

**Response to Written Comments  
Draft Waste Discharge Requirements  
Order No. R1-2024-0023  
National Pollutant Discharge Elimination System (NPDES)  
for the  
McKinleyville Community Services District  
Wastewater Treatment, Recycling, and Disposal Facility  
Regional Water Quality Control Board, North Coast Region  
June 13-14, 2024**

**Comments Received**

The deadline for submittal of public comments regarding draft Waste Discharge Requirements for Order No. R1-2024-0023, National Pollutant Discharge Elimination System Order (Draft Permit) for the McKinleyville Community Services District (Permittee) Wastewater Treatment Facility (Facility) was May 23, 2024. Regional Water Board staff (Staff) received five written comments within the allotted public comment period from the Permittee.

This Response to Comments document includes a summary of staff-initiated changes made to the Order. Text added to the Proposed Order is identified by underline and text to be deleted from the Proposed Order is identified by strike-through in this document. The term “Draft Order” refers to the version of the permit that was sent out for public comment. The term “Proposed Order” refers to the version of the order that has been modified in response to comments received and is being presented to the North Coast Regional Water Quality Control Board (Regional Water Board) for consideration.

**McKinleyville Community Services District Comments**

**Comment No. 1 : Bis (2-ethylhexyl) Phthalate Limitation.**

*Bis (2-ethylhexyl) Phthalate, Average Monthly limit set at 1.8 ug/L and Maximum Daily set at 3.0 ug/L. North Coast Laboratories, the only laboratory in the area, is only able to achieve a laboratory detection limit of 4 ug/L, and we have confirmed they cannot go lower. This will likely result in numerous Non-Detect results. As detailed in Section 4.3.3.3.1.2, we have had 27 samples that were below this Monthly Limit, with one above the Maximum Daily in 2018. One sample over 1.8 ug/l out of 27 samples (.037%) shouldn't drive this to being an enforceable requirement. That one sample was possibly due to human error and not representative. Out of the 27 samples 22 samples were ND and 4 samples ranged from .20 to 1.0 which fall below the proposed monthly limit. Due to reasons above,*

HECTOR BEDOLLA, CHAIR | VALERIE QUINTO, EXECUTIVE OFFICER

*NCL not being able to test below 4, the District would need to continue shipping this sample to Basic Lab in Redding, who then has to subcontract it out, resulting in expensive testing when you count the shipping and testing costs. The District would appreciate the Regional Board to consider eliminating this as a constituent of concern under the Reasonable Potential Determination and remove the sampling requirement.*

**Response to Comment No. 1:**

The California Toxics Rule (CTR) establishes a water quality objective for the protection of human health for Bis (2-Ethylhexyl) Phthalate of 1.8 µg/L. The Permittee sampled the effluent for Bis (2-Ethylhexyl) Phthalate 27 times during the term of Order No. R1-2018-0032 and results ranged from <0.20 µg/L to 3.9 µg/L. Bis (2-Ethylhexyl) Phthalate was detected at a concentration of 3.9 µg/L on December 3, 2018. Using the protocol set forth in section 1.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries (SIP), a determination of reasonable potential has been made based on the maximum effluent concentration (MEC) of 3.9 µg/L exceeding the most stringent water quality objective of 1.8 µg/L. The sample collected had no indication of human error as the Permittee suggests but was flagged in the laboratory report as an estimated value. The value of 3.9 µg/L is estimated because the concentration detected is less than the minimum reportable level (MRL) of 5 ug/L that can be reported with a specific degree of confidence, but more than the method detection limit (2.3 ug/L). Based on the findings of the lab report the sample is between 2.3 µg/L and 5 µg/L but cannot be called 3.9 µg/L with statistical certainty. The sample was determined to be more than the MDL of 2.3 µg/L exceeding the most stringent water quality objective of 1.8 µg/L.

Regional Board staff acknowledges the monitoring challenges imposed by adding an effluent limitation to the Permit for bis (2-ethylhexyl) phthalate and has reduced the monitoring frequency from monthly to quarterly within the Proposed Order, which is a monitoring frequency that will result in appropriate data needed to evaluate water quality and other impacts of the discharge and ensure that beneficial uses are protected.

