

COMMENT LETTER 98 - ENVIRONMENTAL FORUM OF MARIN, JULIE GRANTZ (OCTOBER 7, 1996), RECEIVED OCTOBER 7, 1996

Response to Comment 98-1

Comment Summary: The comment states that the Forum of Marin appreciates the opportunity to comment on the Santa Rosa Subregional Long-Term Wastewater Project Draft EIR/EIS. Additionally, the comment states that the comment letter includes environmental concerns as well as the accessibility of the document.

Specific concerns were expressed in subsequent comments and these comments are addressed specifically in the Responses to Comments below.

Response to Comment 98-2

Comment Summary: The comment states that the high cost and limited availability of the Draft EIR/EIS made it difficult to respond within the allotted time.

Refer to Master Response 3, regarding availability of the Draft EIR/EIS, and to Master Response 4 regarding the time for review. Both Master Responses are located in Section 6.2 of this document.

Response to Comment 98-3

Comment Summary: The comment states that since human activities and development are the ultimate cause of adverse environmental impacts, the city general plans should include limits on growth.

The issue of growth limits is appropriately addressed as part of the general plan update process for the involved cities and county, not as part of the Subregional System Long-Term Project. The Subregional System has no authority to control the growth of its members.

Response to Comment 98-4

Comment Summary: The comment states that the control of growth and maximum conservation measures are very important in helping decrease environmental impacts.

Growth control is not within the purview of the Subregional System. Refer to Response to Comment 98-3. Refer to Master Response 17, located in Section 6.2 of this document, for a discussion of water conservation.

Response to Comment 98-5

Comment Summary: This comment states that wastewater treatment needs to be addressed clearly and in detail.

The existing treatment system is described clearly and in detail in Section 3 of the Draft EIR/EIS.

Response to Comment 98-6

Comment Summary: The comment states that all recommended monitoring programs need to address future conditions and impacts of the project, and be conducted for a minimum of five to ten years.

The mitigation and monitoring program for the Project does address impacts that will occur in the future as a result of the Project. In addition, the mitigation and monitoring program identifies the appropriate timing of each mitigation measure that must be implemented. The assignment by the comment of five to ten years of monitoring for each mitigation measure identified by the Draft EIR/EIS is arbitrary and not necessarily consistent with the intent of each mitigation measure. Some mitigation measures provided in the Draft EIR/EIS may only require one year of monitoring to satisfy the intent of the measure (for example monitoring of Project construction), while other measures may be monitored into perpetuity.

Response to Comment 98-7

Comment Summary: The comment consists of an introductory statement about the comments included within the remainder of letter 98.

Specific concerns were expressed in subsequent comments and these comments are addressed specifically in the Responses to Comments below.

Response to Comment 98-8

Comment Summary: The comment states a concern associated with the change in aquatic habitat in the Farallones.

Aquatic habitat impacts are described in Section 4.9 of the Draft EIR/EIS, which considers effects on the Gulf of the Farallones Marine Sanctuary. Because the comment relates no specific questions regarding the environmental analysis, a more specific response is not possible.

Response to Comment 98-9

Comment Summary: The comment states a concern associated with the risk to aquatic and other wildlife from toxicity and bioaccumulation.

The comment does not clearly state details of the concern. Analysis of the potential effects of toxicity and bioaccumulation to wildlife can be found in Appendix K-4 (Ecological Risk Assessment) of the Draft EIR/EIS.

Response to Comment 98-10

Comment Summary: The comment suggests that a monitoring program be developed which responds to species' exposures to chemical constituents in reclaimed water.

The proposed mitigation for potential cumulative effects of this Project on the aquatic resources of the region, is Mitigation Measure 2.4.16: Ecological Risk Monitoring and Source Control Program on page 2-119, of the Draft EIR/EIS. The program calls for further collection of toxicity data in the Russian River over a two year period to determine if an ecological risk from aluminum does occur. No additional ecological risk has been identified that requires monitoring.

Response to Comment 98-11

Comment Summary: The comment contends that potential buildup of toxins in species' systems needs to be recognized and acted upon.

