

Appendix C

**FSA/Draft EIS
Distribution List and
Transmittal Letters
Dated October 1998**

Sierra Nevada Customer Service Region

CALIFORNIA ENERGY COMMISSION1516 NINTH STREET
SACRAMENTO, CA 95814-5512

October 19, 1998



TO: AGENCY DISTRIBUTION LIST

REQUEST FOR AGENCY COMMENTS ON THE SUTTER POWER PLANT PROJECT

On October 19, 1998, the California Energy Commission (Energy Commission) and Western Area Power Administration (Western) filed the Final Staff Assessment (FSA)/Draft Environmental Impact Statement (Draft EIS) for the Sutter Power Plant Project (SPP). The Calpine Corporation (Calpine) is proposing to construct and operate a 500 MW natural gas fueled electric generation power plant. The proposed project is to be located about seven miles southwest of Yuba City on South Township Road near the intersection with Best Road.

To minimize duplication and regulatory delay, the Energy Commission and Western are completing a joint review and a joint California Environmental Quality Act (CEQA)/ National Environmental Policy Act (NEPA) document. The power plant and related facilities, such as the natural gas pipeline, electric transmission line and transmission switching station are under the Energy Commission's siting authority. The Energy Commission will act as lead state agency under CEQA. Since the project is also planned to interconnect to Western's transmission system, Western will act as lead federal agency under NEPA.

Sutter County is actively participating in the review of the proposed project as it will require a General Plan Amendment (GPA 97-04) and a change in the zoning (97-07). Sutter County staff has indicated that they will utilize the environmental documents produced jointly by the Energy Commission and Western as the environmental documentation for the decisions they will be making on Calpine's request for a General Plan Amendment and zoning change on their 77 acre parcel.

The FSA/Draft EIS contains the evaluation of both the construction and operation of the project. The document contains a discussion of applicable laws, ordinances, regulations and standards; a description of the project and the environmental setting; identification and discussion of the issues; an analysis of potential impacts; and recommended mitigation and conditions of certification. Commissioners Michal Moore and William Keese will be conducting publicly noticed evidentiary hearings on the project during November.

AGENCY PARTICIPATION

We request that you review the enclosed FSA/Draft EIS for the areas for which your agency would be responsible. Please provide any written comments by October 30, to Paul Richins, the Energy Commission's Project Manager (1516 Ninth Street, Sacramento, CA 95814) or Loreen McMahon, Western's Project Manager (114 Parkshore Drive, Folsom, CA 95630). You may also present your comments at the evidentiary hearings.

If you have questions or would like additional information on how to participate in the Energy Commission's review of the project, please contact Paul Richins, at (916) 654-4074, or E-mail at prichins@energy.state.ca.us. The FSA/Draft EIS, the status of the project, copies of notices and other relevant documents are also available via the Energy Commission's Internet web site at: <http://www.energy.ca.gov/sitingcases/sutterpower>.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert L. Therkesen".

ROBERT L. THERKELSEN, Deputy Director for
Energy Facilities Siting & Environmental Protection

STATE OF CALIFORNIA — THE RESOURCES AGENCY

Pete Wilson, Governor

CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
Sacramento CA 95814
website: www.energy.ca.gov



STATE OF CALIFORNIA
Energy Resources
Conservation and Development Commission

Notice of Availability
Final Staff Assessment/Draft Environmental Impact
Statement
Sutter Power Plant Project
Application For Certification (97-AFC-2)

On October 19, 1998, the California Energy Commission (Energy Commission) and Western Area Power Administration (Western) filed the Final Staff Assessment (FSA)/Draft Environmental Impact Statement (Draft EIS) for the Sutter Power Plant Project (SPP). The Calpine Corporation (Calpine) is proposing to construct and operate a 500 MW natural gas fueled electric generation power plant. The proposed project is to be located about seven miles southwest of Yuba City on South Township Road near Best Road.

To minimize duplication and regulatory delay, the Energy Commission and Western are completing a joint review and a joint California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) document. The power plant and related facilities, such as the electric transmission line, natural gas pipeline and transmission switching station, are under the Energy Commissions siting authority. The Energy Commission will act as lead state agency under CEQA. Since the project is also planned to interconnect to Western's transmission system, Western is acting as lead federal agency under NEPA.