Table E-3 of the Proposed Order's Monitoring and Reporting Program has been modified as follows:

**Table Error! No text of specified style in document.-1. Effluent Monitoring – Monitoring Location EFF-001**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method <sup>1</sup>
Bis (2-ethylhexyl) Phthalate	µg/L	Grab	Monthly <u>Quarterly</u> <sup>6</sup>	Standard Methods

**Table Notes**

6. Accelerated Monitoring (monthly and quarterly monitoring frequency). If a test result exceeds an effluent limitation the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.

**Comment No. 2: Chromium Effluent Limitation.**

*As detailed in Section 4.3.3.3.1.3, only one District sample had a Cr result, at 0.69 ug/L. The Mad River background level was 50.1ug/L. It appears that we are being penalized for the lack of control of other sources of Cr in the Mad River, and the District would ask that the Reasonable Potential Determination for Cr be reassessed.*

**Response to Comment No. 2:**

Chromium is known to cause adverse health effects in humans. For waters designated as domestic or municipal supply, which the Mad River and its tributaries are designated, the Basin Plan (Chapter 3) adopts the MCLs, established by DDW for the protection of public water supplies at title 22 of the CCR, sections 64431 (Inorganic Chemicals) and 64444 (Organic Chemicals), as applicable water quality criteria. The MCL for Chromium is 50 µg/L. On January 5, 2022, Chromium was detected in effluent and receiving water at 0.69 µg/L and 50.1 µg/L, respectively. Following procedures outlined in the SIP, a determination of reasonable potential has been made based on the receiving water result of 50.1 µg/L exceeding the most stringent water quality objective of 50.0 µg/L, and Chromium detected in effluent at 0.69 µg/L. While the chromium levels detected in effluent were far below the water quality objective, any level of contamination can contribute to an impairment in the receiving water body, in this case the Mad River.

Regional Water Board staff recognizes that McKinleyville is a disadvantaged community and to reduce the financial burden of monitoring, has changed the monitoring frequency from monthly to quarterly for Total Chromium within the Proposed Order, which is a monitoring frequency that will result in appropriate

data needed to evaluate water quality and other impacts of the discharge and ensure that beneficial uses are protected.

Table E-3 of the Proposed Order’s Monitoring and Reporting Program has been modified as follows:

**Table Error! No text of specified style in document.-1. Effluent Monitoring – Monitoring Location EFF-001**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method <sup>1</sup>
Chromium, Total	µg/L	Grab	Monthly <u>Quarterly</u> <sup>6</sup>	Standard Methods

Table Notes

6. Accelerated Monitoring (monthly and quarterly monitoring frequency). If a test result exceeds an effluent limitation the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.

**Comment No. 3: Enterococci Receiving Water Limitation.**

*It is unclear to the District as to how we are to control or influence the water quality in the receiving water with respect to enterococci. Other local agencies that are required to run this test are unable to meet the holding time since samples have to be shipped out of the area. The sampling cost to the District will be approximately \$10,000 for results, that will at best, will be suspect. We challenge the additional costs being imposed on the District to obtain background levels of enterococci in the Mad River, when it is highly unlikely that the results will be valid or provide clarification on what the NCRWQCB is attempting to assess with this permit requirement.*

**Response to Comment No. 3:**

As stated in section 5.1 of the Proposed Permit, an enterococci exceedance in receiving water is not necessarily a violation of receiving water limitations. In the event that the Permittee’s downstream receiving water monitoring detects enterococci concentrations in excess of the enterococci receiving water limitations, the Regional Water Board will conclude that receiving water limitations for enterococci are not being consistently achieved near the point of the Permittees’ discharge and may require that the Permittee conduct an investigation

and/or consider other available information to determine if its discharge is causing or contributing to the exceedance of water quality standards.

Regional Water Board staff acknowledge that until the Permittee makes arrangements to have its local laboratory attain ELAP accreditations for enterococci analysis, it would be difficult to obtain results within the necessary holding time. The Proposed Order has been modified as follows to allow a reasonable delay of the enterococci monitoring and reporting requirements until such arrangements can be made.

