

**COMMENT LETTER 114 - R. B G.-NAIDU (OCTOBER 7, 1996), RECEIVED
OCTOBER 7, 1996**

Response to Comment 114-1

Comment Summary: The comment says that the appendices were only available at four locations, providing inadequate public access.

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

Response to Comment 114-2

Comment Summary: The comment states that paleontology portion of the Draft EIR/EIS is missing from Appendix 15.

No technical report was done for paleontological resources, which were evaluated based on existing information. All of the information about paleontology is reported in Section 4.15 of the Draft EIR/EIS. Appendix P-1 contains the Cultural Resources Study.

Response to Comment 114-3

Comment Summary: The comment refers to the lack of discussion in the Draft EIR/EIS section to goals, objectives and policies related to paleontologic resources in the project area. The comment also states that there are state and federal requirements that concern paleontologic resources.

Neither the Sonoma County nor the Marin County general plans reference paleontologic resources. Within the text of the Marin Local Coastal Program, Unit 1 (April 1980), under Archaeological Resources, reference is made to Section 30244 of the Coastal Act, where it is stated that if "...development would adversely affect archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

In the Draft EIR/EIS, state and federal laws pertaining to paleontologic resources are discussed on pages 4.15-12 and 4.15-13 and are used as the justification for the evaluation criteria for paleontologic resources (page 4.15-14).

Response to Comment 114-4

Comment Summary: The comment states that the project area includes the Wilson Grove Formation, Petaluma Formation, and/or Glen Ellen Formation, all of which are paleontologically sensitive and, therefore, should be addressed on a stratigraphic and not a topographic or geographic basis.

The Draft EIR/EIS specifically references these three formations and states on page 4.15-13 that a project effect on any of these units is considered a potentially significant impact. The proposed Project components, excepting the storage reservoir dams, will disturb surficial deposits only, and this, in addition to the large areal extent of the Project area, makes topographic and geographic discussion of the presence of the Wilson Grove, Petaluma, and Glen Ellen formations useful in the impacts analysis. All of the storage reservoirs have the potential to disturb either the Wilson Grove or Petaluma formations, and Mitigation Measure 2.4.13: Protect Vertebrate Paleontologic Resources on page 2-116 has been proposed to address these impacts. Stratigraphic discussion of the sensitive units has, therefore, occurred.

Response to Comment 114-5

Comment Summary: The comment states that invertebrate and plant fossils from the Wilson Grove Formation are significant.

Invertebrate and plant fossils from the Wilson Grove formation may be significant although the commentor presents no information in the comment to demonstrate their significance. As modified below, the evaluation criteria will reflect the addition of important invertebrate and plant fossils to vertebrate fossils as indicators of potentially significant rock units.

The following changes are made to the Draft EIR/EIS:

Page 4.15-10. In the second paragraph, the second sentence is revised as follows:

It is fossiliferous and contains many marine invertebrate species such as clams, snails, brachiopods, sand dollars, sea urchins, crabs, and polychaete tubes, as well as plant fossils.

Page 4.15-13. In the fourth paragraph, the first sentence is revised as follows:

The Wilson Grove Formation, the Petaluma Formation, ~~and the Glen Ellen Formation,~~ and the Sonoma Volcanics are ~~sedimentary~~ rock units in which important vertebrate, invertebrate, or plant paleontologic resources have been documented, although no known sites are in the Project area.

Page 4.15-14. Criterion 3 in Table 4.15-2 is revised as follows:

Table 4.15-2

Evaluation Criteria with Point of Significance -
Cultural Resources and Paleontology

Evaluation Criteria	As Measured by	Point of Significance	Justification
1. Will the Project disturb known, potentially-eligible National Register properties, including archaeological, historical, architectural, and Native American/traditional heritage resources?	Number of sites affected by Project facilities	Greater than 0 sites	National Historic Preservation Act, Section 106; CEQA, Appendix K; PRC Section 5020-5024, 21084.1
2. Will the Project disturb unknown archaeological resources?	Sensitivity analysis	Greater than 0 Projected locations	National Historic Preservation Act, Section 106; CEQA, Appendix K; PRC Section 5020-5024, 21084.1
3. Will the Project disturb unknown <u>important</u> vertebrate paleontologic resources.	Underground construction within geologic units with the potential to contain <u>important</u> vertebrate fossils, i.e., Wilson Grove, Petaluma, or Glen Ellen Formations, <u>or Sonoma Volcanics</u>	Greater than 0 occurrences	CEQA, Appendix G; PRC Section 5097.5 The Archeological and Historic Data Preservation Act of 1974

