COMMENT LETTER 11 - CALIFORNIA STATE LANDS COMMISSION, MARY GRIGGS (OCTOBER 7, 1996), RECEIVED OCTOBER 7, 1996

Response to Comment 11-1

Comment Summary: The comment indicates that the California State Lands Commission (SLC) has reviewed the Draft EIR/EIS and provides a discussion of the SLC's status as a Responsible and/or Trustee Agency and jurisdiction and management authority as it relates to the Project.

The EIR/EIS authors appreciate the State Land Commission's review. Specific concerns were expressed in subsequent comments and these comments are addressed specifically in the Responses to Comments below.

Response to Comment 11-2

Comment Summary: The comment requests consideration of an alternative combining the Geysers Steamfield component with the agricultural irrigation component. The comment cites benefits of this alternative as lower costs due to a smaller pipeline to the Geysers and shared responsibility for maintenance.

Although this combination of components was not separately evaluated in the Draft EIR/EIS, either as an alternative or as an option in Appendix A (Range of Discharge Evaluation) the individual components have been thoroughly evaluated. A decrease in the size of the Geysers pipeline would not change its environmental impacts substantially. Also, the environmental impacts of agricultural irrigation and associated pipelines and pump stations are the same whether the water not used for irrigation is discharged to the river or pumped to the Geysers. The Draft EIR/EIS is therefore adequate to select a Geysers/agriculture alternative as mentioned in the comment, so long as the components remain the same or somewhat smaller than those evaluated in the Draft.

Response to Comment 11-3

Comment Summary: The comment requests that the City consider outside sources of funding prior to selection of a Project and cites a lack of such consideration in the Draft EIR/EIS.

The cost estimates for the alternatives in the Draft EIR/EIS did not consider outside funding sources because it is too early in the process to receive reliable commitments from outside sources, especially federal or state agencies. After certification of the EIR, the City may wish to investigate such funding possibilities during the selection process.

Response to Comment 11-4

Comment Summary: The comment states that common Project design assumptions for a 1% design discharge to the River should have been applied to the Geysers Recharge Alternative and the two agricultural irrigation alternatives. The comment also states that such an assumption would allow reduced pipeline size and pumping costs for the Geysers Recharge Alternative.

The Geysers Recharge Alternative was intentionally designed with negligible discharge to the river in order to maximize the annual flow of reclaimed water to the Geysers. Early discussions with the operators of the Geysers indicated that they needed the maximum amount of water the Subregional System could generate, and the design of the Geysers Recharge Alternative responded to this need.

Although a combination of the Geysers Steamfield component and the Discharge component was not expressly evaluated as an alternative nor as an option in Appendix A (Range of Discharge Evaluation) the individual components have been thoroughly evaluated. A decrease in the size of the Geysers pipeline and pumping demand would not substantially alter their environmental impacts. Also, the impacts of a 1% design discharge to the river are the same whether the remainder goes to agricultural irrigation or the Geysers. The Draft EIR/EIS is therefore adequate to select a Geysers/Discharge Alternative, providing the components remain the same or smaller than those evaluated in the Draft.

Response to Comment 11-5

Comment Summary: The comment suggests that the present worth cost of the Geysers Alternative is too high due to assuming uniform energy consumption and unit energy costs over the life of the Project

Uniform energy consumption was used for all the alternatives, not just the Geysers Alternative. In reality, the average energy consumption over the life of the Project would be lower than using a uniform energy consumption based on the design year flows. Because the pumping costs for the Geysers Alternative are several times that of any other alternative, the relative impact on the cost of the Geysers Alternative is more significant when included in the present worth analysis. However, all alternative Projects would be lower in cost. The year-one pumping energy consumption will, in fact, be about 80 percent of the design year consumption, not 0 percent, so the impact of using the design year power consumption versus the average year consumption will not be as significant as might first be suggested.

Energy costs in the future are currently in a state of flux due to deregulation of the electric utility industry. The power rates in the future are, therefore, uncertain at this time. Likewise, whether or not the Geysers Alternative would obtain a lower power rate than the other alternatives is still speculative at this time. In light of this uncertainty, and the lack of a firm commitment from the utility industry, a uniform rate of $0.055 per

kilowatt-hour was used for all alternatives, for the duration of the Project life. The assumed reliability class of service (i.e., firm, non-firm, curtailable) and the type of service voltage received (i.e., transmission voltage or primary service voltage) also impact the utility power rate. A consistent service class and type voltage was assumed for all Project Alternatives.

