

**ENCLOSURE TO
TENTATIVE WASTE DISCHARGE REQUIREMENTS (NPDES PERMIT)
FOR
DONNER SUMMIT PUBLIC UTILITIES DISTRICT
WASTEATER TREATMENT PLANT**

TENTATIVE DILUTION OPTIONS

- Option 1 – No Dilution Credit for Nitrate Effluent Limitation
Option 2 – No Dilution Credits for any Constituents**

The following are two tentative NPDES Permit Options regarding the use of dilution credits to (1) determine if the subject discharge has reasonable potential to cause or contribute to an exceedance of surface water criteria, and (2) calculate effluent limitations. These tentative Options will be considered by the Regional Water Quality Control Board at its April 2009 Board meeting.

OPTION 1. No Dilution for Nitrate

This Option proposes to modify the tentative NPDES Permit to reflect no dilution credit granted for establishment of a nitrate effluent limitation. Water quality data demonstrates that the Donner Summit Public Utilities District (hereafter Discharger) will not be able to immediately comply with the resulting final nitrate effluent limitation; therefore, implementation of this proposed Option will require a compliance time schedule. The modifications below propose changes to the tentative NPDES Permit and Cease and Desist Order that maintains an effluent nitrate limitation of 10 mg/l, based on Department of Public Health standards.

Make the following changes to the tentative NPDES permit:

1. In Section IV. Effluent Limitations and Discharge Specifications, modify Table 6 as follows:

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD 5-day @ 20 °C	mg/L	10	15	30	--	--
	lbs/day ¹	43	65	130	--	--
pH	standard units	--	--	--	6.5	8.5
Total Suspended Solids (TSS)	mg/L	10	15	30	--	--
	lbs/day ¹	43	65	130	--	--
Aluminum	ug/L	71	--	143	--	--
Ammonia	mg/L	2.1	--	5.6	--	--
Copper, Total Recoverable	ug/L	1.5	--	3.1	--	--
Cyanide	ug/L	4.3	--	8.5	--	--
Dichlorobromomethane	ug/L	13.9	--	27.9	--	--
Nitrate	mg/L	18 10	--	--	--	--
	lbs/day ¹	78 43	--	--	--	--
Zinc, Total Recoverable	ug/L	15	--	30	--	--

1. Based on the regulated flow of 0.52 mgd.

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2. In Fact Sheet, Section IV. Rationale for Effluent Limitations and Discharge Specifications, modify Section IV.C.2.c as follows:

Assimilative Capacity/Mixing Zone. USEPA established numeric criteria for priority toxic pollutants in the California Toxics Rule (CTR). The State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) to implement the CTR. The Regional Water Board's Basin Plan allows mixing zones provided the Discharger has demonstrated that the mixing zone will not adversely impact beneficial uses. The Basin Plan further requires that in determining the size of a mixing zone, the Regional Water Board will consider the applicable procedures in USEPA's Water Quality Standards Handbook and the Technical Support Document for Water Quality Based Toxics Control (TSD). It is the Regional Water Board's discretion whether to allow a mixing zone. The SIP, in part, states that mixing zones shall not:

- Compromise the integrity of the entire water body.
- Cause acutely toxic conditions to aquatic life passing through the mixing zone.
- Restrict passage of aquatic life.
- Adversely impact biologically sensitive or critical habitats, including but not limited to, habitat of species listed under Federal or State endangered species laws.
- Dominate the receiving water body.
- Overlap a mixing zone from a different outfall.

USEPA's Water Quality Standards Handbook (WQSH) states that States may, at their discretion, allow mixing zones. The WQSH recommends that mixing zones be defined on a case-by-case basis after it has been determined that the assimilative capacity of the receiving stream can safely accommodate the discharge. This assessment should take into consideration the physical, chemical, and biological characteristics of the discharge and the receiving stream; the life history of and behavior of organisms in the receiving stream; and the desired uses of the waters. Mixing zones should not be allowed where they may endanger critical areas (e.g., drinking water supplies, recreational areas, breeding grounds and areas with sensitive biota). USEPA's TSD states, in part in Section 4.3.1, that mixing zones should not be permitted where they may endanger critical areas.

