

**COMMENT LETTER 93 - RENEE R. CHERNUS (OCTOBER 7, 1996), RECEIVED
OCTOBER 7, 1996**

Response to Comment 93-1

Comment Summary: The comment states the objection to Alternative 3B containing the Bloomfield Reservoir site by Paul Claeysens, owner of 6018 Bloomfield Road, Petaluma, California, citing the irreversible damage to his property that would be caused by construction of the Bloomfield Reservoir.

The comment is correct that the Claeysens property will be affected by the Bloomfield Reservoir site.

Response to Comment 93-2

Comment Summary: The comment asserts that the Draft EIR/EIS does not advise the public of the actual land takings associated with the Bloomfield Reservoir site. With respect to property located at 6018 Bloomfield Road, the comment specifically asserts that the value of the land and the cost of the taking are not disclosed in the economic impact section of the EIR/EIS, and that the effect on the land in the public easement area of the Sonoma County Open Space and Agricultural Preservation District is not addressed at all in the EIR/EIS.

The comment is incorrect in its assertions. Section 3.3 of the Draft EIR/EIS (page 3.3-7) states that acquisition of property will be required for the reservoirs and appurtenant facilities, that the anticipated construction zones for the reservoirs are shown in Figures 3.3-1 through 3.3-10 (Figure 3.3-7 shows the Bloomfield site), and that the parcels located within these construction zones are listed in Appendix D-7 (Property Potentially Affected by Acquisition). In Appendix D-7, the listing of parcels within the Bloomfield site includes Assessor's Parcel Number 27-020-02, and shows the owner as Paul Claeysens.

Section 4.18 of the Draft EIR/EIS (page 4.18-22), in discussing the methodology used in the socioeconomic analyses, indicates that technical memoranda concerning Alternative Projects Construction Cost Estimate and Land Value Estimates were used in the analyses. These technical memoranda are included in the Draft EIR/EIS as Appendix D-30 and Appendix S-2 respectively. Table 12 in Appendix D-30 identifies the estimated acquisition cost for each of the reservoir sites, including the Bloomfield site. Appendix S-2 delineates the methodology used to estimate land values and in Table 8, identifies the estimated acquisition cost for each of the properties which could potentially be acquired.

Section 4.1 of the Draft EIR/EIS (page 4.1-29) states that the Bloomfield site includes portions of properties for which the Sonoma County Agricultural Preservation and Open Space District holds easements, and citing the actual Conveyance of Easement to the

District, concludes that a reservoir is allowed provided that approval is obtained from the District.

Response to Comment 93-3

Comment Summary: The comment states that Mr. Claeysens has strong objections and comments about the information presented in the Draft EIR/EIS.

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

Response to Comment 93-4

Comment Summary: The comment contends that livestock refuse to eat grass irrigated with reclaimed water and that a crust forms on the soil.

The EIR/EIS authors and the staff of the City of Santa Rosa have investigated this assertion and are unable to find any evidence that this is a problem. One of the City-owned farms irrigated with reclaimed water is dedicated specifically to livestock and there is no problem with the animals eating the grass or with a crust forming on the surface of the soil. There is ample evidence to support beneficial effects of providing reclaimed water for irrigation.

Response to Comment 93-5

Comment Summary: The comment indicates that siltation would be a problem at West County reservoir sites.

Geotechnical studies conducted for this Project are provided in Appendix F-1 (Geotechnical Assessment of Alternative Reservoir Sites and Pipeline Routes Volume 1) of the Draft EIR/EIS. These studies did not find evidence to indicate that extensive siltation will be an impact of the Project except at the Adobe Road and Lakeville Hillside reservoir sites. These impacts are related to slope stability and are based on the terrain at the site, rock type, and geologic structure.

Response to Comment 93-6

Comment Summary: The comment questions the feasibility of designing and constructing an earth filled dam in a seismically active area.

