

**MINUTE ITEM:**  
This Calendar Item No. 015  
was approved as Minute Item  
No. 015 by the State Lands  
Commission by a vote of 3  
to 0 at its 06/11/90  
meeting.

CALENDAR ITEM

U I E

A 1  
S 4

06/11/90  
W 24200 PRC 7404  
Bancroft

GENERAL LEASE - PUBLIC AGENCY USE

**APPLICANT:** Transmission Agency of Northern California  
P. O. Box 661030  
Sacramento, California 95866

**AREA, TYPE LAND AND LOCATION:**  
A 1.194-acre parcel of submerged land located  
in the Sacramento River in Shasta County.

**LAND USE:** Right-of-way for a 500kv powerline crossing.

**TERMS OF PROPOSED LEASE:**  
Initial period: Forty-nine (49) years  
beginning January 1, 1990.

**CONSIDERATION:** The public use and benefit; with the State  
reserving the right at any time to set a  
monetary rental if the Commission finds such  
action to be in the State's best interest.

**BASIS FOR CONSIDERATION:**  
Pursuant to 2 Cal. Code Regs. 2003.

**APPLICANT STATUS:**  
Applicant is permittee of upland and is a Joint  
Powers Agency qualifying for rent-free status.

**PREREQUISITE CONDITIONS, FEES AND EXPENSES:**  
Filing fee and processing costs have been  
received.

-1-

(ADDED 6/8/90)

CALENDAR PAGE	96
MINUTE PAGE	983

CALENDAR ITEM NO. C 1 5 (CONT'D)

STATUTORY AND OTHER REFERENCES:

- A. P.R.C.: Div. 6, Parts 1 and 2; Div. 13.
- B. Cal. Code Regs.: Title 2, Div. 3;  
Title 14, Div. 6.

AB 884:

08/16/90.

OTHER PERTINENT INFORMATION:

1. The subject right-of-way is one of a number of crossings of State Lands required for the proposed 330-mile-long California-Oregon Transmission Project sponsored by a coalition of communities, public agencies, and utility companies.
2. The annual rental value of the site is estimated to be \$333.
3. An EIR was prepared and adopted for this project by the Transmission Agency of Northern California (TANC). The State Lands Commission's staff has reviewed such document and has identified, in Exhibit "C" potential significant environmental effects involving that portion of the project which the Commission will be considering for approval.

APPROVALS OBTAINED:

United States Army Corps of Engineers.

EXHIBITS:

- A. Land Description.
- B. Location Map.
- C-1. TANC CEQA Findings.
- C-2. State Lands Commission Findings.
- D. Executive Summary from Final EIR.
- E. Notice of Determination.
- F. Environmental Compliance Monitoring Program.

(ADDED 06/08/90)

-2-

CALENDAR PAGE	961
MINUTE PAGE	984

0.1823

CALENDAR ITEM NO. C 1 5 (CONT'D)

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT AN EIR WAS PREPARED AND ADOPTED FOR THIS PROJECT BY THE TRANSMISSION AGENCY OF NORTHERN CALIFORNIA AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN;
2. ADOPT THE LAND AGENCY AND COMMISSION FINDINGS AND THE MONITORING PROGRAM AS REQUIRED BY THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND ITS GUIDELINES WHICH ARE ATTACHED AS EXHIBIT "C";
3. FIND THAT THOSE IMPACTS LISTED ON EXHIBITS "C" AND "D" INVOLVE THAT PORTION OF THE PROJECT WHICH THE COMMISSION IS NOT CONSIDERING FOR APPROVAL. SUCH IMPACTS ARE WITHIN THE RESPONSIBILITY AND JURISDICTION OF TANC, AND NOT THE STATE LANDS COMMISSION. THE CHANGES OR ALTERATIONS REQUIRED TO AVOID OR SUBSTANTIALLY LESSEN THE SIGNIFICANT EFFECTS PRESENTED ON EXHIBIT "D" HAVE BEEN ADOPTED BY SUCH AGENCY.
4. FIND THAT THE COMMISSION EXPRESSLY RESERVES ITS DISCRETION WITH REGARD TO PERMITTING, DENYING, MODIFYING, AND/OR MAKING CEQA FINDINGS ON ANY OTHER SEGMENT OF THE PROJECT PRESENTED BEFORE IT.
5. AUTHORIZE ISSUANCE TO TRANSMISSION AGENCY OF NORTHERN CALIFORNIA OF A 49-YEAR GENERAL LEASE - PUBLIC AGENCY USE, BEGINNING JANUARY 1, 1990; IN CONSIDERATION OF THE PUBLIC USE AND BENEFIT, WITH THE STATE RESERVING THE RIGHT AT ANY TIME TO SET A MONETARY RENTAL IF THE COMMISSION FINDS SUCH ACTION TO BE IN THE STATE'S BEST INTEREST; FOR A RIGHT-OF-WAY FOR A 500KV POWERLINE CROSSING OF THE SACRAMENTO RIVER IN SHASTA COUNTY ON THE LAND DESCRIBED ON EXHIBIT "A" ATTACHED AND BY REFERENCE MADE A PART HEREOF.

(ADDED 06/08/90)

-3-

CALENDAR PAGE	96.2
MINUTE PAGE	985

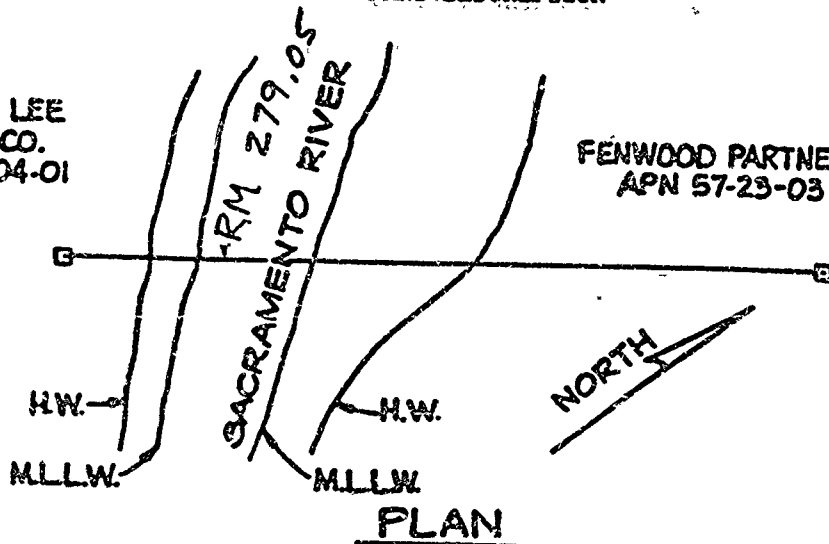
0.1824

EXHIBIT "A"  
LAND DESCRIPTION

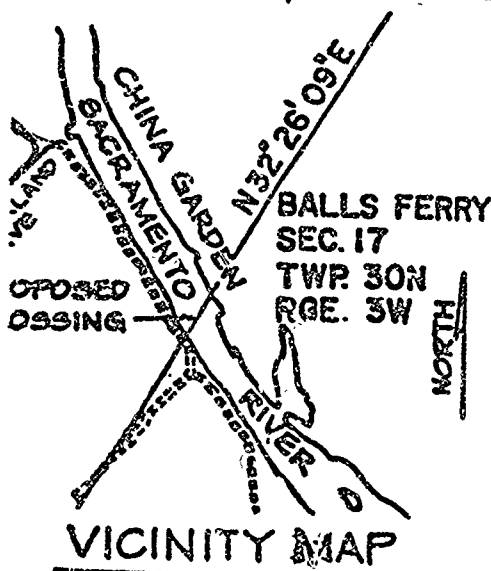
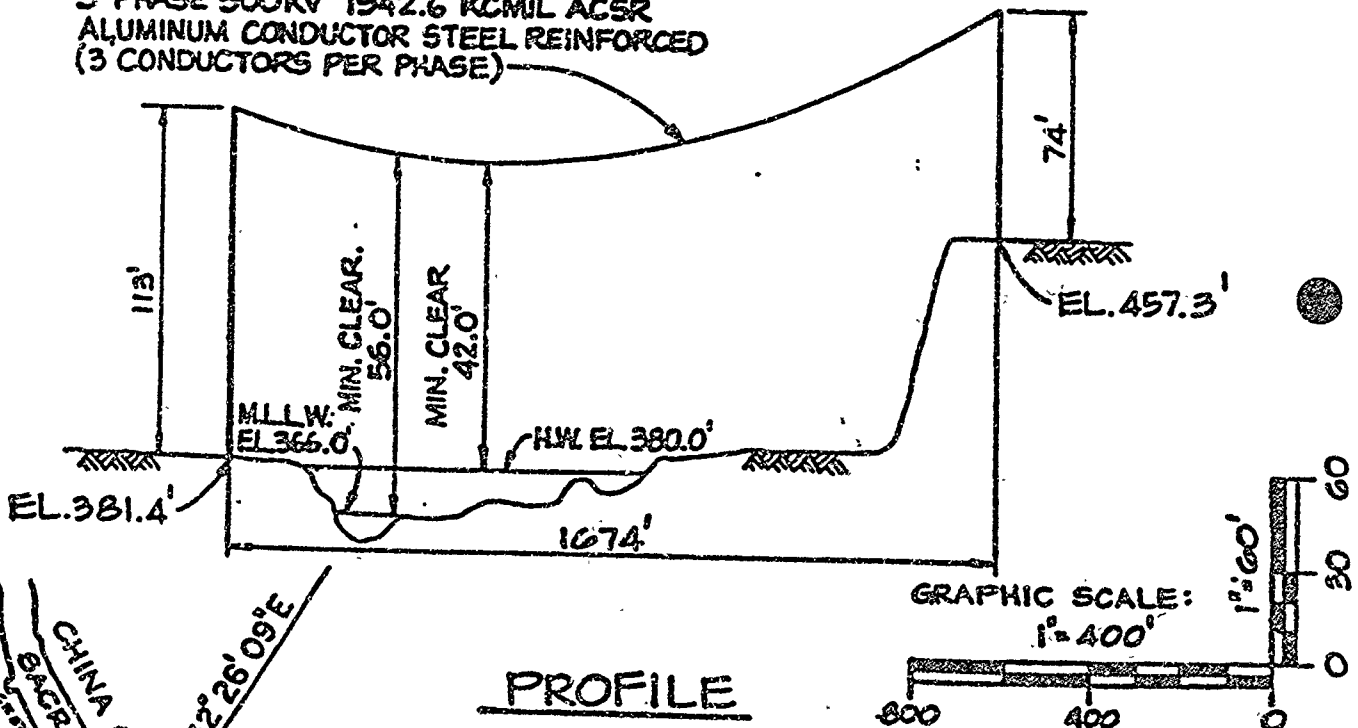
W 24200

SIMPSON LEE  
PAPER CO.  
APN 91-04-01

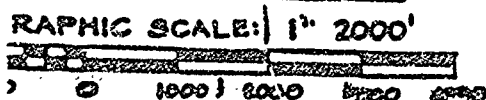
FENWOOD PARTNERS  
APN 57-23-03



FOR TRANSMISSION OF POWER FOR COMMERCIAL USE  
3-PHASE 500KV 1942.6 KCMIL ACSR  
ALUMINUM CONDUCTOR STEEL REINFORCED  
(3 CONDUCTORS PER PHASE)



**PROPOSED  
OVERHEAD WIRE CROSSING  
OVER SACRAMENTO RIVER  
15 MILES SOUTHEAST OF  
REDDING, CALIFORNIA  
AND 3 MILES NORTHWEST OF  
THE BALLS FERRY BRIDGE  
SHASTA COUNTY, CALIFORNIA**



MAY 25 1988  
APPLICATION BY

CALENDAR PAGE	963
PLATE PAGE	986

TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

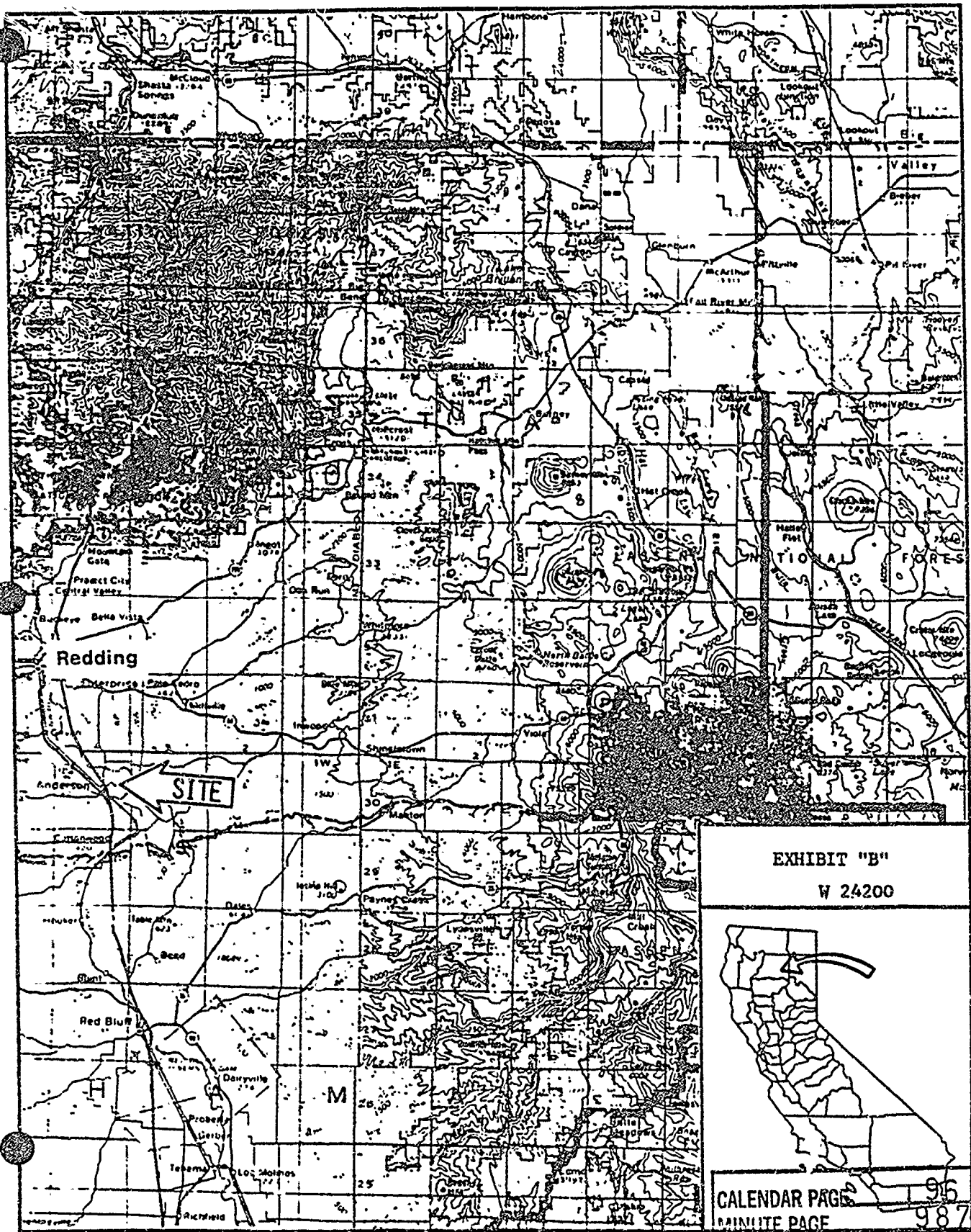


EXHIBIT "B"  
W 24200



CALENDAR PAGE	915
MINUTE PAGE	987

RESOLUTION 88-1

RESOLUTION OF THE  
TRANSMISSION AGENCY OF NORTHERN CALIFORNIA  
CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT  
FOR THE CALIFORNIA-OREGON TRANSMISSION PROJECT,  
THE LOS BANOS-GATES TRANSMISSION PROJECT,  
AND THE PACIFIC NORTHWEST REINFORCEMENT PROJECT,  
AND MAKING FINDINGS PURSUANT TO THE  
CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, an Environmental Impact Statement/Environmental Impact Report (the EIS/EIR) assessing the impacts of the California-Oregon Transmission Project (COTP), the Los Banos-Gates Transmission Project, and the Pacific Northwest Reinforcement Project (collectively, the Projects) was prepared by the Western Area Power Administration pursuant to the National Environmental Policy Act, and by the Commission of the Transmission Agency of Northern California (TANC) pursuant to the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq. [CEQA]), the State CEQA Guidelines (14 Cal. Admin Code § 15000 et seq., hereinafter the Guidelines) and procedures adopted by the TANC Commission pursuant thereto (TANC CEQA Guidelines); and

WHEREAS, a notice of completion of the Draft EIS/EIR was forwarded to the Office of Planning and Research pursuant to § 15085 of the Guidelines on December 1, 1986; and

WHEREAS, TANC forwarded copies of the Draft EIS/EIR to those public agencies which have jurisdiction by law with respect to the Projects and to other interested persons and agencies, and sought the comments of such persons and agencies; and

WHEREAS, notice inviting comments on the Draft EIS/EIR was given in compliance with the Guidelines § 15087; and

WHEREAS, comments on the Draft EIS/EIR led to consideration of additional routing options for the COTP and the preparation and circulation of a Supplement to the Draft EIS/EIR; and

WHEREAS, a notice of completion of the Supplement to the Draft EIS/EIR was forwarded to the Office of Planning and Research pursuant to § 15085 of the Guidelines on June 26, 1987; and

WHEREAS, TANC forwarded copies of the Supplement to the Draft EIS/EIR to those public agencies which have jurisdiction by law with respect to the Projects and to other interested persons and agencies, and sought the comments of such persons and agencies, and

WHEREAS, notice inviting comments on the Supplement to the Draft EIS/EIR was given in compliance with Guidelines § 15087; and

WHEREAS, the Draft EIS/EIR and the Supplement to the Draft EIS/EIR were thereafter revised and supplemented to respond to the comments received, as provided in Guidelines § 15088, and as so revised and supplemented, the Draft EIS/EIR and the Supplement to the Draft EIS/EIR became the Final EIS/EIR for the Projects.

NOW, THEREFORE, THE COMMISSION OF THE TRANSMISSION AGENCY OF NORTHERN CALIFORNIA DOES RESOLVE AS FOLLOWS:

SECTION 1. The TANC Commission (Commission) has reviewed and considered the information contained in the Final EIS/EIR and hereby certifies that the EIS/EIR for the COTP, the Los Banos-Gates Transmission Project, and the Pacific Northwest Reinforcement Project is complete and adequate and has been completed in compliance with the California Environmental Quality Act, the State CEQA Guidelines, and the TANC CEQA Guidelines.

SECTION 2. Based upon the Final EIS/EIR and all other oral and documentary evidence submitted to the Commission, the Commission hereby finds that the COTP will result in significant adverse impacts upon the environment. The impacts are set forth in Exhibit A, which is Table 2A of the Final EIS/EIR, attached hereto and incorporated by reference. The impacts of the alternative routes are set forth in Exhibit B, consisting of Tables 1A

CALENDAR PAGE	966
MINUTE PAGE	989

and 1B of the Final EIS/EIR, attached hereto and incorporated by reference.

SECTION 3. Changes or alterations have been made in the COTP as originally proposed. The Commission hereby adopts the mitigation measures listed under the heading "Adopted Mitigation" in Section 1.1.5 of the Final EIS/EIR, attached hereto as Exhibit C, and incorporated by reference. The Commission hereby finds that the changes, alterations, and adopted mitigation measures will avoid or substantially lessen the significant environmental impacts associated with the COTP. The impacts and the changes, alterations, and mitigation measures, and their effectiveness, are set forth in Exhibit A, attached hereto and incorporated by reference. The Commission does not adopt certain measures which were suggested as mitigation measures, listed as "Other Mitigation Considered" in Section 1.1.5 of the Final EIS/EIR. The Commission finds that those measures would not significantly avoid or lessen any significant environmental effects of the project or are infeasible, for the reasons given in Exhibit D, attached hereto and incorporated by reference.

SECTION 4. The Commission finds that some of the significant adverse impacts are not capable of mitigation to a less than significant level. These impacts are identified in Exhibit A, and in Exhibit E, attached hereto and incorporated by reference.

SECTION 5. The Commission finds that for the COTP, alternatives North D, Grizzly Peak-Redding, the Western upgrade, and South B, are environmentally superior to the other alternative routes discussed in the Draft EIS/EIR. A comparison of the impacts of the route alternatives and the reasons for selecting these as the project preferred route are set forth in Exhibits B and F, attached hereto and incorporated by reference, and in responses to comments L-203 H and L-371 E which are hereby incorporated by reference.