The Basin Plan, the SIP and USEPA's TSD state that allowance of a mixing zone

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is discretionary on the part of the Regional Board. Mixing zones will be limited to the amount of assimilative capacity necessary to comply with discharge limitations. There are no water intakes downstream of the discharge point within a distance that could be impacted by the proposed mixing zone.

~~Typically, dilution credits based on the harmonic mean flow of the receiving water are not applicable for nitrate since nitrate may cause short term human health impacts. Since the harmonic mean flow is not applicable, available receiving water flow data was used to determine a reasonable critical flow value and a dilution credit for nitrate. Nitrate is limited on a monthly basis, therefore the 30Q10 (30 day low flow over a 10 year period) was utilized. The lowest receiving water flow for each month was compared to the highest effluent discharge flow for the corresponding month (see table below).~~

Month	Lowest Monthly Receiving Water Flow (mgd)	Highest Monthly Discharge Flow (mgd)	Ratio (Receiving Water to Effluent Flow)
January	0.75	0.33	2.3
February	1.9	0.36	5.3
March	6	0.31	19
April	24	0.34	71
May	63	0.42	150
June	2.65	0.3	8.8
July	1.2	0.21	5.7
August	1.12	NA	NA
September	1.12	NA	NA
October	0.7	NA	NA
November	0.55	0.17	3.2
December	0.65	0.36	1.8

Based on stream observation that occurred during the biostimulatory study conducted in 2008, it has been determined that the effluent and receiving water are completely mixed by the location of receiving water monitoring location RSW-002, located 500 feet downstream of the point of discharge. Therefore, this location has been identified as the boundary of the mixing zone for dichlorobromomethane and nitrate. ~~Nitrate is not a conservative pollutant and there are no drinking water intakes between the point of discharge and the edge of the 500 foot mixing zone allowed in this Order.~~

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Dilution and flow information contained in the Report of Waste Discharge is the basis of the dilution credit of 24.5 for dichlorobromomethane. ~~and 1.8:1 for nitrate. Actual monitoring data demonstrates that a dilution credit of 1.8:1 is protective of the receiving water.~~ The Discharger is required by this Order to construct and cross-stream diffuser and perform a mixing zone study once the new diffuser is operational. At that time, new a dilution credit and mixing zone may be considered nitrate. ~~boundaries will be established.~~ For other parameters, the worst-case dilution is assumed to be zero to provide protection for the receiving water beneficial uses. The impact of assuming zero dilution/assimilative capacity within the receiving water is that the discharge limitations are end-of-pipe limits with no allowance for dilution within the receiving water.

3. In Fact Sheet, Section IV. Rationale for Effluent Limitations and Discharge Specifications, modify Section IV.C.3.l as follows:

Nitrite and Nitrate. Untreated domestic wastewater contains ammonia. Nitrification is a biological process that converts ammonia to nitrite and nitrite to nitrate. Denitrification is a process that converts nitrate to nitrite or nitric oxide and then to nitrous oxide or nitrogen gas, which is then released to the atmosphere. Nitrate and nitrite are known to cause adverse health effects in humans. The California Department of Public Health (DPH) has adopted Primary Maximum Contaminant Levels (MCLs) at Title 22 of the California Code of Regulations (CCR), Table 64431-A, for the protection of human health for nitrite and nitrate that are equal to 1 mg/L and 10 mg/L (measured as nitrogen), respectively. Title 22 CCR, Table 64431-A, also includes a primary MCL of 10,000 µg/L for the sum of nitrate and nitrite, measured as nitrogen.

USEPA has developed Drinking Water Standards (10,000 µg/L as Primary Maximum Contaminant Level) and Ambient Water Quality Criteria for protection of human health (10,000 µg/L for non-cancer health effects). Recent toxicity studies have indicated a possibility that nitrate is toxic to aquatic organisms.