Appendix K-4 (Ecological Risk Assessment) of the Draft EIR/EIS, provides detailed analysis of the potential risk due to bioaccumulation of project-related toxins on ecosystems present within the Project area. The risk assessment identifies that Alternative 5, along with cumulative projects in the Russian River Basin, may result in aluminum toxicity in harbor seals. The proposed mitigation program consists of toxicity monitoring and a source control program if necessary. Refer also to Response to Comment 98-10.

Response to Comment 98-12

Comment Summary: The comment expresses the need to avoid sensitive aquatic plant and wildlife resources and their habitats associated with pipeline construction (Impacts 9.4.1-9 on page 4.9-50) and questions how exclusionary buffers would be able to successfully accomplish this.

Exclusionary buffers alone will not accomplish avoidance. Exclusionary buffers, defined by mesh fencing, are designed to protect sensitive resources near construction activity, by creating a visible barrier. The establishment of exclusionary buffers is only one element of the program proposed to avoid impacts to sensitive biological resources. As discussed on page 4.9-51 of the Draft EIR/EIS, implementation of Measure 2.2.5: Avoid Sensitive Biological Resources will result in avoidance of sensitive species through a variety of methods including pipeline realignment. Pages 2-28 through 2-33 of the Draft EIR/EIS provides further discussion on how sensitive terrestrial and aquatic biological resources will be avoided including alternative pipeline construction methods such as boring and jacking the pipeline, and construction timing.

Response to Comment 98-13

Comment Summary: The comment suggests that species need to be monitored after short-term exposure to undiluted reclaimed water as a result of pipeline rupture.

Appendix K-4 (Ecological Risk Assessment) of the Draft EIR/EIS, provides the analysis of potential impacts on organisms due to long-term exposure to undiluted wastewater (for the Santa Rosa Creek and Laguna de Santa Rosa scenarios). All EQ's were less than 10. This analysis serves as a conservative analysis of potential pipeline rupture effects. Organisms characteristic of aquatic systems associated with pipeline ruptures will be the same as those in the risk assessment scenarios, and risk of toxicity will be less in a short-term exposure than in a long-term exposure. Therefore, no significant effects are expected to organisms exposed to undiluted effluent due to a pipeline rupture.

Response to Comment 98-14

Comment Summary: The comment asks about the past success of the Sensitive Resource Conservation Program and if there are state monitoring plans which measure future results of the program.

The Sensitive Resources Conservation Program combines differing mitigation programs that have been executed successfully. The mitigation plan presented in the Draft EIR/EIS on page 2-82 requires monitoring to occur over a five-year period following construction or until the performance criteria presented in the mitigation measure have been met. CEQA requires monitoring of the implementation of mitigation measures adopted by a lead agency as a part of the Project adoption.

Response to Comment 98-15

Comment Summary: The comment asks how a "Loss of 15% or less of range of Lobb's aquatic buttercup will not cause range contraction or extinction."

Impacts to botanical resources were evaluated for significance based on legal protection; local, state, and federal policies; and documented resource scarcity and sensitivity. Documented resource scarcity information was obtained at the UC Berkeley Herbarium and through personal communications with Dr. Charles Quibell, professor of botany at Sonoma State University and Caitlin Bean, biologist with the California Department of Fish and Game. Refer also to Response to Comment 15-52.

Response to Comment 98-16

Comment Summary: The comment suggests that stream mitigation sites may not support the same aquatic life as impacted streams.

The stream mitigation sites will support the same aquatic life as impacted streams. The goal of the Sensitive Resource Conservation program is no net loss of habitat function or

value. One of the requirements of the plan, therefore, is to provide habitat of equal or greater value to that which is being impacted to ensure appropriate mitigation for all species affected.

Based on the findings of surveys conducted in support of the Draft EIR/EIS, similar species complexes are found throughout the Project area, in similar habitats. To further ensure all species complexes are provided mitigation, mitigation sites will be carefully selected. As presented on page 2-79 of the Draft EIR/EIS, sites will be evaluated based, in part, on the biological resources currently or historically on site.

Response to Comment 98-17

Comment Summary: The comment states that exclusionary buffers designed to protect sensitive resources may actually prevent natural biological processes from occurring.

Exclusionary buffers, except for the fencing of riparian systems within livestock grazing pastures, will be identified by stakes or signs and will not exclude movement by any wildlife. Fences constructed near riparian systems will be designed to allow access to and from buffered areas for all wildlife species, including larger herbivores such as black-tailed deer.