Response to Comment 11-6

Comment Summary: The comment states that it is unclear what the relationship is between $6.9 million annual economic benefit in Table 4.18-18 on page 4.18-21 and the $6.7 million annual operating and maintenance costs in Table 1-2 on page 1-26 for the Geysers Recharge Alternative. The comment whether the annual operating and maintenance costs are treated as a benefit since they represent money being spent in Sonoma County. The comment also states that the estimate of annual economic benefit from the Geysers Recharge Alternative (Table 4.18-18) should include the value of the additional electricity generated, since the reclamation alternatives include the value of additional agricultural production derived from wastewater irrigation.

The comment is correct that the annual economic benefit of $6.9 million for the Geysers Recharge Alternative (Table 4.18-18) is a function of the annual operating and maintenance expenditures ($6.7 million) made in the County. The annual economic benefits exceed the annual operating and maintenance costs due to the multiplier effect of the direct expenditures on the County's economy. As new jobs are created due to the increase in local expenditures, these employees make new expenditures in the County, creating an indirect increase in local income and employment.

Regarding the additional electricity generated, it is recognized that there are benefits that could result from the Geysers Recharge Alternative, such as increased local property taxes and royalties, as described in Section 4.18 of the Draft EIR/EIS (page 4.18-49). These benefits were not included in this analysis because they are different in nature from the economic benefits of increased jobs and income that result from increased local expenditures. All alternatives were treated consistently in this manner, and just as the potential increase in local property taxes were excluded from the Geysers Recharge Alternative, so was the benefit of increased local property taxes due to the enhanced productivity of agricultural land in the Reclamation Alternatives. The potential value of the power generated at the Geysers is recognized on page 4.18-49, but because the economic value accrues specifically to the Geysers operators and is not translated to the local economy it is not included in Table 4.18-18, which reflects effects on the local economy only.

Response to Comment 11-7

Comment Summary: The comment states that in the Geysers Recharge Alternative the future increases in property taxes to Sonoma County and estimates of the County's share of additional federal royalties were not included as economic benefits for this Alternative. The comment also states that the value of electrical generation should also be included as well as the benefit to the State of California through additional royalty revenue from State-owned geothermal leases.

It is acknowledged that the Geysers Recharge Alternative could yield increases in property taxes to the County of Sonoma. However the number of uncertainties such as the future price of energy, the future valuation of the geysers, State and federal energy regulations, changes in technology and energy recovery rates make projecting such increases too speculative to quantify.

Section 4.18 of the Draft EIR/EIS (page 4.18-49) estimated that the increased share of royalties to Sonoma County to be in the range of $24,000 to $30,000 annually in the Geysers Recharge Alternative. Royalty revenue to the State of California was not estimated as the focus of this study was on the economic impact of the Alternatives on the County of Sonoma.

Regarding the value of increased electrical generation in the Geysers Recharge Alternative, refer to Response to Comment 11-6.

Response to Comment 11-8

Comment Summary: The comment states that is not clear how the figure of negative $44.9 million was derived as an annual economic cost for the Geysers Recharge Alternative in Table 4.18-18 on page 4.18-49. The comment further states that is unclear how the annual economic cost figure for the Geysers Recharge Alternative is related to the total construction cost estimate of $208 million (Table 1-2 on page 1-26).

A consistent methodology was applied in estimating the annual economic costs for all alternatives including the Geysers Recharge Alternative. The methodology for deriving the annual economic costs is described in Section 4.18 of the Draft EIR/EIS (page 4.18-28).

As part of the Project Description, planning level estimates of the construction costs, land acquisition costs, and operating and maintenance costs were prepared. These are contained in Appendix D-30 (Alternative Projects Construction Cost Estimates). The total capital cost estimate in Table 1 of Appendix D-30 includes construction, engineering and land costs. The capital costs are not expected to have an ongoing annual economic impact on the local economy. The operating and maintenance costs, however, represent an annual investment in the service area which in turn contributes to direct economic benefits through increased income and jobs in Sonoma County. Therefore the annual

costs in Table 1 of Appendix D-30 drive the annual economic benefits shown in Table 4.18-18.

