# APPENDIX F: Reporting Monitoring Data

This appendix provides examples of monitoring data and instructions on how to report certain detects in the Consumer Confidence Report (CCR).

* **Example that demonstrates reporting for one sampling site and one sampling date [California Code of Regulations, section 64481(d)(2)(D)1.A.]:**
* Example Data – Barium Monitoring

|  |  |
| --- | --- |
| Barium MCL | 1 mg/L |
| MCL in CCR units | 1 mg/L |
| March 2018 Result | 0.003 mg/L |

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Barium (mg/L) | 1 | 2 | 0.003 | N/A | 2017 | No | Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits |

Note: Monitoring frequency is once every 3 years, therefore the water system will report this same result each CCR year (2017, 2018, and 2019) until the next sample is taken.

* **Example that demonstrates reporting for one sampling site and multiple sampling dates [California Code of Regulations, section 64481(d)(2)(D)1.A.]:**
	+ Example Data – Xylenes Monitoring

|  |  |
| --- | --- |
| Xylenes MCL | 1.750 mg/L |
| MCL in CCR units | 1.750 mg/L |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **1st Qtr** | **2nd Qtr** | **3rd Qtr** | **4th Qtr** | **Average** |
| 2020 Results for Source Reported Individually in CCR Table (mg/L) | 1 | 1 | 2 | ND | 1 |

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Xylenes (mg/L) | 1.750 | 1.8 | 1 | ND - 2 | 2020 | No | Discharge from petroleum and chemical factories; fuel solvent |

* **Example that demonstrates reporting for multiple sampling sites and one sampling date [California Code of Regulations, section 64481(d)(2)(D)1.B.]:**
	+ Example Data – Barium Monitoring

|  |  |
| --- | --- |
| Barium MCL | 1 mg/L |
| MCL in CCR units | 1 mg/L |

|  |  |  |  |
| --- | --- | --- | --- |
| **Source** | **Well 1** | **Well 2** | **Well 3** |
| March 2017 Results (mg/L) | 0.60 | 0.46 | ND |
|  |  | Average = 0.35 |  |

If these sources enter the distribution system at the same point, a flow-weighted average may be reported instead of the average computed as follows:

Assuming Wells 1, 2, and 3 contributed 20, 40 and 40 percent, respectively.

Weighted average = 0.2(0.60 mg/L) + 0.4(0.46 mg/L) + 0.4(ND mg/L) = 0.30 mg/L.

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Barium (mg/L) | 1 | 2 | 0.35 | ND – 0.60 | 2017 | No | Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits |

Note: Monitoring frequency is once every 3 years, therefore the water system will report these same results each CCR year (2017, 2018, and 2019) until the next sample is taken.

If reporting a flow-weighted average:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Barium (mg/L) | 1 | 2 | 0.30 | ND – 0.60 | 2017 | No | Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits |

Note: Monitoring frequency is once every 3 years, therefore the water system will report these same results each CCR year (2017, 2018, 2019) until the next sample is taken.

* **Example that demonstrates reporting for multiple sampling sites and multiple sampling dates (compliance: four quarter or six month average) [California Code of Regulations, section 64481(d)(2)(D)1.C.]:**
	+ Example Data – Xylenes Monitoring

|  |  |
| --- | --- |
| Xylenes MCL | 1.750 mg/L |
| MCL in CCR units | 1.750 mg/L |

 **2020 Results (mg/L)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **1st Qtr** | **2nd Qtr** | **3rd Qtr** | **4th Qtr** | **Average** |
| Well 1 | 1 | 1 | 2 | ND | 1 |
| Well 2 | Not sampled | Not sampled | Not sampled | 2 | 2 |
| Well 3 | Not sampled | 1 | 2 | ND | 1 |
| All wells |  |  |  |  | 1.3 |

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Xylenes (mg/L) | 1.750 | 1.8 | 1.3 | ND - 2 | 2020 | No | Discharge from petroleum and chemical factories; fuel solvent |

Note: For “Average”, use the average of the individual sampling point averages.