Source: Harland Bartholomew & Associates, Inc. 1996

Page 4.15-17. Impact statement 15.1.3 is revised as follows:

Will the No Action (No Project) Alternative disturb unknown important ~~vertebrate~~ paleontologic resources?

Page 4.15-22. Impact statement 15.4.3 is revised as follows:

Will the pipeline component disturb unknown important ~~vertebrate~~ paleontologic resources?

Page 4.15-30. Impact statement 15.5.3 is revised as follows:

Will the storage reservoir component disturb unknown important
~~vertebrate~~ paleontologic resources?

Page 4.15-30. The first paragraph of the first sentence is revised as follows:

Storage Reservoir construction under Alternatives 2 and 3 may result in disturbance to paleontologic resources because the grading and trenching required for construction of the reservoirs, access roads, and diversion ditches could disturb important ~~vertebrate~~ fossil-bearing rock units (Petaluma and/or Wilson Grove formations).

Page 4.15-34. Impact statement 15.6.3 is revised as follows:

Will the pump station component disturb unknown important ~~vertebrate~~ paleontologic resources?

Page 4.15-34. Impact statement 15.6.3. The first sentence of the first paragraph is revised as follows:

Pump station construction under Alternatives 2 and 3 may result in disturbance to paleontologic resources because the ground disturbance required for the construction of the pump stations and installation of the pumps could disturb important ~~vertebrate~~ fossil-bearing rock units (Petaluma and/or Wilson Grove formations).

Page 4.15-40. Impact statement 15.7.3 is revised as follows:

Will the agricultural irrigation component disturb unknown important
~~vertebrate~~ paleontologic resources?

Page 4.15-43. Impact statement 15.8.3 is revised as follows:

Will the geysers steamfield component disturb unknown important
~~vertebrate~~ paleontologic resources?

Page 4.15-45. Impact statement 15.9.3 is revised as follows:

Will the discharge component disturb unknown important ~~vertebrate~~ paleontologic resources?

Page 4.15-19. Table 4.15-3.

Page 4.15-31. Table 4.15-7.

Page 4.15-36. Table 4.15-10.

Page 4.15-41. Table 4.15-12.

Page 4.15-44. Table 4.15-14.

Page 4.15-48. Table 4.15-15.

Page 4.15-49. Table 4.15-15.

On all of the above referenced pages, evaluation criterion 3 is revised as follows (for the appropriate component):

Will the (pipeline/storage reservoir/pump station/agricultural/geysers steamfield/discharge) component disturb unknown important ~~vertebrate~~ paleontologic resources?

Page 4.15-23.

Page 4.15-30.

Page 4.15-35.

Page 4.15-40.

Page 4.15-46.

Page 4.15-48. Table 4.15-15.

Page 4.15-49. Table 4.15-15.

Page 2-116.

On all of the above referenced pages, Mitigation Measure 2.4.13 is revised as follows:

Protect Important ~~Vertebrate~~ Paleontologic Resources.

Page 2-116. The Impacts Mitigated are revised as follows:

15.4.3 The pipeline component may disturb unknown important ~~vertebrate~~ paleontologic resources.

15.5.3 The storage reservoir component may disturb unknown important ~~vertebrate~~ paleontologic resources.

15.6.3 The pump station component may disturb unknown important ~~vertebrate~~ paleontologic resources.

15.7.3 The agricultural irrigation component may disturb unknown important ~~vertebrate~~ paleontologic resources.

15.9.3 The discharge component may disturb unknown important ~~vertebrate~~ paleontologic resources.

Response to Comment 114-6

Comment Summary: The comment notes that a qualified monitor should recognize the potential importance of invertebrate and plant fossils.

Refer to Response to Comment 114-5 for changes to the Draft EIR/EIS that take into account invertebrate and plant fossils.