Sutter County is actively participating in the review of the proposed project as it will require a General Plan Amendment (GPA 97-04) and a change in the zoning (97-07). Sutter County staff has indicated that they will utilize the environmental documents produced jointly by the Energy Commission and Western as the environmental documentation for the decisions they will be making on Calpine's request for a General Plan Amendment and zoning change on their 77 acre parcel.

The FSA/Draft EIS contains the environmental and engineering evaluation and analysis of both the construction and operation of the project. The

document contains a discussion of applicable laws, ordinances, regulations and standards; a description of the project and the environmental setting; identification and discussion of the issues; an analysis of potential impacts; and recommended mitigation. Commissioners Michal Moore and William Keese will be conducting publicly noticed evidentiary hearings on the project during November.

Copies of the FSA/Draft EIS are available for review at the Sutter County Community Services Department and the Sutter County Library. The entire document is also on the Energy Commission's web page (see web site address below). If you would like a copy of the FSA/Draft EIS, please fill out the enclosed form and return it to: California Energy Commission, Luz Manriquez-Uresti, 1516 Ninth Street, MS-15, Sacramento, CA 95814.

Persons wanting information on how to participate in the Energy Commission's review of the project should contact Ms. Roberta Mendonca, the Energy Commission's Public Adviser, at (916) 654-4489, or toll free in California at (800) 822-6228. Technical or project schedule questions should be directed to Paul Richins, Jr., Energy Commission Project Manager, at (916) 654-4074, or E-mail at prichins@energy.state.ca.us. The FSA/Draft EIS and other relevant documents are available on the Energy Commission's Internet web site at: <http://www.energy.ca.gov/sitingcases/sutterpower>. News media inquiries should be directed to Assistant Executive Director, Claudia Chandler.

Dated: October 22, 1998

ENERGY RESOURCES
CONSERVATION AND
DEVELOPMENT COMMISSION

____//signed//____
ROBERT L. THERKELSON,
Deputy Director
Energy Facilities Siting &
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Mail List #709

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Sacramento, CA 95814

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421 "I" Street
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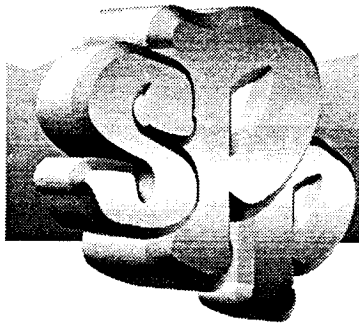
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Appendix



**California Energy Commission
Correction to the FSA/Draft EIS
on Waste Management, Noise,
Paleontological Resources and
Transmission System Engineering;
Dated Nov. 2, 1998**

California-Nevada Customer Service Region

CALIFORNIA ENERGY COMMISSION

16 NINTH STREET
SACRAMENTO, CA 95814-5512



November 2, 1998

Corrections to the following sections of the Final Staff Assessment/Draft Environmental Impact Statement are attached:

- Waste Management
- Noise
- Paleontological Resources
- Transmission System Engineering

DOCKET	
97-AFC-2	
DATE	NOV 2 1998
RECD.	NOV 3 1998

Calpine has agreed to these minor changes. The change in Paleontological Resources is a reflection of a production error as several pages were inadvertently dropped.

The qualifications of Al McCuen, Transmission System Engineer, are also included.

PROOF OF SERVICE REQUIRED
 FILED WITH [unclear] 11/3/98
 SACRAMENTO, CALIF. h

PALEONTOLOGIC RESOURCES
Testimony of Kathryn M. Matthews

PROPOSED CONDITIONS OF CERTIFICATION

REQUIREMENTS

PAL-1 Prior to the start of project construction (defined as any construction-related vegetation clearance, ground disturbance and preparation, and site excavation activities), the project owner shall provide the California Energy Commission Compliance Project Manager (CPM) with the name(s) and qualifications of its designated paleontologic resources specialist and mitigation team members.

