1, 2, 3-TRICHLOROPROPAINE SAMPLING IN Q1 2018

JUNE 29, 2018

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS
On December 14, 2017, the California Water Resources Control Board adopted a Maximum Contaminant Level (MCL) for 1,2,3-trichloropropane (1,2,3-TCP) of 0.000005 mg/L (5 ppt). This regulation requires Community Water Systems and NonTransient-NonCommunity Water Systems to begin initial sampling of 1,2,3-TCP from their drinking water sources. Initial sampling began January 1, 2018, and requires four quarterly samples. With the passing of the first quarter, 1,2,3-TCP data has been compiled and evaluated as explained below.

The first two figures demonstrate the sampling effort and percentage of sources that have completed the required monitoring. Figure 1 shows the number of drinking water sources per District/Local Primacy Agency (LPA) and the number of sources that were sampled during the first quarter. Figure 2 is similar to Figure 1 but presents the data as a percentage of drinking water sources that were sampled during the first quarter.
Figure 1. Drinking Water Sources Sampled during Q1 2018 for 1,2,3-TCP
Figure 2. Drinking Water Sources Sampled during Q1 2018 for 1,2,3-TCP
As shown in the figures above, there is a gap between the number of water sources to the number of sources that were sampled. The following bullets list reasons as to why not all of drinking water sources depicted were sampled. [Further information is being gathered from the Districts/LPAs to address this gap.]

- Water Systems may have applied to receive a waiver from 1,2,3-TCP monitoring. If granted, the water system would not need to sample.
- Water Systems may have failed to conduct the required sampling. Notices of Violation would have been issued to water systems that failed to sample.
- Water Systems may have requested for previous monitoring to be substituted for the first quarter monitoring. Pursuant to Section 64445(i), results obtained from groundwater sources not more than two calendar years prior to the effective date of the 1,2,3-TCP regulation may be substituted to satisfy the initial monitoring requirements.
- Monitoring may not have been required for the drinking water source listed. Some sources listed may have been entered into the Safe Drinking Water Information System database incorrectly and therefore appear on this list as needing to be monitored when in fact they do not.

Appendix item A shows a statewide map of 388 drinking water sources that exceeded the 1,2,3-TCP MCL during the first quarter of 2018.

Figure 3 tallies these 388 drinking water sources and how they are distributed in the 23 counties that are impacted. There is a clear correlation between the location of the drinking water sources that exceed the 1,2,3-TCP MCL and agricultural/industrial areas. The majority of the impacted drinking water sources are in the Central Valley which is attributed to the past agricultural practice of using soil fumigants that contained 1,2,3-TCP. Much of the Southern California area impacts come from past industrial activities (defense/aerospace) that have resulted in Superfund cleanup projects.
Figure 3. Drinking Water Sources with 1,2,3-TCP MCL Exceedances per County during Q1 2018

The chart shows the distribution of 1,2,3-trichloropropane (TCP) MCL exceedances in drinking water sources across various counties in California during the first quarter of 2018. The exceedances are categorized into four ranges: 5-10 ppt, 10-15 ppt, 15-20 ppt, and >20 ppt. The height of each bar represents the number of water sources exceeding the MCL within the specified range for each county.
Appendix B shows which of the 388 drinking water sources mentioned above remain online with no treatment, of which there are 253 sources.

Figure 4 breaks down the 388 drinking water sources that have exceeded the 1,2,3-TCP MCL and categorizes them into their current status.
Figure 4. Status of Drinking Water Sources with 1,2,3-TCP MCL Exceedances per County during Q1 2018
Appendix

Appendix A: Public Drinking Water Wells Exceeding the 1,2,3-TCP MCL in Q1 of 2018

Appendix B: Public Drinking Water Wells Exceeding the 1,2,3-TCP MCL that remain online without Treatment in Q1 of 2018
Appendix A: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL in Q1 of 2018

Public Drinking Water Wells Exceeding the 1,2,3-TCP MCL in Q1 of 2018

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCan, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
Appendix A: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL in Q1 of 2018
Appendix A: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL in Q1 of 2018

CaCounties
1,2,3-TCP Finding
- 5-10 ppt
- 10-15 ppt
- 15-20 ppt
- > 20 ppt
Appendix A: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL in Q1 of 2018

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
Appendix A: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL in Q1 of 2018
Appendix B: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL without Treatment in Q1 of 2018
Appendix B: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL without Treatment in Q1 of 2018
Appendix B: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL without Treatment in Q1 of 2018

1,2,3-TCP Finding
- 5-10 ppt
- 10-15 ppt
- 15-20 ppt
- > 20 ppt

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
Appendix B: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL without Treatment in Q1 of 2018
Appendix B: Public Drinking Water Wells Exceeding the 1, 2, 3-TCP MCL without Treatment in Q1 of 2018