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Acting Secretary for
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California Regional Water Quality Control Board
North Coast Region
Geoffrey M. Hales, Chairman

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Edmund G. Brown, Jr.,
Governor

January 7, 2011

Norman Shopay
McKinleyville Community Services District
P.O. Box 2037
McKinleyville, CA 95519

Dear Mr. Shopay:

Subject: Response to Comments; draft National Pollution Discharge Elimination System Permit, Order No. R1-2011-0002, CA0024490

File: McKinleyville Community Services District, Wastewater Treatment Facility, 675 Hiller Road McKinleyville, WID#1B82084OHUM

Regional Water Board staff have reviewed the *NPDES Permit Comments, McKinleyville Community Services District Wastewater Management Facility* (Comments), received on December 16, 2010. As discussed by telephone with you on December 21, 2010 and summarized below, Regional Water Board staff has determined that not all of the changes requested by McKinleyville Community Services District (MCSD) could be incorporated into draft National Pollution Discharge Elimination System Permit, Order No. R1-2011-0002. However, in response to the December 16 correspondence some minor changes have been made. Our response to Comments is summarized below.

Comment:

The description regarding the reclamation of wastewater at the Hiller Storm Water Treatment Wetlands has been updated throughout the permit to remove reference to the effluent being "polished" in the wetlands. This would imply further treatment of the effluent in the wetlands that is not the case. The storm water treatment wetlands are irrigated with treated effluent during the summer months at agronomic rates and there is no further treatment or discharge of treated effluent from the storm water wetlands.

Response:

We recognize that the Hiller Storm Water Treatment Wetlands are constructed for the purpose of storm water treatment, not the treatment or polishing of effluent from the wastewater treatment facility. References to polishing of effluent in association with the Hiller Storm Water Treatment Wetlands have been removed from the draft Order.

California Environmental Protection Agency

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Comment:

The RPA referenced in the draft NPDES permit was based on data collected at the Waste Water Management Facility (WWMF) between 2002 and 2005. The District is submitting for Regional Water Quality Control Board (RWQCB) concurrence, a revised RPA based on a more robust body of data collected during the current permit term (See Attachment B). Since 2005, the District has instituted a number of changes at the WWMF and in the local community that have had a direct effect on the effluent discharged from the facility. The WWMF has had an increase in treatment capacity for priority pollutants through continued growth and establishment of the treatment marsh system. The District has also developed additional source control and pretreatment program requirements that have limited the potential for a discharge of priority pollutants into the WWMF. The revised RPA results indicate that the current effluent limitations for lead, alpha-BHC, and 2,3,7,8,-TCDD are unnecessary. None of these constituents were triggered under the revised RPA. The only three constituents that were triggered under an initial run of the revised RPA included 4,4-DDT, Bis(2-Ethylhexyl) Phthalate and Carbon Tetrachloride.

In an initial run of the revised RPA, both Bis(2-Ethylhexyl) Phthalate and Carbon Tetrachloride had an RPA trigger that was based on a Maximum Effluent Concentration (MEC) that was less than the Minimum Level (ML) set forth in the State Implementation Policy (SIP). Furthermore, the MEC results for each constituent were noted with a "J flag" from the laboratory. A "J flag" indicates the constituent was detected but results were below the Reporting Limit (RL) for the laboratory; therefore, the reported result was an estimated concentration (CLP J-Flag). The J flag is equivalent to the Detected, but Not Quantified (DNQ) Estimated Concentration flag.

Page E-15 of the Monitoring and Reporting Program (MRP) states "At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve". Because the MEC values for both Bis(2-Ethylhexyl) Phthalate and Carbon Tetrachloride were flagged as estimated concentrations, these data values should not be used for determination of reasonable potential in the RPA. Review of the receiving water data further indicates neither constituent was detected in the representative receiving water sample.

A final run of the RPA was completed using non-detect reporting levels for Bis (2-Ethylhexyl) Phthalate and Carbon Tetrachloride. Based on the final run of the RPA there was no trigger for reasonable potential for either constituent. Attachment B includes the final revised RPA spreadsheet using a non-detect designation for both of these constituents. Accordingly, all references to effluent limitations for constituents other than 4,4,-DDT are recommended to be removed from the permit.

Response:

Regional Water Board staff concur that the MCSD has instituted a number of changes

associated with the treatment facility including 1) continued growth and establishment of the treatment marsh system and 2) implementation of additional source control measures limiting the potential for priority pollutants into the treatment facility. The bulk of these changes have occurred since adoption of the 2008 permit renewal. Based on review of the data, these changes appear to have had a direct and positive effect on the effluent quality discharged from the facility. In light of these continuing efforts by MCSD and your stated request, staff has revised the reasonable potential analysis using the more recent and more robust data set reported for priority pollutants since 2008.