Response to Comment 98-18

Comment Summary: The comment expresses concern about the potential mobility problems to species due to exclusionary buffers and asks about the effectiveness of “this action” in preventing run-off into groundwaters and waterways.

Refer to Response to Comment 98-17 regarding concerns regarding animal movement and buffers. The buffers for sensitive resources described in Measure 2.2.5: Avoid Sensitive Biological Resources on page 2-28, are not intended to control runoff. Refer to Measure 2.2.3: Restrict Surface and Subsurface Irrigation Water Runoff, on page 2-23 of the Draft EIR/EIS, for measures designed to protect groundwater and surface waters.

Response to Comment 98-19

Comment Summary: The comment questions how potential impacts from pipeline ruptures would be less than significant utilizing “these measures.”

Assuming the measures discussed in the comment refers to the exclusionary buffers, the reduction of pipeline rupture impacts will occur by the placement of pipeline outside the exclusionary buffers. Pipelines are designed with isolation valves to ensure that in the event of a rupture the amount of reclaimed water spilled is minimal, so that exposures will be short-term. The short-term nature of any exposure to reclaimed water associated with a spill is the basis of the conclusion that any effects will not be significant. Refer to Response to Comment 98-13.

Response to Comment 98-20

Comment Summary: The comment asks how major corridors are defined.

Refer to Response to Comment 1-12.

Response to Comment 98-21

Comment Summary: The comment states that less than major corridors will result in great losses over time and need protective measures.

It is unclear from the comment what “great losses over time” references. Incremental losses of minor movement corridors could cumulatively affect some wildlife populations significantly. There were no movement corridors identified within the Project area.

Response to Comments 98-22

Comment Summary: The comment questions whether the risk of toxicity and bioaccumulation has been adequately measured over time.

A test period of over four years at Kelly Farm Demonstration Wetlands covers multiple life cycles of aquatic invertebrate species and many fish species. The extensive documentation of potential bioaccumulation in organism tissues provided for the Santa Rosa Project is seldom available in the screening phase of a risk assessment.

Response to Comment 98-23

Comment Summary: The comment asks if ecological risk monitoring is planned for beyond two years.

Ecological risk monitoring of aluminum will occur over a two year period following implementation of Alternative 5A or 5B at a 20 percent Russian River discharge. Following this period, if significant toxicological risk of harbor seal exposure to aluminum is determined, a source detection program will be implemented to determine the source of the contamination and ways of depleting this constituent load in the wastewater. Ecological monitoring will not be required following the reduction of load or if it is determined that aluminum exposure at projected discharge concentration rates does not cause an ecological risk to harbor seals. Water quality monitoring will be required as an element of the mitigation plan for a discharge Project and of a discharge permit issued by the Regional Water Quality Control Board. Toxicity monitoring is expected to be part of the permit’s monitoring requirements.

Response to Comment 98-24

Comment Summary: The comment questions whether five years is long enough to study the impact on steelhead and coho salmon associated with discharge into their migration corridors.

The methodologies of the migration studies for steelhead and coho salmon were developed with California Department of Fish and Game and the United States National Marine Fisheries Service, the resource agencies entrusted with the protection of these resources. These agencies have accepted the findings of the migratory studies as adequate for the environmental analysis. Also refer to Master Response 5 located in Section 6.2 of this document. Since both species are currently protected under the Endangered Species Act, further monitoring may be required through Section 7 consultation and Biological Opinion.

Response to Comment 98-25

Comment Summary: The comment questions whether it is correct to assume that exposure to discharge during dry winters for four days will result in no bioaccumulation.

That assumption was not used in the risk assessment, and would certainly be incorrect. The exposure scenarios for dietary intake were based on tissue data for plant, invertebrate and fish species continually exposed to undiluted effluent from the Santa Rosa facility, over a four-year period.

Response to Comment 98-26

Comment Summary: The comment asks whether steelhead and coho salmon could be exposed to wastewater discharge for more than a maximum of four days during a dry winter.

The period of exposure could be greater than four days, and long-term exposure was assumed in the analysis. Refer to Response to Comment 98-25. Additional discussion is provided in Response to Comment 304-107.

Response to Comments 98-27

Comment Summary: The comment asks whether the increased exposure associated with cumulative projects will result in EQ values greater than 10, and whether this has been evaluated over an extended period.