SECTION 6. Public and agency comments on the Draft EIS/EIR led to the identification of new COTP routing options which were analyzed in the Supplement to the Draft EIS/EIR. The Commission



finds that the Southern Oregon Switching Station Site E3 and route segments North 1, N-10M2(A1), N10M2A, North 2B, North 3J, North 4, South 1, S-8 Alt.3 and South 2 are environmentally superior to the corresponding segments of the originally preferred route and hereby incorporates them into the preferred route. The Commission finds that the preferred route, as revised, is environmentally superior to the preferred route identified in the Draft EIS/EIR. The reasons for this finding are set forth in Exhibit G, attached hereto and incorporated by reference, and in Section 1.2.2 "Environmental Evaluation Between Route Segments Analyzed in the Supplement to the Draft EIS/EIR" of Volume 1 of the Final EIS/EIR which are hereby incorporated by reference. A comparison of the original preferred route in the Draft EIS/EIR and the preferred route as revised is set forth in Table 1B of Exhibit B incorporated herein by reference.

SECTION 7. The Commission finds that specific engineering and economic considerations make certain COTP route options and other proposals for specific route alignments infeasible, and that other route options and suggested route alignments are environmentally inferior to corresponding segments of the preferred route. These segments will not be incorporated into the preferred route. The reasons for this finding are set forth in Exhibit H, attached hereto and incorporated by reference, and in Section 1.2.2 "Route Options Suggested Since Issuance of the Draft EIS/EIR" of Volume 1 of the Final EIS/EIR, incorporated herein by reference.

SECTION 8. Based upon the Final EIS/EIR and all other oral and documentary evidence submitted to the Commission, the Commission hereby finds that the Los Banos-Gates Transmission Project will, if constructed, result in significant adverse impacts upon the environment. The impacts are set forth in Exhibit I, consisting of Tables 2B and 1C of the Final EIS/EIR, attached hereto and incorporated by reference.

SECTION 9. Changes or alterations have been proposed for or incorporated into the Los Banos-Gates Transmission Project which will avoid or substantially lessen the significant environmental

effects of the Project. The changes, alterations, and mitigation measures are set forth in Exhibit I, Table 2B, incorporated herein by reference. Such changes or alterations are within the responsibility and jurisdiction of the California Public Utilities Commission, not TANC. Such changes can and should be adopted by the California Public Utilities Commission. The TANC Commission finds that some of the significant adverse impacts are not capable of mitigation to a less than significant level. These impacts are identified in Exhibit I and Exhibit E.

SECTION 10. The Commission finds that the project preferred route for the Los Banos-Gates Transmission Project, as identified in the Final EIS/EIR, is the environmentally superior route. A comparison of the impacts of the route alternatives and the reasons for selecting the preferred routes are set forth in Exhibit I, Table 1C, and in Section 6.0, Volume 2B of the Draft EIS/EIR, incorporated herein by reference.

SECTION 11. Based on the Final EIS/EIR and all other oral and documentary evidence submitted to the Commission, the Commission finds that the Pacific Northwest Reinforcement Project might result in significant environmental impacts. The Commission further finds that changes and alterations in the project and mitigation measures will avoid or substantially lessen some of those impacts as set forth in Volume 2C of the Draft EIS/EIR and Section 1.4 of Volume 1 of the Final EIS/EIR, that those mitigation measures are within the responsibility and jurisdiction of Bonneville Power Administration, not TANC, and that they can and should be adopted by the Bonneville Power Administration.

SECTION 12. The Commission finds that specific engineering, economic, social, and other considerations make certain alternatives to the Projects infeasible. These alternatives and the basis for finding them infeasible are set forth in Exhibit J attached hereto and incorporated by reference.

SECTION 13. The Commission recognizes and finds that there will be cumulative impacts arising from the construction of the Projects. The impacts of all three projects are set forth in the

0. 1832

Final EIS/EIR, Section 1.1.4 of Volume 1, incorporated herein by reference, and in Exhibit B consisting of Tables 1A and 1B, and in Exhibit I, Table 1C. In addition, the Commission finds that there may be impacts in the Pacific Northwest, as described in the Bonneville Power Administration's Draft Intertie Development and Use EIS and Hydro Operations Information Paper. With respect to the impacts in the Pacific Northwest, the Commission finds that the mitigation measures described in the Draft IDU EIS and Hydro Operations Information Paper can and should be adopted by the Bonneville Power Administration.

SECTION 14. Because of the overriding importance of the Projects and the benefits to virtually all of the utility customers in the State of California, as well as to utility customers in the Pacific Northwest, the Commission finds that the benefits of the Projects outweigh the unavoidable adverse environmental impacts. Because the Commission has authority to carry out or approve only the COTP, the Commission finds specifically that because of the overriding importance of the COTP and the benefits to utility customers in the State of California, the benefits of the COTP outweigh the unavoidable adverse environmental impacts. The unavoidable adverse environmental impacts are, therefore, acceptable. The considerations and facts supporting these conclusions are set forth in Exhibit K attached hereto and incorporated by reference.

PASSED AND ADOPTED this 20th day of January, 1988, on a motion by Mr. Reid, seconded by Mr. McDonald.

0. 1233

	AYES	NOES	ABSENT
City of Alameda	X		
City of Biggs	X		
City of Gridley	X		
City of Healdsburg	X		
City of Lodi	X		
City of Lompoc	X		
Modesto Irrigation District	X		
City of Palo Alto			X
Plumas-Sierra Rural Electric Cooperative	X		
City of Redding	X		
City of Roseville	X		
Sacramento Municipal Utility District	X		
City of Santa Clara	X		
Turlock Irrigation District	X		
City of Ukiah			X

EXHIBIT "C-2"

STATE LANDS COMMISSION CEQA FINDINGS

These findings are made by the State Lands Commission (SLC) on the proposed transmission crossing of the Sacramento River in Shasta County, pursuant to Section 15091, California Code Regulations (CEQA Guidelines).

These findings are followed by a narrative of facts supporting them. Where possible, reference is made to a specific mitigation measure presented in the Environmental Impact Report (EIR).

Public Resources Code 21081.6 requires public agencies making findings which adopt changes in a project to also adopt a reporting and monitoring program. This regulation however, is silent with respect to two public agencies having concurrent jurisdiction over a project. It is staff's opinion that when two agencies have concurrent jurisdiction over a particular project, the agency that functions as the lead agency is responsible for adopting a reporting and monitoring program for all changes to the project which are intended to mitigate or avoid significant effects to the environment. The agency functioning as the responsible agency would be required to review the lead agency's reporting and monitoring program and adopt such program if it meets the requirements of the responsible agency.

Staff has reviewed the lead agency's monitoring program and deems that it complies with the requirements of Public Resources Code 21081.6, and satisfies staff's requirements. The monitoring program has been integrated with the following findings:

**IMPACT:** Reduction of water quality through introduction of pollutants.

**FINDING:** Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the Final EIR.

**FACTS SUPPORTING THE FINDING:**

Contamination impacts could occur from the use and disposal of herbicides, petroleum products and other nonbiodegradable substances. Short-term impacts to water quality may also occur during transmission line construction when oil and grease from construction vehicles are washed into adjacent streams or rivers. Other construction related substances that may impair the quality of area waterways during this time include solvents, concrete, and gasoline.

A 100-foot buffer of undisturbed vegetation shall be

CALENDAR PAGE	96	.13
MINUTE PAGE	996	

maintained along all lakes and streams to reduce the possibility of accidental introduction of pollutants into the water, and minimize the sediment loading of streams which may result from project-induced erosion.

Toxic material will not be released in any waterway or drainage area. Construction work and subsequent use of the right of way will be consistent with applicable federal, state and local laws and regulations relating to safety, water and air quality and public health.

**MITIGATION MEASURES:**

1. A 100-foot buffer of undisturbed vegetation shall be maintained along the north and south bank of the Sacramento River at Anderson, Shasta County;
2. Unless specifically authorized by the State Lands Commission, herbicides will not be used on lands under the jurisdiction of the State Lands Commission.

**MONITORING/REPORTING PROGRAM:**

TANC will have an environmental monitor on the construction site observing and documenting mitigation compliance. State Lands Commission staff will review TANC documentation to verify that mitigation compliance has occurred.

CALENDAR PAGE	9614
MINUTE PAGE	997

**EFFECTIVENESS:**

The presence of a TANC environmental monitor on site during the construction activities, and subsequent State Lands Commission staff review of compliance reports will ensure that this mitigation measure is properly carried out.

**IMPACT:** Right-of-Way vegetation clearance using non-selective methods; Clearing or loss of riparian woodland along Sacramento River; Degradation of wetlands due to use of herbicides or heavy equipment for right-of-way vegetation management.

**FINDING:** Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the final EIR.

**FACTS SUPPORTING THE FINDING:**

Minor vegetative trimming will be required at the Sacramento River crossing in Shasta County. One 45-foot tree on the north bank of the Sacramento River below the High Water Mark will be trimmed to a height of 30 feet to allow for clearance during raising of the transmission lines.

Unless specifically authorized, herbicides will not be



used on lands under the jurisdiction of the State Lands Commission. There are a few Willow bushes within the surveyed center line of the project on the north bank of the river which may be trimmed to avoid interference with the stringing of the transmission line.

There will be no clearing or loss of riparian woodland below the high water mark of this proposed crossing of the Sacramento River, near Anderson, Shasta County.

A one-time staging area approximately 50 feet south of the high water mark, presently located on dry land, on the north bank of the Sacramento River, Shasta County may be used for one week by heavy equipment for the purpose of raising the transmission line once the river crossing is completed. Heavy equipment or vehicles will not be allowed waterward of this point.

CALENDAR PAGE	96.16
MINUTE PAGE	999

**MITIGATION:**

1. The boundaries of construction activities will be flagged; no disturbance of vegetation will occur outside the flagged boundaries.
2. A 100-foot buffer of undisturbed vegetation shall be maintained along all lakes and streams.
3. Unless specifically authorized by the State Lands Commission, herbicides will not be used on lands under the jurisdiction of the State Lands Commission.

**MONITORING/REPORTING PROGRAM:**

TANC will provide an environmental staff person to monitor and document mitigation compliance. State Lands Commission staff will review TANC documentation to verify that mitigation compliance has occurred.

**EFFECTIVENESS:**

The presence of TANC personnel to monitor the contracted construction activities and subsequent State Lands Commission staff review of compliance reports will ensure that the mitigation measure is properly carried out.

CALENDAR PAGE	96.17
MINUTE PAGE	1000

EXHIBIT "D"

**VOLUME 1**

---

**FINAL  
ENVIRONMENTAL IMPACT STATEMENT  
ENVIRONMENTAL IMPACT REPORT**

---

**FOR THE  
CALIFORNIA-OREGON  
TRANSMISSION PROJECT**

**AND THE  
LOS BANOS-GATES  
TRANSMISSION PROJECT**

---

CALENDAR PAGE	96 <sub>18</sub>
MINUTE PAGE	1001

**DOE/EIS-0128  
SCH#85040914**

**JANUARY 1988**

**No 0810**

## SUMMARY

The Summary of the Draft EIS/EIR is reproduced below, with revisions, beginning with Purpose and Need. Deletions are cross hatched and additions are underlined. Table 1A is also reproduced from the Draft EIS/EIR. There is a new table (Table 1B) which compares the COTP preferred alternative shown in the Draft EIS/EIR and the COTP preferred alternative identified in the Final EIS/EIR. Table 1C compares alternatives for the Los Banos-Gates Project. Tables 2A and 2B replace Table 2 of the Draft EIS/EIR. Because of their length, all tables referenced in this Summary are located at the end of this section.

The Draft EIS/EIR for the COTP and the Los Banos-Gates Transmission Project (Los Banos-Gates) was issued in November 1986. The Supplement to the Draft EIS/EIR for route options for the COTP was issued in June 1987. The Draft EIS/EIR, the Supplement to the Draft EIS/EIR, and this Final EIS/EIR are to be reviewed together as all three documents comprise the Final EIS/EIR.

Comments received on these two documents from special interest groups, public agencies, and the general public resulted in the identification of an environmentally superior alternative and a project preferred alternative for the COTP that differ from those presented in the Draft EIS/EIR. Several routing options presented in the Supplement to the Draft EIS/EIR have been incorporated into the COTP preferred alternative. The new routing options that have been incorporated into the COTP preferred route are coincident with the environmentally superior route with the exception of one area in the Tulelake basin and one area near Bear Mountain. In the Tulelake basin, the lead agencies found the recommended environmentally superior route (N-10 Alt.4) to have prohibitively high costs compared to slight environmental benefits and is therefore not feasible from an economic perspective. In the Bear Mountain area, the lead agencies found that more extensive access road and construction efforts on North 2C made the comparison with North 2B so close that one is not clearly environmentally superior to the other. In these and other areas, environmental impacts along the preferred route can be reduced to acceptable levels through implementation of mitigation measures. Section 1.1.2 identifies the Project preferred route as revised since the Draft EIS/EIR.

CALENDAR PAGE	96.19
MINUTE PAGE	1.002

VOL. 1 FINAL

## PURPOSE AND NEED

The purpose of the proposed actions is to expand the bidirectional capability of the Pacific Northwest-Pacific Southwest Intertie transmission system and to help serve California's need for economical power, the Pacific Northwest's desire to sell surplus power, and the need for maintaining and increasing the reliability of the existing transmission system. The COTP will add approximately 1,600 megawatts (MW) of additional transfer capability between the Pacific Northwest and California pursuant to federal legislation and a Memorandum of Understanding among the Participants. The COTP, the Los Banos-Gates Transmission Project, and PNW Reinforcement Project would also add to and strengthen the existing high voltage transmission links between California and the Pacific Northwest. These projects would provide for greater access to Northwest power surpluses, facilitate more efficient use of regional power resources, provide greater resource diversity, and enhance transmission system reliability. Volume 1, Section 1.0 of the Draft EIS/EIR more fully describes the purpose and need for the projects. Section 1.1.1 of this document expands on certain topics addressed in the Draft EIS/EIR.

A comprehensive analysis was conducted on the economics of the COTP and Los Banos-Gates Project to determine the benefits and costs to California if the COTP is built. The analysis, which is summarized in Volume 1, Section 1.5 of the Draft EIS/EIR addresses a range of conditions for strong and weak Organization of Petroleum Exporting Countries (OPEC) price scenarios and seven Northwest capacity availability scenarios. Considering the expected values, the COTP is expected to be cost effective under strong OPEC prices, and cost effective under weak OPEC prices except when capacity benefits are very low.

The economic analysis discussed in the Draft EIS/EIR includes 7/16 of the cost of the 500 kV line between the Pacific Gas and Electric Company's (PGandE) Los Banos and Gates Substations as part of the facilities associated with development of the COTP. Since completion of the Draft EIS/EIR, PGandE has indicated that the need for or timing of the future need for the Los Banos-Gates Project is uncertain. In the event the Los Banos-Gates line is not required to achieve the benefits of the COTP, a portion of the cost of the Projects would be reduced, thereby further improving the anticipated net economic benefits of the COTP. If the Los Banos-Gates Project is not constructed or is deferred, it may be necessary to make minor modifications to the transmission system south of Tesla.

## ALTERNATIVES TO INCLUDING THE PROPOSED ACTIONS

The bidirectional power transactions to be provided by the COTP, the Los Banos-Gates Project, and the PNW Reinforcement Project represent one of several approaches for meeting a portion of

CALENDAR PAGE	96.20
VOL. 1	FINAL
MINUTE PAGE	1003

California's and the Pacific Northwest's present and future power needs. Several alternatives (including no-action and non-transmission and transmission projects) were examined before the proposed actions were fully defined.

Non-transmission alternatives considered include increased power purchases from the Southwest, increased power purchases from out-of-state coal-fired power plants, increased dependence on other in-state generating technologies, and increased reliance on conservation and load management. Transmission alternatives evaluated include upgrading and modifying existing AC transmission lines, constructing new AC lines, and constructing new direct current (DC) lines. The no-action alternative is discussed in Volume 1, Section 2.4 and the other non-transmission and transmission alternatives are discussed in Volume 1, Section 2.5 of the Draft EIS/EIR.

The no-action alternative would result in maintaining the current level of Intertie capacity between the Pacific Northwest and California, and may lead to a number of individual actions by the many different proponents to obtain other resources. None of the alternatives that the individual utilities are anticipated to rely upon would have the economic and environmental advantages of regional exchanges with the Pacific Northwest. None of the power supply alternatives to the proposed actions addressed in Volume 1, Section 2.5 of the Draft EIS/EIR are believed to be both economically ~~or~~ and environmentally superior. No-action is expected to increase reliance on fossil fuels, subjecting California ratepayers to ~~significant~~ uncertainties regarding future supplies and prices of these fuels.

Transmission line routing evaluations were part of a continuous process involving the public, agencies, and proponent representatives. These evaluations are discussed in the Draft EIS/EIR under Volume 2A, Phase II for the COTP and Volume 3B, Appendix A for the Los Banos-Gates Project. Additional evaluations for the COTP since the Draft EIS/EIR are described in the Supplement to the Draft EIS/EIR and in Section 1.2 of Volume 1 of this Final EIS/EIR. A review of the options for the Pacific Northwest Reinforcement Project is presented in Volume 2C of the Draft EIS/EIR.

The routing evaluations for COTP are summarized in Tables 1A/ and 1B (presented at the end of this Summary). Table 1B compares the Project preferred alternative shown in the Draft EIS/EIR with the new Project preferred alternative which incorporates route options discussed in the Supplement to the Draft EIS/EIR. Figures 2.1-3 and 2.1-9 in the Draft EIS/EIR and Figures 1.1.2-7 and 1.1.2-8 in Volume 1 of this document show the locations of these alternative routes.

In the Northern Section, there are four alternative routes - A, B, C, and D, and one common route from Grizzly Peak to the Redding area substation (Olinda) Substation. Alternative D

shown as the Project preferred and environmentally superior route in the Draft EIS/EIR. A modified Alternative D remains the environmentally superior alternative in this Final EIS/EIR. Certain route options within Alternative D were analyzed in the Supplement to the Draft EIS/EIR and replace portions of the original Alternative D as the preferred route. These route options are coincident with the environmentally superior route with the exception of one area in the Tulelake basin and one area near Bear Mountain. In the Tulelake basin, the lead agencies found the recommended environmentally superior route (N-10 Alt.4) to have prohibitively high costs compared to slight environmental benefits and is therefore not feasible from an economic perspective. In the Bear Mountain area, the lead agencies found that more extensive access road and construction efforts on North 2C made the comparison with North 2B so close that one is not clearly environmentally superior to the other. In these and other areas, environmental impacts along the preferred route can be reduced to acceptable levels through implementation of mitigation measures. An explanation of these considerations is presented in Section 1.2.2 of Volume 1 of this document.

Alternative D/ in the northern section was chosen as the environmentally preferred alternative primarily because it minimized impacts to timberlands, maximized the route segments on public lands/ and minimized impacts to earth, water, and vegetation resources and critical wildlife species and their habitats. Alternative D was selected as the Project preferred route, because this alternative satisfies transmission system reliability considerations, by providing adequate separation from the existing Intertie and because it maximizes the potential for environmental impacts provided that a fuels management plan and fire response plan is developed in conjunction with the USDA Forest Service and implemented by the COTP for the area between the existing Intertie and the preferred route as revised. The USDA Forest Service indicated in November 1987 that the area east of the North 3J corridor (east of Little Meadows) has a feasible route location that will minimize resource impacts while meeting geologic concerns. Should a superior location be found near North 3J during final design, the lead agencies will work with the Forest Service to identify, review, and approve that location. There are no alternative routes for the upgrade between the Redding area substation proposed (Olinda) Substation and the Sacramento River since the upgrade was judged to be environmentally superior to any new routing alternative.

In the southern section, between the Sacramento River and Tracy Substation, there are three routing alternatives. A modified alternative Route B is remains both the environmentally superior and the Project preferred alternative route. A route option within Alternative B was analyzed in the Supplement to the Draft EIS/EIR and replaces a portion of the original Alternative B as both the environmentally superior and Project preferred option. Alternative B in the Southern Section was identified as the environmentally preferred alternative because it minimized

impacts to developed and planned land uses to the extent practical. Alternative B is the Project preferred route because environmental impacts are minimized while providing adequate separation from the existing Intertie. A route option to the Tracy-Tesla proposed route was also analyzed in the Supplement to the Draft EIS/EIR and has replaced the original route as both the environmentally superior and Project preferred route.

Table 1B (presented at the end of this Summary) compares the route alternatives for the Los Banos-Gates Project. There are two main corridors, East and West, shown in Figure 2/2/77 1.1.2-10. The West corridor has several route segment options. The western route segments 1, 2, 4, 5, 7, 9, and 11 comprise both the environmentally superior and Project preferred route. ~~XXXXXX~~ If the Los Banos-Gates Project is not constructed or is deferred, minor modifications may be required south of Tesla to support the increased power transfer needs of COTP. These modifications are summarized in Table 1.3-1 in Section 1.3 of Volume 1 of this document. Potential reinforcements are analyzed and compared in the report and Alternative 1 is preferred.

#### PROPOSED ACTIONS

The COTP, Los Banos-Gates Project, and Pacific Northwest Reinforcement Project would involve constructing new and modifying existing 500 kV and 230 kV AC transmission system facilities in northern and central California, in Oregon, and in southern Washington. Figure 1 following the Abstract ~~XXXXXX~~ shows the approximate locations of the proposed projects.