Inadequate or incomplete denitrification may result in the discharge of nitrate and/or nitrite to the receiving stream. The conversion of ammonia to nitrites and the conversion of nitrites to nitrates present a reasonable potential for the discharge to cause or contribute to an in-stream excursion above the Primary MCLs for nitrate.

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The Maximum Effluent Concentration (MEC) for nitrate was 80 mg/L, based on 206 samples collected between 1 June 2002 and 31 July 2007. The upstream receiving water nitrate concentration was not available. Therefore, the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion for nitrate.

The MEC for nitrite was 0.35 mg/L, based on 26 samples collected between 1 June 2002 and 31 July 2007. Data on the upstream receiving water nitrate concentration is not available. The maximum effluent nitrite concentration of 0.35 mg/l demonstrates that the discharge has no reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion.

The Discharger submitted a request for dilution credits to the Regional Water Board and proposed to use a harmonic mean dilution rate of 24.5 to calculate the effluent limitations. It is not appropriate to use the human health dilution credit for nitrate, because adverse human health effects caused by high nitrate concentrations can be felt over a short-term (e.g. one dose). The human health dilution credit is intended for CTR human health criteria where adverse human health effects occur over the long-term consumption of the water (i.e. 2 liters per day for 70 years). ~~As described in detail previously in this Fact Sheet, the dilution credit of 1.8:1 has been applied to the final effluent limitation for nitrate. Based on monitoring data, a dilution credit of 1.8:1 will be protective of the receiving water.~~ An AMEL for nitrate of 18 10 mg/L is included in this Order based on the MGLs ~~and the dilution credit of 1.8:1~~. The effluent limitation is included in this Order to assure the treatment process adequately nitrifies and denitrifies the waste stream and protects the beneficial use of municipal and domestic supply.

The Discharger may not be able to consistently comply with the nitrate limitation. Therefore, a time schedule for compliance with the nitrate final effluent limitations is established in Cease and Desist Order (CDO) No. R5-2009-XXXX in accordance with CWC sections 13300 and 13385. The Order also requires preparation and implementation of a pollution prevention plan in compliance with CWC section 13263.3.

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4. In Fact Sheet, Section IV. Rationale for Effluent Limitations and Discharge Specifications, Satisfaction of Anti-Backsliding Requirements, modify Section IV.D.3. as follows:

Satisfaction of Anti-Backsliding Requirements.

Some effluent limitations in this Order are less stringent than those in the previous Order. As discussed below this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

Order No. R5-2002-0088 requires effluent limitations of settleable solids. Effluent limitations of settleable solids are eliminated due to new monitoring information becoming available. Elimination of effluent limitations of settleable solids is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16. Any impact on existing water quality will be insignificant.

~~The effluent limitation for nitrate in this Order is less stringent than the effluent limitations of the previous Order because it accounts for dilution. Anti-backsliding requirements are satisfied pursuant to CWA section 402(o)(2)(B), where the documented study of a dilution factor that is protective of the beneficial uses of the receiving water was submitted with the report of waste discharge required in the previous permit is newly available information not available during the issuance of the previous Order.~~

The previous Order contained effluent limitations for turbidity. The limitations were solely an operational check to ensure the treatment system was functioning properly and could meet the limits for total coliform organisms. The effluent limitations were not intended to regulate turbidity in the receiving water. Rather, turbidity is an operational parameter to determine proper system functioning and not a WQBEL.

This Order contains operational requirements for turbidity to be met prior to disinfection in lieu of effluent limitations. However, the operational requirements in this Order are an equivalent limitation that is not less stringent than the effluent limitations required in the Previous Order, and therefore does not constitute backsliding.

The revision in the turbidity limitation is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16

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because this Order imposes equivalent or more stringent requirements than Order No. R5-2003-0089 and therefore does not allow degradation.