Findings of the ecological risk assessment showed little or no risk for Russian River organisms under very conservative assumptions of exposure and potential adverse effects. An EQ value lower than 0.1 was calculated for most chemical substances detected in the effluent for the 20 percent discharge scenario. The one notable exception was potential exposure of harbor seals to aluminum. With the exception of potential aluminum effects on harbor seals, no component of the Project, either individually or as a cumulative value, has a reasonable potential to increase potential risk by the one to three-orders of magnitude required to reach an overall EQ of 10.

Response to Comment 98-28

Comment Summary: The comment asks whether the increased exposure associated with cumulative projects has been evaluated over an extended period.

The risk calculations address potential long-term effects, as risk estimates for the Project components were based on the assumption of extended chronic exposures.

Response to Comment 98-29

Comment Summary: The comment asks whether studies have been conducted to determine the effects of ferric chloride on aquatic species.

Studies have not been conducted as part of this Project to determine ferric chloride effects on aquatic species. However, the existing aquatic water quality standard (the National Ambient Water Quality Criteria) for iron (1,000 µg/L) is greater than the standard for aluminum (87 µg/L). Ferric chloride, if used as a substitute for alum (aluminum sulfate) in the tertiary treatment process at the Laguna Plant, will be added at the same concentration as alum. Because of the higher threshold of toxicity for iron it is unlikely that ferric chloride will present an adverse health effect to wildlife.

Response to Comment 98-30

Comment Summary: The comment asks if any studies that address the introduction of exotic species into local habitats as a result of the project alternatives have been conducted.

Introductions of this type were considered during preparation of the impact analysis for the Draft EIR/EIS. None of the proposed Project alternatives will result in the direct introduction of exotic species into local habitats (especially aquatic habitats), since there is no mechanism by which contaminated water or other source material will be discharged into affected waterways or adjacent upland habitat (such as the zebra mussel introduction in the Great Lakes and adjacent waterways). However, disturbance of upland habitats during construction of Project components may allow certain exotic terrestrial species (especially invasive plants) which exist in the vicinity to colonize new areas. Measure 2.2.8, Revegetate Temporarily Disturbed Sites on page 2-37, is included to ensure that revegetation with native species occurs.

Response to Comment 98-31

Comment Summary: The comments requests that the Petaluma Marsh and restored baylands south of Highway 37 receive protection measures similar to those being considered for West Marin.

The stringent standards used in West Marin (i.e., Estero de San Antonio and Estero Americano) are based on the Gulf of the Farallones National Marine Sanctuary's

interpretation of policies established by the National Marine Sanctuaries Act (16 U.S.C. 1436) and the National Oceanic and Atmospheric Administration (15 CFR 922) for national marine sanctuaries such as the Gulf of Farallones. These policies are not applicable to the Petaluma River/San Pablo Bay system because it is not designated as a national marine sanctuary. However, several mitigation measures have been included in the Mitigation and Monitoring Program (Chapter 2, Volume I of the Draft EIR/EIS) which will ensure that no adverse effects to the biological resources of the Petaluma River/San Pablo Bay system will occur as a result of the Project.

Response to Comment 98-32

Comment Summary: The comment asks whether there are plans to contain reclaimed water that would rupture from the Geysers pipeline during a storm event, which coincided with an earthquake.

Mitigation Measure 2.2.13: Pipeline Features in Active Fault Zones on page 2-44 includes isolation valves and high pressure pipes that can accommodate some surface offset for pipelines near fault lines. These are designed to reduce the quantity of a spill that could result from pipeline rupture. Impacts on surface water from ruptured pipelines were considered to be less than significant (See Appendix I-16 (Water Quality Impacts Analysis) and Sections 4.3 and 8.1 of the Draft EIR/EIS). A large storm occurring coincidentally with the pipeline rupture will serve to increase the dilution of the reclaimed water and reduce the already less than significant impacts.

Response to Comment 98-33

Comment Summary: The comment asks what is planned for reservoirs without stormwater diversion structures.

At reservoirs without diversion structures stormwater runoff will be captured within the reservoir, and will provide additional irrigation water for use.

Response to Comment 98-34

Comment Summary: The comment relates to page 4.4-31 and asks what the impacts on water quality will be when flows are less than 3 feet per second.