The annual economic costs (a negative number in Table 4.18-18) in the combined economic impacts analysis represent the reduction in personal expenditures in the service area as a result of the increase in service charges. Project costs associated with annual operations and maintenance costs, additional disposal costs, and nitrogen removal costs are allocated to new users (demand fees) and to existing users (service charges). These reduced personal expenditures are offset against the annual economic benefits described above to produce a net economic impact. The high figure for the Geysers Alternative reflects high operations and maintenance (O&M) costs, which are largely due to the large energy expenditure required to pump reclaimed water to the Geysers. The O&M costs are higher for the Geysers Alternative than for any other.

Response to Comment 11-9

Comment Summary: The comment states that water quality impacts evaluated in the Draft EIR/EIS are based primarily on the effect of "land uses" rather than "direct" impacts. The comment also asks if mitigation could be imposed on irrigation contractors to reduce irrigation impacts to a level below significance.

The comment is not specific as to the distinction it draws between impacts caused by land uses and direct impacts. Appendix I-16 (Water Quality Impact Analysis Report Volume I - Text) of the Draft EIR/EIS provides a detailed description of water quality impacts caused by each Project component, and "direct" impacts (due to discharge) as well as indirect "land use" impacts (due to storage and irrigation) are considered. With respect to mitigation of impacts from agricultural irrigation, Measures 2.2.1 through 2.2.7 on pages 2-21 through 2-2-36 in the Draft EIR/EIS represent a very high degree of regulation of agricultural activities, and substantially reduce the impact of irrigation. The only significant unavoidable impacts are in West County, where the special sites criterion for the esteros requires that any change be considered significant, even if it would normally be considered positive (e.g. reduction in nutrient loads).

Response to Comment 11-10

Comment Summary: The comment recommends that Alternative 5A be revised to include a discharge point below the Sonoma County Water Agency intakes.

This option was not recommended during the screening or scoping process for the Project, and the EIR/EIS authors believe that the Draft EIR/EIS evaluates a reasonable range of alternatives. The Draft EIR/EIS includes two options for 20 percent discharge: 1) Alternative 5A conveys reclaimed water to a new outfall at a point above the Sonoma County Water Agency intakes; and, 2) Alternative 5B discharges water at existing locations along the Laguna de Santa Rosa. Alternative 5A was originally devised to provide an option which avoided potential impacts of discharge within the Laguna, and to provide evaluation of whether discharge of reclaimed water to the Russian River would

have adverse effects on public health. To provide the most rigorous test of reclaimed water safety, the discharge point was located above the drinking water intakes. Alternative 5B discharges to the Russian River through the Laguna, which empties into the river near the last two drinking water intakes. The other three intakes are upstream of the discharge location. At this stage of analysis, modifications to alternatives are being considered only when they would avoid significant impacts. Alternative 5A has only one significant impact, exceeding conductivity standards for the Russian River above the Laguna (where standards are more stringent than below the Laguna). This impact is avoided by Alternative 5B.

Response to Comment 11-11

Comment Summary: The comment notes that three state policies and regulations have been omitted on Page 2-17 of the Draft EIR/EIS.

The EIR/EIS authors concur that the Public Resources Code citations in the comment should be added.

Therefore, the following changes are made to the Draft EIR/EIS:

Page 2-17. The following are added at the bottom of the page:

> Public Resources Code, Section 6301 et seq.
> Public Resources Code, Section 6501 et seq.

The reference in the comment to "Section 4.19 Inundation/Dam Failure", the Draft EIR/EIS authors believe to be an erroneous addition to the state list of policies and regulations. It refers to Section 4.19 in the Draft EIR/EIS document and is not a state policy or regulation. It is therefore not added to the state list on Page 2-17 of the Draft EIR/EIS.

Response to Comment 11-12

Comment Summary: The comment is a duplicate of Comment Letter #11 from the California State Lands Commission.

These comments have been addressed in Responses to Comments 11-1 through 11-11.