The designated paleontologic resources specialist shall be responsible for implementing all the Conditions of Certification and for using qualified personnel to assist him or her in project-related field surveys; monitoring; fossil stabilization, removal, and transport; data collection and mapping; direction and implementation of mitigation procedures; matrix sampling, screen washing, and other micro-fossil recovery techniques; preparation and analysis of recovered fossils and data; identification and inventory of recovered fossils; preparation of recovered fossils for delivery and curation; and report preparation.

After CPM approval of the Paleontologic Resources Monitoring and Mitigation Plan, described below in Condition PAL-4, the designated paleontologic resources specialist and team shall be available to implement the mitigation plan prior to, and throughout construction of the project.

Protocol: The project owner shall provide the CPM with a resume or statement of qualifications for its designated paleontologic resources specialist and mitigation team members. The resume(s) shall include the following information:

1) The resume for the designated paleontologic resource specialist shall demonstrate that the specialist meets the following minimum qualifications: a graduate degree in paleontology or geology, or paleo resource management; at least three years of paleontologic resource mitigation and field experience in California, including at least one year's experience leading paleontologic resource field surveys; leading site mapping and data recording; marshalling and use of equipment necessary for fossil recovery, sampling, and screen washing; leading fossil recovery operations; preparing recovered materials for analysis and

identification; recognizing the need for appropriate sampling and/or testing in the field and in the lab; directing the analyses of mapped and recovered fossil materials; completing the identification and inventory of recovered fossil materials; and the preparation of appropriate reports to be filed with the receiving curation repository, the UC Museum of Paleontology at Berkeley, all appropriate regional information center(s), and the Commission.

2) The resume for the designated paleontologic resource specialist shall include a list of specific projects the specialist has previously worked on; the role and responsibilities of the specialist for each project listed; and the names and phone numbers of contacts familiar with the specialist's work on these referenced projects.

3) If additional personnel will be assisting the designated paleontologic resources specialist in project-related field surveys, monitoring, data and fossil recovery, mapping, mitigation, fossil analysis, or report preparation, the project owner shall also provide names, addresses, and resumes for these paleo resource team members.

4) If the CPM determines that the qualifications of the proposed paleontologic resources specialist are not in concert with the above requirements, the project owner shall submit another individual's name and qualifications for consideration.

5) If the previously approved, designated paleontologic resources specialist is replaced prior to completion of project mitigation, the project owner shall obtain CPM approval of the new designated paleontologic resources specialist by submitting the name and qualifications of the proposed replacement to the CPM, at least ten (10) days prior to the termination or release of the preceding designated paleontologic resources specialist.

At least ninety (90) days prior to the start of construction on the project, the project owner shall submit the name and resume for its designated paleontologic resources specialist, to the CPM for review and approval. The CPM shall provide written approval or disapproval of the proposed paleontologic resources specialist.

Thirty (30) days prior to start of construction, the project owner shall confirm in writing to the CPM that the previously approved, designated paleontologic resources specialist and the team of assistants are prepared to implement the monitoring and mitigation measures for paleo resources, as described in the CPM-approved Paleontologic Resources Monitoring and Mitigation Plan, prepared per Condition PAL-4, below.

At least ten (10) days prior to the termination or release of a designated paleontologic resource specialist, the project owner shall obtain CPM approval of the new designated paleontologic resource specialist by submitting to the CPM the name and resume of the proposed replacement specialist.

PAL-2 Prior to the start of project construction, the project owner shall provide the designated paleontologic resource specialist and the CPM with maps and drawings for the Sutter Power Plant Project. The final center lines and right-of-way boundaries shall be provided on 7.5 minute quad maps, and the location of all the various areas where surface disturbance may be associated with project-related access roads, storage yards, laydown sites, pull sites, pump or pressure stations, switchyards, electrical tower or pole footings, etc.

Where the potential for impacts to significant paleontologic resources has been identified, the designated paleontologic resources specialist may request, and the project owner shall provide, enlargements of portions of the 7.5 minute maps presented as a sequence of strip maps for the linear facility routes. The strip maps would show post mile markers and the detailed locations of proposed access roads, storage or laydown sites, tower or pole footings, and any other areas of disturbance associated with the construction and maintenance of linear facilities.

