

# RESPONSE TO COMMENTS

## 8.1 Introduction

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A total of four letters with 23 comments were received from various agencies and members of the public concerning the Draft Environmental Assessment (EA) for the proposed Canby Geothermal District Heating Project. Three of these letters were comments on the Draft EA, while one letter, from the U.S. Fish and Wildlife Service, provided comments on the Biological Assessment (BA). The U.S. Fish and Wildlife comments were included in the EA comments as they relate to the same issues presented in the EA. In addition, verbal comments were received from the Pit River tribe in a meeting in Canby, CA on September 10, 2002, and January 16, 2003. Also included in the response to comments is the Pit River tribe's Memorandum of Agreement (MOA).

## 8.2 Comments Received

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The comment letters received on the Draft EA have been grouped by agency (federal and state), and members of the public, and tribes. The letters are given a letter designation (A for agency, P for public individuals, and T for tribes), as are the comments in each letter. The commenter and the letter numbers are listed below. In the case of the U.S. Fish and Wildlife Service, three different staff members provided responses to the Biological Assessment (BA). As previously stated, these comments have been included here. Where the comment refers to specific text in the BA, a reference has been made to that document.

### FEDERAL AGENCIES

- A1. U.S. Fish and Wildlife Service

### STATE AGENCIES

- A2. Office of Planning and Research
- A3. Central Valley Regional Water Quality Control Board

### PUBLIC INDIVIDUALS

**P1.** Peggy Brown

### **TRIBES**

**T1.** Pit River Nation (Verbal comments received at meetings held on September 10, 2002, and January 16, 2003).

**T2.** Pit River Nation Draft MOA.

The labeled comment letters are included here. The Pit River Nation's draft MOA has also been included with the proceeding letters, with each action requested in the MOA labeled and addressed in the responses below. Two tribal meetings were held between I'SOT representatives and the Pit River Tribes' tribal representatives to discuss project components and concerns. Four verbal comments were presented at these meetings:

- T1-1. A Tribal monitor was requested during construction (this comment was originally made at the first meeting in September 2002)
- T1-2. Chlorine content of the discharge effluent could have potential impact on water quality
- T1-3. The project could have cultural significance to the Tribe
- T1-4. The Tribe requested a Memorandum of Agreement concerning mitigation of potential impacts to cultural resources.

## **8.4 Responses to Comments**

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This section presents responses to all of the comments received on the Draft EA during the review period. Each comment letter received is numbered according to the numbering system identified above (Ax, Px, and Tx). Each comment in each letter received has a number (Px-1). Responses are provided to each written comment. Where a response to a comment has been provided in another response, the reader is referred to the previous response.

The NEPA Guidelines indicate that the Final EA should receive and consider comments on the Draft EA. This section provides responses to environmental issues raised regarding the environmental effects of the proposed project. Comments that state opinions about the overall merit of the project or comment on the project description are generally not responded to unless a specific environmental issue is raised within the context of the specific comment made. The final document as well as comments and responses on the document are all considered by the decision-maker (DOE).

All changes to the Draft EA are described in the response and referenced by the page number on which the original text appears in the Draft EA. Added text is underlined; and deleted text is ~~stricken~~ within the included document text.

### **A1**

*Tony Hawkes, Environmental Contaminants  
US Fish and Wildlife Service*

**A1-1 Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). Upon subsequent agreement with Tony Hawkes and Dale Merrick, the the GAC filters would be replaced if mercury concentrations were within 90% of

the discharge limit, even though the original comment called out for replacement at 10%. The BA has been modified as requested by the commenter and per the subsequent agreement.

Mitigation Measure 4.3-3 was created to incorporate GAC filter replacement if mercury concentration levels in the effluent are found to be 45 ng/L or more (90% of discharge limit).

