

COMMENT LETTER 116 - VERNON S. AND MARILYN J. PICCINOTTI (OCTOBER 6, 1996), RECEIVED OCTOBER 7, 1996)

Response to Comment 116-1

Comment Summary: The comment states that the document was prepared at immense public expense, that it was “sequestered” at libraries, that its use was curtailed at the Sonoma State Library, that only three volume summaries were located at the Petaluma library, that the CD-ROM was inadequate and incomplete, that residents of Petaluma were compelled to travel from their area to consult complete sets, the charge for the documents was prohibitive and therefore these can only be viewed as an intentional effort to impede convenient public access, minimize informed public comment and objection and contribute to a rapid decision-making process not inconvenienced by a questioning or opposing public.

Refer to Master Response 3, located in Section 6.2 of this document, concerning availability and cost of the document.

Response to Comment 116-2

Comment Summary: The comment states that the public comment period for the Draft EIR/EIS was inadequate; the comment recommends 120 days. The comment also states that an index should have been provided because the Table of Contents is not adequate for locating related material in the document.

Refer to Master Response 4, located in Section 6.2 of this document, concerning time for review of the document. Table 1-3 in Chapter 1 (pages 1-28 and 1-29) of the Draft EIR/EIS is an index of key issues that directs the reader to the proper chapter or section of the document in compliance with NEPA, and was approved by the United States Corps of Engineers, San Francisco Region. The Draft EIR/EIS also includes an overall table of contents at the beginning of each volume, chapter, and section. In addition the Draft EIR/EIS CD ROM provides a search function that serves as an index. Entering a key word or phrase will provide direct the user to all pages where the word or phrase appears. Each section of Chapter 4 also begins with an identification of sections where related impacts are discussed.

Response to Comment 116-3

Comment Summary: The comment indicates that the Draft EIR/EIS is inadequate since the proposed mitigation measures are “illusory, insufficient, and highly subjective”.

The comment provides no specific evidence regarding the effectiveness of the proposed mitigation measures and no evidence of any sort supporting the claim. Without data or other information in this comment to demonstrate where the mitigation measures presented in the Draft EIR/EIS are inaccurate or insufficient, a specific response is not possible. Specific comments are addressed below.

Response to Comment 116-4

Comment Summary: The comment states that removal of aggregate resources, as provided for in Mitigation Measure 2.4.1, would be functionally impossible as applied to the Two Rock reservoir site, indicating that the site has extensive aggregate deposits and that effectively removing the material would require excavation on a scale comparable to that of the project itself.

The Draft EIR/EIS recognizes the scale of the extensive aggregate deposits at the Two Rock site, and does not propose that all of the resource be removed as part of Mitigation Measure 2.4.1. The discussion of Mitigation Measure 2.4.1 in Section 4.1 of the Draft EIR/EIS (page 4.1-33) clearly states that the amount of material on the Two Rock site far exceeds the amount necessary for Project construction, and that only a fraction of the material will be removed and the rest will be inaccessible after construction of the reservoir. The same discussion concludes by stating that Mitigation Measure 2.4.1 will reduce the impact, but not to a level less than significant, and that no feasible mitigation has been identified to further reduce the impact.

Response to Comment 116-5

Comment Summary: The comment indicates that wherever the Draft EIR/EIS states “No feasible mitigation has been identified”, the mitigation fails.

As noted on page 2-1 of the Draft EIR/EIS, the California Environmental Quality Act only requires that “Each public agency shall mitigate or avoid the significant effects on the environment of projects it carries out or approves whenever it is feasible to do so.” In cases where no feasible mitigation is available, the Draft EIR/EIS indicates this and notes the level of impact that will remain (e.g. less than significant or significant).

Response to Comment 116-6

Comment Summary: The comment indicates that Mitigation Measures 2.5.2, 2.5.3, 2.5.6, 2.5.7, 2.3.15, 2.3.16, 2.4.5, and 2.3.11 rely excessively upon subjective, speculative, and non-specific “Control Programs.”

