

COMMENT LETTER 19 - MARIN MUNICIPAL WATER DISTRICT, RONALD K. THEISEN, P.E. (OCTOBER 10, 1996), RECEIVED OCTOBER 7, 1996

Response to Comment 19-1

Comment Summary: The comment states that the Marin Municipal Water District reviewed the Draft EIR/EIS and also notes the innovations practiced by the Santa Rosa Utilities Department in marketing recycled water and its overall water recycling accomplishments.

The City of Santa Rosa appreciates this acknowledgment of their water recycling accomplishments.

Response to Comment 19-2

Comment Summary: The comment states that Alternative 5A will certainly affect Sonoma County Water Agency source water. The comment also states that detailed stream flow analysis and modeling through the discharge season and under a variety of runoff patterns is necessary to identify any effects of Alternatives 1 and 5B on "water supply."

Detailed water quality modeling was conducted and is described in the Draft EIR/EIS. The water quality model is described in Appendix I-8 (Russian River Water Quality Model) and in Section 4 of Appendix I-16 (Water Quality Impact Analysis Report Volume I - Text), and graphical model output is described in Figures 4-1 through 4-62 of Appendix I-17 (Water Quality Impact Analysis Report Volume II - Figures). The model simulates reclaimed water discharge and dilution on a daily time-step, and water quality impacts on an hourly time-step. The analysis of drinking water quality impacts of all alternatives provided in Section 4.7 (to which the comment refers) is based on the daily simulation. The EIR/EIS authors consider this simulation to be of sufficient detail to analyze each alternative. The comment is not specific as to what detail is lacking from the analysis. Master Response 8, located in Section 6.2 of this document, further addresses potential impacts of pathogens on human health.

Response to Comment 19-3

Comment Summary: The comment asks for a description of the role of industrial pretreatment and waste minimization programs to assure long-term reclaimed water quality improvement.

Industrial pretreatment programs (which are required under the federal Clean Water Act) are identified in Section 2.1 of the Draft EIR/EIS, as well as on page 4.6-137 and on page 158 in Appendix I-16. The City also has an extensive conservation program aimed at reducing wastewater flows. The program is summarized on page 3.2-3 of the Draft EIR/EIS.

Response to Comment 19-4

Comment Summary: The comment states that the analysis of Cryptosporidium and Giardia impacts is based on four samples, and that more data are needed.

Appendix H-2 (Reclaimed Water Quality) of the Draft EIR/EIS describes the four *Cryptosporidium* and *Giardia* samples upon which the biological hazard assessment was based. Appendix H-3 (Reclaimed Water Quality Update) describes additional *Cryptosporidium* and *Giardia* measurements that were also considered. Additional data have been collected since Appendix H-3 was prepared, and are considered in the re-assessment of biological hazard that is presented in Master Response 8, located in Section 6.2 of this document.

Response to Comment 19-5

Comment Summary: The comment states that “the detection method used (for Cryptosporidium and Giardia) is not stated in the report.” The comment also states that the standard EPA test method for Cryptosporidium and Giardia is imprecise.

Appendix 4 of Appendix H-3 (Reclaimed Water Quality Update) describes the limit of detection for samples that were analyzed for *Cryptosporidium* and *Giardia*. Method imprecision is an unfortunate attribute of the EPA-approved and heretofore commercially available method. Master Response 8, located in Section 6.2 of this document, provides a re-assessment of biological hazards and addresses method uncertainty.

Response to Comment 19-6

Comment Summary: The comment states that the imprecision of the analytical method for Cryptosporidium and Giardia and the fact that one Sonoma County Water Agency intake is under the influence of surface water indicate that weekly testing should be performed throughout the rainy and proposed discharge season.

The Sonoma County Water Agency intends to begin testing of the River pursuant to the federal Information Collection Rule. Weekly testing of reclaimed water was initiated in March 1996, and these data are included in Appendix 4 of Appendix H-3 (Reclaimed Water Quality Update). Master Response 8, located in Section 6.2 of this document, provides a re-assessment of biological hazards.

Response to Comment 19-7

Comment Summary: The comment states that consideration should be given to using alternative testing methods, such as animal testing, which can better distinguish viability of protozoan pathogens.

The EPA has determined that no reliable methods are currently available for determining cyst viability (refer to Proposed Enhanced Surface Water Treatment Rule 40 CFR 141 and 142, published in the Federal Register on Friday July 29, 1994). Determination of

cyst viability is an area of active research, and reliable methods may be developed. The current method of inoculating laboratory-bred rodents is unreliable. Mammalian species that are susceptible to protozoan infection are used in laboratory assays of cyst viability. These assays are unreliable because susceptible populations are subject to prior infection which produces a false positive lab result.

Response to Comment 19-8

Comment Summary: The comment states that Cryptosporidium in reclaimed water needs to be addressed.

Cryptosporidium was found in effluent and was not evaluated in the biological hazard assessment within Appendix J-3 (Human Health Risks from Chemical and Biological Components of Reclaimed Water). *Cryptosporidium* is addressed in Master Response 8, located in Section 6.2 of this document.

Response to Comment 19-9

Comment Summary: The comment states that mitigation should be provided to assure that changes in reclaimed water quality are identified.

Federal and State regulations require that the Regional Board impose effluent quality monitoring requirements for constituents of concern. The Project will comply with these requirements. Thus, such mitigation is not needed. Page 2-18 of the Draft EIR/EIS identifies that the Project will be subject to both the Basin Plan and Wastewater Discharge Requirements imposed by the North Coast Regional Water Quality Control Board.

Response to Comment 19-10

Comment Summary: The comment summarizes the opposition of the Marin Municipal Water District to any project that will increase the contaminant loading and increase the health risks to the Sonoma County Water Agency's water supply source. The Marin Municipal Water District encourages the selection of Project alternatives that involve recycling over discharge.

Responses to Comments 19-2 through 19-9 address the comments summarized by the Marin Municipal Water District in Comment 19-10. In regard to Project selection, refer to Master Response 2, located in section 6.2 of this document.

Response to Comment 19-11

Comment Summary: The comment is a duplicate of Comment Letter #19 from the Marin Municipal Water District.

These comments have been addressed in Responses to Comments 19-1 through 19-10.