Verification: At least ninety (90) days prior to the start of construction on the project, the project owner shall provide the designated paleontologic resource specialist and the CPM with final maps at appropriate scale(s) and drawings for all project facilities. Any request for more detailed maps by the designated paleontologic resource specialist shall also be submitted in writing to the CPM.

PAL-3 Prior to the start of project construction, the designated paleontologic resource specialist shall prepare a draft Paleontologic Resources Monitoring and Mitigation Plan to identify general and specific measures to minimize potential impacts to sensitive paleontologic resources. The CPM will review and must approve in writing, the draft Paleontologic Resources Monitoring and Mitigation Plan. After CPM approval, the project owner's designated paleontologic resource specialist and designated paleontologic resource team shall be available to implement the Monitoring and Mitigation Plan, as needed throughout project construction.

Protocol: The Paleontologic Resources Monitoring and Mitigation Plan shall include, but not be limited to, the following elements and measures:

- a. A discussion of the sequence of project-related tasks, such as any final pre-project surveys, fieldwork, flagging or staking; construction monitoring; mapping and data recovery; fossil preparation and recovery; preparation for analysis, identification, and inventory; preparation of preliminary and final reports, and preparation of materials for curation.
- b. An identification of the person(s) expected to assist with each of the tasks identified in a, above, and a discussion of the mitigation team leadership and organizational structure, and the inter-relationship of tasks and responsibilities.
- c. Where sensitive areas are to be avoided during construction and/or operation, the designated paleontologic resource specialist shall identify measures such as flagging or fencing to prohibit or otherwise restrict access to sensitive resource areas. The discussion should address how these measures will be implemented prior to the start of construction and how long they will be needed to protect the resources from project-related effects.
- d. Where monitoring of project construction activities is deemed necessary by the designated paleontologic resource specialist, the specialist will determine the size or extent of the areas where monitoring is to occur and will establish a schedule for the monitor(s) to be present. If the designated specialist determines that the likelihood of encountering fossil resources in certain areas is slight, monitoring may be discontinued in that location;
- e. If fossil-bearing sediments or fossil materials are encountered on the surface or are exposed during project-related grading, augering, and/or trenching, the designated paleontologic resource specialist shall have the authority to halt or redirect construction in the immediate vicinity of the find until he or she can determine the significance of the find. The designated paleontologic resources specialist shall act in accordance with the following procedures:
 - The project owner, or its designated representative, shall inform the CPM within one working day of the discovery of any potentially significant paleontologic resources and discuss the specific measure(s) proposed to mitigate potential impacts to these resources.
 - The designated paleontologic resource specialist, representatives of the project owner, and the CPM shall confer within five working

days of the notification of the CPM, if necessary, to discuss any mitigation measures already implemented or proposed to be implemented and to discuss the disposition of any finds.

- All necessary and required data recovery and mitigation shall be completed as expeditiously as possible.
- f. A discussion of the designated paleontologic resource specialist's access to equipment and supplies necessary for recovery of fossil materials and matrix samples. This should include information on the types and availability of specialized equipment and supplies needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits.
- g. All paleontologic resource localities, rock units, and sediment and stratigraphic boundaries encountered shall be recorded (may include photos) and mapped; all vertebrate fossils and trackways, and all diagnostic invertebrate and plant fossils shall be stabilized, prepared and recovered for identification and analysis; adequate samples of potentially fossil-bearing matrix shall be collected and screen washed for sorting and analysis of micro-fossils; recovered fossil materials shall be analyzed and identified to the genus level whenever possible; and all recovered fossil materials shall be inventoried, prepared, and delivered for curation into a retrievable storage collection in a public repository or museum which meets the Society of Vertebrate Paleontologists (SVP) standards and requirements for the curation of paleontologic resources;
- h. Identification of the institution that has agreed to receive any data and fossil materials recovered during project-related monitoring and mitigation work. Discussion of any requirements or specifications for materials delivered for curation and how they will be met. Also include the name and phone number of the contact person at the institution.