The 3 feet per second threshold was used to evaluate Project impacts on streambank erosion, not water quality. As described on page 4.4-8 of the Draft EIR/EIS; and on page 3 in Appendix G-2 (Potential Stream Bank Erosion - Laguna de Santa Rosa and Russian River) of the Draft EIR/EIS, the particle size distribution of stream beds and banks reflects the existing energy regime and the energy regime at flows less than the applicable threshold velocity will not cause erosion.

Response to Comment 98-35

Comment Summary: The comment asks how reclaimed water will be managed during floods when discharge is prohibited by a mitigation measure.

During flood stages, when discharge to the Laguna is prohibited, reclaimed water will be diverted to storage reservoirs.

Response to Comment 98-36

Comment Summary: The comments asks if the groundwater monitoring wells are representative of the subbasins.

Wells were drilled in each reservoir subbasin and well locations were selected, to the extent feasible, to provide data representative of the subbasin. Groundwater quality may vary within a subbasin because of hydrogeologic conditions, land use practices, or localized contamination. Groundwater monitoring conducted for the Draft EIR/EIS produced results that were consistent with results of earlier groundwater studies. Future groundwater monitoring for a selected reservoir site will include additional monitoring wells that will be designed to provide groundwater data that is representative of the selected subbasin.

Response to Comment 98-37

Comment Summary: The comment asks if future groundwater testing is planned for the Tolay and Two Rock reservoir sites.

Two wells drilled as part of the groundwater evaluation for the Draft EIR/EIS were dry holes. One dry well was located in the vicinity of the Tolay Creek reservoir and was the only monitoring well in the this area. The other dry hole was located in the vicinity of the Two Rock reservoir and was one of three wells drilled in that area. New data was obtained from the two new wells in the vicinity of the Two Rock reservoir. For the purposes of the Draft EIR/EIS analysis, data from Sears Point, located within the Tolay Creek watershed, were applied to the Tolay Creek site. No additional groundwater monitoring will occur until a Project alternative is selected and pre-construction mitigation monitoring commences.

Response to Comment 98-38

Comment Summary: The comment asks what will be done regarding wells that lack sanitary seals.

Potential groundwater impacts of reservoir construction will not affect wells that lack sanitary seal differently than any other well. An alternative drinking water supply will be provided for wells affected by the Project. Potential groundwater impacts from agricultural irrigation are expected to be less than significant. To protect drinking water

sources, the Department of Health Services' proposed regulations relating to reclaimed water state that:

No irrigation with disinfected tertiary reclaimed water shall take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:

- (A) A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface.
- (B) The well contains an annular seal that extends from the surface into the aquitard (*e.g. a sanitary seal*).
- (C) The well is housed to prevent any reclaimed water spray from coming into contact with the wellhead facilities.
- (D) The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
- (E) The owner of the well approves of the elimination of the buffer zone requirements.

These requirements will be adhered to as part of the Project. However, the Project does not include rehabilitating existing wells that lack sanitary seals.

Response to Comment 98-39

Comment Summary: The comment asks if there are plans to improve and monitor wells for metals and other contaminants.

Groundwater from monitoring wells will be analyzed for constituents found in reclaimed water that could cause an exceedence of drinking water MCLs. Analyses presented in the Draft EIR/EIS indicate that nitrate is currently the only constituent of concern. If further analysis or new information revealed that other constituents were of concern, the presence of such chemicals will be monitored. Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells on page 2-85 of the Draft EIR/EIS calls for preparation of an annual review of the groundwater monitoring program which will include consideration of monitoring chemicals other than nitrate. Mitigation is included for wells affected by the Project, but the Project does not propose to "improve" wells that have existing water quality problems, in the absence of Project impacts.

Response to Comment 98-40

Comment Summary: The comment indicates that reclaimed water with nitrate levels that exceed the MCL will increase the already high nitrate levels in groundwater.

Potential impacts from increased nitrate concentrations at reservoir sites are discussed in the Draft EIR/EIS beginning on page 4.5-32. The Project will increase nitrate

concentrations in areas where nitrate is currently less than 16 mg/L. In areas where nitrate concentrations are greater than 16 mg/L project inputs of reclaimed water will provide dilution, thereby lowering the overall nitrate concentrations. Increased nitrate concentrations in the vicinity of reservoir sites have been identified as a significant impact of the Project (Impact 5.5.1A on page 4.5-32 of the Draft EIR/EIS) and replacement water supply is recommended in Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells on page 2-85 of the Draft EIR/EIS.