An easement to build, operate, and maintain the transmission lines would be acquired. A typical easement width for the new line would be for a 200-foot right-of-way. The upgrade portion would retain its existing 125-foot wide right-of-way. Landowners would be compensated for the easement at fair market value and would retain the right to use the land for activities compatible with the transmission line. For substations and switching stations, the land would be purchased in fee. Just compensation based on fair market value would be paid for all land and land rights acquired for the projects. Permits would be obtained for transmission system communication facilities on public land. Communications sites on private land would be purchased, or in the case of existing facilities, a use agreement would be negotiated with the owner.

Mitigation measures have been ~~XXXXXX~~ adopted that would reduce the environmental impacts of construction and operation. Construction activities, including surveying, clearing, access road construction, foundation installation, structure erection, conductor stringing, and conductor sagging, would follow mitigation ~~XXXXXX~~ measures provided in the construction contract and design specifications.



The mitigation section has been reorganized. Mitigation measures are now grouped by resource categories to assist the reader in determining which mitigation measures should be applied to reduce significant resource impacts. In response to public comment, mitigation measures have been revised and in many cases reflect more specificity.

The COTP is a proposal to construct or upgrade and operate approximately 340 miles of transmission lines, three substations, a switching station, a series compensation station, and communication and other supporting facilities. Figure 6 shows the Participants involved in the COTP. The proposed actions for the COTP is as follows are:

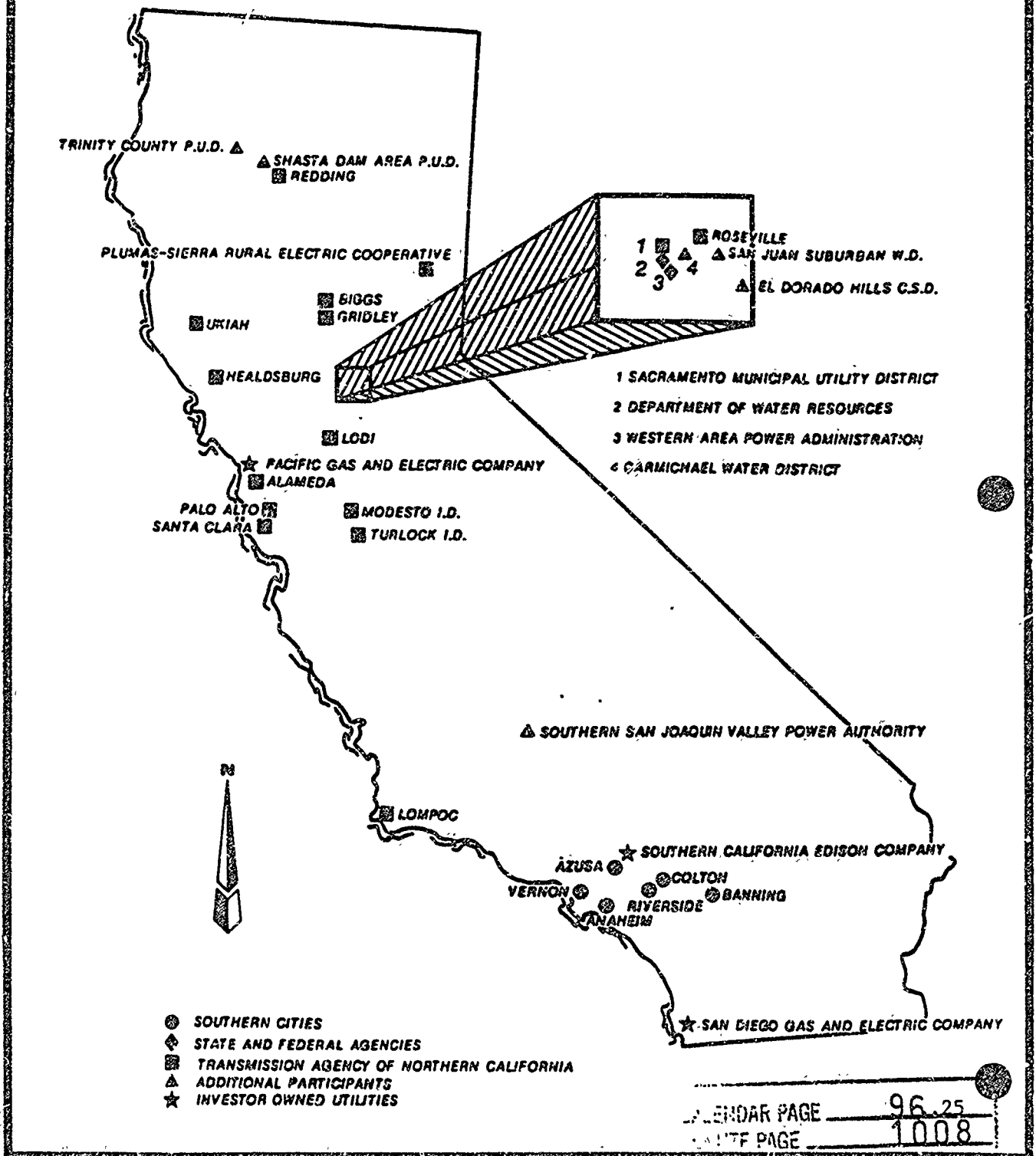
- Constructing a new 500 kV AC transmission line (approximately 1406 miles long) from the California-Oregon border area to the proposed Olinda Substation near the Redding, California. area
- Upgrading an existing double circuit 230 kV AC line (approximately 170 miles long) owned by the Western Area Power Administration to a single circuit 500 kV AC line from the Redding area proposed Olinda Substation to the Tracy Substation Sacramento River.
- Constructing approximately 20 miles of the southerly portion of the upgrade will be relocated onto a new and separate right-of-way new 500 kV transmission line from the Sacramento River to the existing Tracy Substation.
- Constructing a new 500 kV AC single or double-circuit link (approximately six miles long) between the Tracy Substation and the area of Tesla Substation. If a This double circuit 500 kV AC line is constructed, modification of the would be connected to the existing Tesla-Los Banos No. 2 500 kV line may be also required near the Tesla Substation creating the Tracy-Tesla and Tracy-Los Banos 500 kV transmission lines.

COTP substation and other supporting facilities included in the proposed action are:

- Constructing a new switching station in the Oregon border area near either Phoenix/Kenos of Malin along the existing Malin-Meridian 500 kV AC transmission line to serve as the northern terminus for the COTP and interconnection point to the Pacific Northwest transmission system.
- Constructing a new substation (Clinda) south of Redding near the intersection of Gas Point Road and Happy Valley Road.

CALENDAR PAGE 96  
MINUTE PAGE 1 FINAL 07

**FIGURE 6**  
**CALIFORNIA-OREGON TRANSMISSION PROJECT**  
**Project Participants**



- ° Constructing a new series compensation station (Maxwell) near the town of Maxwell, California.
- ° Expanding the Tracy Substation and replacing six 230 kV circuit breakers.
- ° Modifying the Tesla Substation to ~~accommodate the~~ replace two 230 kV circuit breakers, relaying and other equipment necessary to accommodate the new COTP line termination.
- ° Modifying existing and constructing new microwave communication system facilities in central and northern California and southern Oregon.
- ° Modifying the existing Cottonwood Substation to replace three 230 kV circuit breakers.

System reliability was a primary factor influencing the location of the COTP transmission line routing alternatives. Reports by COTP technical committees provide recommendations for project design to ensure compliance with both the Western Systems Coordinating Council (WSCC) and the North American Electric Reliability Council (NERC) guidelines. To minimize the potential for a simultaneous power outage of the COTP and the two existing AC Intertie lines, a minimum separation, where possible, ~~of 3~~ measured in miles between the existing AC Intertie lines and a new 500 kV line north of Redding and a minimum separation of 2,000 feet between the existing AC Intertie lines and a new 500 kV line south of the Sacramento River has been utilized by the COTP Participants. Separation distances are based on detailed system studies and the application of the WSCC and NERC criteria to reduce the potential for widespread blackouts within the western United States, affecting utility customers as far away as El Paso, Texas.

The proposed COTP transmission line would be supported on steel structures that meet state and national standards. Several types of structures are proposed, including single circuit lattice, double circuit lattice, single circuit tubular, single pole and H-frame, double circuit tubular, and upgrade towers. On the upgrade single circuit lattice towers, steel support members would be added to the ~~base~~ main body of the existing 230 kV double circuit lattice towers, and the top would be rebuilt, to support the new 500 kV AC conductors and provide adequate electrical clearances. Tower structures would typically be 125-~~140~~ 180 feet tall.

The proposed action for the Los Banos-Gates Transmission Project includes the following facilities and activities:

- ° Constructing approximately 24 miles of series compensated 500 kV transmission line between Los Banos and Gates Substations.

- Realigning the existing Los Banos-Midway No. 2 500 kV transmission line into Gates Substation.
- Modifying the Los Banos and Gates Substations to accommodate new electrical equipment and the new line.
- Installing shunt capacitors at various existing substations.
- Possibly installing series capacitors at Gates and/or Midway Substations to compensate the 500 kV transmission lines connecting to Diablo Canyon.
- Reconductoring portions of the Gates-Arco-Midway 230 kV transmission line.
- If any or all of the above features are not constructed or are deferred, it may be necessary to make minor modifications to the transmission system south of Tesla.

The installation of significant system additions, such as the Los Banos-Gates Project, requires careful consideration of electric system reliability. For the bulk high-voltage transmission additions, the project must be so defined that a credible three-line outage cannot occur. To minimize the possibility of a simultaneous three-line outage, a minimum separation of approximately 2,000 feet between the two existing 500 kV lines and the proposed 500 kV line has been utilized by PG&E.

The Los Banos-Gates transmission line would be supported on steel structures that meet state and national standards. Single circuit lattice structures are proposed. Tower structures would typically be 100-160 feet tall.

The Pacific Northwest Reinforcement Project is a proposal to construct new, modify existing, and operate approximately eight miles of transmission lines, ten substations, and four series compensation stations in Oregon and southern Washington. The proposed actions include:

- Improvements and reinforcements to facilities in Oregon at the Alvey, Ashe, Buckley, Bakeoven, Dixonville, Fort Rock, Grizzly, Malin, Marion, Meridian, Sand Spring, Slatt, Summer Lake, and Sycan substations located in the Oregon counties of Deschutes, Douglas, Jackson, Josephine, Gilliam, Jefferson, Klamath, Lake, Lane, Marion, Sherman, and Wasco, and one county within Washington (Benton).
- Adding, removing, and/or replacing transmission towers or equipment such as power circuit breakers.
- Constructing short sections of transmission lines to loop existing lines into substations.

- Possibly constructing a new substation (Marcola).
- Expanding substations to adjacent properties or relocating equipment within substation yards.
- Upgrading short sections of existing transmission lines.

In addition, BPA has an option to acquire a 50 percent interest in the incremental capacity of PP&L's Eugene-Medford 500 kV transmission line. The Eugene-Medford project has already been sited, permitted, scheduled for construction, and is justified to serve PP&L loads in southern Oregon and northern California. If BPA exercises its option, the Eugene-Medford project would also be used to support the Intertie system as part of the Pacific Northwest Reinforcement Project. The environmental effects of the Eugene-Medford line are presented in a BLM Final EIS entitled "Proposed Eugene-Medford 500 kV Transmission Line, May 1983 (FES) 83-23)".

#### ENVIRONMENTAL CONSEQUENCES

A summary of significant and residual impacts is presented in Tables 2A and 2B (presented at the end of this Summary). Table 2A has been revised from the Draft EIS/EIR to reflect changes in the mitigation measures. Table 2B has been added to present impacts for the Los Banos-Gates Project.

Significant impacts have been analyzed in detail in Volume 1, Section 4.0 of the Draft EIS/EIR for the alternatives, and in Volume 2A, Section 3.0 of the Draft EIS/EIR for route segments and in the Supplement to the Draft EIS/EIR.

Wherever possible, resource specialists concentrated on quantifying the level of impacts that would result from the Project. Quantifying impacts made the comparison of alternatives a more objective process. Quantifications were based on federal or state standards for some resources, and on professional experience and judgment for others. For example, significant air quality impacts were dependent on federal or state standards.

Where specific federal or state standards were not available, the resource specialists developed draft threshold values (or levels) above which significant impacts were defined to occur. For example, for the COTP, forestry impacts were considered significant if 40 acres or more of prime timberland was crossed. Designations of significance can be based on a single factor or on a combination of several factors. For the COTP, agricultural impacts were considered significant if one-half mile of prime farmland or farmland of statewide importance were crossed by a new route segment, and/or if the route results in a new permanent crossing of at least one-half mile of a non-irrigated farming area that is designated in an adopted environmental plan or local

CALENDAR PAGE	96
MINUTE PAGE	111

land use policy, such as an agricultural preserve program. A summary of the quantitative and qualitative criteria used by each resource specialist to determine the significance of impacts is described in Section 1.1.4.

A full discussion of mitigation measures for the COTP is presented in Volume 1, Section 1.1.5 of this document. Mitigation measures for the Los Banos-Gates Project are discussed in Section 5.2 of the Draft EIS/EIR.

For the COTP, the Project preferred alternative has been identified which is coincident with the recommended environmentally superior alternative with the exception of route options in two areas, as previously discussed.

Many impacts can either be avoided during the alignment phase of the project or through implementation of adopted mitigation. Impacts for each resource discipline include:

Air Quality: Vehicle exhaust and fugitive dust would be the primary emission sources. These are short term, localized effects which should not significantly affect existing climate or ambient air quality. Ozone production from operation of the transmission line would not measurably increase ambient concentrations.

Earth Resources: Potential effects include excessive wind and water erosion, future interference with mining of specified mineral resources and effects on the project facilities resulting from low soil bearing capacities, landslides, lavatube collapse, and earthquakes. With the exception of water erosion, there would be no significant effects with application of the mitigation measures.

Water Resources/Fisheries: Potential effects would include sedimentation of streams due to increased soil erosion, reduction of water quality and supply, barriers to fish migration and degradation of Redband Trout habitat in one area. With application of all mitigation measures, there would be no residual significant effect.

Vegetation: Potential effects on vegetation include loss of riparian woodland along the Sacramento River, disturbance to or loss of vernal pool habitats; disturbance to or loss of MacNab cypress forests along Montgomery Creek, Valley Sink (Iodine bush) scrub habitat, and wetlands along certain water courses crossed by the COTP. None of the effects would be significant following implementation of mitigation. For example, some wetlands may be disturbed by unavoidable siting of a few transmission structures. If and where this occurs, appropriate compensation measures will be implemented in consultation with state and federal resource and land management agencies.

Wildlife: There is the potential for collision of special-status and sensitive bird species or water fowl with conductors and shield wires, disturbance to nests and densities of special-status and sensitive wildlife species during clearing and constructions activities, and removal of snags from forested areas with subsequent decline in cavity-dependent wildlife populations. Impacts could also occur to big game species and their habitats from direct habitat loss and effects of human disturbance. With the exception of the potential for collisions, all effects could be mitigated to a less than significant level.

Land Use: Land use impacts include crossing prime timberland, Timberland Production Zones (TPZ), Prime Farmland or Farmland of Statewide Importance (or irrigated, cultivated farmland), and agricultural preserves. All of these impacts would remain significant following application of the proposed mitigation measures. The maximum allowable timber sale quantity on National Forests is limited to the long-term sustained yield, which is that amount of timber production that can be sustained in perpetuity. The long-term sustained yield will vary depending upon the management objectives for each forest. When timberland is removed from production, the long-term sustained yield will be reduced by an amount equal to the net annual growth on those areas. This reduction amounts to less than one-half of one percent for each national forest crossed by the COTP, which is estimated to be 700 thousand board feet (MBF) for the Shasta-Trinity National Forest and 180 MBF for the Modoc National Forest.

Visual: Although mitigation measures would reduce effects, the effects would remain significant following application of the measures. These effects include visual contrast and visibility in open landscape; visibility from Lava Beds National Monument; crossing of sensitive land uses, USFS lands managed for scenic quality retention or partial retention, and local scenic roads and highways.

Socioeconomics: Potential effects include inadequate temporary housing facilities for construction workers, loss in agricultural production, the construction of new access roads, and the location of transmission lines within areas close to residential communities. Effects from construction of new access roads and the location of transmission lines near communities may be significant and unmitigable.

Cultural Resources: Potential effects on cultural resources can be mitigated to a level of less than significant. This includes effects from siting transmission structures or access roads on archaeological or historic sites, near Native American Heritage sites, near properties of architectural significance and potential disturbance of an Achumawi sacred area.

A summary of significant and less-than significant impacts is presented in Table 2. Significant impacts have been analyzed in detail in

VOLUME 1/ SECTION 4 FOR THE ALTERNATIVES, AND IN VOLUME 2A/ SECTION 3 FOR ROUTE SEGMENTS. A FULL DISCUSSION OF MITIGATION MEASURES IS PRESENTED IN VOLUME 1/ SECTION 5.

FOR THE LOS BANOS-GATES PROJECT, PG&E HAS IDENTIFIED A PROJECT PREFERRED ALTERNATIVE THAT IS COINCIDENT WITH THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE. THE PREFERRED ROUTE HAS THE POTENTIAL FOR BOTH SHORT AND LONG-TERM IMPACTS ON THE ENVIRONMENT. MOST IMPACTS TO BIOLOGICAL RESOURCES AND CULTURAL AND PALEONTOLOGICAL RESOURCES THAT MAY OCCUR DURING THE CONSTRUCTION OF THE TRANSMISSION LINE CAN BE AVOIDED DURING THE ALIGNMENT PHASE OF THE PROJECT.

The project Los Banos-Gates Project will result in only minimal impacts to earth resources, air and water quality, and public health and safety. No adverse socioeconomic impacts are expected. The primary short-term impacts include disturbance of about 260 acres of land due to construction activities. Only a small amount of agricultural land would be permanently removed from production along the right-of-way. Operational impacts (long-term) include a maximum loss of about 150 acres of land to access roads and tower foundations and the change in aesthetic quality due to the presence of the towers in certain viewsheds. Potential impacts of the preferred route and other alternatives have been analyzed in Section 4 of Volume 2B of the Draft EIS/EIR (Environmental Consequences and Mitigation).

For the Los Banos-Gates Project, PG&E has identified a Project preferred route that is coincident with the environmentally superior alternative. The preferred route has the potential for both short- and long-term impacts on the environment. Most impacts to biological resources and cultural and paleontological resources that may occur during the construction of the transmission line can be avoided during the alignment phase of the project.

A decision to defer the Los Banos-Gates transmission line may require modification of the transmission system south of Tesla Substation. Most of these modifications are of limited scope or will occur inside existing substations and will not result in impacts to the environment. The major exception is the potential need for construction of a 70 kV wood pole line approximately 12 miles long. The environmental impact of the construction of the 70 kV pole line can be satisfactorily mitigated. No significant residual impact will remain. A discussion of the potential impacts and mitigation of the 70 kV pole line is contained in Section 1.3 of this Final EIS/EIR.

For the PNW Reinforcement Project, facilities where improvements would occur are remote and most facility expansions would occur on fee-owned land. Northwest facilities improvements would require removal of existing equipment and adding new equipment. Some additional land would be necessary to accommodate some of the new equipment and, if constructed, to accommodate the new



Marcola Substation. New rights-of-way would have to be acquired for approximately eight miles of new transmission line. Improvements are consistent with the plans of the affected counties in Washington and Oregon and the U. S. Fish and Wildlife Service has agreed with the BPA finding of no effect on threatened and endangered species. Review of cultural resources literature and consultation with the Oregon State Historic Preservation Office indicate that there are no known important cultural resources sites or any Native American religious practices that would be adversely affected.

No significant impacts to forestry, vegetation, prime farmland, water quality, recreational facilities, earth resources or ambient noise levels are anticipated. Waste from the project would be recycled or disposed of at local landfills in accordance with Environmental Protection Agency regulations and practices, the Resource Conservation and Recovery Act, the Toxic Substances Control Act and Oregon's hazardous waste regulations. New equipment will not contain PCBs, and PCB-containing compensating capacitor banks that may be replaced at existing facilities will be disposed of in accordance with all applicable Department of Transportation and other local, state, and federal statutes governing the use, shipment, and destruction of this material. The PNW Reinforcement Project is discussed in more detail in this volume and Volume 2C of the Draft EIS/EIR.

Appendix D of Volume 2A Section 1.5.4 of the Final EIS/EIR contains an updated summary of the information and analyses that will appear in the Final IDU EIS prepared by Bonneville Power Administration. Section 3.10 of Appendix D Section 7 of the summary discusses the potential environmental impacts associated with increases in Intertie capacity and use. These include potential impacts to sales levels, generation mixes, new resource development, use of land and non-renewable resources, air quality, water quality and consumption, resident and anadromous fish, wildlife, vegetation, cultural resources, irrigation, hydroelectric system operations, and electricity rates.

#### AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The areas of controversy and issues to be resolved that are specifically addressed in this Draft EIS/EIR are:

- 1/ The impacts of transmission lines on forest and agricultural lands.
- 2/ Transmission system reliability and its effects on the location of the cooling alternatives.
- 3/ The visual impacts of transmission lines.
- 4/ The benefits of increased transmission capacity and power transfers.