As indicated on pages 4.19-1 and 4.19-2 of the Draft EIR/EIS, the California Division of Dam Safety has established the most stringent dam safety requirements in the country. The EIR/EIS authors do not agree with the analogy between the cited dam in Rexburg, Idaho (which was not constructed under California Division of Safety of Dams jurisdiction) and the storage reservoir proposed for this Project. The safety record of dams in California is discussed in Section 4.19 of the Draft EIR/EIS and includes only

one catastrophic failure since the creation of the Division of Safety of Dams. That failure was not related to seismic activity.

The most common cause of dam failure is water flowing over the top of the earth dam. Two other principal causes of catastrophic failure are piping (the progressive erosion of leaks that develop under or through the dam) and earth slide in the downstream portion of the embankments or foundation. Seismic activity can contribute to unstable earth conditions but is not a common cause of catastrophic dam failure.

The following information is taken from *Earth-Rock Dams* (Sherard and others, 1963) and illustrates that well designed and constructed earth dams can be safely built in seismically active areas. These examples pertain to earth dams that survived the 1906 San Francisco earthquake that had an estimated magnitude of 8.3 and Modified Mercalli Intensity X. The San Andreas Dam was constructed in the main valley of the San Andreas Fault (which would not be permitted under today's siting standards). The Pilarcitos dam is located a short distance from the main fault line.

San Andreas Dam. At the time of the shock the San Andreas was 90 feet high, having been built in the 1860's and raised in 1875. It was constructed of well-graded gravelly, clayey sand compacted in thin layers with a 3-ton roller. The embankment has conservative slopes of 3 1/2 to 1 upstream and 3 to 1 downstream and a relatively narrow central core of wet puddled clay.

The dam was evidently subjected to an extremely severe shock. The main fault, though it did not cross the foundation, passed through the east abutment directly adjacent to the embankment. The concrete-lined outlet tunnel in the east abutment was twisted 10 feet out of line.... The natural ground around the dam was everywhere crisscrossed with cracks evidently caused by the tensile stresses in the rarefactions between the earthquake shocks. A single longitudinal crack 2 to 3 inches wide opened parallel to the axis of the dam near the center of the crest. Even though the reservoir was almost full at the time of the shock, no leakage or other alarming symptoms developed.

Pilarcitos Dam. Built in 1874, the Pilarcitos Dam was 95 feet high at the time of the earthquake. The upstream slope was 2 1/2 to 1 and the down stream 2 to 1. Like the San Andreas Dam, it had been constructed in thin compact layers with a puddle core of clay. When it was inspected soon after the earthquake, it showed no cracking or other visible evidence of damage.

The record of the San Andreas and Pilarcitos dams, which are now approximately 90 years old, constitute two of the few reliable guides to the action of severe earthquake shocks on earth dams. Constructed of clay with methods similar to those used for modern dams, both were a little less than 100 feet high at the time of the shock. Both were underlain by approximately 50 feet of alluvial deposits, and both were subjected to extremely severe shocks during the 1906 earthquake, as well a numerous lesser shocks in other years. Both have performed very well,

and no damage has developed in either from earthquakes except for the longitudinal cracking in the center of the crest in San Andreas Dam.

Although there was minor cracking to eight dams, no dams failed during the 1989 Loma Prieta earthquake. As indicated on page 4.19-3 of the Draft EIR/EIS, a probability analysis performed for a planned reservoir in Southern California indicates that the probability of failure of the dam was small (one in a billion). The risk of dam failure is very small. Potential impacts of reservoir construction will be considered in selecting a Project alternative and/or in granting Project approval.

REFERENCE: Sherard, J. L., Woodward, R. J., Gizienski, S. F., and Clevenger, W.A., 1963, Earth-Rock Dams, John Wiley and Sons, Inc.

Response to Comment 93-7

Comment Summary: The comment indicates that application of the Uniform Building Code to dam construction is misleading.