Response to Comment 98-41

Comment Summary: The comment asks if the well survey will be effective in located abandoned or undocumented wells.

As indicated in Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells on page 2-85 of the Draft EIR/EIS, the proposed well survey will include contacting all property owners and conducting a field check of properties. Every effort will be made to identify the location of abandoned or undocumented wells. However, there is always the possibility that very old wells may not be identified.

Response to Comment 98-42

Comment Summary: The comment is regarding efforts to improve the well survey system to better identify abandoned or undocumented wells.

As described in Response to Comment 98-41, the City will undertake all feasible data collection methods to identify such wells.

Response to Comment 98-43

Comment Summary: The comment inquires about the source and quality of replacement water.

As indicated on page 2-85 of the Draft EIR/EIS, replacement water supply will be provided from the Laguna Wastewater Treatment Plant via a pipeline installed during construction of the reclaimed water pipeline. The water will be municipal water that meets all applicable drinking water quality standards.

Response to Comment 98-44

Comment Summary: The comment asks if Green Valley and Atascadero Creeks are regularly monitored.

Past monitoring of Atascadero and Green Valley Creeks is described in Appendix I-5 Irrigation/Storage Stream Water Quality Monitoring Results of the Draft EIR/EIS. The Regional Board will establish monitoring requirements for future monitoring.

Response to Comment 98-45

Comment Summary: The comment asks if mitigation is proposed to prevent irrigation impacts on Green Valley and Atascadero Creeks.

Measures 2.2.1 and 2.2.3 on pages 2-21 and 2-23 describe how these waters will be protected through irrigation management. As described in the Section 4.4.2, in Appendix I-16 (Water Quality Impact Analysis Report Volume I - Text), of the Draft EIR/EIS, West County irrigation lands located in the Russian River watershed either do not meet irrigation eligibility criteria or irrigation will not affect surface waters. Eligible lands are shown to have no shallow impermeable layers that will cause root zone saturation and lateral flow to surface waters under conditions of proper irrigation. Therefore, with well-managed irrigation, these lands are expected to have no measurable impact on surface water flow or quality.

Response to Comment 98-46

Comment Summary: The comment asks how pipeline ruptures would be detected and responded to.

The procedure is described in the Draft EIR/EIS on page 3.3-6 of the Project Description. Pipes will be visually inspected for leaks, and once detected the closest isolation valve on either side of the break will be closed. The break will then be repaired.

Response to Comment 98-47

Comment Summary: The comment states that exposures due to ruptures would be short in duration, but asks what about ruptures that are not detected immediately or are responded to later than expected?

The above described section of the Draft EIR/EIS recognizes that major breaks will be recognized more quickly than minor leaks. In either case it is expected that several tens of thousands of gallons of reclaimed water could leak from a pipeline break before detection and repair. Impacts of such incidents are evaluated throughout the document in the discussion of pipeline components. For example, potential flooding impacts of pipeline rupture are discussed on page 4.4-24, impacts on groundwater are discussed on page 4.5-30, and impacts on surface water quality are discussed on pages 4.6-77 through 4.6-79.

Response to Comment 98-48

Comment Summary: The comment asks about plans to respond to longer exposures.

The plan for repair of pipeline breaks is applicable to all types of incidents. The intent is to detect and repair problems as quickly as possible. Procedures are in place to ensure that substantial leaks are detected promptly and any leak that was not detected is minor

(i.e. leaking low volumes of water). Impact evaluation did not identify any special mitigation measures needed for leaks which go undetected for longer periods of time.

Response to Comment 98-49

Comment Summary: The comment states that pipeline ruptures may cause water quality objectives to be exceeded.

Impacts on surface water from ruptured pipelines were considered to be less than significant. Refer to Sections 4.3 and 8.1 in Appendix I-16 (Water Quality Impacts Analysis Report, Volume I -Text) of the Draft EIR/EIS.

Response to Comment 98-50

Comment Summary: The comment states that long and short term water quality monitoring should be conducted.

The Regional Board will establish monitoring requirements and could require both short-term and long-term monitoring.