Table E-3 of the Proposed Order’s Monitoring and Reporting Program has been modified as follows:

**Table Error! No text of specified style in document.-1. Effluent Monitoring – Monitoring Location EFF-001**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method <sup>1</sup>
Enterococci Bacteria <sup>15</sup>	MPN/100 mL	Grab	Weekly <sup>16</sup>	Standard Methods

Table Notes

16. The Permittee shall begin monitoring for enterococci, from an ELAP accredited lab, by June 1, 2026. If the Permittee is unable to obtain the services of an ELAP accredited lab within the deadline set forth in this Order, the Permittee may request, in writing, that the Regional Water Board Executive Officer grant an extension of the time. The extension request shall include justification for the delay and shall be submitted at least 30 days prior to the deadline to be considered timely.

Section 7.2.2.3. of the Proposed Order’s Fact Sheet has been modified as follows.

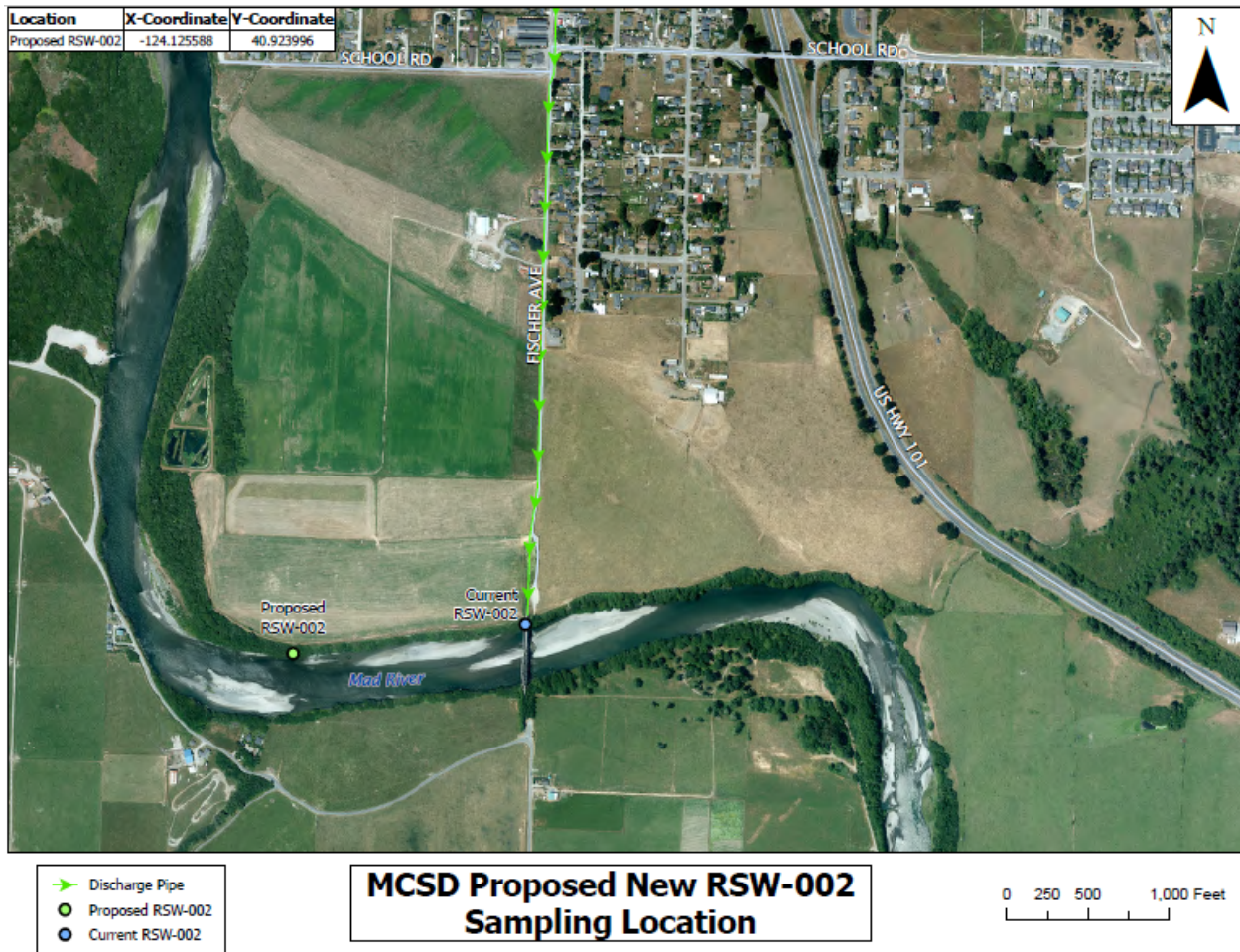
7.2.2.3. Effluent monitoring for enterococci bacteria has been established at Monitoring Location EFF-001 in this Order to ensure that the discharge is protective of the water contact recreation beneficial use (REC-1). The monitoring for enterococci has been delayed until the Permittee can attain ELAP accreditation for enterococci testing, no later than June 1, 2026. If the Permittee is unable to obtain the services of an ELAP accredited lab within the deadline set forth in this Order, the Permittee may request, in writing, that the Regional Water Board Executive Officer grant an extension of the time. The extension request shall include justification for the delay and shall be submitted at least 30 days prior to the deadline to be considered timely.