Four areas of controversy and issues were identified in the Draft EIS/EIR. Many of the route options presented in the Supplement to the Draft EIS/EIR were developed in response to these areas of controversy. They have been resolved as follows:

CALENDAR PAGE 96.32  
MINUTE PAGE 1015

1. A summary of the impacts of transmission lines on forest and agricultural lands. There was concern for a route to be chosen that had the fewest impacts on timberland and agricultural land. These lands support a portion of the economic activity of the communities in the study area for the projects. Issues raised regarding timberland included the removal of productive timberland due to the restrictions on tree height under the conductors of the transmission line. Issues raised regarding agricultural land included the difficulty of farming around any transmission towers placed in actively farmed fields, and the difficulty of applying agricultural materials by aircraft on fields with towers and conductors.

#### Forest Lands:

The preferred route was selected in part because of its fewer overall impacts on forestlands than the other alternate routes. The route options in the Supplement to the Draft EIS/EIR help to reduce impacts. Route Segment N-10M2 is located on less productive forest lands than N-10 Alt.5.

Additional mitigation measures have been adopted such as: a vegetation management plan; off-site reforestation of areas of prime timberland that are currently supporting brush or non-commercial hardwoods; and reducing the potential for insect and disease buildups by coordinating the timing and method of slash disposal with land management agencies.

#### Agricultural Lands:

The preferred route was selected in part because it offers the opportunity to avoid most agricultural impacts. The route options in the Supplement to the Draft EIS/EIR help to reduce some of the impacts to less than significant levels. The Loveness-Graham route segment in the northern section avoids agricultural land and pivot irrigation systems. The South 1 and South 2 route segments cross less irrigated cropland and the South 2 segment bypasses two planned wind farm developments.

In addition, COTP staff has identified a tentative centerline in the Tulalake area which would cross less than half a mile of irrigated cropland. It would not be necessary to place any towers on irrigated farmland in the Tulalake area. However, the COTP will cross more than 20 miles of irrigated agricultural land in the Sacramento River Delta area. Western's 230 kV line which will be the upgrade portion of the COTP currently crosses approximately 70 miles of irrigated agricultural land in the Central Valley.

The implementation of adopted mitigation measures will reduce impacts to agricultural lands. These include: rehabilitating disturbed soil around tower bases; locating towers adjacent to field boundaries where possible; minimize creating obstacles for aerial applicators; and utilizing structure

design to minimize the land removed from production by the tower bases.

2. Transmission system reliability and its effects on the location of the routing alternatives. There was concern that the need for reliability for the COTP was great enough to make some routing suggestions infeasible. One of these suggestions, that of abutting the existing Intertie, has the environmental advantages of concentrating development and avoiding the creation of new corridors where corridors already exist.

The Forest Service has stated their belief that reliance on centerline separation, without consideration for fire suppression, would not significantly reduce risks of an outage due to forest fire. The Forest Service also stated their belief that locating a new line closer to the existing Intertie than route N-10 Alt.5 offers more protection from forest fires than placing it farther away in more dense timber stands. This may be true if forest fires were the only concern related to the reliability issue and fires such as the 1987 northern California events could be minimized through fuels management schemes. However, separation is the only effective means to reduce the probability of other types of common-mode outages such as those that are either human-caused or weather-related. Based on consultation with the Forest Service, a large portion of route segment N-10M was reevaluated and is now a part of the preferred route. This alternative route segment, which provides some degree of separation from the existing AC Intertie, is feasible only if a fuels management and fire response plan are implemented that will sufficiently reduce the fuel loads between the existing Intertie and the final preferred route and eliminate the potential for a forest fire-caused simultaneous outage of all three 500 kV transmission lines.

3. The visual impacts of transmission lines. There was concern that the newly constructed transmission towers and lines would be unsightly and would visually intrude on areas that are currently developed.

The lead agencies and Project Participants recognize that transmission lines are visible and in most cases such visibility is not desirable. The routing guidelines emphasized minimizing visual impacts through careful siting. In addition, the use of nonspecular (non-reflective) conductor and darkened tower steel can reduce visual impacts in some instances. These mitigation measures have been adopted. Selective clearing of the right-of-way and vegetative screening will also reduce visual impacts in some landscapes.

CALENDAR PAGE 96.34  
MINUTE PAGE 1017

VOL. 1 FINAL

4. The benefits of increased transmission capacity and power transfers. There was concern that the COTP would benefit only a few utilities and their customers, at the expense of many. There was also concern that the Pacific Northwest would be negatively affected by the sale of more power outside the region.

This project will benefit approximately ninety-eight percent of the utility customers in California. The project will also benefit utility customers in the Pacific Northwest. California utilities are major Bonneville Power Administration customers. This project provides another pathway for BPA and Northwest utilities to market surplus power in California. This will reduce the need for electric rate increases in the Northwest in addition to its benefits to California.

#### PUBLIC AND AGENCY CONSULTATION

Government agencies and the public have been encouraged to participate in the planning and environmental review process for the three projects. Since November 1984, numerous activities involving the public have produced a significant amount of public comments and data. Volume 1, Sections 7.1, 7.2, and 7.3 of the Draft EIS/EIR and Volume 1, Section 1.1.7 of this Final EIS/EIR summarize the public involvement programs. Table 1.1.7-7 in Section 1.1.7 of this document identifies the CEQA and NEPA public notification dates for the COTP and Los Banos-Gates Project.

The public involvement activities for the COTP were organized around scoping meetings, corridor workshops, and route workshops, respectively. As part of the public involvement program, newsletters have been distributed approximately every two to three ~~one~~ months, with updates made to the mailing list on a continuing basis. Numerous additional meetings have been conducted on a less formal basis throughout the process.

Thirty-four agency and public scoping meetings were held in California and Oregon from May 13 to May 23, 1985. These meetings were held to identify the issues, concerns, potential mitigation measures, and alternatives to be considered in the planning and environmental analyses of the COTP. The significant issues are addressed in the environmental consequences section of the EIS/EIR (Volume 1, Section 4.1 of the Draft EIS/EIR).

Information provided at the scoping meetings was used to help identify the least environmentally sensitive corridors (2-5 miles wide) for the COTP. Following the scoping meetings, public and agency workshops were held in July 1985 to review and obtain comments on these corridors. The information provided at the workshops was used to help develop alternative routes (1,500 feet wide) within the corridors. Volume 2A, Phase I Report Summary of the Draft EIS/EIR describes this process.

Another series of COTP agency public workshops followed in November and December 1985 to discuss preliminary alternative routes. Information provided at the workshops was used to revise preliminary routes and to help ~~to~~ identify the environmentally preferred alternative. Additional public involvement meetings were held in three communities in southern Oregon in January 1986 and nine communities in California and Oregon in May and June 1986. Other public meetings have been held in ~~May/June/~~ August, September, and November 1986. The purpose of these meetings was to describe and obtain additional data on route alternatives still under study.

Comments received from the COTP meetings and workshops in Oregon and California and the technical information gained from meetings with agencies have been integrated into the analyses ~~in this Draft EIS/EIR~~. Public and agency comments on the ~~Final Draft EIS/EIR~~ ~~are~~ are included in the Final EIS/EIR.

A Supplement to the Draft EIS/EIR was released in June 1987. Three public hearings were held in Burney, Newell, and Tracy, in early August 1987. The public comment period for the Supplement ended on August 17, 1987. Comments received during the comment period and from the hearings are contained in Volumes 2 and 3 of this Final EIS/EIR.

The public involvement activities for the Los Banos-Gates Transmission Project were organized around two series of public meetings: scoping meetings and route workshops. In addition to meeting-related activities, other public/agency information techniques were used on an ongoing basis. (See Volume 2B, Section 9, and Volume 3B, Appendix C of the Draft EIS/EIR for further information on public and agency consultation for the Los Banos-Gates Project.)

Three Los Banos-Gates scoping and corridor evaluation meetings were held on February 25 and 27, 1986, in Fresno, Coalinga, and Los Banos, California. The purposes of the meeting were to provide resource management agencies and the public with an overview of the Los Banos-Gates Project, present the preliminary corridor alternatives, receive comments regarding interests and concerns about the project that should be considered during preparation of the EIS/EIR, and fulfill scoping requirements of NEPA and CEQA.

Three route selection workshops were held in Fresno, Coalinga, and Los Banos from May 20 to 22, 1986. These provided a forum for public and agency review of the Los Banos-Gates preliminary route alternatives and the criteria used to select them. Workshop attendees participated in small group discussions of the route selection factors and the preliminary route alternatives.

Los Banos-Gates Project newsletters were issued approximately one month prior to each series of meetings and a final newsletter was

issued following the selection of a preferred route. Copies were mailed to all persons on the project mailing list, made available at PGandE offices in the project area, and used as handouts at public meetings.

Since the public distribution of the Draft EIS/EIR, PGandE has continued to respond to ongoing informational requests from agencies and the general public. In addition, PGandE representatives attended hearings on the Draft EIS/EIR in Los Banos and Coalinga on January 14 and 15, 1987. These hearings were officiated by TANC and Western. At the hearings, TANC, Western, and PGandE representatives provided answers to questions posed by individuals and agencies during the informal discussion session.

Public involvement activities for the Pacific Northwest Reinforcement Project included contacts with agencies, information bulletins, and discussion of the facilities at scoping meetings. BPA and other PNW utilities were represented at scoping and other meetings for the COTP held in several Oregon communities including Ashland, Medford, Keno, Malin, Klamath Falls, and Portland. These entities were also represented at the public hearings held by TANC and Western to receive comments on the Draft EIS/EIR and Supplement to the Draft EIS/EIR.

The public will continue to be involved in the projects through review and comment on this EIS/EIR, information newsletters, public hearings, and lead agency and proponent responses to public inquiries and concerns.

An active public involvement program will continue through the distribution of newsletters, and lead agency and proponent responses to public inquiries and concerns.

The lead agencies continue to meet with landowners, agencies, and interested individuals with regard to their concerns on the centerline alignment and mitigation of impacts.

#### SUMMARY OF MAJOR COMMENTS AND RESPONSES

This section is new and is not underlined.

##### 1. Property Values

**Comment:** Visual and Aesthetic Impacts - Property owners expressed concern that the visual impact of the proposed transmission line will cause a decrease in the aesthetic quality of property with a consequent decrease in the property's monetary value. Examples of this comment can be found at L-184 A and L-244 A in Volume 2A, and T-82 C in Volume 3 of this document.

**Response:** Visual and Aesthetic Impacts - We recognize there is a perception that visual impacts could affect existing and future property values. This is addressed in Section 3.8 of Volume 2A of the Draft EIS/EIR, and in the responses to L-184 A, L-244 A, and T-82 C. Various studies on these impacts have been conducted; some have found no decrease in value attributable to transmission lines while others have shown the market value of adjacent property to be depressed.

**Comment:** Compensation - Property owners are concerned about just compensation for loss of property value or other adverse impacts to property (e.g., existing or future uses) by the construction, operation, and maintenance of the proposed transmission line. Examples of this comment can be found at L-176 D in Volume 2A, L-330 U14 in Volume 2B, and T-162 B in Volume 3 of this document.

**Response:** Compensation - Landowners are compensated for an easement on or purchase of their land including damages to their operations or to other parts of their land. This is addressed in Section 3.6 of Volume 2A of the Draft EIS/EIR, and in the responses to L-176 D, L-330 U14, and T-162 B. Issues concerning the amount to be paid must be resolved through land acquisition proceedings.

## 2. Agricultural Impacts

**Comment:** Impact to Prime Farmland and Development of Agricultural Lands - Farmers are concerned about the amount of land that would be removed from production as a result of tower placement along the preferred route. Construction of transmission lines is also seen as a limiting factor to the future development of agricultural land. Examples of this comment can be found at L-200 A in Volume 2A, L-366 D in Volume 2B, and T-175 D in Volume 3 of this document.

**Response:** Impact to Prime Farmland - Physical impacts to prime and/or unique farmland and loss of tillable land are described in Section 3.6 of Volume 2A of the Draft EIS/EIR. A study centerline shows that the new construction portions of the COTP preferred route would cross approximately 25 miles of irrigated cropland. Approximately 107 new towers would be located on irrigated cropland. Approximately 70 miles of the upgrade portion of the COTP is currently and would continue to be located on irrigated cropland. This and related comments are also addressed in the responses to L-200 A, L-366 D, and T-175 D.

**Comment:** Impact to Agricultural Crops and Practices - Farmers and aerial applicators are concerned about the impacts of transmission lines and towers on crop production and farming-related practices such as crop losses, operation of irrigation and drainage systems, and harvesting. Examples of this comment can be found at L-204 E and L-243 B in

CALENDAR PAGE 96.38  
MINUTE PAGE 1 FINAL 021

Volume 2A, L-330 W15 in Volume 2B, and T-6 D and T-175 H in Volume 3 of this document.

**Response:** Impact to Agricultural Crops and Practices - Crop losses, including yield reduction and interference with or modification of agricultural practices are described in Section 3.6 of Volume 2A of the Draft EIS/EIR. Monetary impacts of crop losses are also addressed. This loss would be compensated by right-of-way settlements.

Soil compaction was identified as one factor that may contribute to yield reduction on tilled fields. Soil compaction could result from construction activities and from maneuvering farm equipment around transmission towers on tilled fields. Subsoiling and disking are adopted mitigation measures for areas where soil compaction would occur because of construction activities.

The impact of transmission towers on harvesting operations consists of the additional time and money expended on maneuvering a harvester around a tower. We recognize that there may be additional time expended on maneuvering harvesters around towers, however, we do not believe this to be a significant environmental impact, considering that economic damages are included in the land acquisition process. Responses to L-204 E, L-243 B, L-330 W15, T-6 D, and T-175 H provide further information.

**Comment:** Aerial Application - Farmers and aerial applicators are concerned that transmission lines and towers are obstacles and hazards, particularly at night, to aircraft performing aerial application of pesticides, fungicides, defoliants, seed, or fertilizer. Associated concerns are inadequate coverage of fields during aerial application around transmission line and towers, and the additional cost incurred by avoiding these obstacles. Examples of this comment can be found at L-14 A in Volume 2A and T-18 B in Volume 3 of this document.

**Response:** Aerial Application - We agree that in some cases transmission lines and towers present difficulties to aerial applicators. The response to L-14 A and Section 3.6 of Volume 2A of the Draft EIS/EIR describe some of the possible hazards. We will continue to review methods to increase visibility of conductors and towers.

Aerial applicators familiarize themselves with the terrain and potential hazards where they are scheduled to operate to allow adequate margins of safety between their aircraft and transmission lines and towers. Barring the presence of other obstacles such as telephone poles, distribution lines, tree, etc., and given adequate visibility, aerial applicators typically do fly beneath high voltage transmission lines; they also make cleanup passes around transmission lines in



order to optimize coverage. Aerial applicators do not usually charge farmers for additional time, labor, or fuel costs in the Sacramento Delta area. Farmers are typically charged for the amount of pesticide materials used whether for performing cleanup passes or for spraying fields.

The effectiveness of aerial application coverage depends upon the orientation of the transmission line with respect to field rows or the direction the aerial applicator flies past with respect to the transmission line. The two most common directions are a flight pass perpendicular to the transmission line or parallel to the transmission line. Inadequate coverage can result when aerial applicators need to rise from application altitude in order to gain clearance over a transmission line in an adjacent field. This condition is usually corrected by performing a pass perpendicular to the normal flight direction.

### 3. Bird Collision Hazards

**Comment:** Many comments expressed concern about the potential hazard the transmission line would pose to raptors, waterfowl, and other sensitive bird species in the Butte Valley area, Tulalake/Newell area, along the Pit River, and in the Sacramento Delta area. Examples of this comment can be found at L-117 C and L-157 I in Volume 2A and L-333 Y in Volume 2B of this document.

**Response:** Recent studies conducted on avian mortality in areas of transmission lines do not indicate there are significant biological impacts to most species. Impacts to waterfowl and raptors may be significant in local areas. These are addressed in Section 3.5 of Volume 2A of the Draft EIS/EIR and in the responses to L-117 C, L-157 I, and L-333 Y. The visibility of overhead shield wires is a factor in bird collisions. Most collisions occur when the birds move to avoid the conductor and subsequently do not see the smaller shield wire. Collisions can also occur when visibility is obscured (e.g., night, foul weather). Movements of sensitive raptors up and down the Pit and Sacramento Rivers occur as a result of local flights to and from feeding areas, roosting areas, and nesting sites. Movements of waterfowl and other birds in the Sacramento Delta occur as a result of local migration. Bisecting routes of such movement with overhead transmission lines may result in mortality or injury to birds in flight. Delta waterfowl collision impacts would be significant and difficult to mitigate. In other critical areas, it is possible to mark shield wires to make them more visible. Wildlife management agencies will be consulted concerning the need for such marking.

CALENDAR PAGE	96.40
MINUTE PAGE	1023

VOL. 1 FINAL

#### 4. Use of Public vs. Private Land

**Comment:** Many comments suggest routing the transmission line across public rather than private land. Examples include L-330 M in Volume 2B and T-38 D in Volume 3 of this document.

**Response:** In the Northern Section, approximately 50 percent of the environmentally preferred and Project preferred route is located on public land. The environmental studies and analysis were based on resources and land uses and not on land ownership or jurisdiction. However, routing guidelines for the COTP did emphasize the use of public land where resource impacts are similar and it was practical and feasible to do so. The location of the preferred route reflects the use of public land where resource values were similar. This is described in the responses to L-330 M and T-38 D.

#### 5. Forest Land Impacts

**Comment:** Many comments expressed concern about the routing of the Project over prime timberlands or Timber Production Zones (TPZs). Examples of this comment can be found at L-159 L, L-179 C, and L-295 N in Volume 2A, and SL-121 A in Volume 2B of this document.

**Response:** The lead agencies and Project Participants recognize that timberland areas will be removed from production by the right-of-way. Section 1.1.4 of Volume 1 of this document shows the estimated impact. We have attempted to balance reliability considerations with the forestland impacts and believe an equitable compromise has been achieved with the Project preferred route. By implementing a fuels management and fire response plan to be developed in conjunction with the Forest Service between the existing Intertie and the preferred route, transmission system reliability should not be compromised. In addition, mitigation measures that have been adopted, such as reforestation of prime timberland areas currently supporting brush or non-commercial hardwoods where consultation with the California Department of Forestry and USDA Forest Service indicates the need, and selective clearing methods along the right-of-way, should help to reduce the impacts to forestlands. Section 1.1.5 and the responses to L-295 provide further information on mitigation to be implemented.

#### 6. Transmission System Reliability and Separation

**Comment:** Many commentators questioned the validity of the reliability guidelines established by the Project Participants with regard to protection of the western U. S. interconnected bulk transmission system. Commentors also questioned the need for 5-mile separation in high fire danger areas and 2,000 feet in other areas as a matter of policy and

requested more information concerning the basis for that particular criterion. Examples of this comment can be found at L-3 P, L-306 KK, and L-309 YY in Volume 2A of this document.

**Response:** Western Systems Coordinating Council (WSCC) reliability criteria simply state that utilities shall not do anything that will impact a neighboring utility. The WSCC was founded by the Western utilities after the 1965 blackout in the Northeast as an effort to prevent similar occurrences from happening in the West. It is the firm belief of the utility industry in the WSCC region based on years of operating experience of the interconnected transmission systems, that the location of the third AC Intertie adjacent (or in proximity) to the two existing Intertie lines will severely decrease the reliability of the interconnected transmission system in the western United States. The efforts of the WSCC since the Northwest blackout in 1965 to prevent western wide outages would be negated if the three lines were to be located such that there was no separation. At present, the two existing Intertie lines are the major north-south pathway for electric transmission between the Pacific Northwest and California. Sufficient technology does not exist at this time to prevent a simultaneous three-line outage should all three 500 kV transmission lines be located immediately adjacent to one another; some degree of separation is required. Common-mode outages for 500 kV systems can be human-caused or weather- or fire-related. In forested areas, separation is of concern because of the chance of a forest fire causing a simultaneous outage of all three transmission lines. Separation is important because it increases the probability that electricity could flow down one of the other transmission paths if either the two existing Intertie lines were to become inoperable or if the COTP were out of service. If all three lines were placed adjacent to one another, where a single incident could result in an outage of all three, the reliability of the entire system is reduced. Further discussion of reliability and separation is presented in the responses to L-3 P, L-306 KK, and L-309 YY, and in Appendix A of Volume 3A of the Draft EIS/EIR.

#### 7. Project Economics and Benefits

**Comment:** Many comments expressed concern about the consistency of the COTP economic analysis with the California Energy Commission's Forecasts. Examples of this comment can be found at L-306 EE, L-306 UU, L-306 ZZ, and L-307 X in Volume 2A of this document.

**Response:** The forecasted price of Pacific Northwest energy for sale to California in the 1986 Electricity Report falls within the range of the sensitivity cases evaluated in the economic analyses supporting the Draft EIS/EIR for the

COTP. The forecast of statewide demand for electricity presented in the 1986 Electricity Report falls within the range of demand forecasts used in the sensitivity cases evaluated in the Draft EIS/EIR. This is further discussed in Section 1.1 of this document and in the responses to L-306 EE, L-306 UU, L-306 ZZ, and L-307 X.

