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water
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fire protection

February 21, 2014

Aide Ortiz
Regional Water Quality Control Board
1685 E Street
Fresno, California 93706

RE: Mariposa Public Utility District (MPUD)
Wastewater Treatment Facility (WWTF)
Tentative Waste Discharge Requirements, NPDES NO. CA 0079430

Dear Aide,

The Mariposa Public Utility District (MPUD) Wastewater Treatment Facility discharges to Mariposa Creek permitted under RWQCB order No. R5-2007-0171 expiring December 4, 2012. The District submitted an application/report of waste discharge with supporting documentation on June 27, 2012. The RWQCB issued an administrative continuation order on December 12, 2012. The RWQCB adopted a time schedule order (TSO) for Dichlorobromomethane (DCBM) on July 13, 2011. The District, at the request of RWQCB submitted an Infeasibility Report including historical data on BOD5, TSS, DCBM, Nitrate, Total Coliform, Ammonia and Chlorodibromomethane (CDBM). On December 31, 2013, MPUD received the preliminary draft waste discharge requirements for the referenced permit. On January 21, 2014, the District received the tentative waste discharge requirements and TSO for (CDBM), Nitrate plus Nitrite (N) and Total Trihalomethanes (TTHM).

The District has been allowed until February 21, 2014 to submit comments on the tentative permit and TSO. The tentative order includes effluent limitations and monitoring requirements for several constituents not included in the current permit (order R5-2007-0171). From the time the draft tentative permit was received to the end of the comment period, allowed 35 working days to submit comments. The District has not been able to complete a thorough review and analysis of the tentative permit impacts on the MPUD WWTF operation in the short review time allowed.

The tentative permit requires the MPUD Board of Directors and staff to consider actions that will have long term, significant impact on the cost and level of service the District provides to the public. To allow MPUD sufficient time to review and comment, the District respectfully requests the RWQCB to reschedule the hearing to allow at least sixty more days to complete the analysis of the permit.

As a result of our review thus far, we are providing some initial responses to the tentative permit and TSO.

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CHRONIC TOXICITY

Section IV, Effluent Limitations and Discharge Specifications A.1.e. specifies “there shall be no chronic toxicity in the effluent discharge”. There is no effluent limitation stated for chronic toxicity. This statement in the effluent limitations section may be interpreted to allow for assessment of minimum mandatory penalty if any monitoring results are >1 TUC. Even though VII compliance determination G. “provides compliance with the accelerated monitoring and TRE provision VI.c.2.a shall constitute compliance”. The District prefers removal of IVA.1.c in the permit. The requirements listed for chronic whole effluent toxicity in VI.C.2. adequately address response to chronic toxicity.

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SALINITY EVALUATION

Section VI.C.3, requires the District to prepare a salinity evaluation and minimization plan and address sources of salinity from the facility, nine months after adoption of the order. The rationale for the requirement (Fact Sheet VI.B.3.a) appears to be the use of calcium polysulfide and polyaluminum chloride to the treatment process to control copper and zinc. The effluent limitation for electrical conductivity is 700 µmhos/cm annual averages. The WWTF discharge has been consistently less than 600 µmhos/cm. There is some indication of increase of conductivity after implementation of metal removal treatment with the chelating and coagulant chemicals. However, the conductivity after over three years of metal removal treatment remains consistently less than the limitation. The amount of the chelating and coagulation chemicals is driven by the requirement to reduce metals in the effluent.

The other chemicals used in the WWTF unit process are chlorine, soda ash and sulfur dioxide. These chemicals were in use before the metal removal treatment was implemented.

As stated in many correspondences and in this response to the tentative permit, the District operates with a very small staff, performing evaluations and preparing plans defers staff time that could be better focused on the larger more important project of nitrate removal, tertiary treatment and alternative disinfection systems. It’s entirely possible completion of these treatment unit process may require less or alternative chemical treatments.

The District requests removal of section VI.c.3 and consider salinity reduction in the design of future WWTF improvements.

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PRIORITY POLLUTANT EFFLUENT LIMITATIONS

Section VII.F. subsection 1. Indicates the concentration of a pollutant equal to the lowest reporting level (RL) in attachment 1 of the order would indicate non compliance. Are the reporting levels in tentative order, attachment 1 higher than the effluent limitation? Subsection

2.a. states “A sample result is reported as detected, but non quantified (DNQ) and the effluent limitation is less than the RL in attachment 1” would be considered a trigger to conduct a Pollutant Minimization Program. Subsection 2.b states “A sample result is reported as non-detect (ND) and the effluent limitation is less than the method detection limit (MDL)” is considered a trigger to conduct a Pollutant Minimization Program.

2.a. would indicate the reporting level listed in attachment 1 is incorrect.

2.b. would indicate the discharger is using an incorrect method for analysis or a method is not available to reach the limitation listed for the pollutant.

Please clarify section F.1 & 2.

Page E-4

AMMONIA

Ammonia is listed with effluent limitations of average monthly 0.74 µg/L and maximum daily 2.1 µg/L. Fact sheet section IV.C.3.C.i state the “analysis of the effluent data shows the facility can meet the WQBELs” (Ammonia).