The second paragraph of Section 7.5.4.1. of the Proposed Order's Fact Sheet has been modified as follows:

Receiving water monitoring for enterococci bacteria has been established in this Order to assess compliance with bacteria WQOs in the vicinity of the Permittee's outfall. The monitoring for enterococci has been delayed until the Permittee can attain ELAP accreditation for enterococci testing, no later than June 1, 2026.

**Comment No. 4: Receiving Water Monitoring Location Change.**

*The previous NCRWQCB regulatory Staff along with District staff had wanted to move the RSW-002 sampling point down river due to a stagnant water pool at the current sampling location. The District would like the NCRWQCB Staff to consider relocation of this sample point downstream from the current location where the river is moving during all seasons and is more representative of the river conditions. (Submitted Map Below.)*



**Response to Comment No. 4:**

Regional Water staff agrees that the previous downstream monitoring location may not be representative of effluent discharge due to the changing hydraulic characteristics of the Mad River. However, the proposed downstream receiving water monitoring location chosen by the Permittee is approximately 0.25 miles from the current sampling location and may be too far from the authorized discharge point to be representative of downstream receiving water conditions.

As an alternative, Regional Water Board staff has modified the monitoring location description in Table E-1 of the Proposed Order to allow the District to select a receiving water sampling location that will be representative of downstream receiving water conditions, but within 100 feet of the discharge location, to ensure the monitoring location yields sample results that are representative of downstream receiving water conditions. If the Permittee cannot collect a representative sample within 100 feet of the discharge location due to flow conditions, the Permittee must conduct monitoring at the closest possible representative location, document this change, and provide justification why the sample location is the closest to the discharge point that will yield a sample result that is representative of downstream receiving water conditions.

Table E-1 of the Proposed Order’s Fact Sheet has been modified as follows.

**Table Error! No text of specified style in document.-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	RSW-002	<p><del>The North Bank of the Mad River as close as possible to Discharge Point 001 under the Hammond Trail bridge.</del></p> <p><u>Receiving water sampling shall be conducted within a free-flowing location and representative of receiving water conditions within 100 feet<sup>1</sup> of the discharge location.</u></p>

Table Notes

1. If the discharger cannot collect a representative sample within 100 feet Discharge Point 001 due to flow conditions, the sample shall be collected at the closest possible representative location and this change shall be documented in the Self-Monitoring Report along with justification why the specific location is the closest to the discharge point that will yield a sample result that is representative of downstream receiving water conditions.

Section 9.2 of the Monitoring and Reporting Plan (MRP) in Proposed Order's Fact Sheet has been modified as follows.

**Visual Monitoring (Monitoring Locations EFF-001, RSW-001, and RSW-002)**

9.2.1. Visual observations of the discharge and receiving water shall be recorded monthly and on the first day of each intermittent discharge. Visual monitoring shall include, but not be limited to, observations for floating materials, coloration, objectionable aquatic growths, oil and grease films, and odors. Visual observations of flow conditions shall be recorded including but not limited to areas of stagnant water surrounding Discharge Point 001. Visual observations shall be recorded and included in the Permittee's quarterly SMRs.