5. In the tentative Cease and Desist Order, modify table in Finding No. 4 as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	1.5	--	3.1	--	--
Cyanide, Total Recoverable	µg/L	4.3	--	8.5	--	--
Zinc, Total Recoverable	µg/L	15	--	30	--	--
Aldrin	µg/L	--	--	--	--	ND
Alpha BHC	µg/L	--	--	--	--	ND
Silver	µg/L	--	--	--	--	0.23
Ammonia	mg/L	2.1	--	5.6	--	--
Nitrate	mg/L	18 10	--	--	--	--
	lbs/day ¹	78 43	--	--	--	--

OPTION 2. No Dilution for any Constituent

This Option proposes to modify the tentative NPDES Permit and Cease and Desist Order to reflect no dilution credit for the establishment of any effluent limitations. Specifically, this Option proposes to remove the dilution credit granted for nitrate and dichlorobromomethane in the tentative NPDES Permit. Water quality data demonstrates that the Discharger will not be able to comply with the resulting final effluent limitations for dichlorobromomethane and nitrate; therefore, implementation of this proposed option will require a compliance time schedule for these final effluent limitations.

The modifications below propose changes to the tentative NPDES Permit and Cease and Desist Order that maintains an effluent nitrate limitation of 10 mg/l and a dichlorobromomethane effluent limitation of 0.56 ug/l.

Make the following changes to the tentative NPDES permit:

1. In Section IV. Effluent Limitations and Discharge Specifications, modify Table 6 as follows:

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Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD 5-day @ 20 °C	mg/L	10	15	30	--	--
	lbs/day ¹	43	65	130	--	--
pH	standard units	--	--	--	6.5	8.5
Total Suspended Solids (TSS)	mg/L	10	15	30	--	--
	lbs/day ¹	43	65	130	--	--
Aluminum	ug/L	71	--	143	--	--
Ammonia	mg/L	2.1	--	5.6	--	--
Copper, Total Recoverable	ug/L	1.5	--	3.1	--	--
Cyanide	ug/L	4.3	--	8.5	--	--
Dichlorobromomethane	ug/L	13.9 0.56	--	27.9 1.2	--	--
Nitrate	mg/L	18 10	--	--	--	--
	lbs/day ¹	78 43	--	--	--	--
Zinc, Total Recoverable	ug/L	15	--	30	--	--

1. Based upon a regulated flow of 0.52 mgd.

- In Fact Sheet Section IV. Rationale for Effluent Limitations and Discharge Specifications, modify Section IV.C.2.c as follows:

Assimilative Capacity/Mixing Zone. USEPA established numeric criteria for priority toxic pollutants in the California Toxics Rule (CTR). The State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) to implement the CTR. The Regional Water Board's Basin Plan allows mixing zones provided the Discharger has demonstrated that the mixing zone will not adversely impact beneficial uses. The Basin Plan further requires that in determining the size of a mixing zone, the Regional Water Board will consider the applicable procedures in USEPA's Water Quality Standards Handbook and the Technical Support Document for Water Quality Based Toxics Control (TSD). It is the Regional Water Board's discretion whether to allow a mixing zone. The SIP, in part, states that mixing zones shall not:

- Compromise the integrity of the entire water body.
- Cause acutely toxic conditions to aquatic life passing through the mixing zone.
- Restrict passage of aquatic life.
- Adversely impact biologically sensitive or critical habitats, including but not limited to, habitat of species listed under Federal or State endangered species laws.

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- Dominate the receiving water body.
- Overlap a mixing zone from a different outfall.

USEPA's Water Quality Standards Handbook (WQSH) states that States may, at their discretion, allow mixing zones. The WQSH recommends that mixing zones be defined on a case-by-case basis after it has been determined that the assimilative capacity of the receiving stream can safely accommodate the discharge. This assessment should take into consideration the physical, chemical, and biological characteristics of the discharge and the receiving stream; the life history of and behavior of organisms in the receiving stream; and the desired uses of the waters. Mixing zones should not be allowed where they may endanger critical areas (e.g., drinking water supplies, recreational areas, breeding grounds and areas with sensitive biota). USEPA's TSD states, in part in Section 4.3.1, that mixing zones should not be permitted where they may endanger critical areas.