Verification: At least forty-five (45) days prior to the start of construction on the project, the project owner shall provide the CPM with a copy of the draft Monitoring and Mitigation Plan prepared by the designated paleontologic resource specialist. The CPM shall provide written approval or disapproval of the proposed Paleontologic Resources Monitoring and Mitigation Plan within 15 days of receipt of the submittal. If the draft plan is not approved, the project owner, the designated paleontologic resources specialist, and the CPM shall meet to discuss comments and work out necessary changes.

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- f. A discussion of the designated paleontologic resource specialist's access to equipment and supplies necessary for recovery of fossil materials and matrix samples. This should include information on the types and availability of specialized equipment and supplies needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits.
- g. All paleontologic resource localities, rock units, and sediment and stratigraphic boundaries encountered shall be recorded (may include photos) and mapped; all vertebrate fossils and trackways, and all diagnostic invertebrate and plant fossils shall be stabilized, prepared and recovered for identification and analysis; adequate samples of potentially fossil-bearing matrix shall be collected and screen washed for sorting and analysis of micro-fossils; recovered fossil materials shall be analyzed and identified to the genus level whenever possible; and all recovered fossil materials shall be inventoried, prepared, and delivered for curation into a retrievable storage collection in a public repository or museum which meets the Society of Vertebrate Paleontologists (SVP) standards and requirements for the curation of paleontologic resources;
- h. Identification of the institution that has agreed to receive any data and fossil materials recovered during project-related monitoring and mitigation work. Discussion of any requirements or specifications for materials delivered for curation and how they will be met. Also include the name and phone number of the contact person at the institution.

Verification: At least forty-five (45) days prior to the start of construction on the project, the project owner shall provide the CPM with a copy of the draft Monitoring and Mitigation Plan prepared by the designated paleontologic resource specialist. The CPM shall provide written approval or disapproval of the proposed Paleontologic Resources Monitoring and Mitigation Plan within 15 days of receipt of the submittal. If the draft plan is not approved, the project owner, the designated paleontologic resources specialist, and the CPM shall meet to discuss comments and work out necessary changes.

PAL-4

Prior to the start of project construction, the project owner shall conduct a pre-construction reconnaissance and staking in all areas expected to be affected by construction and operation of the proposed project and its associated linear facilities. The staking of the linear facilities shall use the final design, centerlines, rights-of-way, and post miles delineated in the construction drawings and maps prepared under Condition of Certification PAL-2. The designated paleontologic resources specialist will use the post mile stakes and boundary markers to identify sensitive areas with the potential to produce paleontologic resources and for implementation of specific measures, as described in Condition PAL-8, below.

Verification: A least thirty (30) days prior to the start of construction, the project owner shall complete a pre-construction reconnaissance and staking of mile-posts and right-of-way boundaries in all areas expected to be affected by construction and operation of the proposed project and its associated linear facilities.

PAL-5

Prior to the start of construction on the project, the designated paleontologic resources specialist shall prepare an employee training program. The designated paleontologic resource specialist shall submit the training program to the CPM for approval.

Protocol: The training program will discuss the potential to encounter fossil resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources.

The training shall also include the set of reporting procedures that workers are to follow if sensitive paleontologic resources are encountered during project activities. The training program will be presented by the designated paleontologic resources specialist and may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or any other areas of interest or concern.

Verification: At least thirty (30) days prior to the start of construction on the project, the project owner shall submit to the CPM for review, comment, and written approval, the proposed employee training program and set of reporting procedures the workers are to follow if paleontologic resources are encountered during project construction.

The CPM shall provide the project owner with written approval or disapproval of the employee training program and the set of procedures within 15 days of receipt of the submittal. If the draft training program is not approved, the project owner, the

designated paleontologic resources specialist, and the CPM shall meet to discuss the comments and work out necessary changes.

PAL-6 Prior to the start of construction, and throughout the project construction period as needed for all new employees, the project owner and the designated paleontologic resource specialist shall provide the CPM-approved training to all project managers, construction supervisors, and workers who operate ground disturbing equipment. The project owner and construction manager shall provide the workers with the CPM-approved set of procedures for reporting any sensitive paleontologic resources or fossil-bearing sediments that may be discovered during project-related ground disturbance.