**Comment No. 5: Disinfection Byproduct Effluent Limitations.**

*Dichlorobromomethane. During the current permit cycle, the District sampled 27 times and resulted in 4 samples over the .56 ug/l, with the last exceedance being May of 2019 as stated in 4.3.3.3.1.1. This was a result of the new treatment plant achieving full nitrification; a process that can lead to free chlorine binding with organic compounds and creating disinfection byproducts. In 2019 the district conducted a pilot study to examine Chloramination as a disinfection process. The district found that with Chloramination as the disinfection method, DCBM results were consistently held below the enforced 0.56 ug/l limit, while Ammonia Impact Ratio compliance was maintained. As of April of 2024, the district has sampled 23 times; in those 23 samples the average DCBM concentration was 0.31 ug/l with a maximum and minimum concentration of 0.51 ug/l and 0.14 ug/l respectively. The District would appreciate the Regional Board to consider eliminating this as a constituent of concern under the Reasonable Potential Determination and remove the sampling requirement.*

**Response to Comment No. 5:**

Regional Board staff acknowledge that sample results supporting inclusion of dichlorobromomethane effluent limits are not representative of the current discharge and that more recent data sets, following Facility treatment changes, demonstrate no reasonable potential. In a conversation with Regional Board staff following the comment period, the Permittee explained that the Facility was upgraded in December 2017 to reduce nutrients in its effluent discharge. Following the upgrade, the Permittee saw an increase in disinfection byproducts, such as dichlorobromomethane, and explained that the elevated concentrations were a temporary result of the new treatment plant achieving full nitrification—a process that can lead to free chlorine binding with organic compounds and creating disinfection byproducts. The Permittee has since demonstrated that using chloramination as the disinfection method results in disinfection byproducts being consistently below water quality objectives while still maintaining Ammonia Impact Ratio compliance. Regional Board staff recognize that the Permittee was fine-tuning its new treatment system when the high results occurred and has since



been running the facility effectively to prevent any further results exceeding the water quality objective for dichlorobromomethane. Therefore, following protocols outlined in the SIP, Regional Board staff has removed effluent limitations for dichlorobromomethane from the Proposed Order and reduced monitoring requirements from monthly to quarterly. Monitoring requirements for dichlorobromomethane are necessary to ensure chloramination remains a viable treatment solution for chlorine disinfection products and that beneficial uses are protected.

Table 2, Table E-3, Table F-5, Table F-6, Table F-10, and Table F-11 of the Proposed Order has been modified as follows.

**Table 1. Effluent Limitations <sup>1</sup> – Discharge Point 001**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Dichlorobromomethane	µg/L	0.56	–	1.2	–	–

**Table Error! No text of specified style in document.-2. Effluent Monitoring – Monitoring Location EFF-001**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method <sup>1</sup>
Dichlorobromomethane	µg/L	Grab	<del>Monthly</del> Quarterly <sup>6</sup>	GC (ML 0.5 µg/L) <sup>7</sup>

**Table Notes**

6. Accelerated Monitoring (monthly and quarterly monitoring frequency). If a test result exceeds an effluent limitation the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.

**Table F-5. Summary of Reasonable Potential Analysis Results for Priority Pollutants, Ammonia, and Title 22 Pollutants**

CTR No.	Pollutant	Unit	C or Most Stringent WQO/WQC	MEC or Minimum DL <sup>1</sup>	B or Minimum DL	RPA Result <sup>2</sup>
27	Dichlorobromomethane	µg/L	0.56	1.38	<0.11	<del>Yes</del> <u>No</u>

**Table F-6. Determination of Final WQBELs Based on Human Health Criteria**

Pollutant	Units	ECA	MDEL/ AMEL Multiplier	MDEL	AMEL
Dichlorobromomethane	µg/L	0.56	2.14	1.20	0.56

**Table F-10. Summary of Effluent Limitations – Discharge Point 001 (Monitoring Location EFF-001)**

Parameter	Unit	Average Monthly Effluent Limitation	Average Weekly Effluent Limitation	Maximum Daily Effluent Limitation	Instantaneous Minimum Effluent Limitation	Instantaneous Maximum Effluent Limitation	Basis <sup>1</sup>
Dichlorobromomethane	µg/L	0.56	–	1.1	–	–	CTR

**Table F-11. Wastewater Treatment Facility RPA Summary**

Constituent Name	Units	MEC <sup>1</sup>	B	C	CMC	CCC	Water & Org. <sup>2</sup>	Org. Only <sup>3</sup>	MC L	RP <sup>4,5</sup>
Dichlorobromomethane	ug/L	26	< 0.11	0.56	N/A	N/A	0.56	46	80	<del>Yes</del> <u>No</u>

Section 4.3.3.3.1.2. of the Proposed Order's Fact Sheet has been modified as follows.