* **Example that demonstrates reporting of multiple sampling sites and multiple sampling dates (compliance: RAA on individual source basis) [California Code of Regulations, section 64481(d)(2)(D)2.A.]:**
	+ Example Data – Dalapon Monitoring

|  |  |
| --- | --- |
| Dalapon MCL | 0.2 mg/L |
| MCL in CCR units | 200 µg/L |

**2020 Results (µg/L)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Source | **1st Qtr** Sample Result | **1st Qtr** Running Average1 | **2nd Qtr** Sample Result | **2nd Qtr** Running Average1 | **3rd Qtr** Sample Result | **3rd Qtr** Running Average1 | **4th Qtr** Sample Result | **4th Qtr** Running Average1 |
| Well 1 | 74 | 42 | 60 | 47 | 28 | 50 | 43 | 52 |
| Well 2 | 36 | 26 | 12 | 21 | 6 | 17 | 9 | 16 |

1 RAAs are based on data from previous quarters not reported on this table.

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Dalapon (µg/L) | 200 | 790 | 52 | 6 - 74 | 2020 | No | Runoff from herbicide used on rights-of-way, and crops and landscape maintenance |

Note: For “Average”, use the highest of the RAAs for the year. For “Range”, use the minimum and maximum of the sample results for all locations, all dates.

* **Example that demonstrates reporting of multiple sampling sites and multiple sampling dates (compliance: LRAA – TTHM and HAA5) [California Code of Regulations, section 64481(d)(2)(D).2.B.]:**

**For a System with No LRAA Exceedance**

* + Example Data – TTHM Monitoring (state Stage 2 D/DBPR)

|  |  |
| --- | --- |
| TTHM MCL | 0.080 mg/L |
| MCL in CCR units | 80 µg/L |

**2020 TTHM Results (µg/L)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr |
| Site 1 | 45 | 60 | 125 | 70 |
| *Site 1 LRAA1* | *44* | *59* | *74* | *75* |
| Site 2 | 40 | 55 | 115 | 60 |
| *Site 2 LRAA1* | *39* | *53* | *67* | *68* |
| Site 3 | 45 | 60 | 105 | 70 |
| *Site 3 LRAA1* | *44* | *61* | *69* | *70* |
| Site 4 | 50 | 65 | 120 | 75 |
| *Site 4 LRAA1* | *49* | *63* | *74* | *78* |

1 LRAA for Quarters 1 to 3 are based on results from previous quarters not reported on this table.

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG(or MCLG)** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| TTHM(µg/L) | 80 | N/A | 78 | 40 - 125 | 2020 | No | Byproduct of drinking water disinfection |

Note: For “Average”, use the highest of the LRAAs for the year. For “Range”, use the minimum and maximum of the sample results for all locations, all dates.

* **Example that demonstrates reporting of multiple sampling sites and multiple sampling dates (compliance: LRAA – TTHM and HAA5) [California Code of Regulations, section 64481(d)(2)(D).2.B.]:**

**For a System with an LRAA Exceedance**

* + Example Data – TTHM Monitoring (state Stage 2 D/DBPR)

|  |  |
| --- | --- |
| TTHM MCL | 0.080 mg/L |
| MCL in CCR units | 80 µg/L |

**2020 TTHM Results (µg/L)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr |
| Site 1 | 45 | 60 | 125 | 100 |
| *Site 1 LRAA1* | *44* | *59* | *74* | 83 |
| Site 2 | 40 | 55 | 115 | 60 |
| *Site 2 LRAA1* | *39* | *53* | *67* | *68* |
| Site 3 | 45 | 60 | 105 | 70 |
| *Site 3 LRAA1* | *44* | *61* | *69* | *70* |
| Site 4 | 50 | 65 | 120 | 75 |
| *Site 4 LRAA1* | *49* | *63* | *74* | *78* |

1 LRAAs for Quarters 1 to 3 are based on results from previous quarters not reported on this table.

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG(or MCLG)** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| TTHM(µg/L) | 80 | N/A | **83** | 40 - **125** | 2020 | Yes1 | Byproduct of drinking water disinfection |

1 See page 22, Item 5.m, of the Reference Manual titled *“Preparing Your California Drinking Water Consumer Confidence Report (CCR)”* for instructions on how to highlight the violation in the table and the additional information to include near, but not in the table.

Note: For “Average”, use the highest of the LRAAs for the year. For “Range”, use the minimum and maximum of the sample results for all locations, all dates in this year.

* **Example that demonstrates reporting of turbidity results [California Code of Regulations, section 64481(d)(2)(E)]:**
	+ Example Data – Turbidity Monitoring

When reporting turbidity as an indicator of filtration performance, systems must report the highest single measurement and the lowest monthly percentage of samples meeting the requirements specified for that technology. In this situation, you may want to report the data in 2 rows of your table.