Construction in California of dams and reservoirs, of the size proposed by this Project, are regulated by the Division of Safety of Dams as discussed in the Draft EIR/EIS (page 4.3-51). The EIR/EIS authors do not intend to imply that the Uniform Building Code will regulate dam construction. The Uniform Building Code could provide design guidelines for support structures that could be built as ancillary facilities at a storage reservoir.

Response to Comment 93-8

Comment Summary: The comment states that degradation of groundwater at Mr. Claeysens well is undesirable.

Potential impacts of groundwater degradation are discussed in Section 4.5 of the Draft EIR/EIS, beginning on page 4.5-28. The City will provide replacement drinking water supply as stipulated in Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells, to address potential groundwater impacts (refer to page 2-85 of the Draft EIR/EIS). Implementation of the mitigation measure will reduce groundwater quality impacts to a less than significant level.

Response to Comment 93-9

Comment Summary: The comment states that potential impacts to leachfields as a result of groundwater mounding are not acceptable to Mr. Claeysens.

Potential impacts of groundwater mounding are discussed in Section 4.5 of the Draft EIR/EIS, beginning on page 4.5-28. The City will coordinate with the Sonoma County Environmental Health Department to monitor septic system performance and to replace poorly performing systems with a system that can operate in shallow groundwater conditions, as stipulated in Mitigation Measure 2.5.9: Implement Septic System Monitoring and Replacement Program (refer to page 2-136 of the Draft EIR/EIS.).

Implementation of the mitigation measure will reduce groundwater mounding impacts to a less than significant level.

Response to Comment 93-10

Comment Summary: The comment describes Estero impacts that are identified in the EIR/EIS and expresses opposition to proposal of an alternative that would have significant impacts.

The Draft EIR/EIS has identified no health risks that cannot be mitigated to a less than significant level. Many of the water quality changes associated with a West County Project are not inherently negative (e.g., increased dissolved oxygen and lower nutrient loads), but are considered significant because any change to the Sanctuary is considered significant under the special sites criterion. The Draft EIR/EIS does identify significant impacts associated with the West County alternative. All of the alternatives that have been evaluated in the EIR/EIS will have significant impacts if implemented. The purpose of the EIR/EIS is to identify such impacts for the public and decision-makers. Refer to Response to Comment 5-9 for a discussion of how the EIR/EIS is used to evaluate alternatives.

Response to Comment 93-11

Comment Summary: The comment states that Estero impacts cannot be mitigated.

The special site evaluation criterion (with the point of significance being any water quality change) was established to be consistent with the Sanctuary's interpretation of Sanctuary regulations, not because any water quality change is necessarily adverse. Measures 2.2.1 through 2.2.12 on pages 2-21 through 2-43, and 2.5.1 through 2.5.3 on pages 2-121 through 2-125 in the Draft EIR/EIS are designed to minimize impacts, but the stringent point of significance means that impacts cannot be mitigated to a less than significant level (which equates to no impact). This is discussed on page 225 in Appendix I-16 (Water Quality Impact Analysis Report Volume I - Text) of the Draft EIR/EIS.

Response to Comment 93-12

Comment Summary: The comment indicates that Mr. Claeysens is unwilling to risk an increased nitrate concentration in local wells.

As indicated in Mitigation Measure 2.3.12: Provide Replacement Water Supply for Affected Wells of the Draft EIR/EIS, groundwater quality in the vicinity of reservoirs will be monitored (refer to page 2-85). If nitrate concentrations exceed the MCL, then municipal drinking water will be made available to all affected local groundwater users.

Response to Comment 93-13

Comment Summary: The comment makes a claim that an additional investigation would disclose specific dangers not addressed in the Draft EIR/EIS regarding aquatic biological resources associated with the Gulf of Farallones National Marine Sanctuary.