The Basin Plan, the SIP and USEPA's TSD state that allowance of a mixing zone is discretionary on the part of the Regional Board. Mixing zones will be limited to the amount of assimilative capacity necessary to comply with discharge limitations. There are no water intakes downstream of the discharge point within a distance that could be impacted by the proposed mixing zone.

The Discharger conducted a dilution study and submitted the results in their March 2007 Report of Waste Discharge. According to the report, the Discharger's existing side stream rock diffuser is not expected to create a completely mixed effluent discharge condition, therefore the Discharger is not granted dilution credits for constituents with water quality-based effluent limitations based on aquatic life criteria. However, for constituents with water quality-based effluent limitations based on human health criteria, the Discharger proposes a harmonic mean dilution credit of 24.5 to determine effluent limitations. Flow estimates were obtained from the United States Geological Services (USGS) stream gauge station in Cisco, CA (station number 11414000). Flow data was determined for South Yuba River at the location of surface water discharge by multiplying all flow values by 0.4054, which is the ratio of the Donner Summit Public Utilities District watershed area and the Cisco watershed area. This is a rational approach for determining average flows in the South Yuba River on a preliminary basis.

~~Typically, dilution credits based on the harmonic mean flow of the receiving water are not applicable for nitrate since nitrate may cause short-term human health impacts. Since the harmonic mean flow is not applicable, available receiving~~

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water flow data was used to determine a reasonable critical flow value and a dilution credit for nitrate. Nitrate is limited on a monthly basis, therefore the 30Q10 (30 day low flow over a 10 year period) was utilized. The lowest receiving water flow for each month was compared to the highest effluent discharge flow for the corresponding month (see table below).

Month	Lowest Monthly Receiving Water Flow (mgd)	Highest Monthly Discharge Flow (mgd)	Ratio (Receiving Water to Effluent Flow)
January	0.75	0.33	2.3
February	1.9	0.36	5.3
March	6	0.31	19
April	24	0.34	71
May	63	0.42	150
June	2.65	0.3	8.8
July	1.2	0.21	5.7
August	1.12	NA	NA
September	1.12	NA	NA
October	0.7	NA	NA
November	0.55	0.17	3.2
December	0.65	0.36	1.8

Based on stream observation that occurred during the biostimulatory study conducted in 2008, it has been determined that the effluent and receiving water are completely mixed by the location of receiving water monitoring location RSW-002, located 500 feet downstream of the point of discharge. Therefore, this location has been identified as the boundary of the mixing zone for dichlorobromomethane and nitrate. Nitrate is not a conservative pollutant and there are no drinking water intakes between the point of discharge and the edge of the 500 foot mixing zone allowed in this Order.

Dilution and flow information contained in the Report of Waste Discharge is the basis of the dilution credit of 24.5 for dichlorobromomethane and 1.8:1 for nitrate. Actual monitoring data demonstrates that a dilution credit of 1.8:1 is protective of the receiving water. Dilution credits are not implemented in this Order. The Discharger is required by this Order to construct and cross-stream diffuser and perform a mixing zone study once the new diffuser is operational. At that time, new a dilution credit and mixing zone may be considered. boundaries will be

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~~established. For other parameters, the worst case dilution is assumed to be zero to provide protection for the receiving water beneficial uses. The impact of assuming zero dilution/assimilative capacity within the receiving water is that the discharge limitations are end-of-pipe limits with no allowance for dilution within the receiving water.~~

6. In Fact Sheet, Section IV. Rationale for Effluent Limitations and Discharge Specifications, modify Section IV.C.3.I as follows:

Nitrite and Nitrate. Untreated domestic wastewater contains ammonia. Nitrification is a biological process that converts ammonia to nitrite and nitrite to nitrate. Denitrification is a process that converts nitrate to nitrite or nitric oxide and then to nitrous oxide or nitrogen gas, which is then released to the atmosphere. Nitrate and nitrite are known to cause adverse health effects in humans. The California Department of Public Health (DPH) has adopted Primary Maximum Contaminant Levels (MCLs) at Title 22 of the California Code of Regulations (CCR), Table 64431-A, for the protection of human health for nitrite and nitrate that are equal to 1 mg/L and 10 mg/L (measured as nitrogen), respectively. Title 22 CCR, Table 64431-A, also includes a primary MCL of 10,000 µg/L for the sum of nitrate and nitrite, measured as nitrogen.