* + Example CCR Table Excerpt

For conventional or direct filtration (systems subject to the state Interim Enhanced Surface Water Treatment Rule or Long Term 1 Enhanced Surface Water Treatment Rule):

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant** | **MCL** | **PHG** | **Level Found** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Turbidity | TT = 1 NTU | N/A | 0.7 NTU | N/A | 2020 | No | Soil runoff |
|  | TT = 95% of samples ≤0.3 NTU |  | 93% | N/A |  |  |  |

For diatomaceous earth filtration:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant** | **MCL** | **PHG** | **Level Found** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Turbidity | TT = 5.0 NTU | N/A | 1 NTU | N/A | 2020 | No | Soil runoff |
|  | TT = 95% of samples ≤0.5 NTU |  | 93% | N/A |  |  |  |

For slow sand filtration:

| **Contaminant** | **MCL** | **PHG** | **Level Found** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Turbidity | TT = 5.0 NTU | N/A | 1 NTU | N/A | 2020 | No | Soil runoff |
|  | TT = 95% of samples ≤1.0 NTU |  | 93% | N/A |  |  |  |

For alternative filtration technology:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant** | **MCL** | **PHG** | **Level Found** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Turbidity | TT = \* | N/A |  | N/A | 2020 |  | Soil runoff |
|  | TT = \* | N/A |  | N/A |  |  |  |

\* Refer to turbidity limits established by the State Water Board.

* **Example that demonstrates reporting of lead results [California Code of Regulations, section 64481(d)(2)(F)]:**
	+ Example Data – Lead Monitoring

|  |  |
| --- | --- |
| Lead Action Level (90th percentile) | 0.015 mg/L |
| Lead DLR | 5 µg/L |
| AL in CCR units | 15 µg/L |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| July 2020 Lead Results (µg/L) | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 | Site 7 | Site 8 | Site 9 | Site 10 |
| Lab Reported Results | ND | ND | 8 | 12 | 9 | 5 | ND | <5 | 6 | 10 |
| Results Converted per section 64678(c) | 0 | 0 | 8 | 12 | 9 | 5 | 0 | 0 | 6 | 10 |

Note: If the laboratory reports a finding of “ND” or “< (numerical value of DLR)”, replace the finding with a “zero” (0) per California Code of Regulations, Title 22, section 64678(c).

To calculate the 90th percentile: The results of all samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sample result shall be assigned a number starting with the number 1 for the lowest value. The number of samples taken during the monitoring period shall be multiplied by 0.9. The contaminant concentration in the numbered sample yielded by this calculation is the 90th percentile.

Example:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Order 1 | Order 2 | Order 3 | Order 4 | Order 5 | Order 6 | Order 7 | Order 8 | Order 9 | Order 10 |
| July 2020 Lead Results (µg/L) | 0 | 0 | 0 | 0 | 5 | 6 | 8 | 9 | 10 | 12 |

10 samples x 0.9 = 9; therefore, the ninth value is the 90th percentile value (10 µg/L).

Report in CCR Table: 90th percentile = 10, number of sites sampled = 10, and number of sites above AL (15 µg/L) = 0.

For small systems collecting 5 samples, if the average of the two highest samples is below the reporting level of 5 µg/L, then there is no need to report any detection for lead. If there is only one sample with a detection, then the detected level is divided by 2 and if the result is at or above 5 µg/L, then it should be reported on the CCR.

You must also include a statement summarizing the number of schools that have requested that your system conduct lead sampling.

Public education language is presented on pages 32 and 33 of the Reference Manual titled *“Preparing Your California Drinking Water Consumer Confidence Report (CCR)”*.

Water quality parameter data that you collect in association with the LCR should not be included in the CCR.

* + Example CCR Table Excerpt

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Contamin-ant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violati-on** | **Number of Schools Requesting Lead Sampling** | **Typical Source** |
| Lead(µg/L) | AL = 15 | 0.2 | 10 | 10 sites sampled; 0 sites over AL | 2020 | No | 2 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |

* **Example that demonstrates reporting of fluoride results [California Code of Regulations, sections 64481(d)(2)(D)1.A. and B]:**
	+ Example CCR Table Excerpt (assume one sampling site and one sampling date)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant(CCR units)** | **MCL** | **PHG** | **Average** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Fluoride (naturally occurring) (mg/L)1 | 2.0 | 1 | 0.3 | --- | 2020 | --- | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories |

1 (Sample wording if fluoride added to the water): *Our water* s*ystem treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of [list control range] mg/L with an optimum dose of [list value] mg/L. Our monitoring showed that the fluoride levels in the treated water ranged from [list range] with an average of [list value] mg/L. Information about fluoridation, oral health, and current issues is available from* [*http://www.swrcb.ca.gov/drinking\_water/certlic/drinkingwater/Fluoridation.shtml*](http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml)*.*

* **Example that demonstrates reporting of radioactivity results [California Code of Regulations, section 64481(c)(1)]:**

Gross alpha monitoring results are used for two purposes: To determine compliance with the gross alpha MCL and to screen for radium and uranium. In both cases, an average of four quarterly samples is used unless the samples have been composited.

*Determining MCL compliance:* Counting errors and minimum detectable activity (MDA) are not included in the averages of gross alpha, uranium, or radium data used to determine compliance with the MCLs. Therefore, they are not included in the data reported in the CCR.

*Screening to determine if radium and uranium testing is necessary:* When the gross alpha data are averaged to determine whether radium or uranium testing should be conducted, counting errors are added in and the MDA is substituted in for any zero result. Confusion about radioactivity data reporting for the CCR has resulted from the way the average is calculated for screening purposes, but this approach is not appropriate for CCR data reporting.

* **Example that demonstrates reporting of sodium and hardness results [California Code of Regulations, section 64481(c)(4)]:**

Although sodium and hardness do not have MCLs, they are of interest to many consumers who are concerned about sodium intake and may believe that the hardness of the water could affect their health. Therefore, monitoring is required and detections should be included in the table(s) along with the other data on water quality. Since there are no MCLs/PHGs/MCLGs, just indicate that in the table in some way (*e.g.*, none, N/A).

No “typical source” is required, though a system may wish to include information such as:

*“Hardness” is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.*

*“Sodium” refers to the salt present in the water and is generally naturally occurring.*

* **Example that demonstrates reporting of Stage 1 D/DBPR TOC treatment technique violations (surface water treatment plants with conventional treatment or precipitative softening) [California Code of Regulations, section 64481(d)(3)]:**
* Treatment Technique Violation Reporting

If any of the following apply, you must report a TT violation for enhanced coagulation or enhanced softening (if applicable):

* Alternative compliance criteria for enhanced coagulation or enhanced softening cannot be met.
* Quarterly TOC monitoring does not demonstrate the percentage removal of TOC (demonstrated in the table below).
* A system does not obtain state approval for alternate minimum TOC removal (Step 2) requirements.
	+ Example Data – For a conventional surface water treatment system with source water TOC between 2 – 4 mg/L and with a source water alkalinity between 0 – 50 mg/L.
	+ Example CCR Table Excerpt

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TT Violation** | **Explanation** | **Length** | **Steps Taken toCorrect the Violation** | **Health Effect Language** |
| Failure to remove required amount of total organic carbon (TOC) | On [date], we collected samples for TOC before and after our treatment process to determine the percentage of TOC we were removing. Results showed that we were removing 25 percent of the TOC. We are required to remove 35 percent of the TOC. | 1 month | We examined our treatment processes to see if we could improve our removal of TOC. We made some adjustments to our process on [date]. Samples collected after that time show that we are able to achieve 35 percent removal. | Total organic carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. |

* **Example that demonstrates reporting of LT2ESWTR treatment technique violations:**
* Treatment Technique Violation Reporting

For violation of TTs under the LT2ESWTR, the system must provide an explanation of the violation, an indication of the length of the violation, information on steps taken to correct the violation, and health effects language. Because there are no standard health effects language provided for these TTs, the system would have to write language specific to the violation. You can use the health effect language for contaminants as an example or template.

* Example CCR Table Excerpt

| **TT Violation** | **Explanation** | **Length** | **Steps Taken toCorrect the Violation** | **Health Effect Language** |
| --- | --- | --- | --- | --- |
| Uncovered and Untreated Finished Water Reservoir | The Alma finished water reservoir is uncovered and the discharge is not treated. We were required to address this situation by [date]. | 17 months | We have hired an engineering firm to design a cover for the tank. We intend to have the tank covered by [date]. | Inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches. |
| Determine and Report Bin Classification | After conducting our source water monitoring for *Cryptosporidium*, we were required to determine and report our Bin Classification by [date]. | 1 month | We have since determined our bin classification and reported this to the State Water Resources Control Board. | Inadequately treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches. |
| Provide or Install an Additional Level of Treatment | Based on our bin classification, we were required to provide or install an additional level of treatment by [date]. | 6 months | We hired an engineering firm to prepare a preliminary engineering report. The report listed treatment alternatives. We selected one of the alternatives and are in the process of constructing it. We anticipate that it will be completed by [date]. | Inadequately treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches. |