The State Implementation Plan (SIP) section 2.4.4 places a sample into one of three reporting protocols: 1) as measured, if it is greater than or equal to the reported minimum level (ML), 2) estimated and reported as detected but not quantified (DNQ) if it is less than the ML, but greater than the laboratory's method detection limit (MDL), or 3) not detected (ND) if it is less than the MDL. When selecting data for the reasonable potential analysis Regional Water Board staff uses all available data, including results reported as DNQ. Samples in the DNQ range are considered estimated, but not quantifiably measured for compliance purposes. However, when considering reasonable potential, the positive identification at a concentration which exceeds applicable criteria is considered reasonable potential for that constituent to have an impact on beneficial uses. Once reasonable potential is identified, Regional Water Board staff is obligated to establish effluent limitations for the constituent. Based upon a review of the data submitted for priority pollutants since 2008, reasonable potential has been identified for Carbon Tetrachloride, Bis(2-Ethylhexyl)Phthalate, alpha-BHC, and 4,4-DDT. Effluent limits for these four priority pollutants have been included in the permit renewal.

Comment:

The draft NPDES permit contains numerous references to receiving waters that are not applicable for this permit. These references include the Mad River tributary receiving overflow from the Hiller storm water treatment wetlands (R-004, R-005) and the Fisher backswamp wetland (R003). None of these locations receive discharge of treated effluent from the WWMF. The discharge to the Hiller storm water treatment wetlands is classified as a land discharge. The discharge to the lower Fisher Ranch is also classified as a land discharge. All references to receiving water locations R003, R004 and R005 should be removed from the permit. Monitoring locations have been established for the land discharge locations and include visual observations to monitor overflow from the land discharge locations. The additional visual observations monitoring requirements for R003, R004, and R005 are redundant and unnecessarily classify those locations as receiving waters, even though there is no discharge of treated effluent to those watercourses.

Response:

After revisiting the modified conditions of the draft Order, Regional Water Board staff concur that the same criteria and level of protection required through visual

observations at M004 and M008 are redundant requirements and protections required for monitoring at R003, R004, and R005. In order to eliminate this redundancy and streamline monitoring and reporting, R003, R004, and R005 have been removed from the draft Order, Attachment E Monitoring and Reporting Program.

Comment:

Clarification of the drainage course description in the lower Fisher Ranch has also been added to the permit. Reference to the "Lower Fisher Ranch Backswamp Wetland" has been replaced with the term "Lower Fisher Ranch Storm Water Ditch" as this area is a county maintained storm water conveyance ditch and should be referenced correctly in the permit.

Response:

We have refined the reference to "Lower Fisher Ranch Backswamp Wetland" by replacing with the term "Lower Fisher Ranch Swale."

Comment:

*The District understands the current toxicity policies governing the toxicity monitoring requirements in the draft permit are under review and may be modified in the near future. In the interim period, the District would like to request that the language in the permit be modified to confirm the test species for acute testing shall only be with a vertebrate, the rainbow trout, *Oncorhynchus mykiss*. The permit language should also be modified to clarify that chronic toxicity test shall be conducted using a series of at least five dilutions and a control using laboratory water, as previously approved for this discharge by the RWQCB Executive Officer.*

Additionally, we would like the RWQCB to consider using the Inhibition Concentration (IC-25) as an additional endpoint with the 100/NOEC for determining compliance with the chronic toxicity limitations. The IC-25 addresses the biological significance of the toxicity in addition to the statistical significance represented by the No Observed Effect Concentration (NOEC), 100/NOEC value.

Response:

Each time an NPDES permit undergoes renewal, the Regional Water Board staff requires the sensitivity of whole effluent toxicity testing species to be re-evaluated, to ensure that the most sensitive species is used to monitor potential toxicity during the new permit cycle, given potential changes to waste characteristics or treatment that may have occurred during the previous cycle. As stated in the December 16th Comments, a draft Statewide Toxicity Policy has been released and is moving through the public process. At this time it is unclear what the exact toxicity monitoring requirements will be under the new policy, but we do know that once adopted, the new policy will supersede requirements in NPDES permits. In order to avoid unnecessary duplication of work or unnecessary expenditures, the requirements for species sensitivity evaluation will be set for discharge season 2011/2012. This revision of the deadline will ensure that species

sensitivity is required during the forthcoming permit cycle under current practices, should the new Statewide Toxicity Policy not be adopted in the next several months. Given, the pending Policy adoption, no other changes will be incorporated in to the draft permit at this time.

We appreciate working with the McKinleyville Community Services District towards the protection of water quality. Please feel free to contact me at (707) 576-2677 or lbernard@waterboards.ca.gov if you have any questions.

Sincerely,

Lisa Bernard
Sanitary Engineering Associate

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Return Receipt Requested

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