Verification: Prior to the start of construction, and throughout the project construction period as needed for all new employees, the project owner and the designated paleontologic resources specialist shall present the CPM-approved training program on the potential for project impacts to sensitive paleontologic resources. The training shall include a set of reporting procedures for paleo resources encountered during project activities. The project owner shall provide documentation in the Monthly Compliance Report to the CPM that the employee training and the set of procedures have been provided to all project managers, construction supervisors, and to all workers.

PAL-7 Throughout the project construction period, the project owner shall provide the designated paleontologic resource specialist with a current schedule of anticipated weekly project activity and a map indicating the area(s) where construction activities will occur. The designated paleontologic resource specialist shall consult daily with the project superintendent or construction field manager to confirm the area(s) to be worked on the next day(s).

Throughout the paleontologic resources pre-construction reconnaissance, monitoring and mitigation phases of the project, the designated paleontologic resources specialist shall keep a daily log of any fossil resource finds and the progress or status of the surveys, resource monitoring, mitigation, preparation, identification, and analytical work being conducted for the project. The designated paleontologic resource specialist may informally discuss the paleo resource monitoring and mitigation activities with their Commission technical counterpart.

Verification: The project owner shall include in the Monthly Compliance Reports to the CPM, a summary of the daily logs prepared by the designated paleontologic resource specialist.

PAL-8 The designated paleontologic resource specialist shall be present at all times to monitor construction-related grading, excavation, trenching, and/or augering in areas where remnant river terrace deposits have been found. These terrace remnants have been may generally correlate with soils of the Conejo-Tisdale group and Pleistocene-age fossil materials may be present.

Project areas where the terrace deposits may be found include the power plant site, the new switchyard site, and portions of the 16-inch natural gas pipeline route and the electric transmission line route. Using the mile posts and boundary stakes placed by the project owner, the designated paleontologic resource specialist shall monitor the route of the 16-inch natural gas pipeline, between Mile Post (MP) 0.00 to MP 2.07; MP 3.58 to MP 3.70; MP 4.10 to MP 4.50. For the route of the 4.0-mile electric transmission line, areas to be monitored full-time are MP 0.00 to MP 1.40; and MP 1.80 to MP 2.60. For the route of the 5.7-mile alternative transmission line, full-time monitoring is to be done from MP 0.00 to 1.40; MP 1.80 to MP 2.60; and MP 2.80 to MP 5.20.

Other sections of the linear facility routes may be monitored as deemed necessary by the designated paleontologic resources specialist.

Verification: The project owner shall include in the Monthly Compliance Reports to the CPM, a summary of the daily logs prepared by the designated paleontologic resource specialist.

PAL-9 The project owner, through the designated paleontologic resources specialist, shall ensure the recovery, preparation for analysis, analysis, identification and inventory, the preparation for curation, and the delivery for curation of all significant paleontologic resource materials encountered and collected during pre-construction surveys and during the monitoring, data recovery, mapping, and mitigation activities related to the project.

Verification: The project owner shall maintain in its compliance files, copies of signed contracts or agreements with the designated paleontologic resource specialist and other qualified research specialists who will ensure the necessary data and fossil recovery, mapping, preparation for analysis, analysis, identification and inventory, and preparation and delivery for curation of all significant paleontologic resource materials collected during data recovery and mitigation for the project. The project owner shall keep these files available for periodic audit by the CPM.

PAL-10 The project owner shall ensure preparation of a Preliminary Paleontologic Resources Report following completion of data recovery

and site mitigation work. The preliminary report is to be prepared by the designated paleontologic resources specialist and submitted to the CPM for review, comment, and written approval.

Protocol: The preliminary report shall include (but not be limited to) preliminary information on the survey report(s), methodology, and recommendations; site records and maps; determinations of sensitivity and significance; data recovery and other mitigation activities; possible results and findings of any analysis to be conducted on recovered paleontologic resource materials and data; proposed research questions that may be answered or may have been raised by the data from the project; and an estimate of the time needed to complete the analysis of recovered fossil materials and prepare a final report.