The comment is a statement of opinion, without any specific evidence regarding the effectiveness of the proposed mitigation. No data or other information was provided to demonstrate where the mitigation presented in the Draft EIR/EIS is inaccurate or insufficient. Based on past experience with implementation of mitigation programs, and data cited in the Draft EIR/EIS, the EIR/EIS authors believe that the measures are feasible and effective.

Response to Comment 116-7

Comment Summary: The comment indicates that Mitigation Measures 2.4.4, 2.4.15, 2.4.9, and 2.4.10 (sic) are “merely ridiculous”.

The comment is a statement of opinion, without any specific evidence regarding the effectiveness of the proposed mitigation measures. No data or other information was provided to demonstrate where the mitigation presented in the Draft EIR/EIS are ineffective or insufficient. As noted on page 2-114 of the Draft EIR/EIS, the purpose of Mitigation Measure 2.4.12 (Protect Undiscovered Cultural Resource Sites) is to prevent or minimize impacts to any previously unknown cultural resources that are discovered during construction activities. Because cultural resources are located underground, there may be currently undiscovered resources that are unearthed during construction, and these resources are deserving of the same level of protection that is afforded to cultural deposits that have already been identified by previous studies.

Response to Comment 116-8

Comment Summary: The comment indicates that the mitigation measures presented in the Draft EIR/EIS are "...often impractical and irrelevant solutions to real problems, and questions the meaning of the terms "impact" and "significant".

Regarding mitigation measures, the comment is a statement of opinion, without any specific data or other information provided to demonstrate where the mitigation measures presented in the Draft EIR/EIS are inaccurate or insufficient. In the Glossary on pages G-25 and G-47 of the Draft EIR/EIS, the terms "impact" and "significant" are defined. Criteria for significance are explicitly explained and justification provided, in each section of the Draft EIR/EIS.

Response to Comment 116-9

Comment Summary: The comment requests for the following information regarding Mitigation Measure 2.3.12 (Provide Replacement Water Supply for Affected Wells):

- *Who pays for the hookup, installation?*
- *How much water will be provided and for how long?*
- *Who pays for the water?*

If replacement water supply is necessary, the City will pay for the installation of pipelines and distribution systems. Adequate water supply will be provided to meet potable water demand. Residences, once hooked up to municipal water supply, may have to pay for water, but this will be a policy decision of the Board of Public Utilities, to be determined later.

Response to Comment 116-10

Comment Summary: The comment suggests that the mitigation measures listed on pages 5-14 through 5-21 of the Draft EIR/EIS (Table 5.4-1 Summary of Significant and Unavoidable Adverse Impacts) that involve “risk monitoring” and “control programs” may not be very effective when confronted by a situation which cannot be mitigated or controlled.

The comment is apparently referring to Mitigation Measure 2.4.16: Ecological Risk Monitoring and Source Control Program on page 2-19, and may also be referring to other mitigation such as Mitigation Measure 2.4.11: Dust Control Program on page 2-112, and Mitigation Measure 2.4.10: Vehicle and Equipment Exhaust Control Program on page 2-111, within the Draft EIR/EIS. These are the only measures that mention risk monitoring and control programs. Chapter 2 of the Draft EIR/EIS provides the details of each of these measures. Each measure is subject to a defined program of monitoring and validation. It will be the responsibility of the City of Santa Rosa to document compliance with each of these measures, and agencies such as the Bay Area Air Quality Management District and North Coast Regional Water Quality Control Board have ultimate authority to ensure compliance with air quality and water quality measures.

The risk monitoring measure is directed at levels of aluminum in reclaimed water and includes specific source control measures that will be implemented if needed, including elimination of aluminum in chemicals used for wastewater treatment. These measures have been proven to be successful. The two air quality control programs are also proven methods of reducing construction period air quality impacts. However, the Draft EIR/EIS has concluded that, even with air quality controls, there will be a significant effect on air quality during construction, and has thus recognized that dust is not completely controllable.

Response to Comment 116-11

Comment Summary: The comment raises questions about the impacts of the Project to West County groundwater quality and quantities and to the procedure used to identify wells, groundwater depths, and rates of production.