USEPA has developed Drinking Water Standards (10,000 µg/L as Primary Maximum Contaminant Level) and Ambient Water Quality Criteria for protection of human health (10,000 µg/L for non-cancer health effects). Recent toxicity studies have indicated a possibility that nitrate is toxic to aquatic organisms.

Inadequate or incomplete denitrification may result in the discharge of nitrate and/or nitrite to the receiving stream. The conversion of ammonia to nitrites and the conversion of nitrites to nitrates present a reasonable potential for the discharge to cause or contribute to an in-stream excursion above the Primary MCLs for nitrate.

The Maximum Effluent Concentration (MEC) for nitrate was 80 mg/L, based on 206 samples collected between 1 June 2002 and 31 July 2007. The upstream receiving water nitrate concentration was not available. Therefore, the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion for nitrate.

The MEC for nitrite was 0.35 mg/L, based on 26 samples collected between 1 June 2002 and 31 July 2007. Data on the upstream receiving water nitrate

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concentration is not available. The maximum effluent nitrite concentration of 0.35 mg/l demonstrates that the discharge has no reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion.

The Discharger submitted a request for dilution credits to the Regional Water Board and proposed to use a harmonic mean dilution rate of 24.5 to calculate the effluent limitations. It is not appropriate to use the human health dilution credit for nitrate, because adverse human health effects caused by high nitrate concentrations can be felt over a short-term (e.g. one dose). The human health dilution credit is intended for CTR human health criteria where adverse human health effects occur over the long-term consumption of the water (i.e. 2 liters per day for 70 years). ~~As described in detail previously in this Fact Sheet, the dilution credit of 1.8:1 has been applied to the final effluent limitation for nitrate. Based on monitoring data, a dilution credit of 1.8:1 will be protective of the receiving water.~~ An AMEL for nitrate of ~~18~~ 10 mg/L is included in this Order based on the MCLs ~~and the dilution credit of 1.8:1~~. The effluent limitation is included in this Order to assure the treatment process adequately nitrifies and denitrifies the waste stream and protects the beneficial use of municipal and domestic supply.

The Discharger may not be able to consistently comply with the nitrate limitation. Therefore, a time schedule for compliance with the nitrate final effluent limitations is established in Cease and Desist Order (CDO) No. R5-2009-XXXX in accordance with CWC sections 13300 and 13385. The Order also requires preparation and implementation of a pollution prevention plan in compliance with CWC section 13263.3.

3. In Fact Sheet, Section IV. Rationale for Effluent Limitations and Discharge Specifications, modify Section IV.C.3.h as follows:

Dichlorobromomethane. The CTR includes a dichlorobromomethane criterion of 0.56 µg/L for the protection of human health and is based on a one-in-a-million cancer risk for waters from which both water and organisms are consumed. The MEC for dichlorobromomethane was 1.2 µg/L, based on four samples collected between November 2003 and December 2006. Therefore, the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion for dichlorobromomethane.

~~The Discharger submitted a dilution study to the Regional Water Board and proposed to use a harmonic mean dilution credit of 24.5 to calculate the effluent limitations. Regional Water Board staff reviewed the report and approved a~~

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dilution credit of 24.5:1 for calculation of the final effluent limitation for dichlorobromomethane. An AMEL and MDEL for dichlorobromomethane of ~~13.87~~ 0.56 µg/L and ~~27.88~~ 1.2 µg/L, respectively, are included in this Order based on the CTR criterion for the protection of human health (See Attachment F, Table F-12 for WQBEL calculations). Based on the sample results in the effluent, it appears the Discharger can not meet these new limitations.