- A1-2** **Response:** Mitigation Measure 4.4-4 was improved to reflect the NPDES permit, and states that monitoring will be performed monthly for 6 months and quarterly thereafter. Coordination with appropriate agencies was added into the measure.
- A1-3** **Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). The BA has been modified as requested by the commenter.
- A1-4** **Response:** Text was added to Section 4.3 Hydrology and Geothermal Resources pages 4.3-5 and 4.3-6 to explain why river mercury concentration data of 9.7 ng/L for 2001 was discarded from the analysis. Additional data on Pit River flow rates in 2001 was obtained from the USGS, which demonstrated drought conditions explaining the unusually high mercury concentration and is presented on pages 4.3-5 and 4.3-6.
- A1-5** **Response:** Mitigation Measure 4.4-5 was improved with provisions to contact and coordinate with pertinent agencies if fish tissue mercury concentrations average above 5 ng/g since the projected increase in fish tissue concentration is only to 0.895 ng/g. Contact would be made and actions taken before the threshold level of 100 ng/g is reached.
- A1-6** **Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). The BA has been modified as requested by the commenter.
- A1-7** **Response:** The BA was corrected to state that the water quality data was collected by Dale Merrick of I'SOT. The statement, "there is not a direct correlation between the high level of methyl mercury in the water and the level of methyl mercury in pike minnow" was removed from the BA as it is inaccurate. This statement does not appear in the EA.
- The explanation for low fish tissue concentrations by movement of fish up and downstream was removed in the text in Section 4.4 Biological Resources, page 4.4-14. The comment was added in the same paragraph that another possible explanation for low tissue concentrations compared to water concentrations may be that the relatively high methyl mercury concentrations observed during the summer months is ephemeral.
- The mercury concentrations above and below Kelley Hotsprings were reversed in the EA, section 3.4 Biological Resources, page 3.4-10. The statement was also added, "There appears to be no statistically significant difference in mercury level through this section of the Pit River."
- A1-8** **Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). The BA has been modified as requested by the commenter.

*Stewart Reid, Endangered Species Biologist  
US Fish and Wildlife Service*

- A1-9** **Response:** Text was added in section 3.4 Biological Resources, page 3.4-10 under the heading “Current Fish Bioaccumulation,” clarifying the role of pike minnow in the bald eagle diet, and that these fish show the highest rates of bioaccumulation in the eagle diet. Text was added clarifying the data results for Sacramento sucker, which had less mercury in their tissue and actually comprise a larger portion of bald eagle diet. The tissue concentrations used in the analysis were for pike minnow, which would represent a worst-case scenario.
- A1-10** **Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). The BA has been modified as requested by the commenter.
- A1-11** **Response:** A full description of the Modoc sucker was included under the heading “Wildlife” under the subheading “Special-Status Wildlife Species at Site,” on page 3.4-7. In this section text was included stating that Modoc suckers have also been found in larger sections of Rush Creek, including drainage ditches, and Ash Creek.
- A1-12** **Response:** Presence of Modoc sucker downstream of the Project area is addressed on page 3.4-7, and 4.4-16. Refer to Response to Comment A1-14 for further explanation on possible presence in the main stem of the Pit River.
- A1-13** **Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). The BA has been modified as requested by the commenter.
- A1-14** **Response:** The Turner Creek Drainage is 7 miles downstream. The previously stated distance of 20 miles was a calculation error clarified by Stewart Reid. The known location of Modoc suckers is addressed on page 3.4-7, and 4.4-16. Currently, the closest known Modoc sucker occupied area in the project vicinity is the Turner Creek drainage which begins about 7 miles downstream from the Pit River discharge point and up from its confluence with the Pit River, where the project effects would be unlikely to extend (Reid pers. Comm. 2002b). This is a spawning site. No Modoc suckers were found in the main stem of the Pit River. The location of Modoc suckers was adjusted from 20 to 7 miles where appropriate in the document.
- A1-15** **Response:** The brief sentences describing the genetic data were discarded because although no genetic Modoc suckers were identified, low numbers may be present and non-detectable by the test. Refer to Response A1-19.
- A1-16** **Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). The BA has been modified as requested by the commenter.
- A1-17** **Response:** Green catfish is a typographical error. The correct type of fish is green sunfish. The text was appropriately changed in section 3.4 Biological Resources, page 3.4-6.
- A1-18** **Response:** Comment noted. The language modifications suggested refer to text contained in the Biological Assessment (BA). The BA has been modified as requested by the commenter.
- A1-19** **Response:** Text in section 4.4 Biological Resources, page 4.4-16 and 4.4-17 was changed to indicate that there might be a few Modoc suckers, undetectable to surveys, in the main stem of the Pit. An additional analysis of mercury concentration threats to Modoc sucker was presented, and determined that the project would have a less than significant impact on Modoc suckers because the mercury levels found in tissue would be well below standards for

protection of aquatic life, and only a few if any Modoc suckers would be subject to the increased mercury level in the river.

*Doug Laye, Biologist  
US Fish and Wildlife Service*

**A1-20** **Response:** Text was added into Section 3.4 Biological Resources pages 3.4-7 that states, "The other 2-3 nests are around 5 miles away and would utilize the Pit River for food, but would also take fish from some of the reservoirs in closer proximity to their nest sites than the river. Since these eagles could be influenced by other factors, nest success was not reviewed."