If no fossil resources were recovered during project construction, the CPM-approved preliminary report shall also serve as the final report and shall be filed with appropriate entities, as described in conditions PAL-11 and PAL-12.

Verification: Within ninety (90) days following completion of the data recovery and site mitigation work, the project owner shall submit a copy of the Preliminary Paleontologic Resources Report to the CPM for review, comment, and written approval.

PAL-11 The project owner shall ensure preparation of a Final Paleontologic Resources Report by the designated paleontologic resources specialist, if significant fossil resources are found and recovered during project-related surveys, monitoring and mitigation.

Protocol: The final report shall include (but not be limited to) the survey report(s), methodology, and recommendations; locality records and maps; description and inventory list of recovered fossil materials; determinations of sensitivity and significance; summary of data recovery and other mitigation activities; results and findings of any special analyses conducted on recovered paleontologic resource materials and data; research questions answered or raised by the data from the project; and the name and location of the public institution receiving the recovered paleontologic resources for curation.

Verification: The project owner shall submit a copy of the draft Final Paleontologic Resources Report to the CPM for review, comment and written approval. The draft Final Paleontologic Resources Report shall be submitted to the CPM within ninety (90) days following completion of the analysis of the recovered fossil materials and preparation of text and related information, such as maps, diagrams, tables, charts, photos, etc.

PAL-12

The project owner, through the designated paleontologic resources specialist, shall submit an original, or an original-quality, copy of the CPM-approved Final Paleontologic Resources Report to the public institution receiving the recovered data and materials for curation, to the Museum of Paleontology at UC Berkeley, and to the appropriate regional information center(s). A legible copy of the approved Final paleontologic Resources Report shall be filed with the CPM, with a request for confidentiality, if needed to protect any sensitive resources or sites.

Protocol: The copies of the CPM-approved Final Report sent to the entities identified above shall include the following (as applicable to the project findings set forth in the final report): clean and reproducible original copies of all text; originals of any topographic maps showing site and resource locations, boundaries of underlying rock units and stratigraphy; original or clear copies of drawings of significant paleontologic resource materials found during pre-construction surveys, during project-related monitoring, data recovery, and mitigation; and photographs (including a set of negatives, if possible) of the locality(ies) and the various paleontologic resource materials recovered during project monitoring and mitigation and subjected to post-recovery analysis and evaluation.

Verification: The project owner shall maintain in its compliance files, copies of all documentation related to the filing of the original materials and the CPM-approved Final Paleontologic Resources Report with the public institution receiving the data and recovered materials for curation, the UC Museum of Paleontology at Berkeley, and the appropriate paleontologic information repository(ies). If no significant paleontologic resources were recorded or recovered, then the CPM-approved Preliminary Paleontologic Resources Report shall serve as the final report and is to be filed with these same entities.

PAL-13

Within thirty (30) days following filing of the Final Paleontologic Report with the appropriate entities, the project owner shall deliver for curation all paleontologic resource materials collected during data recovery and mitigation for the project. The materials shall be delivered for curation into a public repository(ies), by which the project owner has provided for delivery for curation of all the paleontologic resource materials collected during data recovery and site mitigation for the project.

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Outlet Line

The outlet line to the Tudor-Murray switching station site will be a 230 kilovolt line approximately 5.7 miles long and will be a double circuit configuration operated as a single circuit design with one 1272 thousand circular mills aluminum conductor steel reinforced conductor per phase² (See attached Technical Terms). The line will utilize a single steel pole with davit arm and polymer suspension insulators (see Project Description Figure 4). The ruling span (distance between poles) will be 750 to 800 feet. The minimum ground clearance will be 30 feet at a 90°Centigrade conductor temperature which meets CPUC General Order No. 95 requirements. The right of way will be approximately 100 to 125 feet wide. The 1272 thousand circular mill conductor has a normal/emergency current rating of 1178/1332 amperes and at 230 kilovolts with a power factor of 0.95, the thermal rating is 446/504 megawatts, respectively. The normal conductor rating is based on a maximum conductor temperature of 80°Centigrade with a 40°Centigrade ambient. The emergency rating is based on a maximum summer conductor temperature of 88°Centigrade with a 40°Centigrade ambient³. The generating units produce 525 megawatts with a current of 1387 ampere which is essentially within the conductor capability when operated as a single circuit or double⁴ circuit line. The Cal-ISO, Western and staff consider the 1272 conductor as the minimum conductor size acceptable for the SPP in order to reliably meet a single circuit outage criteria.