As indicated on page 4.5-25 of the Draft EIR/EIS, information about wells was obtained from the California State Department of Water Resources (DWR) well log files. In addition, field evidence and communications with residents were used to obtain information about the location and characteristics of rural wells. Locations of known wells in the vicinity of West County reservoirs are shown in Figures 4.5-6 through 4.5-10 on pages 4.5-30 through 4.5-58 of the Draft EIR/EIS. The Draft EIR/EIS in Section 4.5 and Appendices H-1 (Hydrogeology of Storage/Reuse Areas and Evaluation of Potential Impacts to Groundwater) and H-4 (Well Installation and Groundwater Monitoring Results) contains information about well depths, geologic source of water, groundwater level, and groundwater quality. Adverse groundwater quality impacts may be associated with the storage reservoir component of the Project, but impacts could be mitigated by

providing an alternative water supply as described in Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells, on page 2-85 of the Draft EIR/EIS.

Groundwater will not be significantly affected by agricultural irrigation (refer to Impact 5.7.1 on page 4.5-52 of the Draft EIR/EIS). Currently, agricultural irrigation using reclaimed water in the subregional system requires a 50 foot setback from domestic wells. This practice will be continued as new irrigation land is added to the system.

Response to Comment 116-12

Comment Summary: The comment states that there are apparent inconsistencies in the discussion of groundwater sources in the West County, and particularly in the Two Rock area.

The geology and hydrogeology of Sonoma County is complex and general characterizations may not represent localized conditions. Hydrogeologic conditions in West County are discussed in detail on page 4-8, Appendix H-1 (Hydrogeology of Storage/Reuse Areas and Evaluation of Potential Impacts to Groundwater), of the Draft EIR/EIS. The Wilson Grove Formation is the principal water producing formation in the West County; however, where the unit is thin or absent other sources of water may be locally developed. At the Two Rock reservoir site the Wilson Grove Formation occurs as a thin cap rock over the Franciscan Complex. As indicated in the Draft EIR/EIS, the Franciscan is generally non-water bearing. Wells within the Two Rock area are screened in shallow alluvium or in fracture zones within the Franciscan and would be expected to provide only limited amounts of water as the comment describes.

Response to Comment 116-13

Comment Summary: The comment states that the Draft EIR/EIS includes a project component to discharge reclaimed water to the aquifer for aquifer recharge.

The portion of the Draft EIR/EIS to which the comment refers (Appendix U-1) contains the final scoping report for the Project alternatives. During scoping an aquifer storage and recovery component was presented as an option. This component was later eliminated from the project because, after feasibility analyses were conducted, it was determined that aquifer storage and recovery in areas such as Sonoma County is not technically and logistically feasible for the amount of storage needed for the Long-Term Project. (Refer to page 3.1-35 of the Draft EIR/EIS.) The Draft EIR/EIS has evaluated impacts of storage reservoirs and irrigation on groundwater. Because there were no groundwater criteria for reclaimed water storage facilities, criteria for recharge ponds were used, despite the fact that the storage facilities are not intended for recharge. These criteria were deemed to be conservative (i.e. protective), and thus appropriate for the Project. None of the analyses of groundwater impacts have concluded that potential groundwater impacts in the West County area were acceptable because of poor quality of existing groundwater.

Response to Comment 116-14

Comment Summary: The comments expresses concern that groundwater flow rates through shallow alluvial zones in the vicinity of reservoir sites are potentially faster than estimated in the Draft EIR/EIS.

As indicated on page 2-100 of the Draft EIR/EIS in Mitigation Measure 2.4.2: Remove Weak Surficial Deposits from Reservoir Footprint, all surficial deposits will be removed from the reservoir footprint during dam and reservoir construction. Excavation at the reservoir site will remove the thin veneer of unconsolidated deposits to which the comment refers, to provide a firm foundation for the dam and reservoir. This will create a direct connection between the main water-bearing unit (Wilson Grove or Petaluma Formation) at the reservoirs, and little if any water will flow directly into alluvium. Some groundwater could find its way into shallow zones or fractures and could flow at rates different than the average groundwater flow rates presented in Draft EIR/EIS.