**A2** *Christine Asiata  
Governor's Office of Planning and Research State Clearinghouse*

**A2-1** **Response:** As stated in Section 1.4-7 CEQA analysis was performed for this project. The Operational Office of the DOE provided a matching grant to I'SOT along with the California Energy Commission for material funding for the district heating system. In January 1999, I'SOT responded to a geothermal Research and Development solicitation from the CEC and was awarded a materials only award for \$304,525. The California Division of Oil, Gas, and Geothermal Resources (DOGGR) as the lead agency, conducted an environmental review for the well drilling under the California Environmental Quality Act (CEQA), resulting in a Negative Declaration in September 1999. The Modoc County Planning Department as lead agency, conducted an environmental review for the use of the geothermal well and development of a district heating system under CEQA, resulting in an Initial Study/Mitigated Negative Declaration in September 2001.

**A3** *James Rohrbach, Water Resource Control Engineer  
Central Valley Regional Water Quality Control Board*

**A3-1** **Response:** The comment is noted. Mitigation Measure 4.3-2 was modified to add that the leakage limit will be set as the manufacturer's estimate for leakage under the project's operating conditions.

**P1** *Peggy Brown*

**P1-1** **Response:** As stated in Section 2.2.3-9, the proposed 5,400 ft. long discharge pipeline is routed to cross fields, run along a levee road, and traverse a small portion of wetlands all owned or controlled by the I'SOT community. Refer to Figure 2.2-5 for detail. The pipeline is entirely on I'SOT property. This final route that follows the levee road was selected to minimize environmental impacts to the wetlands.

**T1** *Pit River Nation (Verbal comments received at meetings held on September 10, 2002, and January 16, 2003).*

**T1-1**      **Response:** Mitigation Measure 4.5-1 addresses the request for a Tribal monitor during construction activities. I'SOT would hire a tribal monitor to be in attendance to check for any previously undiscovered cultural resources or human remains.

**T1-2**      **Response:** Chlorine is not a constituent of the geothermal fluid as characterized in the Report of Waste Discharge, item 4 (Appendix C). The project would not contribute to chlorine levels in the Pit River and therefore, would not have an impact on water quality.

**T1-3**      **Response:** As part of its Mitigation Action Plan for this project, certain mitigation efforts to protect indigenous cultural resources are required as a condition of funding to I'SOT. Mitigation Measure 4.5-1 would minimize effects to resources encountered during excavation activities through use of a Tribal monitor. Mitigation Measure 4.5-2 would minimize effects to any prehistoric or historic resources discovered during site construction activities. Mitigation Measure 4.5-3 would minimize effects to prehistoric archaeological deposits that include human remains or objects considered "cultural items" according to the Native American Graves Protection and Repatriation Act (NAGPRA).

All mitigation efforts are detailed in the Mitigation Action Plan, dated March 7, 2003, and attached as Appendix K. The required mitigation efforts address the issues raised by the Pit River Nation.

**T1-4**      **Response:** The Pit River Nation provided its comments in the form of a draft Memorandum of Agreement (MOA) between the tribe and the Department of Energy. The draft MOA is included with the preceding comment letters. DOE determined that an MOA between DOE and the Pit River Nation is not appropriate in this instance because DOE's relationship to the project is limited to partial funding through NREL's subcontract with I'SOT for the project's construction and operation for three years. The project is being conducted by I'SOT on land privately owned by I'SOT for the long-term benefit of the I'SOT community. The best means of protecting indigenous cultural resources would be through a direct relationship between I'SOT and the Pit River Nation. Therefore, DOE has instructed NREL that I'SOT must properly address the required mitigation in cooperation with the Pit River Nation as a required condition of funding. The subcontract will outline the method of implementation of the required mitigation measures.

**T2.**      *Pit River Nation (Requested Actions in draft MOA submitted to DOE on January 27, 2003).*

**T2-1**      **Response:** Consistent with NEPA implementing guidelines, it is DOE's policy to integrate community and public concerns into the decision-making processes. Pursuant to NEPA, DOE would invite the Pit River Tribe's participation in its evaluation of potential impacts to the environment that could result from DOE funding decisions, including cultural resources.

**T2-2**      **Response:** Mitigation Measure 4.5-1 addresses the request for a Tribal monitor during construction activities. I'SOT would hire a tribal monitor to be in attendance to check for any previously undiscovered cultural resources or human remains. I'SOT would coordinate operational and safety issues onsite with the Tribal monitor.

- T2-3**      **Response:** Mitigation Measure 4.5-3 addresses the request for the handling of any human remains discovered during excavation activities. If remains were uncovered, I'SOT would halt excavation, coordinate with the Tribal representative, and contact the proper authorities.
- T2-4**      **Response:** Mitigation Measure 4.5-2 addresses the request for collecting and documenting any uncovered cultural resources. Should prehistoric or historic resources be encountered during site construction activities, construction activities within 50 feet of the discovery would be suspended until a qualified consulting archaeologist has assessed the materials. I'SOT would coordinate any collection and documentation with the Tribal monitor.