~~Comment:~~ Many comments expressed concern about the viability of the COTP if there is uncertainty regarding the long-term availability of firm surplus power in the Pacific Northwest. Examples of this comment can be found at L-3 T in Volume 2A, L-320 E in Volume 2B, and T-67 B and T-81 J in Volume 3.

Response: Although the current firm power surplus in the Northwest and the possibility that it may be declining demonstrate the prudence of building the COTP on the planned schedule, the benefits of the COTP do not depend on continuation of the current firm power surplus in the Northwest. The COTP will continue to provide firm capacity and nonfirm energy to California even if the firm surpluses in the Northwest cease to exist. These benefits are available (1) from power that is available when river flows are better than critical dry conditions used for planning, (2) due to the fact that California has its highest power demands in the summer whereas the Northwest has its highest demands in the winter, and (3) due to the fact that generating resources added in the Northwest to meet energy load growth will provide ability to meet peak demands in excess of the peak loads in the Northwest. No resources need be built in the Northwest for the purpose of making power available to sell to California. This is also addressed in the responses to L-3 T, L-320 E, and T-67 B, and in Appendix B of Volume 3A of the Draft EIS/EIR.

~~Comment:~~ Comments were received that Northwest prices should be at a higher percentage of the cost of fuel burned in a combustion turbine. Examples of this comment can be found at L-306 WW and L-306 BI in Volume 2A of this document.

Response: The power delivered over the COTP is expected to reduce operation of oil/gas-fired steam plants which have a substantially more efficient operation (lower heat rate) than a combustion turbine. The cost of 60 to 75 percent of the cost of fuel burned in a combustion turbine is equal to approximately 75 to 90 percent of the cost (in cents per kilowatt hour) of gas burned in a gas-fired steam or combined cycle plant.

The Pacific Northwest utilities' price for power sales to California must be based on the value of such purchases to the California utilities. The price of Pacific Northwest energy at prices equal to 75 to 90 percent of the avoided cost of gas steam plant operation (equal to 60 to 70 percent

of combustion turbine fuel cost/kWh) is higher than the Northwest's costs to generate such energy and is below California's cost to generate from oil/gas-fired plants; the pricing assumptions for Pacific Northwest energy used in the economic analysis are reasonable. This is further addressed in the responses to L-306 WW and L-306 B1, and Section 1.1 of Volume 1 of this document.

## 8. Health Effects

**Comment:** Many comments were received concerning the electromagnetic fields of transmission lines and the potential for adverse impacts to humans and animals. Examples of this comment can be found at L-309 E2 in Volume 2A, and L-330 F3, L-330 F13, and SL-51 A in Volume 2B of this document.

**Response:** The New York State Power Lines Project is the most recent study completed on the subject of health effects from electromagnetic fields. The following information was released by the New York State Department of Health: "The New York State Power Lines Project, designed to investigate possible health impacts of high voltage transmission lines, has identified 'several areas of potential concern for public health' requiring further study. Most research showed no health effects of concern."

Additional health studies are referenced in Section 3.10 of the Phase III Report in Volume 2A of the Draft EIS/EIR, and the New York State Power Lines Project is further discussed in Section 1.2.3 of this Final EIS/EIR. Additional discussion of this comment is presented in the responses to L-309 E2, L-330 F3, L-330 F13, and SL-51 A.

## 9. Mitigation

**Comment:** Many commentators expressed concern over the lack of specificity in the mitigation measures and wanted a fuller explanation of the monitoring and compliance mechanisms. Examples of this comment can be found at L-295 C in Volume 2A, L-362 O and L-364 BB in Volume 2B, and T-81 I in Volume 3.

**Response:** The mitigation measures have been revised to be more specific. Many of the site-specific details of the implementation of the mitigation cannot be developed until tower locations and access road designs are completed. Site specific engineering design cannot take place before tower locations are identified. The lead agencies have adopted, in this Final EIS/EIR, a framework of mitigation measures that will be augmented by a site-specific compliance monitoring plan developed through consultation with the state and federal agencies that will be involved in monitoring its implementation. The entire section on mitigation for the

COTP is reproduced in Section 1.1.5 of this Final EIS/EIR. Further discussion of mitigation, specifically, monitoring and compliance is also presented in responses to L-295 C, L-364 BB, and T-81 I.

CALENDAR PAGE	96.45
MINUTE PAGE	1028

TABLE 1A  
SUMMARY OF ROUTING ALTERNATIVES: COTF

	North			Upgrade <sup>(a)</sup>		South			
	A	B	C	D <sup>(a)</sup>	Grizzly Peak- Redding <sup>(a)</sup>	A	B <sup>(a)</sup>	C	
<b>1. Project Requirements</b>									
Length (miles)	73.94	66.28	68.87	79.64	68.93	169.74	31.38	34.30	34.60
New R.O.W. required (acres)	1776	1604	1667	1929	1464	0	728	800	806
New access roads (miles)	96.77	80.45	93.56	109.87	74.70	0	0	0	0
Clearing:									
a. Access roads (acres)	234.60	195.02	226.80	266.33	181.05	0	0	0	0
b. Right-of-way (acres)	891.55	715.52	846.99	694.53	834.18	0	0	0	0
Estimated construct cost <sup>(b)</sup>	\$36,619	\$30,259	\$33,507	\$34,932	\$32,672	\$5,246	\$20,149	\$24,898	\$26,031
<b>2. Earth Resources</b>									
SOIL LOSS TONS/ACRE/YEAR	11026/96	779/78	888/78			0	0	0	0
Percent of area over which soil loss exceeds tolerances	90	44	64	60	84	0	0	0	0
Average exceedance (tons/acre/year)	3.6	1.9	2.1	2.0	1.5	0	0	0	0
<b>3. Vegetation</b>									
Tall-growing vegetation removed, forestland (acres)	1,217.92	947.83	1,147.51	884.94	983.76	0	0	0	0
Permanent clearing of roads and tower sites:									
a. Rangeland	33.38	1.52	38.28	92.97	7.67	0	0.64	0.64	0.64

(a) Project preferred routes as revised since publication of the Draft EIS/EIR. See Table 1B in this Summary for a comparison between the revised and the previous Project preferred routes. No changes have occurred to the location of the upgrade section since the Draft EIS/EIR.  
All monetary values are in thousands of dollars.

CALENDAR PAGE  
MINUTE PAGE FINAL 029

(D) All monetary values are in thousands of dollars.

TABLE 1A (CONTINUED)

	North					Upgrade (a)		South	
	A	B	C	D (a)	Grizzly Peak- Redding (a)	A	B (a)	C	
b. Forest	206.64	144.98	187.59	146.03	177.62	0	0	0	
Structures in wetlands or floodplains	2	2	4	0	4	5	104	112	108
<b>4. Wildlife</b>									
Length of high collision potential for birds (miles)	3.00	4.50	4.00	.50	5.00	0	17.10	24.25	21.40
Miles of deer, elk range crossed	30.26	23.00	35.80	45.80	2.00	0	0	0	0
Miles of raptor nesting area crossed	5.60	3.00	3.60	2.60	3.50	0	0	0	0
<b>5. Land Use and Land Status</b>									
Number of dwellings within R.O.W. (200 feet)	1	1	0	2	7	0	7	1	11
Number of dwellings within 1,000 feet of reference centerline	9	2	4	5	53	175	79	77	85
Dwellings per mile within 1,000 feet of centerline	0.1	0.0	0.0	0.1	0.8	1.0	2.5	2.2	2.5
Forest Service administered land crossed (acres)	741.82	931.15	657.69	1109.96	301.17	0	0	0	0
Miles crossed of prime timber on Forest Service lands:									
a. Prime timber	14.85	12.97	12.67	9.66	4.88	0	0	0	0
b. Nonprime timber	6.78	11.18	4.18	19.29	7.61	0	0	0	0

(a) Project preferred route.

CALENDAR PAGE 96:47  
MINUTE PAGE 1030



TABLE 12 (CONTINUED)

	North					Upgrade (a)		South	
	A	B	C	D (a)	Grizzly Peak- Redding (a)	A	B (a)	C	
Total prime timber crossed (in miles)	32.46	29.13	28.63	17.95	19.55	0	0	0	0
Miles crossed of timber production zones (c)	10.00	10.50	10.50	11.10	18.79	0	0	0	0
Miles crossed of agricultural preserve lands	14.83	4.10	0.96	0	5.80	76.70	6.85	14.90	1.33
Irrigated cropland (miles)	0.23	2.51	1.12	0.53	2.62	68.92	19.46	23.17	24.10
Total agricultural acreage removed	2.12	2.60	1.55	3.36	1.58	9.26	4.01	11.73	4.10
<b>6. Visual Resources</b>									
Number of crossings of recreational travel routes:									
a. Scenic highways (state/ county)	3	3	3	3	3	0	6	16	6
b. Wild and scenic rivers (existing/eligible)	1	1	2	0	1	0	0	0	0
c. National trails	0	0	0	0	1	0	1	0	1
Dwelling units in the foreground (1.2 miles)	84	50	13	65	1077	1377	591	537	458
<b>7. Socioeconomics</b>									
Transmission line payroll (b)	\$5,193	\$4,593	\$4,772	\$5,803	\$4,777	\$6,197	\$1,146	\$1,926	\$1,205
Non-local workers expenditures (b)	\$1,308	\$1,157	\$1,202	\$1,462	\$1,204	\$1,388	\$256	\$463	\$207
Average number of dwellings per route mile (within 1.2 miles)	1.12	0.75	0.19	0.82	15.62	8.20	18.83	15.66	13.24

a) Project preferred route.

b) All monetary values are in thousands of dollars.

c) Significance is based on crossing 40 acres or more of prime timberland.

CALENDAR PAGE  
MINUTE PAGE

96.48  
1131

TABLE 1A (CONTINUED)

	North				Grizzly Peak- Redding <sup>(a)</sup>	Upgrade <sup>(a)</sup>		South	
	A	B	C	D <sup>(a)</sup>		A	B <sup>(a)</sup>	C	
New miles of access road per route mile	1.29	1.25	1.37	1.38	1.08	0	0	0	0
Average short-term agricultural losses per route mile <sup>(b)</sup>	\$0.02	\$0.15	\$0.1	\$0.05	\$0.06	\$1.3	\$1.9	\$1.69	\$1.52
Average long-term agricultural losses per route mile <sup>(b)</sup>	\$0.01	\$0.03	\$0.02	\$0.01	\$0.03	\$0.3	\$0.53	\$0.62	\$0.42
Total lost timber jobs	3.60	3.36	2.98	2.66	2.63	0	0	0	0
<b>B. Cultural Resources</b>									
Prehistoric site sensitivity	2.4	2.8	2.6	3.0	2.6	2.0	3.4	3.50	3.3
Native American sites within 1,000 feet of line	2	0	0	1	1	0	0	0	0
Native American sites within 3.4 miles of line	20	16	16	26	132	2	7	6	7

31

CALENDAR PAGE 96.49  
 MINUTE PAGE 1037  
 VOL. 1 FINAL

(a) Project preferred route.  
 (b) Monetary values are in thousands of dollars.

**TAB 2**  
**COMPARISON BETWEEN THE ORIGINAL AND (a)**  
**REVISED COTP PREFERRED ROUTES**

	North D.		Grizzly Peak-Redding		South B	
	Original	Revised	Original	Revised	Original	Revised
<b>1. COTP Requirements</b>						
Length (miles)	74.20	79.64	70.84	68.93	32.93	33.40
New R.O.W. required (acres)	1797	1929	1507	1464	765	777
New access roads (miles)	97.78	109.87	80.38	74.70	0	0
<b>Clearing:</b>						
a. Access roads (acres)	237.04	266.33	194.86	181.05	0	0
b. Right-of-way (acres)	742.44	694.53	826.27	834.18	0	0
Estimated construct cost (b)	\$32,147	\$34,932	\$36,690	\$32,672	\$23,244	\$25,419
<b>2. Earth Resources</b>						
"Percent of area over which soil loss exceeds tolerances	88	40	82	84	0	0
Average exceedance (tons/acre/year)	1.6	2.0	1.3	1.5	0	0
<b>3. Vegetation</b>						
Tall-growing vegetation removed, forestland (acres)	979.06	884.94	1,118.38	983.76	0	0
Permanent clearing of roads and tower sites (acres):						

(a) Project preferred routes as revised since publication of the Draft EIS/EIR. No changes have occurred to the location of the upgrade section since the Draft EIS/EIR.

(b) All monetary values are in thousands of dollars.

to the location of the upgrade section since the Draft EIS/EIR.  
 All monetary values are in thousands of dollars.

TABLE 1B (CONTINUED)

	North D		Grizzly Peak-Redding		Sopch B	
	Original	Revised	Original	Revised	Original	Revised
a. Rangeland	74.43	92.97	4.51	7.67	0.64	0.64
b. Forest	164.54	146.03	196.09	177.62	0	0
Structures in wetlands or floodplains	0	0	4	4	95	92
<b>6. Wildlife</b>						
Length of high collision potential for birds (miles)	0.50	0.50	5.00	5.00	26.20	23.35
Miles of deer, elk range crossed	44.80	45.80	4.00	2.00	0	0
Miles of raptor nesting area crossed	2.60	2.60	2.50	3.50	0	0
<b>5. Land Use and Land Status</b>						
Number of dwellings within R.O.W. (200 feet)	4	2	6	7	6	0
Number of dwellings within 1,000 feet of reference centerline	9	5	54	53	73	73
Dwellings per mile within 1,000 feet of centerline	0.4	0.1	0.9	0.8	1.8	2.2
Forest Service administered land crossed (acres)	1,333.82	1,109.96	354.41	301.17	0	0
Miles crossed of prime timber on Forest Service lands:						
a. Prime timber	15.41	9.66	6.23	4.88	0	0
b. Nonprime timber	20.64	19.29	9.21	7.61	0	0

33

CALENDAR PAGE 96.51  
 MINUTE PAGE FINAL 1034

TABLE 1B (CONTINUED)

	North D		Grizzly Peak-Redding		South B	
	Original	Revised	Original	Revised	Original	Revised
Total prime timber crossed (in miles)	20.64	17.85	22.42	19.55	0	0
Miles crossed of timber production zones <sup>(c)</sup>	1.00	11.10	21.25	18.79	0	0
Miles crossed of agricultural preserve lands	1.00	0	5.00	5.00	13.55	13.53
Irrigated cropland (miles)	1.37	0.53	2.62	2.62	21.46	21.77
Total agricultural acreage removed	3.36	3.36	1.58	1.58	4.00	4.48
<b>6. Visual Resources</b>						
Number of crossings of recreational travel routes:						
a. Scenic highways (state/county)	2	3	3	3	6	6
b. Wild and scenic rivers (existing/eligible)	0	0	1	1	0	0
c. National trails	0	0	1	1	0	0
Dwelling units in the foreground (1.2 miles)	74	65	1068	1077	536	513
<b>7. Socioeconomics</b>						
Transmission line payroll <sup>(b)</sup>	\$5,147	\$5,803	\$4,909	\$4,777	\$1,144	\$1,817
Non-local workers expenditures <sup>(b)</sup>	\$1,297	\$1,462	\$1,237	\$1,204	\$256	\$438

(c) Significance is based on crossing 40 acres or more of prime timberland.

TABLE 1B (CONTINUED)

	North D		Grizzly Peak-Redding		South B	
	Original	Revised	Original	Revised	Original	Revised
Average number of dwellings per route mile (within 1.2 miles)	1.83	0.82	25.88	15.62	12.72	15.36
New miles of access road per route mile	1.16	1.38	1.21	1.08	0	0
Average short-term agricultural losses per route mile <sup>(b)</sup>	\$0.84	\$0.05	\$0.06	\$0.06	\$1.41	\$1.56
Average long-term agricultural losses per route mile <sup>(b)</sup>	\$0.03	\$0.01	\$0.03	\$0.03	\$0.43	\$0.59
Total lost timber jobs	2.93	2.66	2.79	2.63	0	0
<b>8. Cultural Resources</b>						
Prehistoric site sensitivity	3.6	3.0	2.1	2.6	3.6	3.5
Native American sites within 1,000 feet of line	1	1	5	1	0	0
Native American sites within 3.4 miles of line	17	26	132	132	7	6

35

CALENDAR PAGE 96.53  
 MINUTE PAGE 1 FINAL 103.6

0. 12. 1976

TABLE 1C  
SUMMARY OF ROUTING ALTERNATIVES, LOS BANOS-CAYES

	Dist											Total	As <sup>a</sup>
	1(a)	2(a)	3	4(a)	5(a)	6	7(a)	8	9(a)	10	11(a)		
<b>1. Project Requirements</b>													
Length (miles)	1.9	12.7	12.9	5.3	8.5	9.0	41.0	10.3	10.5	11.7	4.0	127.8	85.7
New R.O.U. required (acres)	46.0	307.0	313.0	128.0	206.0	218.0	993.0	249.0	256.0	203.0	97.0	3,094.0	2,074.0
New access roads (miles)	1.9	12.7	37.2	15.3	8.5	26.0	118.5	29.6	30.4	33.9	11.6	325.5	247.7
Clearing for access roads (acres)	3.2	21.6	21.9	9.0	14.5	15.3	69.7	17.5	17.9	19.9	6.8	217.3	145.7
<b>2. Earth Resources</b>													
Areas with high erosion potential (miles crossed)	0.5	10.5	9.0	4.0	6.0	8.5	30.0	0.5	4.0	4.5	0.0	77.5	10.0
<b>3. Vegetation</b>													
Permanent clearing (acres)													
a. Grassland and scrub	2.4	22.6	22.0	9.6	14.7	16.1	63.2	1.7	6.8	19.2	0.0	178.3	24.0
b. Agricultural and other land	1.0	0.0	0.0	0.0	3.0	15.0	11.2	16.7	11.6	1.9	7.3	67.7	132.0
<b>4. Land Use and Land Status</b>													
Irrigated cropland (miles)	1.1	0.0	0.0	0.0	0.2	0.0	3.7	6.2	3.4	1.3	2.6	18.5	72.3
<b>5. Cultural Resources</b>													
Archaeological resources	0	1	2	0	1	2	2	0	0	0	0	8	1

(a) These routes combined represent the Project preferred alternative.

CALENDAR PAGE 96-54  
MOYR ORIGINAL 1.037

TABLE 2A

SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS,  
APPLICABLE MITIGATION MEASURES,  
AND MITIGATION EFFECTIVENESS FOR COTP

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for Which Significant Impacts are Expected <sup>1/</sup>		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
	Before Mitigation	After Mitigation			
<b>AIR QUALITY</b>					
None			<ul style="list-style-type: none"> <li>Comply with air quality regulations.</li> <li>Implement dust control measures.</li> </ul>		
<b>ENGINE PERFORMANCE</b> (See Section 3.2.3.3 in Volume 2A, Draft EIS/EIR) <sup>2/</sup>					
Excessive soil erosion	1, 2, 3, 4, 5, 6, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23		<ul style="list-style-type: none"> <li>Construct access roads to meet the minimum requirements necessary for construction and maintenance vehicles.</li> <li>Close roads not required for regular and emergency maintenance activities and reclaim to near original condition.</li> <li>Avoid unnecessary road construction.</li> <li>Control water runoff on access roads<sup>3/</sup>.</li> <li>Revegetate exposed areas around tower bases and on slopes.</li> <li>Helicopter construction in areas having steep slopes greater than 30% and highly erodible soils if the impacts cannot be otherwise mitigated.</li> <li>Locate roads away from stream bottoms in areas having steep slopes greater than 30% and highly erodible soils.</li> <li>Apply USFS Best Management Practices and Forest Practice Rules of California Department of Forestry.</li> <li>Existing roads damaged as a result of construction or maintenance activities will be repaired.</li> <li>Maintain, repair, or replace runoff control structures.</li> </ul>	Partially effective <sup>2/</sup>	No
Lava tube collapse	6		<ul style="list-style-type: none"> <li>Use routing adjustments, centerline adjustments and foundation design.</li> </ul>	Totally effective	No
Low soil bearing capacities	29-39		<ul style="list-style-type: none"> <li>Use standard engineering and design practices such as importing high intensity fill.</li> </ul>	Totally effective	No

<sup>1/</sup> 1 = North 1; 2 = N-10G; 3 = N-10J; 4 = N-10K; 5 = N-10L; 6 = N-10M; 7 = N-10Q(A); 8 = N-10Q(A); 9 = North 2B; 10 = N-10 Alt.5(B); 11 = N-10 Alt.5(C); 12 = N-10 Alt.5(D); 13 = S-7 Alt.1(A); 14 = S-7 Alt.1(B); 15 = North 3J; 16 = N-8A(3); 17 = N-8C; 18 = North 4; 19 = N-8 Alt.2(A); 20 = N-9A; 21 = N-9C; 22 = N-9D; 23 = N-9G; 24 = N-9J; 25 = N-9N; 26 = N-9O; 27 = N-9Q; 28 = N-13A; 29 = Upgrade (S-1A); 30 = S-8B; 31 = S-8C; 32 = S-6 Alt.1; 33 = S-8E1(A); 34 = South 1; 35 = S-8K; 36 = S-9D; 37 = S-9G; 38 = South 2; 39 = S-8 Alt.3.