4.3.3.3.1.1. **Dichlorobromomethane (DCBM)**. The CTR establishes a water quality objective for the protection of human health for DCBM of 0.56 µg/L. The Permittee sampled the effluent for DCBM 27 times during the term of Order No. R1-2018-0032 and results ranged from <0.11 µg/L to 1.38 µg/L. DCBM was not detected (<0.11 µg/L) in the receiving water based on one sample. The Facility was upgraded in December 2017 to reduce nutrients in effluent

discharge. Following the upgrade, the Facility saw an increase in disinfection byproducts such as DCBM. This was a result of the new treatment plant achieving full nitrification, a process that can lead to free chlorine binding with organic compounds and creating disinfection byproducts. In 2019, the Permittee conducted a pilot study to examine Chloramination as a disinfection process and the Permittee found that with Chloramination as the disinfection method, disinfection byproducts results were consistently held below water quality objectives, while Ammonia Impact Ratio compliance was maintained. Therefore, a determination of no reasonable potential has been made and monitoring requirements for DCBM are reduced accordingly. based on the MEC of 1.38 µg/L exceeding the most stringent water quality objective of 0.56 µg/L.

Section 4.3.4. of the Proposed Order's Fact Sheet has been modified as follows.

**Step 4:** When the most stringent water quality criterion/objective is a human health criterion/objective (as for ~~dichlorobromomethane~~, bis (2-ethylhexyl) phthalate, and chromium (total)), the AMEL is set equal to the ECA. From Table 2 of the SIP, when CV = 1.75, the MDEL multiplier at the 99th percentile occurrence probability equals 3.11, and the AMEL multiplier at the 95th percentile occurrence probability equals 1.55. The MDEL for protection of human health is calculated by multiplying the ECA by the ratio of the MDEL multiplier to the AMEL multiplier. Final WQBELs for ~~dichlorobromomethane~~, bis (2-ethylhexyl) phthalate, and chromium (total) are determined as follows.

Section 7.2.2.1., 7.2.2.2. and 7.3 of the Proposed Order's Fact Sheet has been modified as follows.

7.2.2.1. Effluent monitoring frequencies and sample types for flow, BOD<sub>5</sub>, TSS, pH, total coliform bacteria, settleable solids, temperature, total chlorine residual, ammonia, and nitrate, ~~and dichlorobromomethane~~ have been retained from Order No. R1-2018-0032.

7.2.2.2. The Permittee upgraded treatment processes in 2017, this process change warranted monitoring for chlorine disinfection byproducts, such as bromoform, chloroform, carbon tetrachloride, dichlorobromomethane and chlorodibromomethane in the previous permit term to ensure the upgrade did not result in generation of disinfection byproducts. This monitoring showed generation of dichlorobromomethane in effluent. In response to these monitoring results the Permittee has installed a chloramine disinfection system in December 2019 to prevent formation of chlorine disinfection byproducts. Effluent monitoring for bromoform, chloroform, carbon tetrachloride and chlorodibromomethane have been removed from the Proposed Order and the monitoring frequency for dichlorobromomethane was reduced because following the installation of chloramine disinfection the discharge at Discharge Point 001 no longer demonstrates reasonable potential to cause or contribute to an exceedance of water quality objectives for these constituents when discharging to Mad River.

### **7.3. Toxicity Testing Requirements**

Effluent monitoring data collected during the term of Order No. R1-2018-0032 indicates that the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives for chronic toxicity and/ or acute toxicity. Therefore, to align with Statewide Toxicity Provisions this Order discontinues effluent monitoring requirements for acute aquatic toxicity included in Order No. R1-2018-0032. This Order includes the minimum required, semiannual effluent monitoring requirements for chronic aquatic toxicity, as required by the Toxicity Provisions. The CTR priority pollutant monitoring requirements at Monitoring Location EFF-001 have been retained from Order No. R1-2018-0032. Priority pollutant monitoring during the term of Order No. R1-2018-0032 demonstrated that there is no reasonable potential for any priority pollutant, except ~~dichlorobromomethane~~, chromium, and bis (2-ethylhexyl) phthalate to exceed the applicable water quality criteria.

#### **Staff Initiated Changes**

Several non-substantive, editorial and typographical changes were incorporated into the Proposed Order.