The Draft EIR/EIS authors believe that the document comprehensively addresses potential impacts associated with the Project. These impacts were developed through extensive public review during the Project screening and scoping phases, as well as through coordination with resource agencies, including NOAA and NMFS. The comment does not state what specific dangers (to the Gulf of Farallones National Marine Sanctuary) it believes are not addressed in the Draft EIR/EIS.

Response to Comment 93-14

Comment Summary: The comment suggests that man-made wetlands are not a suitable substitute for natural wetlands.

While it is stated that there is “substantial scientific support” to support this viewpoint, the comment does not provide any specific data, evidence or citations. Wetland mitigation plans will be subject to review and approval by the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Services and Department of Fish and Game, and will be monitored to ensure success. Refer to Measure 2.3.11: Sensitive Resource Conservation Program, on page 2-76 of the Draft EIR/EIS.

Response to Comment 93-15

Comment Summary: The comment states that the loss of native plant communities will be greater than is indicated in Table 1-5 of the Draft EIR/EIS.

The EIR/EIS authors believe that information presented in the Draft EIR/EIS is accurate for the Bloomfield Reservoir site. However, there is one error in Table 1-5. In review of Table 4.8-15 on page 4.8-95 of the Draft EIR/EIS, which also lists the acreages of each native plant community by reservoir site, it was noted that there was a discrepancy associated the acreage of oak woodland mapped at the Sears Point site. A total of 6.2 acres of oak woodland was mapped at the Sears Point site, not 0.6 acre as indicated in Table 1-5 on page 1-36 of the Draft EIR/EIS.

The following change is made to the Draft EIR/EIS:

Page 1-36. Table 1-5 is revised as follows:

| Loss of Native Plant Communities at Reservoir Site | | | |
|--|-------------------|----------|-----------|
| | (acres) | | |
| | Oak | Riparian | Native |
| | Woodland | Woodland | Grassland |
| Tolay Extended | 0 | 7 | 25 |
| Adobe Road | 17 | 60 | 0 |
| Tolay Confined | 0 | 7 | 25 |
| Lakeville Hillside | 0 | 11 | 0.6 |
| Sears Point | 6.29 6 | 59 | 0 |
| Two Rock | 58 | 16 | 1 |
| Bloomfield | 0.6 | 10 | 0 |
| Carroll Road | 0 | 17 | 1 |
| Valley Ford | 1 | 9 | 0 |
| Huntley | 0 | 5 | 2 |

Response to Comment 93-16

Comment Summary: The comment refers to the number of known cultural resources identified for Alternative 3B, which includes the Bloomfield storage reservoir site as well as proposed pipeline routes, pumpstations, and irrigation areas.

It is the purpose of the Draft EIR/EIS to identify impacts of alternatives so that decision makers can select a Project from among potential alternatives. Refer to Response to Comment 5-9 for a discussion of how the EIR/EIS is used to evaluate alternatives.

Response to Comment 93-17

Comment Summary: The comment states that construction period emissions of dust, nitrogen oxides and carbon monoxide are damaging to people and livestock, and are unacceptable.

In the analysis presented in the Draft EIR/EIS, construction emissions for a West County reservoir were considered to be significant as a worst-case situation. Construction emissions vary greatly on a daily basis depending on level of activity and weather conditions. Standard control measures have been included in the Project to reduce air quality emissions. Once construction starts, if it is found that members of the public are experiencing annoyances because of construction activities, more stringent control measures can be taken.

Response to Comment 93-18

Comment Summary: The comment disagrees with the Draft EIR/EIS conclusion that odor impacts of operation would not be significant.

Based on experience with existing storage facilities the EIR/EIS authors do not believe that significant odor impacts will occur. The City of Santa Rosa already has an odor control program in place that has been adequate in controlling odors, so future odor

problems are not expected. If for some reason there is an odor occurrence, once the City receives a complaint, personnel will thoroughly investigate the situation and take corrective action if necessary.