<sup>2/</sup> Threshold values for determining significance of impacts can be found in these sections of the Draft EIS/EIR.

<sup>3/</sup> Drainage controls, if properly installed, maintained, repaired, and/or replaced, can substantially reduce soil loss due to water erosion. However, additional adopted mitigation such as the placement of straw or hay mulch, the avoidance of wet weather construction, the installation of energy dissipators to prevent off-site erosion and the placement of water bars to reduce slope length may also be necessary. This will be determined based on site-specific field studies and agency consultation.



TABLE 2A (CONTINUED)

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for Which Significant Impacts are Expected <sup>1/</sup>		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
	Before Mitigation	After Mitigation			
Earthquakes	14, 15		<ul style="list-style-type: none"> <li>Line will be designed and sited to minimize earthquake damage to COTP facilities.</li> </ul>	Partially effective	No
Future interference with the potentially important 30,500 acre Glass Mountain known geothermal resource area, copper-zinc, coal, natural gas, and mercury mining areas	6		<ul style="list-style-type: none"> <li>Negotiated access with landowners to allow mineral extraction uses.</li> </ul>	Totally effective	No
Landslides	None		<ul style="list-style-type: none"> <li>Design and site COTP facilities to minimize landslides.</li> <li>Minimize cut and fill road construction.</li> <li>Helicopter construction where impacts cannot otherwise be mitigated.</li> </ul>		
Wind erosion	None		<ul style="list-style-type: none"> <li>Implement dust control measures.</li> <li>Minimize removal of vegetation.</li> <li>Encourage rapid revegetation of disturbed areas.</li> <li>Leave ground rough and cloddy.</li> </ul>		
<b>WATER RESOURCES/WATERSHEDS</b> (See Section 3.3.3.3 in Volume 2A, Draft EIS/EIR)					
Sedimentation of streams as a result of increased soil erosion	1, 7, 8, 11, 13, 14, 18, 19, 20, 21, 22, 23, 24		<ul style="list-style-type: none"> <li>Vegetative buffers of undisturbed vegetation along all lakes and streams.</li> <li>Make efforts to avoid more than one new access road stream crossing per mile.</li> <li>Minimize access road construction in stream drainages supporting special-status aquatic species.</li> <li>Size culverts on access roads to match storms which may occur during the life of the COTP.</li> <li>Locate roads away from stream bottoms.</li> <li>Right angle stream crossings, where possible.</li> </ul>	Totally effective	No
Reduction of water quality introduction of pollutants	1-28		<ul style="list-style-type: none"> <li>Vegetative buffers.</li> <li>Erosion control measures.</li> <li>Strict control of toxic waste.</li> <li>Hand application of herbicides to stumps of sprouting brush and trees.</li> <li>Comply with all regulations concerning use of herbicides.</li> </ul>	Totally effective	No

<sup>1/</sup> 1 = North 1; 2 = N-10G; 3 = N-10J; 4 = N-10K; 5 = N-10L; 6 = N-10M; 7 = N-10N2(A1); 8 = N-10N2(A); 9 = North 2B; 10 = N-10 Alt.5(B); 11 = N-10 Alt.5(C); 12 = N-10 Alt.5(D); 13 = N-7 Alt.1(A); 14 = N-7 Alt.1(B); 15 = North 3J; 16 = N-8A(3); 17 = N-8C; 18 = North 4; 19 = N-8 Alt.2(A); 20 = N-9A; 21 = N-9C; 22 = S-90; 23 = N-90; 24 = N-90; 25 = N-9A; 26 = N-90; 27 = N-90; 28 = N-13A; 29 = Upgrade (S-1A); 30 = S-88; 31 = S-88; 32 = S-88; 33 = S-82(A); 34 = South 1; 35 = S-8X; 36 = S-90; 37 = S-90; 38 = South 2; 39 = S-8 Alt.3.

CALENDAR PAGE  
MINUTE PAGE FINAL 96.5  
039

TABLE 2A (CONTINUED)

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for Which Significant Impacts are Expected/ Before Mitigation / After Mitigation		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
	Before Mitigation	After Mitigation			
Reduced water supply	1-28		• Site right-of-way to avoid wells aquifer recharge areas and streams.	Totally effective	No
Barriers to fish migration	1-28		• Proper construction of road crossings. • Locate roads away from stream bottoms. • Proper sizing of culverts to avoid debris-loading. • Minimize stream crossings by the transmission line and their access roads.	Totally effective	No
Siting of transmission structures or access roads in areas with special-status aquatic species	10, 14		• Construction of new access roads will be minimized in stream drainages which support special-status aquatic species. • Preclude access roads in sensitive areas until after biological surveys are completed and mitigation coordinated with appropriate agencies.	Totally effective if all populations are <u>avoided</u>	No
Degradation/destruction of Redband trout habitat	10, 14		• Site right-of-way to avoid sensitive areas. • Preclude access roads in sensitive areas after detailed surveys are completed.	Totally effective if all populations are avoided	No
Areas with potential for flooding (Ref. Executive Order 11999)	30, 31, 32, 33, 34, 35, 36, 37, 38		• Flood-proof structures and design ODF facilities to avoid decreasing the conveyance efficiency of the floodplain.	Totally effective	No
<b>VEGETATION</b> (See Section 3.4.3.3 in Volume 2A, Draft EIR/EIS)					
Right-of-way vegetation management using non-selective methods in forest, woodland, or shrubland vegetation	1-28		• Use brush blades to preserve existing low growing vegetation. • Selective clearing, removing only tall-growing vegetation from the right-of-way where it will interfere with the conductors. • Avoid clearing to a harsh right of way edge (feather edges).	Totally effective	No
Right-of-way clearing through forest or woodland in regions where such stands are rare or scattered	7, 9, 11, 12		• Site right-of-way to avoid such stands.	Totally effective	No
Siting of ODF facilities in wetlands (Ref. Executive Order 11990)	4, 12, 16, 34, 36, 39, 33, 34, Clinda Substation		• Site structures to open wetland area and place access roads (either temporary or permanent) outside wetland area.	Totally effective if all wetland areas are avoided	No

1/ 1 = North 1; 2 = N-10G; 3 = N-10J; 4 = N-10K; 5 = N-10L; 6 = N-10M; 7 = N-10M2(A1); 8 = N-10M2(A); 9 = North 28; 10 = N-10 Alt.5(B); 11 = N-10 Alt.5(C); 12 = N-10 Alt.5(D); 13 = N-7 Alt.1(A); 14 = N-7 Alt.1(B); 15 = North 33; 16 = N-8A(3); 17 = N-8C; 18 = North 4; 19 = N-8 Alt.2(A); 20 = N-9A; 21 = N-9C; 22 = N-9D; 23 = N-9E; 24 = N-9F; 25 = N-9G; 26 = N-9H; 27 = N-9I; 28 = N-13A; 29 = Upgrade (S-1A); 30 = S-2B; 31 = S-2C; 32 = S-2D; 33 = S-2E; 34 = South 1; 35 = S-2K; 36 = S-2D; 37 = S-9G; 38 = South 2; 39 = S-8 Alt.3.

CALENDAR PAGE 96.57  
MINUTE PAGE 1040  
VOL. 1 FINAL

TABLE 2A (CONTINUED)

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for Which Significant Impacts are Expected/ Before Mitigation		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
	Before Mitigation	After Mitigation			
Degradation of wetlands due to use of herbicides or heavy equipment for right-of-way vegetation management	4, 12, 16, 24, 26, 33, 34		* Avoid use of these methods in or near wetlands.	Totally effective	No
Siting of transmission structures or access roads in unique or sensitive plant communities such as riparian woodland, old-growth forests, and vernal pools	2, 3, 4, 5, 7, 8, 11, 20, 22, 23, 24, 25, 26, 27, 32, 33, 34, 35, Clinda Substation		* Avoid siting of transmission line towers, access roads and/or construction work areas in those unique or sensitive plant communities to the maximum extent possible.	Totally effective	No
Loss or reduction of special-status plant species or their habitats	2, 3, 4, 5, 20, 22, 23, 24, 25, 26, 27, 29, 32, 33, 34		* Site facilities to avoid special-status plant populations following biological surveys. * Use only selective vegetation management methods to avoid impacts to special-status plants. * Prepare a vegetative management plan. * Mitigation will be developed in accordance with U. S. Fish and Wildlife Service mitigation policy.	Totally effective if all such populations or habitats are avoided	No
Clearing or loss of riparian woodland along Sacramento River	26		* Site COTP facilities to avoid disturbance to woodland and avoid tree removal.	Totally effective if no trees or shrubs are removed	No
Disturbance to or loss of high quality vernal pools (high quality vernal pools are those that qualify as wetlands, those that support special-status plant species, those that have a high diversity of vernal pool species and/or those in undisturbed condition)	2, 3, 4, 5, 11, 23, 22-27, 29, 32, 33, 34 Clinda Substation		* Site COTP facilities to avoid disturbance to high quality vernal pools during biological surveys.	Totally effective if all vernal pools of high quality are avoided and not disturbed	No
Disturbance to or loss of Valley Sisk (Iodine Bush) Scrub	32, 33, 34		* Site COTP facilities to avoid disturbance to or loss of this community type.	Totally effective	No
Loss of prime timberland due to right-of-way clearing	7, 8, 9, 11, 13, 14, 15, 16, 17, 18, 20, 21	7, 8, 9, 11, 13, 14, 15, 16, 17, 18, 20, 21	* Emphasize selective clearing removing only tall growing vegetation which would interfere with the conductors. * Prepare a vegetative management plan which will consider clearing requirements and long-term right-of-way management needs. * Off-site mitigation such as reforestation of prime timber areas currently occupied by brush or non-commercial hardwoods.	Partially effective	Yes

1/ 1 = North 1; 2 = S-10J; 3 = S-10J; 4 = S-10K; 5 = S-10L; 6 = S-10M; 7 = S-10N2(A1); 8 = S-10N2(A); 9 = North 2B; 10 = S-10 Alt.5(S); 11 = S-10 Alt.5(C); 12 = S-10 Alt.5(D); 13 = S-7 Alt.1(A); 14 = S-7 Alt.1(B); 15 = North 3J; 16 = S-8A(J); 17 = S-8C; 18 = North 4; 19 = S-3 Alt.2(A); 20 = S-9A; 21 = S-9C; 22 = S-9D; 23 = S-9D; 24 = S-9J; 25 = S-9N; 26 = S-9O; 27 = S-9Q; 28 = S-11A; 29 = Upgrade (S-1A); 30 = S-8B; 31 = S-8C; 32 = S-8 Alt.1; 33 = S-8E1(A); 34 = South 1; 35 = S-2X; 36 = S-9D; 37 = S-9D; 38 = South 2; 39 = S-3 Alt.3.

2/ Valley Sisk (Iodine Bush) Scrub is considered a significant natural community by the b. due to its rarity in California.

96  
 MINUTE PAGE FINAL 1.04.1

TABLE 2A (CONTINUED)

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for which Significant Impacts are Expected <sup>1/</sup>		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
	Before Mitigation	After Mitigation			
<b>WILDLIFE</b> (See Section 3.5.3.2 of Volume 2A, Draft EIS/EIR)					
Potential for collision with shield wires by special-status and sensitive bird species in concentration areas where topographic variation and vegetative screening exist and visibility conditions are generally good during periods when species are present (Northern Section)	19, 26		<ul style="list-style-type: none"> <li>Site rights-of-ways to take advantage of natural of existing flight obstacles such as ridge lines.</li> <li>Mark shield wire as appropriate for site-specific conditions in areas where extreme potential for collision exists.</li> <li>If impacts cannot be effectively mitigated, provide compensation by improving habitat off-site.</li> </ul>	Partially effective	No
Potential for collision of special-status and sensitive bird species with conductors and shield wires in areas supporting significant concentrations of those species and where low topography and frequent poor visibility conditions exist during period when species are present (Southern Section)	30-39	30-39	<ul style="list-style-type: none"> <li>Mark static wire as appropriate in areas where extreme potential for avian collisions exist, in consultation with wildlife management agencies.</li> </ul>	All known mitigation is ineffective in reducing this impact	Yes
Increase in human disturbance which exceeds species tolerance levels in important big game habitat areas	4, 5, 6, 7, 8		<ul style="list-style-type: none"> <li>Minimize new road construction in winter-range areas.</li> <li>Close roads in areas where vehicle use could cause impacts.</li> <li>Construction and maintenance activities will be limited in critical habitat areas.</li> <li>Improve habitat off site to offset impacts that cannot be mitigated on site according to U. S. Fish and Wildlife Service mitigation policy.</li> </ul>	Totally effective in most areas	No
Disturbance to nest and den sites of sensitive wildlife and special-status species during clearing and construction activities	2, 16		<ul style="list-style-type: none"> <li>Avoid nests and dens and their buffer zones.</li> <li>Restrict activities during breeding periods that could disturb species sufficiently to cause reproductive failure and other important activity timeframes.</li> <li>Attach proper nesting platforms to towers.</li> </ul>	Totally effective	No
Removal of snags from forested areas, affecting cavity-dependent wildlife species	5, 6, 7, 8, 9, 10		<ul style="list-style-type: none"> <li>In areas where rights-of-way clearing would remove snags, create new snags to offset losses.</li> <li>A snag component to the vegetation management plan will be prepared to provide for replacement snags for cavity dependent wildlife species.</li> </ul>	Totally effective	No

<sup>1/</sup> 1 = North 1; 2 = N-10G; 3 = N-10J; 4 = N-10K; 5 = N-10L; 6 = N-10M; 7 = N-10Q(A); 8 = N-10Q(A); 9 = North 20; 10 = N-10 Alt.5(B); 11 = N-10 Alt.5(C); 12 = N-10 Alt.5(D); 13 = N-7 Alt.1(A); 14 = N-7 Alt.1(B); 15 = North 21; 16 = N-8A(3); 17 = N-8C; 18 = North 4; 19 = N-8 Alt.2(A); 20 = N-9A; 21 = N-9C; 22 = N-9D; 23 = N-9E; 24 = N-9F; 25 = N-9I; 26 = N-9O; 27 = N-9Q; 28 = N-13A; 29 = Upgrade (S-1A); 30 = S-8B; 31 = S-8C; 32 = S-8 Alt.1; 33 = S-8 Alt.2; 34 = South 1; 35 = S-8K; 36 = S-9D; 37 = S-9G; 38 = South 2; 39 = S-8 Alt.3.

TABLE 2A (CONTINUED)

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for which Significant Impacts are Expected/ Impacts are Expected/		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
	Before Mitigation	After Mitigation			
<b>LAND USE</b> (See Section 3.6.3.3 in Volume 2A, Draft EIS/EIR)					
Crossing 40 or more acres of prime timberland	7, 8, 9, 15, 16, 17, 18, 20, 21	7, 8, 9, 15, 16, 17, 18, 20, 21	<ul style="list-style-type: none"> <li>Use directional felling on right-of-way.</li> <li>Minimize locating right-of-way on ridge tops where potential windthrow is maximized.</li> <li>Off-site mitigation such as reforestation of areas supporting brush or non-commercial hardwood species.</li> </ul>	Partially effective	Yes
Timberland Production Zone (TPZ) crossing 40 or more acres of prime timberland	7, 15, 16, 17, 18, 20, 21	7, 15, 16, 17, 18, 20, 21	<ul style="list-style-type: none"> <li>Use directional felling on right-of-way.</li> <li>Minimize locating right-of-way on ridge tops where potential windthrow is maximized.</li> <li>Off-site mitigation such as reforestation of prime timber areas supporting brush of non-commercial hardwood species.</li> <li>Prepare a vegetative management plan which will consider clearing requirements and long-term right-of-way management needs.</li> <li>Emphasize selective clearing, removing only tall-growing vegetation which would interfere with the conductors.</li> </ul>	Partially effective	Yes
Crossing at least one-half mile of Prime Farmland or Farmland of Statewide Importance or irrigated, cultivated farmland	29, 30-37, 39	29, 30-37, 39	<ul style="list-style-type: none"> <li>Locate towers near field boundaries or service roads either perpendicular or parallel to crop rows.</li> <li>Alternative structure design to minimize acreage removed from production.</li> <li>Minimize creating obstacles to aerial applicators.</li> </ul>	Partially effective	Yes
Crossing an agricultural preserve	22, 24, 29, 30-39	22, 24, 29, 30-39	<ul style="list-style-type: none"> <li>Locate towers near field boundaries or service roads; avoid diagonal crossings of fields.</li> <li>Alternative structure design to minimize acreage removed from production.</li> <li>Minimize creating obstacles to aerial applicators.</li> </ul>	Partially effective	Yes
<b>VISION</b> (See Section 3.7.3.3 in Volume 2A, Draft EIS/EIR)					
Incompatibility (contrast) and visibility from sensitive land uses, the upgrade area, and the Sacramento River Delta	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 17, 18, 19, 20, 21, 22, 24, 25, 28, 29, 30, 31, 33, 34, 35, 37, 38, 39	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 17, 18, 19, 20, 21, 22, 24, 25, 28, 29, 30, 31, 33, 34, 35, 37, 38, 39	<ul style="list-style-type: none"> <li>Use non-specular conductors.</li> <li>Minimize vegetation clearing along roads and high-ways, rivers, trails and residential areas.</li> <li>Minimize sitings on towers on ridges/peaks/hilltops.</li> </ul>	Partially effective Reduces visibility but not contrast	Yes

1/ 1 = North 1; 2 = N-100; 3 = N-101; 4 = N-10K; 5 = N-10L; 6 = N-10M; 7 = N-10N(A1); 8 = N-10N(A); 9 = North 2B; 10 = N-10 Alt.5(B); 11 = N-10 Alt.5(C); 12 = N-10 Alt.5(D); 13 = N-7 Alt.1(A); 14 = N-7 Alt.1(B); 15 = North 3J; 16 = N-3A(3); 17 = N-8C; 18 = North 4; 19 = N-3 Alt.2(A); 20 = N-3A; 21 = N-9C; 22 = N-3D; 23 = N-3E; 24 = N-3F; 25 = N-3G; 26 = N-9D; 27 = N-9E; 28 = N-11A; 29 = Upgrade (S-1A); 30 = S-2B; 31 = S-2C; 32 = S-2 Alt.1; 33 = S-2E(A); 34 = South 1; 35 = S-2K; 36 = S-3D; 37 = S-3E; 38 = South 2; 39 = S-3 Alt.1

CALENDAR PAGE 6.60  
MINUTE VOL. 1 FINAL 043

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for which Significant Impacts are Expected/		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain?
	Before Mitigation	After Mitigation			
Visibility from Lava Beds National Monument	2, 3, 4, 5, 6	2, 3, 4, 5, 6	<ul style="list-style-type: none"> <li>Feather edges of right-of-way clearing.</li> <li>Use opaque porcelain insulators.</li> <li>Darkened tower steel will be used where it can be expected to reduce visual impacts.</li> </ul>	Partially effective	Yes
Crossing a sensitive land use such as roads, highways, rivers, and entrance to Lava Beds National Monument	All	All	<ul style="list-style-type: none"> <li>Use non-specular conductors.</li> <li>Use opaque porcelain insulators.</li> <li>Use darkened tower steel where it can be expected to reduce impacts.</li> </ul>	Partially effective	Yes
Crossing of federal lands managed for scenic quality values	1, 3, 4, 5, 7, 8, 9, 14, 16	1, 3, 4, 5, 7, 8, 9, 14, 16	<ul style="list-style-type: none"> <li>Use non-specular conductors.</li> <li>Minimize vegetation clearing.</li> <li>Feather edges of right-of-way clearing.</li> <li>Use darkened tower steel where it can be expected to reduce impacts.</li> </ul>	Partially effective	Yes
<b>SCENIC RESOURCES</b> (See Section 3.9.3.3 in Volume 2A, Draft EIS/EIR)					
Location of transmission line within 1.2 miles of a residential community or averaging more than 50 dwellings per corridor mile	27, 29, 32, 34	27, 29, 32, 34	<ul style="list-style-type: none"> <li>Avoid these areas where possible.</li> </ul>	Partially effective	Yes
More than 1.7 miles of new access roads per corridor mile	12, 14, 15, 16, 20, 21	12, 14, 15, 16, 18, 21	<ul style="list-style-type: none"> <li>Minimize new access road construction.</li> <li>Close all roads not needed for long-term maintenance activities.</li> </ul>	Partially effective	Yes
Loss of \$2,500 in agricultural production (both long- and short-term) per corridor mile	2, 26, 31, 32, 33, 34, 36, 37	2, 25, 31, 32, 33, 34, 36, 37	<ul style="list-style-type: none"> <li>Negotiate gate management program (compensation for losses is a standard practice during negotiation of easements).</li> </ul>	Totally effective	No
<b>CULTURAL RESOURCES</b> (See Section 3.9.3.3 in Volume 2A, Draft EIS/EIR)					
Siting of transmission structures or access roads on archaeological or historic sites <sup>1/</sup>			<ul style="list-style-type: none"> <li>Site structures to open sites.</li> <li>Plan access roads to avoid these sites and monitor construction to minimize impact.</li> </ul>	Totally effective	No

1/ 1 = North 1; 2 = B-10G; 3 = B-10J; 4 = B-10K; 5 = B-10L; 6 = B-10M; 7 = B-10N(2A1); 8 = B-10N(A); 9 = North 2B; 10 = B-10 Alt.3(B); 11 = B-10 Alt.5(C); 12 = B-10 Alt.5(D); 13 = B-7 Alt.1(A); 14 = B-7 Alt.1(B); 15 = North 3J; 16 = B-8A(3); 17 = B-8C; 18 = North 4; 19 = B-8 Alt.2(A); 20 = B-8A; 21 = B-8C; 22 = B-3D; 23 = B-8D; 24 = B-8J; 25 = B-3N; 26 = B-3O; 27 = B-3Q; 28 = B-13A; 29 = Upgrade (S-1A); 30 = B-2B; 31 = B-8C; 32 = B-3 Alt.1; 33 = B-8L(A); 34 = South 1; 35 = B-8X; 36 = B-8D; 37 = B-3G; 38 = South 2; 39 = B-8 Alt.3.