Response to Comment 98-51

Comment Summary: The comment states that “high standards” (i.e., special site significance criteria) should be applied to Baylands.

The Draft EIR/EIS authors consider the standards used for evaluation of impacts on all habitats to be “high”. The special site evaluation criterion considers any change, whether beneficial or adverse, to be a significant adverse impact. This criterion is only used because of the Gulf of the Farallones National Marine Sanctuary's interpretation of regulations for the Sanctuary, and is thus not applicable to the Baylands. The Draft EIR/EIS authors consider this criterion too limited for a realistic evaluation of impacts on the Baylands.

Response to Comment 98-52

Comment Summary: The comment asks if there are plans to have a qualified person on site during construction who will make sure that erosion control practices and other practices are used to prevent adverse impacts.

A qualified person will be on site during construction to make sure that erosion control practices and other practices are used to prevent adverse impacts. Refer to Measure 2.2.10: Storm Water Pollution Prevention Plan, on page 2-40 of the Draft EIR/EIS.

Response to Comment 98-53

Comment Summary: The comment asks if water quality monitoring will occur in the event of a reservoir spill.

As described on page 4.6-80 of the Draft EIR/EIS, spillway discharges are not expected to occur. If a spill does occur, reclaimed water may impact ammonia, dissolved oxygen, biostimulatory substances, and turbidity in waters below the dam, but the impact will be less than significant due to dilution and the timing of overtopping. Since spillway discharge will be a rare, unplanned event that is predicted to produce less than significant impacts on the receiving water, no monitoring of such an event is planned. However, the Regional Board may impose a monitoring requirement.

Response to Comment 98-54

Comment Summary: The comment asks about the duration of receiving water monitoring programs in the Laguna and Russian River, and whether a program of more than two years duration is proposed for the 20% design discharge scenario.

The precise terms of this monitoring are not provided in the Draft EIR/EIS, but would be defined by the North Coast Regional Water Quality Control Board if the 20% discharge option were selected.

Response to Comment 98-55

Comment Summary: The comment asks what will be done to avoid cyanide impacts of direct discharge.

Refer to Mitigation Measure 2.5.5: Cyanide Monitoring and Source Control on page 2-129 of the Draft EIR/EIS. This mitigation measure calls for continuing monitoring of cyanide and an immediate implementation of source control should an exceedance of the evaluation criterion for cyanide be detected in any receiving water.

Response to Comment 98-56

Comment Summary: This comment refers to Table 4.6-34 on page 4.6-94 in the Draft EIR/EIS which shows significant impacts before and after mitigation for Alternative 5A and asks if further investigation is being planned to lower these impacts should this alternative be chosen.

The significant impacts for Alternative 5A are for conductivity in the upper Russian River. As described in Appendix I-16 (Water Quality Impact Analysis Report Vol. I) and Section 4.6.1, mitigation measures for conductivity impacts are infeasible. No further investigation is being planned to lower these impacts.

Response to Comment 98-57

Comment Summary: This comment asks if the Cyanide Monitoring and Control Program includes a long-term plan with frequent sample collections.

The Cyanide Monitoring and Control Program is described in Mitigation Measure 2.5.5 on page 2-129 of the Draft EIR/EIS, with monitoring conducted on a bi-weekly basis throughout the life of the Project.

Response to Comment 98-58

Comment Summary: This comment asks if other programs (Toxicity Control Program, Source Control Program, etc.) include a long-term plan with frequent sample collections.

The frequency and duration of monitoring are specified in the description of the mitigation (refer to Chapter 2 of the Draft EIR/EIS).

Response to Comment 98-59

Comment Summary: This question asks whether information is being gathered from the receiving waters to add to information provided from the watershed models since the unpredictability of certain natural events will not be noted on a model.

Monitoring programs are currently being implemented that provide information which could be used to update the water quality model at some time in the future. Receiving water data provide input to the model and help calibrate it. The model is used for evaluating the water quality response to events which are within the range of conditions used to calibrate the model.

Response to Comment 98-60

Comment Summary: The comment states that less than significant impacts can compound over time to cause a significant impact.

The evaluation criteria were established to identify impacts that are significant after a long period, such as bioaccumulation. Monitoring will be conducted to determine if such impacts occur, as indicated in Section 2 of the Draft EIR/EIS.