In the Mitigation Monitoring Program (Page 2-116), Mitigation Measure 2.4.13: Protect Vertebrate Paleontologic Resources, calls for a “qualified professional paleontologist.” The qualified paleontologist will be able to identify vertebrate, invertebrate, and plant fossils in terms of their potential importance.

Response to Comment 114-7

Comment Summary: The comment states that microvertebrate testing should occur during assessment/mitigation.

Refer to Response to Comment 114-10, where microvertebrate testing has been added as a potential component of the mitigation monitoring program.

Response to Comment 114-8

Comment Summary: The comment states that “Also, standard requirements for paleo assessment, mitigation, and analysis are clearly outlined (Reynolds 1991).”

The EIR/EIS authors agree with this comment, and refer to the Mitigation Monitoring Program (Page 2-116), Mitigation Measure 2.4.13. The reference Reynolds (1991) is the same as Society of Vertebrate Paleontology (1991) as used in the Draft EIR/EIS. Refer to Response to Comment 114-10 for revisions to Mitigation Measure 2.4.13.

Response to Comment 114-9

Comment Summary: The comment states that the Franciscan formation is fossiliferous and as mapped, includes other fossiliferous formations.

The EIR/EIS authors agree with the comment that the Franciscan formation has fossiliferous units, as stated on Page 4.15-10, of the Draft EIR/EIS: “Chert within the Franciscan Complex may contain marine microfossils which are abundant and widespread throughout coastal northern California”

Response to Comment 114-10

Comment Summary: The comment observes that a review of institutional paleontological collections and unpublished data was not accomplished for the Draft EIR/EIS.

In order to address the need for preconstruction surveys of paleontological resources, the mitigation monitoring program (Page 2-116) has been revised to include a requirement for comprehensive preconstruction paleontological study of the preferred alternative and more specific monitoring and mitigation measures.

The following changes are made to the Draft EIR/EIS:

Page 2-116. The impact statement and description for Impact 2.4.13 are revised as follows:

2.4.13 Protect Vertebrate Paleontologic Resources

2.4.13 Protect Important Vertebrate Paleontologic Resources

Description:

The City of Santa Rosa shall ~~retain~~identify a qualified professional paleontologist who will assist the project design engineers in locating facilities to minimize impacts, to the extent feasible, to important paleontologic resources. This action may require additional study of paleontologic resources on the specific selected sites. The paleontologist shall prepare a map indicating potential areas of high sensitivity for paleontologic resources, and this map shall be provided to the construction contractor.

The construction contractor's on site managers shall attend a workshop presented by the City's paleontologist that provides an overview of the paleontologic resources which might occur in the project area and the steps to take when fossils are unearthed during construction.~~be on call during all phases of construction occurring in areas with a high potential for containing significant fossils.~~ If fossils are unearthed in the course of construction excavation, the contractor shall cease all activity in the area and contact the City who will contact~~and~~ the project paleontologist. The paleontologist will salvage the resource(s) and assess the necessity for further mitigation. In addition, at the City's discretion, the professional paleontologist may monitor during construction specific areas of high sensitivity for paleontologic resources.

~~All~~Recovered specimens shall be prepared and stabilized for preservation and shall be identified and cataloged into the retrievable collections of an established institution. Arrangements for adequate storage of specimens recovered during monitoring shall be made at a recognized, non-profit paleontologic specimen repository with a permanent curator. A complete set of field notes, geologic maps, and stratigraphic sections shall accompany the fossil collections. A report summarizing the monitoring and salvage programs shall be prepared by the project paleontologist and submitted to the lead agency and filed at the repository institution.

Response to Comment 114-11

Comment Summary: The comment question the reference to “birds” in the description of the Petaluma Formation in Section 4.15 of the Draft EIR/EIS.

The following revision to the Draft EIR/EIS to omits “birds” as a fossil component in the Petaluma Formation.

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

Page 4.15-10. In the third paragraph, the first sentence will be changed to read:

A wide range of species of invertebrate and vertebrate fossils, including bison, horse, deer, and turtle, ~~and birds~~, have been recovered from the Petaluma Formation.