2/ Exact placement of roads and towers in relation to sites cannot be determined until completion of archaeological survey.

CALENDAR PAGE - FINAL 9661  
1044

TABLE 2A (CONTINUED)

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for Which Significant Impacts are Expected/ Before Mitigation		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain?
	Before Mitigation	After Mitigation			
Siting transmission structures or access roads on or near Native American sites	3, 12, 15, 16, 17, 19, 21	Unknown, pending final consultation with Native Americans	<ul style="list-style-type: none"> <li>If sites cannot be avoided, scientific excavation to recover data or stabilization and protection of sites.</li> <li>Site structures to span sites.</li> <li>Plan access roads to avoid such sites.</li> <li>If cultural sites cannot be avoided, consult with Native Americans concerning potential mitigation measures.</li> <li>If traditional food and medicine gathering areas cannot be avoided, consult with Native Americans concerning potential mitigation measures.</li> <li>If cemeteries cannot be avoided, arrange for reburial.</li> </ul>	<p>Totally effective</p> <p>Totally effective</p> <p>Totally effective, given approval of tribal entity</p> <p>Totally effective, given approval of tribal entity</p> <p>Totally effective, given approval of tribal entity</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
CONCRETE, FIELD, AND SAFETY			<ul style="list-style-type: none"> <li>Recover blasting debris.</li> <li>Use controlled blasting techniques.</li> <li>Pick up trash.</li> <li>Comply with aircraft safety regulations.</li> <li>Cover open excavations at the end of each working day.</li> <li>Conduct all work in accordance with applicable laws and regulations regarding safety, water quality, herbicide use and public health.</li> <li>Use fully contained temporary sanitary facilities.</li> <li>Use noise control techniques to minimize sound disturbances.</li> <li>Implement a health and safety program.</li> <li>Keep accurate records of death, occupational disease or traumatic injuries to employees or to the public.</li> <li>Equip all vehicles with spark arrestors.</li> <li>Prepare a comprehensive fire plan.</li> <li>Secure motor vehicles when not in use to prevent roll-aways.</li> <li>Resolve radio and television interference complaints where the interference is caused by the Project facilities.</li> <li>Prepare a comprehensive fire response plan.</li> <li>Remove all flammable vegetation a minimum distance of 30 feet from towers and conductors.</li> <li>Equip construction vehicles with fire fighting equipment.</li> <li>Herbicides will not be used without permission from landowners, land management or other regulatory agencies.</li> </ul>		

CONCRETE, FIELD, AND SAFETY

None

END OF PAGE 96.62  
1045

1/ 1 = North 1; 2 = N-10G; 3 = N-10J; 4 = N-10K; 5 = N-10L; 6 = N-10M; 7 = N-10Q(A); 8 = N-10Q(A); 9 = North 2B; 10 = N-10 Alt. 5(B); 11 = N-10 Alt. 5(C); 12 = N-10 Alt. 5(D); 13 = N-7 Alt. 1(A); 14 = N-7 Alt. 1(B); 15 = North 3J; 16 = N-8A(3); 17 = N-8C; 18 = North 4; 19 = N-8 Alt. 2(A); 20 = N-9A; 21 = N-9C; 22 = N-9D; 23 = N-9G; 24 = N-9J; 25 = N-9M; 26 = N-9O; 27 = N-9Q; 28 = N-13A; 29 = Upgrade (S-1A); 30 = S-6B; 31 = S-6C; 32 = S-8 Alt. 1; 33 = S-8Z(A); 34 = South 1; 35 = S-2K; 36 = S-9D; 37 = S-9G; 38 = South 2; 39 = S-8 Alt. 3.

0. 1886

TABLE 29 (CONTINUED)

Significant Impacts Prior to Mitigation	Preferred Alternative Route Segment for Which Significant Impacts are Expected/ Before Mitigation		Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
	Before Mitigation	After Mitigation			

- Electrical and magnetic field strength measurements will be made where necessary at appropriate locations to provide base level information on radio or television reception quality.
- Herbicides will be used to hand treat stumps of sprouting tall-growing vegetation.
- Herbicide use will be conducted in accordance with all applicable federal, state, and local requirements.

CALENDAR PAGE 96.63  
INDEX PAGE 104.6

1/ 1 = North 1; 2 = N-10G; 3 = N-10J; 4 = N-10K; 5 = N-10L; 6 = N-10M; 7 = N-10N(A); 8 = N-10N(B); 9 = North 2B;  
10 = N-10 Alt.5(B); 11 = N-10 Alt.5(C); 12 = N-10 Alt.5(D); 13 = N-7 Alt.1(A); 14 = N-7 Alt.1(B); 15 = North 3J;  
16 = N-8A(3); 17 = N-8C; 18 = North 4; 19 = N-8 Alt.2(A); 20 = N-9A; 21 = N-9C; 22 = N-9D; 23 = N-9E; 24 = N-9J;  
25 = N-9W; 26 = N-9O; 27 = N-9Q; 28 = N-11A; 29 = Upgrade (S-1A); 30 = S-8A; 31 = S-8C; 32 = S-8 Alt.1; 33 = S-8E1(A);  
34 = South 1; 35 = S-8K; 36 = S-9D; 37 = S-9G; 38 = South 2; 39 = S-8 Alt.3.



TABLE 2B

Summary of Significant Environmental Impacts,  
Applicable Mitigation Measures,  
and Mitigation Effectiveness for LOS Trade-offs

Significant Impacts Prior to Mitigation	Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
<b>CLIMATE AND AIR QUALITY</b>			
None	Soil surfaces will be wetted at a rate of 0.5 gallons of water per square yard two times per day for dust control.	Partially effective	No
	When possible, construction activities should be scheduled during periods of low wind to reduce fugitive dust emissions.	Partially effective	No
	All construction equipment should be frequently monitored and serviced to ensure conformance with exhaust standards.	Totally effective	No
<b>SOIL EROSION</b>			
Soil erosion	<ul style="list-style-type: none"> <li>To the extent possible, minimize number and length of new construction access roads.</li> <li>Use lightest duty construction that is practical; use temporary spur roads to towers and remove after construction.</li> <li>Minimize vegetation disturbance along the alignment.</li> <li>Design drainage control structures to carry runoff at appropriate velocities. Use properly sized and installed culverts under permanent access road field sections and discharge runoff to natural drainages that will not be overloaded.</li> <li>Minimize slope stress and unconstructed length of fill slopes. Protect new constructed fills from rain, splash, and surface runoff with slope protection, such as mulch, tackifier, or jute netting.</li> <li>Replant temporarily disturbed areas with a mixture of perennial grasses, forbs, brush, shrubs, and tree species that will provide effective erosion control. Consider reseeding with native plants only in sensitive areas not subject to grazing.</li> </ul>	Totally effective	No
	Soil Compaction and Abrasion Mixing	In agricultural areas where sites would be graded, topsoils should be stockpiled. After construction, topsoil would be replaced and the site graded to the original contours. If appropriate, the site should be reseeded in accordance with agency and/or landowner objective.	Totally effective

CALENDAR PAGE 96.64  
PAGE 1047

TABLE 25 (CONTINUED)

Significant Impacts Prior to Mitigation	Mitigation Measures That Apply	Effectiveness of Mitigation	All Significant Residual Impact Remain
Slope Stability	<p>Perform contour diking or ripping operations at the conclusion of construction.</p> <p>Add chemical additives to soil during revegetation to counteract chemical imbalances caused by horizon mixing.</p> <p>Base the tower design on geotechnical foundation evaluation and sound geotechnical engineering practice, including analysis for cut and fill slopes, compaction requirements, and surface or slope drainage.</p>	Totally effective	No
Soil Hydro Compaction	<p>Base the tower design on geotechnical evaluation and sound geotechnical engineering practice.</p>		
<del>Water Resources/Impacts</del>			
Water Quality	<ul style="list-style-type: none"> <li>• Where possible, avoid road construction on very steep slopes to minimize surface erosion and slumping.</li> <li>• Recontour, prepare the surface, and seed all roads, construction sites, and other disturbed areas not required for Project operation and maintenance.</li> <li>• As much as possible, avoid construction activities and land service disturbance in the immediate vicinity of unique plant communities and habitat features, such as remnant sand dunes, rock outcrops, riparian zones, alkali areas, other wetlands, kit fox nest areas, and raptor nesting cliffs. These unique features will be determined in consultation with resource agencies.</li> <li>• Avoid construction activities in water courses and wetlands, since these areas are both infrequent and sensitive in the generally arid project area.</li> </ul>	Totally effective	No
<del>Vegetation</del>			
Temporary removal of vegetation	<ul style="list-style-type: none"> <li>• Where possible, avoid road construction on very steep slopes to minimize surface erosion and slumping.</li> <li>• Avoid rock on unstable slopes and rock outcrops.</li> <li>• Minimize surface-disturbing activities such as grubbing, grading, ditching, and filling to the extent possible.</li> <li>• Consider the use of various acceptable surface restoration practices such as tilling compacted soils, restoring natural surface contours and drainage patterns, reseeding with species mixtures that will provide effective erosion control.</li> </ul>	Partially effective	No

CALENDAR PAGE 96.65  
 DATE PAGE 1.048

TABLE 2B (CONTINUED)

Significant Aspects Prior to Mitigation	Mitigation Measures that Apply	Effectiveness of Mitigation	Will Significant Potential Impact Remain
Permanent loss of vegetation	<ul style="list-style-type: none"> <li>• Provide fire protection measures and avoid release of fuels, oils, and other hazardous substances to the ground and water.</li> <li>• Conduct site-specific scoping sessions as required under Section 7 of the Endangered Species Act.</li> <li>• Conduct ground surveys of potential sensitive plant habitat during the appropriate period prior to the selection of final alignments.</li> <li>• Avoid construction activities in water courses and wetlands and in unique or sensitive plant community areas.</li> <li>• Detailed mitigation plans for any impacts identified in alignment studies would be developed. Construction and siting details will be developed and presented to regulatory agencies for review and comment. Biologists from the concerned agencies could accompany crews during site selection and construction phases.</li> <li>• Avoid permanent access road clearing to the extent possible, allowing short annual grasses to cover the road surface.</li> </ul>	Partially effective	No
<p><b>WILDLIFE</b></p> <p>Surface clearing of wildlife habitat</p> <p>Temporary wildlife displacement during construction</p>	<ul style="list-style-type: none"> <li>• Technical specialists, including biologists, will survey the preliminary alignment in the field to determine any site-specific conditions that can be avoided, including fox burrows in denning areas, rat burrows, raptor nesting areas, and productive wetland areas.</li> <li>• Schedule activities to minimize construction in the specific vicinity of golden eagle nests or kit fox natal dens during the periods of greatest sensitivity, i.e., February through the end of the nesting or denning period.</li> </ul>	Partially effective	No
Avian collisions with transmission lines	<ul style="list-style-type: none"> <li>• Attach and maintain raptor nesting platforms to towers at intervals greater than one mile in raptor use areas. Place these on the towers between the structural steel members in a position least likely to cause operation and maintenance problems.</li> </ul>	Partially effective	No
<p><b>LAND USE AND LAND STATUS</b></p> <p>Loss of productive agricultural land</p>	<ul style="list-style-type: none"> <li>• Locate new access roads parallel to contours of land form whenever feasible.</li> <li>• Avoid diagonal orientations of transmission lines across cultivated fields.</li> </ul>	Partially effective	Yes

CALENDAR PAGE 96.66  
 SHEET PAGE 1049

VOL. 1 FINAL

Significant Impacts Prior to Mitigation	Mitigation Measures that Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
Impacts on irrigation practices	<ul style="list-style-type: none"> <li>Construction staging areas and pulling sites should be located adjacent to roads where practical. Soil from construction activity should be properly disposed. Wherever possible, shift construction areas to non-agricultural land or less sensitive crops.</li> <li>All access roads not required for maintenance should be either permanently closed using the most effective and least environmentally damaging methods or be re-graded, put to seed, and revegetated with concurrence of the landowner.</li> <li>Place towers away from the field where canals or irrigation ditches are located.</li> <li>Avoid mechanical-slope irrigation systems.</li> <li>Select grazing lands or crops using flood or border-check irrigation over those using furrow irrigation (i.e., row crops).</li> <li>Where towers must be located in row crops, tower footings and the transmission line alignments parallel to the rows are preferred over those perpendicularly aligned.</li> <li>If practical, tower placement will be adjusted to avoid orchards and vineyards, row crops and furrow irrigation crops with tower-furrow angles greater than 61 percent. The alignment should avoid more heavily cultivated crops in preference for non-agricultural land or crops such as alfalfa, corn, and small grains.</li> </ul>	Partially effective	Yes
Impacts on aerial applications	<ul style="list-style-type: none"> <li>Avoiding side by side transmission lines (as would be the case if the east alternative route were selected).</li> <li>Avoid angular joining of route segments.</li> <li>Avoid diagonal orientation of transmission lines and fields.</li> <li>Placing transmission lines and towers toward the center of the field, where canals or irrigation ditches are located.</li> </ul>	Partially effective	Yes
Impacts on recreation opportunities	<ul style="list-style-type: none"> <li>Use existing access roads wherever possible.</li> <li>Control dust by watering roads.</li> <li>Avoid construction at night to minimize noise, disturbance of campers and residents at the recreation areas.</li> </ul>	Totally effective	No

CALENDAR PAGE 96  
 OF 1050

TABLE 23 (CONTINUED)

Significant Impacts Prior to Mitigation	Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
<b>VISUAL RESOURCES</b>	<ul style="list-style-type: none"> <li>• Fence construction areas and laydown areas for public safety.</li> <li>• Provide adequate public access to recreation areas during periods of construction; traffic congestion.</li> <li>• Repair any damage to recreation access roads.</li> <li>• Minimize visual impacts.</li> <li>• Site transmission line away from recreation facilities or areas of high recreation use.</li> </ul>	Partially effective	Yes
Impacts on scenic quality	<ul style="list-style-type: none"> <li>• Construction of new roads should be minimized; existing roads should be used to the maximum extent possible.</li> <li>• Design access roads to minimum standard necessary for construction and maintenance vehicle access.</li> <li>• Regrade and revegetate all roads not required for regular maintenance activities.</li> <li>• Avoid siting towers on ridgelines and hilltops wherever feasible to minimize the incidence of skylining towers.</li> <li>• Minimize number of towers visible from sensitive viewpoints within recreation areas by such means as extending the distance between towers, locating towers on site which would not be visible from sensitive viewpoints.</li> <li>• The finish on transmission towers should be dull and non-reflective, and conductors should be constructed of non-specular material.</li> <li>• Temporary facilities such as construction yards and conductor tensioning and splicer sites should be sited to minimize disruption of the landscape by landform alteration and vegetation removal.</li> </ul>	Partially effective	Yes
<b>SOCIOECONOMICS</b>	<ul style="list-style-type: none"> <li>• PlandE will provide clear information about right of way acquisition, construction and maintenance activities, and Project schedules.</li> </ul>	Totally effective	No
<b>CONCRETE, FIELD AND SAFETY</b>	<ul style="list-style-type: none"> <li>• Appropriate selection of design parameters and proper location of the transmission line route to avoid critical locations will reduce corona-induced radio and television interference to acceptable levels.</li> </ul>	Totally effective	No

DATE OF PREP 96.68  
1051

VOL. 1 FINAL

TABLE 23 (CONTINUED)

Significant Impacts Prior to Mitigation	Mitigation Measures That Apply	Effectiveness of Mitigation	Will Significant Residual Impact Remain
---	--------------------------------	-----------------------------	---

- An ambient noise survey will be conducted at selected sensitive sites prior to construction and operation of the line. These measurements will then be available if complaints are received after the line is placed in operation.
- FG&E will resolve AM radio and television interference complaints when the cause of the interference has been determined to be from FG&E facilities.
- To provide a basis for evaluating and correcting any adverse effects, radio and television field strength measurements will be made after selection of the final transmission line alignment and prior to construction of the Project.

**CULTURAL AND PALEONTOLOGICAL RESOURCES**

- Conduct preconstruction field surveys to locate and record cultural and paleontological resources.
- Avoid sensitive resources by locating construction activities in non-sensitive locations.
- Conduct cultural resources data recovery program.
- Consult with Native Americans concerning Native American resources that cannot be mitigated through avoidance.
- Assess resources for value through consultation with Native American State Historic Preservation officers, other agencies and recognized professionals.
- If significant resources are present and avoidance is not possible, data recovery will be performed.

totally effective

is

96.69

1052

EXHIBIT "E"

**NOTICE OF DETERMINATION**

**TO:** Office of Planning and Research  
1400 Tenth Street, Room 121  
Sacramento, CA 95814

**FROM:** Transmission Agency of  
Northern California  
P. O. Box 661030  
Sacramento, CA 95866

**SUBJECT:** Filing of Notice of Determination in compliance with Section 21108 and 21152 of the Public Resources Code.

California-Oregon Transmission Project  
Project Title

SCB # 85040914 Rick A. Lind (916) 924-3995  
Stats Clearinghouse Number Contact Person Area Code/Number/Extension

Beginning near Malin, Oregon (Klamath County) to near Tracy, California (San Joaquin County)  
Project Location

Construction of an approximate 340-mile 500-kV AC power transmission line and related facilities, including four new or upgraded electrical substations.  
Project Description

This is to advise that the Transmission Agency of Northern California (TANC)  
(Lead Agency)  
has approved the above described project on 01/20/88 and has made the following  
(Date)  
determinations regarding the above described project:

1. The project X will, \_\_\_ will not, have a significant effect on the environment.
2. X An Environmental Impact Statement/Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA and the National Environmental Policy Act.  
  
\_\_\_ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures X were, \_\_\_ were not, made a condition of the approval of the project.
4. A statement of Overriding Considerations X was, \_\_\_ was not, adopted for this project.
5. Findings were made pursuant to Section 25091 of the CEQA Guidelines.

This is to certify that the final EIS/EIR with comments and responses and record of project approval is available to the General Public at:

TANC's offices; C/O Resource Management International, 1010 Hurley way,  
Suite 500, Sacramento, CA 95825

Date Received for Filing and Posting at OPR \_\_\_\_\_

Signature: Lloyd H. Harvego Executive Assistant  
Transmission Agency of Northern California. Title

Revised March 1986  
CALENDAR PAGE 96.70  
1053

EXHIBIT "F"

ENVIRONMENTAL COMPLIANCE  
MONITORING PLAN  
FOR  
THE  
CALIFORNIA-OREGON TRANSMISSION PROJECT

FOR THE  
TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

Revised 12/29/89

CALENDAR PAGE

96.71  
1054



## TABLE OF CONTENTS

- I. INTRODUCTION
- II. ENVIRONMENTAL MITIGATION REQUIREMENTS
- III. INTEGRATION OF ENVIRONMENTAL MITIGATION REQUIREMENTS INTO ENGINEERING, CONSTRUCTION, AND OPERATION PLANS
- IV. DEVELOPMENT OF SITE-SPECIFIC MITIGATION PLANS
- V. ENVIRONMENTAL COMPLIANCE MONITORING RESPONSIBILITIES AND CONTACTS
- VI. COORDINATION BETWEEN COTP PARTICIPANTS, AGENCIES, AND CONSTRUCTION CONTRACTORS

Revised 12/29/89

CALENDAR PAGE	96.72
MINUTE PAGE	1.055

I.  
INTRODUCTION

In January 1988 and April 1988, respectively, the Transmission Agency of Northern California (TANC) and the Western Area Power Administration (Western) issued decisions on the California-Oregon Transmission Project (COTP) in accordance with state and federal environmental regulations. In the decisions approving the COTP, TANC and Western required that certain mitigation measures be integrated into COTP design, construction, and operation to minimize adverse environmental impacts. The adopted mitigation measures are listed in Section 1.1.5 of the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR). The purpose of this Environmental Compliance and Monitoring Plan (ECMP) is to describe how the mitigation measures specified in TANC's and Western's decisions are integrated into the COTP and monitored by the several federal and state agencies with jurisdiction over resources or lands potentially affected by COTP activities.