Response to Comment 98-61

Comment Summary: This comment states that a long-term extensive monitoring program should be implemented for the water quality impacts of all alternatives.

The mitigation and monitoring program is defined in Section 2 of the Draft EIR/EIS. The City will also comply with monitoring requirements established by the Regional Water Quality Control Board.

Response to Comment 98-62

Comment Summary: The comment expresses concern about rupture of the Geysers pipeline.

As indicated on page 4.3-63 of the Draft EIR/EIS, rupture of the Geysers pipeline has been identified as a significant impact of Alternatives 2,3, and 4, even after implementation of Mitigation Measure 2.3.8: Earthquake Preparedness and Emergency Response Program on page 2-74 of the Draft EIR/EIS. As indicated on page 4.3-62 and 4.3-63 of the Draft EIR/EIS, potential damage to the Geysers pipeline as a result of unstable slopes has been identified as a significant impact of Alternatives 2,3, and 4, even after implementation of Mitigation Measure 2.3.4 and 2.3.7 on pages 2-65 and 2-71 of the Draft EIR/EIS. The City will be required to make findings of overriding considerations regarding these impacts if one of these alternatives were selected.

Response to Comment 98-63

Comment Summary: The comment inquires about the impact of low quality water in the event of pipeline rupture.

As discussed on page 4.6-77 of the Draft EIR/EIS, water quality impacts related to the release of reclaimed water during pipeline rupture are considered to be less than significant because of the short-term nature of the release.

Response to Comment 98-64

Comment Summary: The comment expresses concern about the location of the Tolay Fault relative to the Tolay Creek dam site.

The Tolay fault has not been demonstrated to have undergone recent movement and is not designated as a fault-rupture hazard zone under the Alquist-Priolo Earthquake Hazards Zone Act. The History of movement and the seismic potential of the Tolay fault is described in the Draft EIR/EIS on page 4.3-40. As indicated in the Draft EIR/EIS on page 4.3-71, all dam embankments at the Tolay reservoir site will be designed to withstand some displacement on the Tolay fault (2 to 4 feet) which could occur during a large earthquake on the nearby Rodgers Creek Fault. The Tolay dam and reservoir will be designed to withstand the maximum ground shaking anticipated to occur at each site, assuming a large earthquake on a regional fault. This level of design is considered adequate to protect public health and safety.

Response to Comment 98-65

Comment Summary: The comment expresses concern about the potential for seismic impacts related to activity of the Tolay Fault or nearby Rodgers Creek Fault.

Refer to Response to Comment 98-64.

Response to Comment 98-66

Comment Summary: The comment expresses concern about rupture of urban irrigation pipelines in Bennett Valley.

As indicated on page 4.3-64 of the Draft EIR/EIS, rupture of urban irrigation pipelines in Bennett Valley has been identified as a significant impact of Alternatives 2,3, and 4, even after implementation of Mitigation Measure 2.3.8 on page 2-72 of the Draft EIR/EIS. The City will be required to make findings of overriding considerations regarding this impact if one of these alternatives were selected. While unstable slopes were identified in the vicinity of the Bennett Valley urban irrigation pipelines, Mitigation Measures 2.3.4 and 2.3.7 on pages 2-65 and 2-71 of the Draft EIR/EIS will mitigate these impacts to less than significant (refer to pages 4.3-62 and 4.3-63 of the Draft EIR/EIS).

Response to Comment 98-67

Comment Summary: The comment is concerned about potential damage to South County pipelines due to corrosive soils and high liquefaction potential.

As indicated on page 4.3-65 of the Draft EIR/EIS, potential impacts from liquefaction will be mitigated to less than significant through implementation of Mitigation Measure 2.3.5: Liquefaction Stabilization Design on page 2-67 of the Draft EIR/EIS. As indicated on page 4.3-67 of the Draft EIR/EIS, potential impacts from corrosive soils will be mitigated to less than significant through implementation of Mitigation Measure 2.3.6: Standard Engineering Methods for Corrosive Soils on page 2-68 of the Draft EIR/EIS.

Response to Comment 98-68

Comment Summary: The comment quotes the policy of the Marin Countywide Plan that water quality should be maintained or enhanced.

Compliance of the Project with this policy is addressed in detail in Section 4.6 of the Draft EIR/EIS, Water Quality.