contaminants

Understanding the Language
This report and the table use terms that are not commonly understood. They will be briefly explained below.
**AL – Action Level.** This is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL – Maximum Contaminant Level.** This is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close as possible to the MCLGs as feasible using the best available treatment technology.

**MCLG – Maximum Contaminant Level Goal.** This 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.

**MRDL – Maximum Residual Disinfection Level.** 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.

**MRDLG – Maximum Residual Disinfection Level Goal.** 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.

**NA – Not Applicable**

**ND – Not Detected**

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

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

**Range** – If more than one test was taken for a particular contaminant, the high/low test level(s) are identified.

**Unit Measurement** – the unit of measurement used by EPA when determining the contaminant level, such as parts per million (ppm), or parts per billion (ppb), or picocuries per liter (pCi/L).

**Violation (Yes or No)** – this indicates whether an MCL was exceeded during the year.

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**Fort McDowell Yavapai Nation Drinking Water Quality – 2020**

The following table lists the contaminants that were required to be tested and were detected in Fort McDowell’s drinking water in 2020*.

The table contains the contaminant categories and the name of each contaminant, the ideal level from a public health perspective, the maximum level allowed by regulation, the average level detected in our water, the detection range, the sample date, whether a violation occurred, and the typical sources of such contamination.

<table>
<thead>
<tr>
<th>CONTAMINANT</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Your Water</th>
<th>Range Low / High</th>
<th>Sample Date</th>
<th>Violation</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>0</td>
<td>10</td>
<td>ppb</td>
<td>10.2</td>
<td>8.44 – 13</td>
<td>2020</td>
<td>Yes</td>
<td>Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.</td>
</tr>
<tr>
<td>Barium</td>
<td>2</td>
<td>2</td>
<td>ppm</td>
<td>0.0478</td>
<td>0.0331 – 0.0478</td>
<td>2019</td>
<td>No</td>
<td>Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits</td>
</tr>
<tr>
<td>Chromium</td>
<td>100</td>
<td>100</td>
<td>ppb</td>
<td>1.9</td>
<td>1.18 – 1.93</td>
<td>2019</td>
<td>No</td>
<td>Discharge from steel and pulp mills and chrome plating; erosion of natural deposits</td>
</tr>
<tr>
<td>Nitrate</td>
<td>10</td>
<td>10</td>
<td>ppm</td>
<td>7.25</td>
<td>2.5 – 7.25</td>
<td>2020</td>
<td>Yes</td>
<td>Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
</tr>
<tr>
<td>Fluoride</td>
<td>4</td>
<td>4</td>
<td>ppm</td>
<td>0.535</td>
<td>0.532 – 0.535</td>
<td>2019</td>
<td>No</td>
<td>Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.</td>
</tr>
<tr>
<td>Selenium</td>
<td>50</td>
<td>50</td>
<td>ppb</td>
<td>1</td>
<td>0.773 – 1.04</td>
<td>2019</td>
<td>No</td>
<td>Discharge from petroleum, glass and metal refineries; erosion of natural deposits.</td>
</tr>
<tr>
<td>Sodium</td>
<td></td>
<td></td>
<td>ppm</td>
<td>60.7</td>
<td>44.2 – 60.7</td>
<td>2020</td>
<td>NA</td>
<td>Erosion of natural deposits.</td>
</tr>
</tbody>
</table>

* Certain contaminants are required to be monitored less than once per year because concentrations of these contaminants are not expected to vary significantly from year to year. For those contaminants that were not required to be tested in 2020, this report includes data from the most recent required testing done.
Microbiological Testing

We are required to test our water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.

<table>
<thead>
<tr>
<th>Sample Requirements</th>
<th>Sampling Conducted (months)</th>
<th>Total E. Coli Positive</th>
<th>Assessment Triggers</th>
<th>Assessments Conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 Samples due monthly</td>
<td>12 out of 12</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Water quality testing of the Community drinking water system during 2020 was conducted by Inframark (water system operators). Multiple levels of testing occurred throughout the entire water system.

Daily quality control tests are conducted by Inframark employees, as they check for taste, odor, and chlorine residual. More comprehensive testing is also conducted by Inframark on numerous contaminants during the year. Some of these contaminants are tested monthly, while others are tested quarterly or annually. A few contaminants are tested less than annually.

Other water quality control efforts conducted by Inframark focus on continual operation and maintenance activities of the system. Pressure checks and adjustments, chlorine station checks and calibrations, multiple chlorine level checks throughout the system, and water line flushing are all necessary to ensure a continued high level of drinking water quality. Reported water leaks or drinking water odor and taste are immediately responded to and addressed.
Your participation in reporting leaks and quality issues is critical to maintaining a first-class water system and is much appreciated.

### Public Notice for Monitoring/Reporting and Other Violations

FMYN is required to monitor our drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our water meets health standards. During the period covered by this report, there were two violations: one water quality and one monitoring.

- **Arsenic violation** – as shown in the above table and as scheduled to be reported to the community in early-2020, our arsenic levels exceeded the federal standard of 10ppb. Our water tested at 10.2ppb, slightly over the limit. Arsenic levels at FMYN are resulting from natural causes; erosion of natural soil and rock deposits.
We are in the process with Indian Health Service, to construct an arsenic treatment plant on the reservation. This project has begun. The ongoing pilot project will lead to the construction of a full-scale arsenic treatment plant in 2022.

- Reporting Violation – FMYN was required to test for Nitrate at the end of each quarter during the year. A nitrate test for the fourth quarter of 2020 was submitted late. We are now back on schedule.

**Special Education Statements**

**Health Effects for Arsenic**

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer. Efforts are underway to design and construct an arsenic treatment facility for the Community Water System.

**Information for Nitrate**

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 for advice from your health care provider. Nitrate levels have been well below the MCL for 2020.

**Information for Lead**

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. Your water system 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 at 1-800-426-4791 or at http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water.

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 from their health providers about drinking water. 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.
Questions…..Want More Information??
If you have questions about this report, please call Mark Frank, Environmental Manager at 480-789-7163 or email him at mfrank@ftmc dowell.org.
If you want more information about drinking water quality, you may contact:
  • U.S. Environmental Protection Agency…at 800-426-4791 or www.epa.gov/ogwdw
  • Arizona Department of Environmental Quality….www.azdeq.gov  •   Tap Into Quality….www.tapintoquality.com