This plan addresses mitigation requirements for all land ownership categories of the COTP. For discussion purposes, the COTP can be subdivided into the following categories according to land status.

- Private lands from the Southern Oregon Switching Station to the California-Oregon Border;
- Private lands between the California-Oregon border and the Olinda Substation;
- USDA Forest Service lands between the California-Oregon border and Olinda Substation;
- USDI Bureau of Land Management lands between the

Southern Oregon Switching Station and the Olinda Substation;

- Private lands between the Olinda Substation and the Tracy Substation (Upgrade); and
- Private lands between the Tracy Substation and the Tesla Substation.

Implementation of this ECMP is assured through multiple measures. First, the lead agencies will ensure that the applicable mitigation measures are included as compliance requirements in the engineering and construction plans, specifications, and construction contracts. In addition, construction inspectors will verify that mitigation measures are implemented, and they will have the authority to enforce the measures by redirecting activities of construction contractors to the extent necessary to meet mitigation requirements included in construction specifications. Second, both TANC and Western, as lead agencies under the California Environmental Quality Act of 1970 (CEQA) and the National Environmental Policy Act of 1969 (NEPA), will monitor and assure implementation of mitigation measures. Third, cooperating and responsible agencies and other local, state, and federal agencies will also monitor and ensure implementation of mitigation measures under their jurisdiction. The responsibilities of the various entities are explained later in this plan.

In addition to requirements specified by TANC and Western, other federal, state, and local agencies have issued or will issue permits or other decisions that contain conditions related to environmental mitigation. This ECMP describes the existing requirements, including how they are integrated into COTF construction and operation practices, and identifies additional expected permits that will likely include environmental

Revised 12/29/89

CALENDAR PAGE	9674
MINUTE PAGE	1057

mitigation measures. This information is presented in Section II of this report.

In Section III, the engineering, construction, and operation plans are identified. Included here is a description of how environmental mitigation requirements have been and will be linked to construction and operation activities.

Section IV discusses how the general mitigation requirements are converted into site-specific mitigation plans to be used for compliance monitoring.

Section V specifies the organizations and individuals responsible for environmental mitigation monitoring and inspection. Organization charts and communication flow charts are provided to assist the monitors and inspectors in carrying out compliance monitoring responsibilities with a minimum of unnecessary disruption to the efficient construction of the COTP. Responsibilities apply to the applicable areas of jurisdiction.

Section VI provides guidelines for monitor/inspector/construction contractor communications during the preconstruction and preoperation phases of the COTP.

Revised 12/29/89

CALENDAR PAGE	96.75
MINUTE PAGE	1058

## II.

### ENVIRONMENTAL MITIGATION REQUIREMENTS

There are numerous agency decisions, permits, and other actions that require environmental mitigation for the COTP. These decisions, permits, and other actions are discussed below.

#### Lead Agencies for the California Environmental Quality Act/ National Environmental Policy Act

TANC and Western, as lead agencies for the state and federal environmental regulations, issued decisions on the COTP in January 1988 and April 1988, respectively. Both decisions incorporated the mitigation specified in Section 1.1.5 of the Final EIS/EIR as a condition of COTP approval. The required mitigation can be found in the following decision documents:

- Certification of the Final Environmental Impact Report for the COTP, the Los Banos-Gates Transmission Project, and the Pacific Northwest Reinforcement Project, and Findings Pursuant to the California Environmental Quality Act issued by TANC on January 20, 1988; and
- Record of Decision for the COTP issued by Western and recorded in the May 18, 1988 Federal Register, Vol. 53, No. 96.

#### Agencies with Jurisdiction for Land Crossed by the COTP

Federal land management agencies affected by the COTP include the USDA Forest Service (USFS), USDI Bureau of Land Management (BLM), and USDI Bureau of Reclamation (USBR). The COTP will cross approximately 58 miles of USFS land, eight miles of BLM land, and 0.5 mile of USBR land.

The USFS and BLM will be issuing an easement permit and

Revised 12/29/89

CALENDAR PAGE	96.76
MINUTE PAGE	1059

right-of-way grant, respectively, for the construction and operation of the COTP. In addition, these two agencies will be issuing a record of decision (ROD) or other decision document in accordance with NEPA. Mitigation requirements are included in the RODs, permit, and right-of-way grant. The USBR is not expected to issue an ROD as Western is presently working with the USBR to transfer ownership of the affected land in the Tracy Substation area to Western.

Agencies with Resource or Facility Management Responsibilities for Areas Crossed by the COTP

Several federal, state, and local agencies in addition to those mentioned above have responsibilities and management authority over resources and existing facilities affected by the COTP. TANC and Western have consulted with these agencies throughout the environmental process. Comments on affected resources and facilities, including suggestions for mitigation, were considered by the lead agencies in final decisions on the COTP and adoption of mitigation. Some of these agencies have permitting authority while others have served in an advisory capacity. Still others have decision-making authority as responsible and cooperating agencies under CEQA and NEPA.

Table II-1 lists the agencies with major resource and facility management responsibilities relative to the COTP.

TABLE II-1  
(CONTINUED)

<u>Agency</u>	<u>CEQA NOD</u>	<u>NEPA ROD</u>	<u>Permit</u>	<u>Advisory</u>
California State Lands Commission			X	X
Oregon Department of Energy				X
USDA Forest Service		X	X	X
USDI Bureau of Land Management		X	X	X
USDI Fish & Wildlife Service			X	X

### III.

#### INTEGRATION OF ENVIRONMENTAL MITIGATION REQUIREMENTS INTO ENGINEERING, CONSTRUCTION, AND OPERATION PLANS

TANC, as Project Manager for the COTP, is responsible for integrating environmental mitigation requirements into engineering, construction, and operation activities. TANC is accomplishing this task through an assignment process whereby:

- 1) each mitigation requirement is reviewed for its applicability to engineering, construction, and operation activities;
- 2) the mitigation requirements are assigned to each engineering, construction, and operation plan that will include activities pertinent to the mitigation requirement; and
- 3) the mitigation assignment is documented in a computerized data base used to track the mitigation to be implemented.

The engineering, construction, and operation plans to which the mitigation requirements are assigned are shown in Table III-1. These plans form the basis for the construction contracts.

Revised 12/29/89

III-1

CALENDAR PAGE	96 79
MINUTE PAGE	1062



TABLE III-1

ENGINEERING, CONSTRUCTION, AND  
OPERATION PLANS TO WHICH ENVIRONMENTAL  
MITIGATION MEASURES ARE ASSIGNED

- ACCESS ROAD SPECIFICATIONS
- CLEARING PLAN
- COMMUNICATIONS SYSTEM PLANS/REPORTS
- CONSTRUCTION MANAGEMENT SERVICES CONTRACT
- CONSTRUCTION SPECIFICATIONS
- EASEMENT AGREEMENT WITH NATURE CONSERVANCY
- EQUIPMENT/VEHICLE SPECIFICATIONS
- FIRE RESPONSE PLAN
- FUELS MANAGEMENT PLAN
- MATERIAL YARDS LEASES/AGREEMENTS
- NOISE LEVEL/EMF SURVEY
- OPERATION AND MAINTENANCE PLAN
- OTHER EASEMENT/OPERATING AGREEMENTS
- PLAN AND PROFILE DRAWINGS
- REHABILITATION PLAN
- SOIL BORING CONTRACT
- SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN
- STEAMBED ALTERATION AGREEMENT
- TIMBER CRUISE
- TIMBER HARVEST AGREEMENTS
- TRANSPORTATION PLAN
- VEGETATIVE MANAGEMENT PLAN
- WILDLIFE COORDINATION PLAN

III-2

Revised 12/29/89

CALENDAR PAGE	96.80
MINUTE PAGE	1063

IV.  
DEVELOPMENT OF SITE-SPECIFIC  
MITIGATION PLANS

Many of the mitigation requirements specified in the agency decisions and permits are standard practices and apply to most of the areas affected by the COTP. One example of a standard practice is reseeding in areas where vegetation has been removed.

Several mitigation requirements are specific in one or more ways. These usually involve a unique resource or event that should be carefully managed to minimize impacts. Examples include construction restrictions in certain areas during the kit fox denning season, avoiding ground disturbance in areas containing significant archaeological resources, and fumigating vehicles entering potato growing areas to help prevent the introduction of unwanted pests. TANC is identifying all presently adopted environmental mitigation requirements on a site-specific basis.

Site-specific mitigation has been developed in a standardized format and entered into a computerized data base. The data base is updated to track the mitigation and monitoring requirements, as well as to document the results of monitoring and inspection activities.

TANC and Western intend for these site-specific plans to be the primary mechanism for monitoring compliance. These plans will be provided to the monitors, inspectors, and construction contractors in the field.

The site-specific information has been developed from many documents. These include:

Revised 12/29/89

IV-1

CALENDAR PAGE	9681
MINUTE PAGE	1064

- Data and Impact Analysis Report in Volume 2A of the Draft EIS/EIR and its updated section presented in Volume 1 of the Final EIS/EIR;
- Volume 4A (Map Volume) of the Draft EIS/EIR and its updated section presented in Volume 1 of the Final EIS/EIR;
- Table 2A in Volume 1 of the Final EIS/EIR;
- Affected Environment Maps in Volume 1 of the Final EIS/EIR;
- Responses to public comments presented in Volumes 2A, 2B, and 3 of the Final EIS/EIR;
- TANC's Certification of the Final EIS/EIR and Findings Pursuant to CEQA;
- Western's Record of Decision Pursuant to NEPA;
- Cultural Resources Inventory Report and Historic Properties Management Plan;
- Biological Assessment;
- Reports on sensitive plant and animal species that are not federally listed as threatened or endangered; and
- Agency decisions, permits, and other actions as identified in Table II-1.

V.

**ENVIRONMENTAL COMPLIANCE MONITORING  
RESPONSIBILITIES AND CONTACTS**

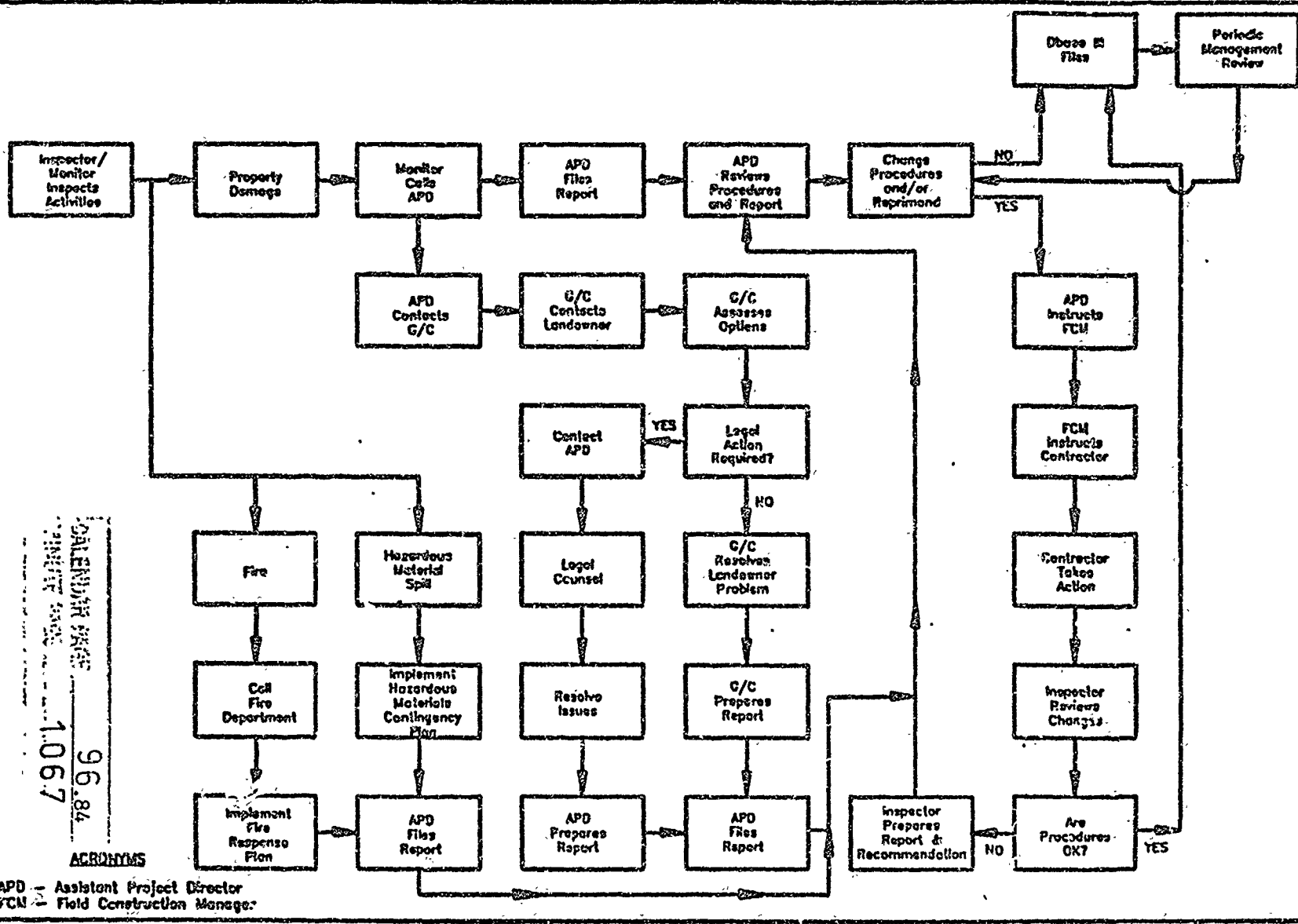
Responsibility for complying with mitigation rests with all entities involved in COTP planning, construction, operation, and maintenance. From a practical perspective, mitigation requirements are specified and enforced by TANC and Western, directed by the construction manager, and performed by the construction contractors. In addition to the construction management service contractor's inspectors, TANC and Western, as well as the land management agencies, will have monitors observing and documenting mitigation compliance. Table V-1 shows the expected agency monitors and construction inspectors.

The success of implementing and monitoring mitigation will depend largely upon effective communications between the monitors (agencies), inspectors (construction management services contractor), and the builders (construction contractors). Figures V-1 and V-2, respectively, are flow charts showing communications during emergency and nonemergency noncompliance situations.

It is expected that differences of opinion among the monitors, inspectors, and builders may occur during the construction of the COTP. The Environmental Coordinator and inspectors have the authority for stopping construction activities due to noncompliance with mitigation requirements. The individual discovering a noncompliance activity will need to consult immediately with appropriate agency, construction manager, and construction contractor representatives to evaluate how best to resolve the noncompliance situation.

FIGURE V-1

# Emergency Reporting During Construction



V-2

Revised 12/29/89

CALENDAR PAGE  
PROJECT NO. 1.067  
96.84

**ACRONYMS**

APD - Assistant Project Director  
FCM - Field Construction Manager

## VI.

### COORDINATION BETWEEN COTP PARTICIPANTS, AGENCIES, AND CONSTRUCTION CONTRACTORS

Effective communication and coordination between the agency monitors, construction management services contractor inspectors, and construction contractors will be essential during the construction of the COTP. In Section V is a general discussion of the steps that should be taken during a noncompliance situation.

This section sets forth a plan for preconstruction and preoperation coordination among the environmental monitors, construction inspectors, and builders. The intent of the coordination is to familiarize the representatives with monitoring and reporting procedures prior to when the procedures are implemented. The intent is also to set up a regular management level review of compliance monitoring to help ensure that the procedures remain effective.

#### Preconstruction Coordination

Prior to construction and shortly after construction contracts are awarded, TANC and Western will hold a meeting between the agency monitors, construction management services contractor inspectors, and construction contractors to review this ECMP, the site-specific mitigation plans, and to complete the list of individuals participating in environmental compliance monitoring. With the diversity of land ownership and jurisdiction (see Section I), it is anticipated that multiple meetings will be needed. Local, state, and federal agencies such as the air pollution control districts, the California Office of Historic Preservation, and the USDI Fish and Wildlife Service will be invited to attend the meetings. During the meetings, the

Revised 12/29/89

VI-1

CALENDAR PAGE 96.85  
MINUTE PAGE 1068

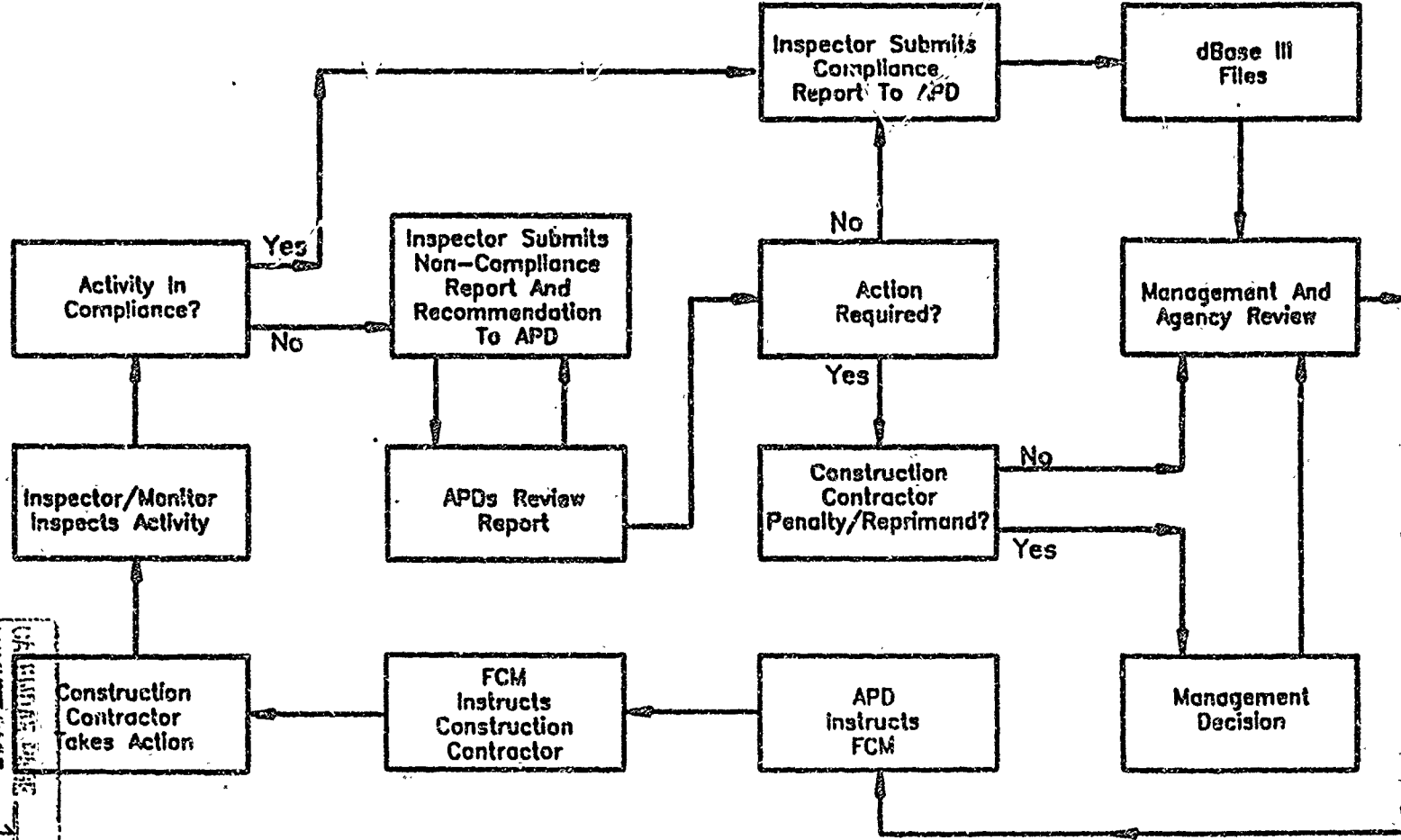
attendees need to specifically discuss the authorities and procedures for emergency and nonemergency noncompliance situations during construction.

Preoperation Coordination

Approximately six months prior to commercial operation of the line, another series of meetings should be held to establish contacts and procedures for communications relating to compliance monitoring during operation. This meeting should also serve to resolve outstanding issues from the construction phase. Again, representatives from appropriate local, state, and federal agencies will be invited to attend.

FIGURE V-2

# Non-Emergency Reporting During Construction



V-3

Revised 12/29/89

OF BUREAU FILE  
MINUTE PAGE 1070  
96

**Acronyms**

APD Assistant Project Director  
FCM Field Construction Manager



To help enforce compliance with mitigation requirements, provisions for penalties for noncompliance, in addition to costs for rectifying a noncompliance event, will be included in the construction management services and construction contractors agreements. Penalties will vary according to the magnitude of the problem and will be based on a number of considerations including the following:

- amount and severity of environmental damage resulting from noncompliance;
- expediency of construction management services contractor and construction contractor to rectify the problem; and
- frequency and type of previous noncompliance events.

TANC and Western will have sole authority on the final determinations for penalties. Penalties will be evaluated through consultation with appropriate land and resource agencies. TANC will consult with those involved and document, to the extent necessary, to obtain pertinent information leading to the final determination.