Fact sheet section IV.C.3.C.i includes a general discussion of the nitrogen cycle in an activated sludge process. A properly operating extended aeration system with long mean cell retention time and low food to microorganism (F/M) ratio would normally result in nitrification and denitrification of the wastewater. We do acknowledge without a specific nitrifying and denitrification process there is a chance inadequate or incomplete nitrification may result in the discharge of ammonia to the receiving stream. However, the sample results previous to December 31, 2012 indicate the discharge has not been near the tentative limitation for average monthly of 0.74 mg/L and maximum daily 2.1 mg/L for ammonia. Sample analysis results subsequent to December 31, 2013 are indicated as non detect however the minimum detection limit was < 1.0 mg/L. It would be reasonable to expect actual value is similar to the pre December 31, 2013 results.

Due to the very low historical analysis results, the District requests removal of ammonia from the effluent limitations, however continue the monitoring requirement.

The WWTF was not originally designed to remove Nitrate plus Nitrite (as N). The tentative order includes an effluent limitation for N of 10 mg/L for average monthly analysis results. 10 mg/L N is not attainable on a consistent basis at the existing WWTF without significant improvements (adding physical unit process) to the facility. The District has proposed to construct improvements specifically for nitrification and denitrification with an anticipated completion date of December 4, 2017, provided funding is available.

Clearly with the appropriate nitrification and denitrification process operational, the risk potential for ammonia in the effluent at amounts listed in the effluent limitation would be almost nonexistent. As an alternative (less agreeable to the District) please consider removal of effluent limitation for ammonia after completion of nitrification and denitrification facilities.

Page E-4 and E-5

COMPOSITE SAMPLE COLLECTION

Attachment E, Section 111 A.1, note 1 and IV.A.1 note 1, requires composite samples to be eight hour composites with alternating eight hour periods to sample morning, afternoon and evening peak flows. This sampling method is more appropriate than the twenty-four hour flow proportional composite sample required three years after adoption of this order.

Influent and effluent flows are very low during the low flow periods in the diurnal curve. An auto sampler may not reliably collect the flow paced sample during the very low flows.

The discharges to the District collection system are domestic type waste. There are no industrial type discharges to the collection system. The wastewater characteristics and quality are consistent throughout the day as well as the two or three peak periods in a twenty-four hour period.

The tentative permit required flow proportional composite sample three years from the date the order is adopted may be March of 2017. Construction of WWTF improvements are scheduled for December of 2017. With respect to efficiency and expense, it is desirable to the District to incorporate updated flow monitoring and composite sample equipment in the design of the WWTF improvements. The District proposes the flow proportional composite sampling compliance date to be consistent with page 18 VI.C.6.a., (December 4, 2017).

Page E-4 and E5

METHYL BROMIDE

The Data Summary Table F-9 shows one sample out of twelve samples collected between July 2008 and April 2013 in excess of 48 µg/L. Four sample results indicated the presence of methyl bromide, however at very low levels, well below 48µg/L. The other seven sample results were non-detect.

Section IV.A.1, Table E-3 requires monthly monitoring for the first two years following the effective date of this permit. Detections at or above the criterion (assumed to be 48 µg/L) will trigger a study.

The one sample which was over the criterion was collected in 2008, as stated in the fact sheet. The production and import of methyl bromide in the U.S. was eliminated in 2005. Therefore the vulnerability for the waste stream to contain methyl bromide decrease as time passes. We already have 4.5 years of sample data indicating levels of methyl bromide below the 48 µg/L criterion. The District requests reducing the two year monitoring to one year, which will provide over five years of study information.

Page E-6

WHOLE EFFLUENT TOXICITY (WET)

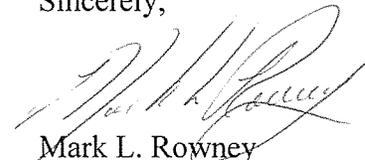
Attachment E, Section V. B. requires annual acute and chronic toxicity testing. The sample types are to be flow proportional twenty-four hour composites for some reason given in this discussion under COMPOSITE SAMPLE COLLECTION. The District requests the sample

method for WET testing to be consistent with the eight hour composite sample description described in Section 111.A.1 note 1, until December 3, 2017.

The current permit/order allows the District to use chronic toxicity monitoring as compliance for acute and chronic toxicity monitoring requirements. The District requests RWQCB to change V.A.1 acute toxicity monitoring frequency to read "The Discharger shall perform annual acute toxicity testing concurrent with effluent ammonia sampling. Because the chronic toxicity test provides both acute and chronic toxicity information concurrently, acute toxicity testing is not necessary when chronic toxicity testing is being conducted in the same period."

The District does acknowledge the RWQCB staff effort in addressing some effluent limitations and monitoring issues we have had previous to the preparation of this draft permit. The comments and amendments proposed in this letter are not to be considered criticism of RWQCB staff effort. The MPUD Board of Directors and staff are certainly aware of the responsibility for environmental protection specifically water quality. However the District must also consider a reasonable level of treatment including cost to the public when evaluating the permit requirements. We do appreciate the RWQCB consideration of these comments. If you need additional information please let me know.

Sincerely,



Mark L. Rowney
General Manager

cc CVCWA

MLR:sw