Response to Comment 106-15 contains a discussion of flow rates. Flow rates were calculated for the main aquifer material and were expressed as average rates. Actual groundwater flow rates vary significantly depending on local geologic and groundwater conditions. The Draft EIR/EIS provides an estimate of the depth of groundwater, travel time, and areal extent of impacts. Additional groundwater monitoring, recommended in Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells will verify model assumptions and further define area of effect prior to reservoir construction. (Refer to page 2-85 of the Draft EIR/EIS.) Potential groundwater impacts are not "unknown" as indicated in the comment, but some variability in actual groundwater parameters is expected to occur.

Response to Comment 116-15

Comment Summary: The comment expresses concern that reservoir construction would threaten the water supply of an already water deficient area.

Construction of a West County reservoir could result in degradation of existing drinking water wells. However, all proposed reservoirs are located in relatively small drainage basins and anticipated groundwater impacts at most reservoir sites will be confined to that subbasin or a small portion of the main valley. The largest number of known water users that will be affected by the Project is at Two Rock, where approximately 40 wells will be affected. Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells, on page 2-85 of the Draft EIR/EIS, will provide replacement water supply if drinking water quality is reduced below state or federal standards.

Response to Comment 116-16

Comment Summary: The comment indicates that the hydrological modeling is based on uncertain assumptions.

Refer to Response to Comment 116-14 for a discussion of uncertainties in assumptions and variations in groundwater patterns. Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells on page 2-85, will provide replacement drinking water supply to all groundwater users that will be affected by reservoir operations. Therefore, West County residents will not be required to drink degraded water.

Response to Comment 116-17

Comment Summary: The comment states that filter malfunction cited in Appendix H-3 could recur.

Refer to Response to Comment 10-7 and to Master Response 8, located in Section 6.2 of this document.

Response to Comment 116-18

Comment Summary: The comment states that failure of five storage reservoirs dams located within 5 miles of each would have an "unappealing" impact on groundwater.

No more than two reservoirs will be constructed (as described in Section 3 of the Draft EIR/EIS), and for a West County Project, only one reservoir will be built. Page 4.19-7 of the Draft EIR/EIS describes impacts of dam failure on groundwater quality as less than significant.

Response to Comment 116-19

Comment Summary: The comment asserts that irrigation would have adverse effects on groundwater.

Groundwater impacts of agricultural irrigation are evaluated starting on page 4.5-51 of the Draft EIR/EIS, and the conclusion is that impacts will not be significant. Measure 2.2.3: Restrict Surface and Subsurface Irrigation Water Runoff, on page 2-23 of the Draft EIR/EIS, presents measures to manage irrigation runoff.

Response to Comment 116-20

Comment Summary: The comment states that the Draft EIR/EIS assumes conversion of West County agriculture from dry land pasture to crops such as Brussels sprouts and broccoli.

The Draft EIR/EIS does not predict a massive transition from pasture to other crops. In fact, the "Low Tech" cropping scenario assumes that in West County 5,450 acres will be in irrigated pasture; 900 acres in forage, hay and silage; and 50 acres in vegetable crops. The Draft EIR/EIS has developed three different scenarios to allow evaluation of the range of possible changes in agricultural practices that could result from availability of reclaimed water. The "High Tech" scenario was developed to represent the possible extreme range of crop changes, but the Draft EIR/EIS certainly does not assume that this

will actually happen. Reclaimed water users will not be expected or encouraged to grow any particular crops, and any changes are likely to occur slowly, and will be completely at the discretion of individual landowners.

Response to Comment 116-21

Comment Summary: The comment quotes the Draft EIR/EIS as stating that some crops would not do well in West County.

The comment quotes Appendix E-2 (Irrigation Suitability, Land Classification, West County Areas) of the Draft EIR/EIS correctly.

Response to Comment 116-22

Comment Summary: The comment quotes the Draft EIR/EIS regarding difficulties in raising alfalfa.

The comment's summary of Appendix E-2 (Irrigation Suitability, Land Classification, West County Areas) of the Draft EIR/EIS is correct.

Response to Comment 116-23

Comment Summary: The comment expresses concern about management of areas designated as "Medium Priority" for receiving reclaimed water.