* **Example that demonstrates reporting of GWR special notice for fecal indicator-positive groundwater source sample:**
	+ Example Data – *E. coli*

This system was triggered to conduct source water monitoring after a TCR positive sample in December 2020. In this example, both the distribution and the source samples were positive for *E. coli*. The system took five additional source samples and one was positive. Below is an example of reporting for both the TCR violation and the GWR special notice.

The required special notice language for fecal indicator-positive samples must be provided in the CCR. For this example, we have included it as footnote to the table.

* + Example CCR Table Excerpt – *E. coli*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant** | **MCL** | **MCLG** | **Your Water** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| *E. coli* (in the distribution system) | 0 | 0 | 1 positive sample | ND - 1 | 2020 | Yes1 | Human or animal fecal waste |
| *E. coli* (at the groundwater source)2 | 0 | 0 | 2 positive samples | ND - 1 | 2020 | No | Human or animal fecal waste |

1 We were notified on December 9, 2020, of an *E. coli* positive sample in the distribution system. You may remember receiving public notification of this violation on December 10. For reasons discussed in the next paragraph, we took Well 1 off-line on December 11. The duration of the violation was two days. We are addressing this contaminated well as discussed below.

2 On December 20, 2020, we sampled the sources (Well 1 and Well 2) for the fecal-indicator, *E. coli*. We were notified on December 11 that Well 1 tested positive for *E. coli*. On December 12, we took five additional samples and were notified on December 13 that two of the five samples were positive for *E. coli*. We immediately took Well 1 off-line at that time. Our system is in contact with the State Water Resources Control Board, and we have a State Water Board-approved plan to abandon this well and replace it with a new well. We will have the new well completed by July 5, 2018, and the old well will be abandoned by July 15, 2018. As an interim measure, we have moved to only utilizing this well as an emergency source and have not had to utilize it since the sampling revealed the contamination.

Health Effects: Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

* + Example Data – Enterococci or Coliphage

If the system had sampled for (and found) enterococci or coliphage as their fecal indicator, the table would read as shown in the sample below.

* + Example CCR Table Excerpt – Enterococci or Coliphage

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant** | **MCL** | **MCLG** | **Your Water** | **Range** | **Sample Date** | **Violation** | **Typical Source** |
| Enterococci (at the groundwater source)1 | TT | N/A | 2 positive samples | ND - 1 | 2018 | No | Human or animal fecal waste |
| Coliphage (at the groundwater source)1 | TT | N/A | 2 positive samples | ND - 1 | 2018 | No | Human or animal fecal waste |

1 Special notice required text and health effects language would be provided in the CCR – possibly in a footnote to the table as shown in the previous example for *E. coli*.

Health Effects: Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

* **Example that demonstrate reporting of GWR treatment technique violations for failure to take corrective action for fecal indicator-positive groundwater source sample:**
	+ Example Data

If in the example shown on the previous page, the system did not complete corrective action(s) within 120 days (or earlier if required by State Water Board) of the fecal indicator-positive source sample, or failed to be in compliance with a State Water Board-approved corrective action plan and schedule, it will be in violation of the TT.

* + Example CCR Table Excerpt

| **TT Violation** | **Explanation** | **Length** | **Steps Taken toCorrect the Violation** | **Health Effect Language** |
| --- | --- | --- | --- | --- |
| Corrective Action for Groundwater Fecal Indicator Source Sample(s) | We were required to take corrective action to address the fecal contamination in our well. | 3 months | We have contacted the State Water Resources Control Board and are now on a corrective action plan. We will abandon the contaminated well and drill a new one. We will have the new well completed by [date], and the old well will be abandoned by [date]. | Inadequately protected or treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches. |

* **NOTE: How to determine “sample result” for an initial sample with 1 or 2 confirmation samples (compliance: initial or averaged with confirmation samples)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Xylenes (µg/L) | Initial Sample | Confirmation 1 | Confirmation 2 | Sample Result |
| Well 1 | 36 | ND | 16 | 26 |
| Well 2 | 18 | 6 | not needed | 12 |
| Well 3 | 7 | ND | ND | ND |