A time schedule for compliance with the dichlorobromomethane final effluent limitations is established in Cease and Desist Order (CDO) No. R5-2009-XXXX in accordance with CWC sections 13300 and 13385. The Order also requires preparation and implementation of a pollution prevention plan in compliance with CWC section 13263.3.

4. In Fact Sheet, Section IV. Rationale for Effluent Limitations and Discharge Specifications, WQBEL Calculations, modify Table F-12 as follows:

Table F-12
WQBEL Calculations for Dichlorobromomethane

	Human Health
Criteria (µg/L)	0.56
Background Concentration (µg/L)	ND
Dilution Credit	24.5:1 N/A
ECA (µg/L)	13.87 0.56
AMEL (µg/L)	13.87-0.56
MDEL Multiplier (99 th %)	2.01
MDEL (µg/L)	27.88-1.2

5. In Fact Sheet, Section IV. Rationale for Effluent Limitations and Discharge Specifications, Satisfaction of Anti-Backsliding Requirements, modify Section IV.D.3. as follows:

Satisfaction of Anti-Backsliding Requirements.

Some effluent limitations in this Order are less stringent than those in the previous Order. As discussed below this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

Order No. R5-2002-0088 requires effluent limitations of settleable solids. Effluent limitations of settleable solids are eliminated due to new monitoring information becoming available. Elimination of effluent limitations of settleable solids is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water

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Resources Control Board Resolution 68-16. Any impact on existing water quality will be insignificant.

~~The effluent limitation for nitrate is less stringent than the effluent limitations of the previous Order because it accounts for dilution. Anti-backsliding requirements are satisfied, however, pursuant to CWA section 402(o)(2)(B), where the documentation of an actual dilution factor for the receiving water determined during the term of the previous permit, qualifies as new information which was not available at the issuance of the previous permit.~~

The previous Order contained effluent limitations for turbidity. The limitations were solely an operational check to ensure the treatment system was functioning properly and could meet the limits for total coliform organisms. The effluent limitations were not intended to regulate turbidity in the receiving water. Rather, turbidity is an operational parameter to determine proper system functioning and not a WQBEL.

This Order contains operational requirements for turbidity to be met prior to disinfection in lieu of effluent limitations. However, the operational requirements in this Order are an equivalent limitation that is not less stringent than the effluent limitations required in the Previous Order, and therefore does not constitute backsliding.

The revision in the turbidity limitation is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16 because this Order imposes equivalent or more stringent requirements than Order No. R5-2003-0089 and therefore does not allow degradation.

6. In the tentative Cease and Desist Order, modify table in Finding No. 4 as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	1.5	--	3.1	--	--
Cyanide, Total Recoverable	µg/L	4.3	--	8.5	--	--
Zinc, Total Recoverable	µg/L	15	--	30	--	--
Aldrin	µg/L	--	--	--	--	ND
Alpha BHC	µg/L	--	--	--	--	ND
Silver	µg/L	--	--	--	--	0.23

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Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia	mg/L	2.1	--	5.6	--	--
<u>Dichlorobromomethane</u>	<u>ug/L</u>	14 <u>0.56</u>	--	28 <u>1.2</u>	--	--
Nitrate	mg/L	18 <u>10</u>	--	--	--	--
	lbs/day ¹	78 <u>43</u>	--	--	--	--

7. In the tentative Cease and Desist Order, modify Finding No. 6 as follows:
 6. The effluent limitations specified in WDR Order No. R5-2009-XXXX for dichlorobromomethane, copper, cyanide, silver and zinc are based on implementation of the California Toxics Rule. The effluent limitations for aldrin and alpha BHC implement Basin Plan requirements. The final effluent limitations for dichlorobromomethane, copper, cyanide, aldrin, alpha BHC, silver and zinc are new more-stringent limitations, which were not prescribed in previous WDR Order No. R5-2002-0088.