The Irrigation Management Guidelines have identified a possible system for prioritizing and pricing structure that includes a Medium Priority category. This is described on page 18 of Appendix D-19 (Irrigation Management Guidelines for West County and South County Alternatives) of the Draft EIR/EIS. In return for some uncertainty regarding water delivery, users will pay a smaller fee for water or no fee at all. This will only be feasible for users with irrigated pasture or other uses that are not as sensitive to water stress. The City has not yet determined a system of pricing and prioritization.

Response to Comment 116-24

Comment Summary: The comment suggests that the Draft EIR/EIS assumes that no irrigation water would migrate below the root zone of irrigated crops.

Appendix D-19 (Irrigation Management Guidelines for West County and South County Alternatives) of the Draft EIR/EIS presents methods for reducing runoff and losses of irrigation water through subflow, but does not contend that such losses can be eliminated. Analysis of groundwater and surface water impacts includes evaluation of impacts of irrigation. Refer to Sections 4.5 and 4.6 of the Draft EIR/EIS. Discussion of impacts of irrigation on groundwater starts on page 4.5-51. Discussion of surface water impacts of irrigation starts on page 4.6-85.

Response to Comment 116-25

Comment Summary: This comment indicates that irrigation applications of 20 to 24 inches per year in the West County are immense and will likely result in "flooding" or saturation of low-lying areas.

Irrigation application rates in the Draft EIR/EIS are averages for project planning purposes and are based on assumptions and calculation procedures recommended by the University of California, Davis Cooperative Extension Service. Applications of 20 inches to 24 inches per year are reasonable estimates for planning purposes. Refer to page 17 in Appendix E-2 (Irrigation Suitability Land Classification - West County Area) of the Draft EIR/EIS for a description of methods for estimating crop water use. Actual irrigation applications will be based on seasonal climatic conditions and soil moisture monitoring. Low-lying areas with drainage problems will be avoided. Irrigation scheduling will consider soil moisture build-up in the soil, so as to avoid development of widespread perched water conditions and saturated soil. Procedures for irrigation scheduling, management, and monitoring are discussed in detail in Appendix D-19 (Irrigation Management Guidelines for the West County and South County Alternatives), of the Draft EIR/EIS. Refer also to Response to Comment 29-3.

Response to Comment 116-26

Comment Summary: The comment suggest that irrigation would require drainage facilities.

The Draft EIR/EIS recognizes the potential for problems, and therefore recommends that the problem soils referenced in the comment be avoided. The section of the Draft EIR/EIS quoted in the comment is preceded by the statement that "One method to control and reduce adverse impacts from irrigation application is to restrict water availability so that large areas of marginal or problem soils are not included in the project." Extensive measures are included to ensure that irrigation water is not used in unsuitable areas and that normal soils are managed appropriately. Refer to Measures 2.2.1 through 2.2.7 on pages 2-21 through 2-37 of the Draft EIR/EIS.

Response to Comment 116-27

Comment Summary: The comment quotes Appendix E-2 (Irrigation Suitability Land Classification and Existing and Potential Agricultural Land Uses, West County Reclamation Study Area) as identifying potential adverse impacts from runoff and percolation on wetlands and water quality.

The first quote is incomplete. The full text states that "The proper use and management of applied irrigation water to avoid runoff and subsurface flows is critical to the success of the irrigation project and to avoiding adverse wetland and water quality impacts." The Draft EIR/EIS acknowledges that percolation occurs. Impacts are evaluated, and

measures are included in the Project to manage runoff and percolation. Refer to Measures 2.2.1 through 2.2.7 on pages 2-21 through 2-37 of the Draft EIR/EIS.

Response to Comment 116-28

Comment Summary: The comment suggests that analyses are in conflict and are therefore invalid.

It appears that the comment arises from the general practice, followed throughout the Draft EIR/EIS, of: 1) pointing out potential problems, 2) developing measures to avoid or minimize the problem, and 3) drawing conclusions regarding the effectiveness of the measures in reducing potential impacts. This approach means that individual statements, when taken out of context, may appear inconsistent. Each of the apparent inconsistencies described in previous comments above is in fact consistent with this overall approach. The potential for a problem does not mean that problems cannot be avoided with implementation of a proper program of irrigation management. The Draft EIR/EIS has identified a wide variety of potentially significant impacts associated with irrigation, has developed measures to avoid or minimize most of them, and has identified any significant impacts that cannot be avoided. Significance criteria are presented in each section.