Response to Comment 93-19

Comment Summary: The comment states that the project is subject to Sonoma County and Bay Area air quality controls, and expresses the opinion that the project cannot comply with those regulations.

The City of Santa Rosa has been in contact with the Bay Area Air Quality Management District and the Northern Sonoma County Air Pollution Control District to ensure that air quality controls built into the Project will meet the Districts' requirements. The City of Santa Rosa will also have to obtain permits, through permit application processes to construct and operate Project facilities.

Response to Comment 93-20

Comment Summary: The comment states the belief that the noise impact would be significant and a nuisance.

The Draft EIR/EIS finds that operational noise from pump stations in West County will be a significant impact.

Response to Comment 93-21

Comment Summary: The comment expresses concern that reservoir sites would be an attractive nuisance.

The public safety impact of operating a reservoir is addressed on page 4.7-49. As stated there, "Because the properties on which the reservoirs are located will be permanently fenced, public access to reservoirs will be limited during their operation and will not impact public safety."

Response to Comment 93-22

Comment Summary: The comment asserts that the visual impact of the project would be irreversibly significant, indicating that the concrete v-lined ditches would be extremely unattractive. The comment also indicates that the unsightly aspects of the Bloomfield site would be adjacent to open space recently claimed by Sonoma County.

Section 4.14 of the Draft EIR/EIS (page 4.14-45) indicates that the Bloomfield reservoir will have significant adverse impacts on views from residences in the area, including those between the reservoir and Bloomfield Road. These impacts will be due to visual contrast of the dam, reservoir and appurtenant facilities as well as view obstruction by the dam. Concerning mitigation of these impacts, Section 4.14 of the Draft EIR/EIS (page 4.14-46) concludes that some aspects of visual contrast including those resulting from the

energy dissipation structures can be mitigated through screening and revegetation. However, the Draft EIR/EIS concludes that the impacts due to visual obstruction cannot be mitigated and therefore the visual impact of the Bloomfield reservoir on nearby residences will be significant and unmitigable.

With respect to the fact that the Sonoma County Agricultural Preservation and Open Space District holds easements on property adjacent to the Bloomfield reservoir, visual impacts are not considered significant according to the impact evaluation criteria listed in Section 4.14. Under these criteria, adverse impacts on views from public use areas are considered significant. Because the conservation easement for the property in question does not provide for public access, this is not considered a public use area.

Response to Comment 93-23

Comment Summary: The comment expresses an opinion that it is inconsistent for the government to spend money to preserve a specific area and then to spend money to destroy the visual beauty of that area.

The question of visual impacts to the conservation easement claimed by Sonoma County, to which the comment refers, is addressed in the Response to Comment 93-22.

Response to Comment 93-24

Comment Summary: The comment indicates that fencing of the reservoirs would be necessary and that this would constitute another visual blight of the project.

Section 3.3 of the Draft EIR/EIS describes the proposed reservoirs and their appurtenant facilities, including fencing. Page 3.3-32 of the Draft EIR/EIS specifically states that cattle fencing will be installed around the reservoirs. Thus, the proposed fencing will be typical of that now found in the area. Section 4.14 of the Draft EIR/EIS (page 4.14-37) in the discussion of visual impacts of reservoirs, acknowledges that construction of the reservoirs and associated facilities will visually change the sites being considered and specifically enumerates fencing among the associated facilities. As indicated in Response to Comment 93-22, Section 4.14 of the Draft EIR/EIS also acknowledges that there will be adverse visual impacts on residences which have views of the site.

Response to Comments 93-25, 93-26 and 93-27

Comment Summary: The comment states that it questions the economic analysis in the Draft EIR/EIS for reasons other than the omission of the costs of the taking of property (which was the subject of Comment 93-2), continuing on, in reference to a previous comment (Comment 93-4), by restating a belief that dairy forage will be adversely impacted, and asserting that there do not appear to be any benefits associated with the West County Reclamation Alternative.