Response to Comment 114-12

Comment Summary: The comment pertains to the fossiliferous nature of the Sonoma Volcanics.

Refer to Response to Comment 114-5 concerning the Sonoma Volcanics as containing potentially important paleontologic resources.

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

Page 4.15-10. In the third paragraph, the third sentence is revised as follows:

The Sonoma Volcanics which consist of basalt, andesite, rhyolite, tuff, and other pyroclastic rocks are ~~not~~ considered to be fossiliferous.

Page 4.15-22. In the last paragraph, the first and second sentences are revised as follows:

Pipeline construction for Alternatives 2, 4, and 5A may result in disturbance to paleontologic resources because trenching could disturb important ~~vertebrate~~ fossil-bearing rock units (Petaluma, Wilson Grove, Sonoma Volcanics, and/or Glen Ellen formations). The pipeline component for Alternative 2 traverses the Petaluma Formation and the Sonoma Volcanics in the southern part of Sonoma County, while the pipeline component for Alternative 3 passes through the Wilson Grove Formation in the western portion of the county.

Response to Comment 114-13

Comment Summary: The comment states that the paleontology section of the Draft EIR/EIS is partly incorrect and insufficient in terms of establishing relative importance of fossiliferous strata and in terms of analyzing paleontologic sensitivity. The comment also assumes that the paleontology section of the 1990 EIP document was utilized extensively in preparing the Draft EIR/EIS.

The 1990 EIP document is cited twice in Section 4.15 of the Draft EIR/EIS. The EIR/EIS authors rely on published data and documents in preparing their sections, and review that data for adequacy. During the EIR public review process for the 1990 EIP document, no comment letter was received concerning paleontological resources.

The remainder of the comment addresses the paleontology section of the 1990 EIP document rather than the Draft EIR/EIS. Changes have been made to the mitigation monitoring program including a requirement for comprehensive paleontological study of the preferred alternative and more specific monitoring and mitigation measures. Refer to Response to Comment 114-10 for the changes in the text of the Mitigation Monitoring Program.

Response to Comment 114-14

Comment Summary: The comment states that the 1990 EIP document paleontology section was inconsistent with information provided by the commentor.

The current Draft EIR/EIS paleontologic resources analysis uses information from the EIP document, but does not rely on the 1990 document for conclusions. In addition, changes have been made to the mitigation monitoring program including a requirement for comprehensive paleontological study of the preferred alternative and more specific monitoring and mitigation measures. Refer to Response to Comment 114-10 for the changes in the text of the Mitigation Monitoring Program.

Response to Comment 114-15

Comment Summary: The comment states that the 1990 EIP document paleontology section uses discrete paleo sites rather than the presence of specific rock units to establish sensitivity.

The current Draft EIR/EIS does evaluate the potential for impacts to paleontologic resources in terms of the presence of specific rock units. In addition, changes have been made to the mitigation monitoring program. Refer to Response to Comment 114-10 for the changes in the text of the Mitigation Monitoring Program.

Response to Comment 114-16

Comment Summary: The comment states that the 1990 EIP document paleontology section did not recognize the importance of the Wilson Grove Formation.

The paleontology criterion for the current Draft EIR/EIS states that underground construction within the Wilson Grove Formation has the potential to disturb paleontologic resources, and is thus a significant impact. Refer to evaluation criteria on page 4.15-14.

Response to Comment 114-17

Comment Summary: The comment states that the 1990 EIP document paleontology section did not have an adequate survey of known paleontologic resources.

It is unclear whether the comment also finds the description of paleontologic resources in the current Draft EIR/EIS to be inadequate, and no specific inadequacies are identified. The setting description is not based solely on the EIP document, but also references Reynolds (1988).

Response to Comment 114-18

Comment Summary: The comment states that because of perceived inadequacies of the 1990 EIP document paleontology section, the current Draft EIR/EIS lacks comprehensive paleo studies.

The current Draft EIR/EIS has recognized the sensitivity of specific formations identified in the comment letter. The Draft EIR/EIS has recognized the potential for significant impacts and has adopted a comprehensive mitigation program for paleontologic resources. The EIR/EIS authors believe that the analysis is sufficient.