Response to Comment 116-29

Comment Summary: The comment quotes page 2 of paragraph 1 of Appendix D-19 (Irrigation Management Guidelines for the West County and South County Alternatives) of the Draft EIR/EIS, which discusses potential problems associated with poor management of irrigation.

The quote is incomplete, in that the paragraph following it explains how proper management can avoid the potential problems and enhance existing surface water and aquatic habitat resources.

Response to Comment 116-30

Comment Summary: The comment expresses concern about constructing five reservoirs in a seismically active area.

A dam and reservoir, if constructed as part of the Project, will be designed to withstand the maximum credible earthquake on the San Andreas fault and the maximum anticipated ground acceleration at the site. As indicated in Response to Comment 93-6, earth dams can be designed and constructed in such a way as to prevent the release of water during strong ground shaking. Earth dams with clay cores are designed to be plastic, and can often accommodate fracturing and offset. As indicated in the Draft EIR/EIS, it will be critically important that the dam be properly designed, constructed, permitted, inspected, maintained, and monitored to ensure the health and welfare of people and the environment. The project description includes five alternative reservoir sites in West

County, but all five will not be built as part of the Project. Only one reservoir site will be needed in West County, if a West County irrigation Project is selected.

Response to Comment 116-31

Comment Summary: The comment expresses concern about emergency response in the event of dam failure.

As indicated in the Draft EIR/EIS in Sections 4.3 and 4.7, catastrophic dam failure is not expected to occur. Dam failure is not typically associated with earthquakes. Refer to Response to Comment 93-6.

Response to Comment 116-32

Comment Summary: The comment expresses concern about earthquakes resulting in catastrophic dam failure.

Refer to Response to Comment 116-30 and Response to Comment 93-6.

Response to Comment 116-33

Comment Summary: The comment questions the reasoning of "significant hazard" of dam failure as defined as affecting "few" people.

The comment refers to page 4 of Appendix D-16 (Reservoir Spillway Hydrology Analysis) of the Draft EIR/EIS which includes an evaluation of the relative hazard of dam failure. Four reservoir sites will include construction of a dam in a rural area and will fall under the hazard category of "significant" defined by the U.S. Army Corps of Engineers. This category is defined as an area with few people (no urban development and no more than a small number of inhabitable structures) and appreciable economic losses (notably agriculture, industry or structures). The five other sites fall into the category of "high". A hazard category of "high" is defined as an area with more than a few people, and excessive economic loss (extensive community, industry or agriculture) that will be affected by inundation. The hazard category is solely intended to determine requirements for spillway design flood. All of the proposed reservoir sites will require that the Probable Maximum Flood be used as the spillway design flood. This requirement will not be changed by reclassifying four of the five West County reservoirs to a hazard category of high.

Response to Comment 116-34

Comment Summary: The comment expresses concern about the location of faults relative to reservoir sites.

The comment is correct in stating that "potentially active" generally refers to faults that have experienced offset in the Quaternary Period (last two million years). The term "active" fault refers to faults that have been displaced in the Holocene (last 10,000 to

11,000 years). These terms are defined on page 4.3-39 of the Draft EIR/EIS, and illustrated in Figure 4.3-1 on page 4.3-9. The terms are not conflicting or subjective, but are based on direct geological evidence of the length of time since any displacement occurred along the fault. The Draft EIR/EIS evaluation considered the impact of active faults capable of causing surface fault rupture at a Project facility. Based on Evaluation Criterion 2, as described in Table 4.3-6 on page 4.3-54 of the Draft EIR/EIS, only faults within an Alquist-Priolo earthquake fault zone are considered significant. None of the West County sites is within an Alquist-Priolo zone, and, as shown in Figure 4.3-1 on page 4.3-9, all of the faults in West County show no evidence of displacement within the last 700,000 years. Also refer to Responses to Comments 89-3 and 98-64 for a discussion of seismic potential of local faults and the seismic design of reservoirs.

Response to Comment 116-35

Comment Summary: The comment voices objections to the risk of constructing a reservoir.

Refer to Response to Comment 116-30.