8. In the tentative Cease and Desist Order, modify Finding No. 8 as follows:
 8. In accordance with CWC section 13385(j)(3), the Regional Water Board finds that, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the new effluent limitations for dichlorobromomethane, copper, cyanide, aldrin, alpha BHC, silver, and zinc. These limitations are new requirements that become applicable to the Order after the effective date of adoption of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

9. In the tentative Cease and Desist Order, modify Finding No. 10 as follows:
 10. The Discharger is not able to immediately comply with the new effluent limitations for dichlorobromomethane, copper, cyanide, aldrin, alpha BHC, silver and zinc. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance. The Discharger has indicated in an Infeasibility Report submitted 30 September 2008, that additional time is required beyond the California Toxics Rule compliance date of 18 May 2008 to comply with the final effluent limitations for dichlorobromomethane, copper, cyanide, and zinc. In particular, the Discharger anticipates the need to implement public outreach education

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program, investigate receiving water concentrations in the South Yuba River, and, if required, incorporate additional process improvements for cyanide, aldrin, alpha BHC, and silver. The Discharger also anticipates the need to implement additional source controls, as well as evaluate the need for site-specific translators and/or water effect ratios for copper and zinc. Therefore, the Regional Water Board is providing up to 5 years from the adoption date of this Order for the Discharger to comply with the final effluent limitations for dichlorobromomethane, copper, cyanide, aldrin, alpha BHC, silver, and zinc.

10. In the tentative Cease and Desist Order, modify Finding No. 13 as follows:

13. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the effluent limitations for ammonia, dichlorobromomethane, copper, cyanide, aldrin, alpha BHC, silver, and zinc in accordance with CWC section 13385(j)(3). CWC section 13385(j)(3) requires the preparation and implementation of a pollution prevention plan (PPP) pursuant to section 13263.3 of the CWC.

11. In the tentative Cease and Desist Order, modify Finding No. 16 as follows:

16. The Regional Water Board finds that the Discharger can undertake source control and treatment plant measures to maintain compliance with the interim limitations included in this Order. The compliance time schedule in this Order includes interim effluent limitations for ammonia, nitrate, dichlorobromomethane, copper, cyanide, aldrin, alpha BHC, silver, and zinc. Interim limitations are established when compliance with the final effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved.

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12. In the tentative Cease and Desist Order, modify Order No. 2 and 3 as follows:

2. Donner Summit Public Utilities District shall comply with the following time schedule to assure compliance with the ammonia, nitrate, dichlorobromomethane, copper, cyanide, aldrin, alpha BHC, silver, and zinc effluent limitations contained in Waste Discharge Requirement Order No. R5-2009-XXXX as described in the above Findings:

Task	Compliance Date
a. Implement Pollution Prevention Plan as specified in CWC Section 13263.3 for ammonia, nitrate, <u>dichlorobromomethane</u> , aldrin, alpha BHC, silver, copper, cyanide, and zinc	90 Days after the effective date of this Order
b. Progress Report ¹	1 January and 1 July of each year
c. Achieve Full Compliance with for ammonia, nitrate, <u>dichlorobromomethane</u> , copper, cyanide, aldrin, alpha BHC, silver, and zinc final effluent limitations	5 years after Adoption of this Order

¹The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.

3. The following interim effluent limitations shall be effective immediately, and shall remain in effect until **5 Years following the Adoption Date of this Order**, or when the Discharger is able to come into compliance with the final effluent limitation, whichever is sooner.

Parameter	Units	Effluent Limitations Maximum Daily
Ammonia	mg/L	39
Nitrate	mg/L	53
<u>Dichlorobromomethane</u>	<u>µg/L</u>	<u>3.7</u>
Copper, Total Recoverable	µg/L	24
Cyanide, Total Recoverable	µg/L	103
<u>Zinc, Total Recoverable</u>	µg/L	<u>96</u>
<u>Aldrin</u>	µg/L	<u>0.016</u>
<u>Alpha BHC</u>	µg/L	<u>0.14</u>
<u>Silver</u>	µg/L	<u>0.81</u>

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