Comments concerning omission of the costs of property takings and regarding adverse impacts on dairy forage production are respectively addressed in Response to Comment 93-2 and Response to Comment 93-4. Table 4.18-18 in Section 4.18 of the Draft EIR/EIS (page 4.18-49) identifies the net economic impacts in terms of total income, direct employment and total employment. The West County Reclamation Alternative will have an annual net benefit of approximately \$140 million.

Response to Comment 93-28

Comment Summary: The comment states that the City of Santa Rosa should have to bear all costs of damages and any other costs incurred to the Claeysens.

The City of Santa Rosa will be responsible for bearing costs of damages associated with Project-related activities. However, the City has not committed itself to any higher responsibility for anything beyond its own activities.

Response to Comment 93-29

Comment Summary: The comment expresses concern about metals and other contaminants in wastewater sources, and their effects on soils.

Levels of chemical constituents in reclaimed water are presented in Table 4.6-1 on pages 4.6-6 through 4.6-8 of the Draft EIR/EIS. Most metals are removed by the treatment process, and reclaimed water meets drinking water standards for most compounds except nitrate. Table 4.2-12 on pages 4.2-25 and 4.2-26 of the Draft EIR/EIS presents an analysis of metals loading in soil. Based on this analysis, the Draft EIR/EIS concludes that soils will not be damaged.

Response to Comment 93-30

Comment Summary: The comment indicates that construction of a dam and reservoir constitutes an extraordinary and unacceptable risk.

Refer to Response to Comment 93-6.

Response to Comment 93-31

Comment Summary: The comment states that the Bloomfield storage reservoir alternative should not be considered as a viable option and that the impacts to the affected area would be unreasonable, severe, and irreversible.

Environmental impacts to Bloomfield storage reservoir were identified throughout Section 4 of the Draft EIR/EIS. The comment provides a broad-brush opinion that all impacts will be unreasonable and severe and expresses an opinion concerning Project selection. Refer to Master Response 2, located in Section 6.2 of this document, regarding Project selection.

Response to Comment 93-32

Comment Summary: The comment indicates that construction of the Bloomfield dam and reservoir would have unreasonable economic and environmental costs because of reservoir siltation.

As indicated in the discussion of Impact 3.5.1 beginning on page 4.3-69 in the Draft EIR/EIS, the Bloomfield reservoir was not identified as one of the reservoirs where accelerated erosion will result in significant maintenance costs. The economic viability of the Project is not a central issue in this Draft EIR/EIS but will be considered by the City when selecting a Project.

Response to Comment 93-33

Comment Summary: The comment states that the Bloomfield storage reservoir alternative would be a taking of the property at 6018 Bloomfield Road without serving any public purpose. The comment also states that Alternative 3B demonstrates that any public benefit would be outweighed by the unacceptable and permanent environmental impacts.

The Project alternatives serve the public purpose of disposing of reclaimed water, and the West County options also provide benefits to agriculture. It will be up to decision makers to decide whether these benefits outweigh the identified environmental effects.

Response to Comment 93-34

Comment Summary: The comment states that since the Draft EIR/EIS did not disclose that Alternative 3B would result in the taking of Mr. Claeysens' property and the Sonoma County Open Space and Agricultural Preservation District Easement, the accuracy and completeness of the entire document is questioned. The comment also states that all rights are reserved to make further comments based on the discovery of new information and further investigation of disclosed information.

Refer to Response to Comment 93-2. Neither CEQA nor NEPA require that comments received after the end of the circulation period be addressed, and neither CEQA nor NEPA allows a commentor to "reserve" a right to have new comments considered later.

Response to Comment 93-35

Comment Summary: This comment consists of an attached map to letter 93, depicting Claeysens parcel at the Bloomfield storage reservoir site.

The map is provided as documentation for Comment 93-1. Refer to Response to Comment 93-1.