Three alternative outlet line terminations were considered by Calpine (See Alternative Section below).

Sutter Bypass Switching Station Termination

The Sutter Bypass switching station will be located at the south end of an extension of South Township Road. ~~next to the Sutter Bypass Tudor Murray switching station site.~~ The station will consist of a five breaker ring bus arranged to accommodate the two existing Western 230 kilovolt lines, the project's proposed 230 kilovolt line, and a potential future line to Western's Elverta substation. The station maximum fault current will be 17,200 amperes with the circuit breakers having an interrupting rating of 40,000 amperes. The ring bus will be designed with switches, breakers, and buswork ratings of 3,000 amperes continuous (Calpine 1997, AFC page 6-5). Staff

² There will be two phase a, two phase b and two phase c conductors bused together at both the powerplant switchyard and at the Sutter Bypass switching station.

³ Staff calculation using the EPRI TLW Workstation DYNAMP Program. Wind speed four feet per second, 104 degree Fahrenheit ambient temperature, 80 degree Centigrade maximum normal conductor temperature, 88 degree Centigrade maximum emergency conductor temperature, time 2:00 p.m., date July 8, conductor emissivity 0.9, conductor absorbtivity 1.0, latitude 40 degrees, longitude 122 degrees, incident solar flux 100 percent, line orientation north/south.

⁴ Transient analysis during high temperatures (104 degrees Fahrenheit) indicate some temperature excursions above 88 degrees Centigrade but none above 90 degrees Centigrade. Staff considers the conductor as adequate for reliable operation under a single circuit outage.

Route and Switching Station Site Alternatives

Calpine initially considered two outlet/Sutter Bypass switching station alternatives for the O'Banion North switching station site, alternative A and alternative B. Alternative A would have used two, two-circuit lines which would have "looped" the existing Western Keswick and Olinda lines. This would have eliminated the Sutter Bypass switching station because the existing Western lines would have been interrupted with power flowing to the SPP switchyard and then returning on a double circuit line. This alternative was rejected by Calpine.

A second option, alternative B which would terminate on existing Western 230 kilovolt lines, was to use a single circuit 230 kilovolt, steel pole line terminated in a new Sutter Bypass switching station at the O'Banion North site. This option was originally selected by Calpine as their preferred and proposed configuration but was subsequently rejected by Calpine.

As previously discussed, a third switching station site O'Banion-South on the west or east side of the PG&E and Western lines is under evaluation by Calpine, Western and staff. It is a shorter route than the Tudor-Murray switching station site which may reduce costs. It is slightly inferior to the Tudor-Murray site from a reliability perspective because the O'Banion-South site requires undercrossing of the 500 kilovolt line which is not required for the Tudor-Murray site. It is likely that the O'Banion-South site can be constructed and operated to fully meet reliability criteria and safety criteria (Personal Cons Mike DeBortoli, Oct 13, 1998). ~~however, additional information from Calpine is needed to verify this.~~ The switchyard size and design will be similar to the switching station site at the Tudor-Murray site. The decision to put the switchyard on the west as opposed to east side of the PG&E and Western lines will be made in the future and will be based partially on the potential stage II construction and operating needs (Calpine 1998q). ~~It appears that There is sufficient room on both the west or east side of the 500 kilovolt and 230 kolovolt lines (Personal Cons, Mike DeBortoli, Oct 13, 1998). It is anticipated that sufficient information will be available by the adjudicatory hearings to determine conformance with reliability and safety criteria and identify relative merit if appropriate.~~ The Tudor-Murray and O'Banion South site and switching station configurations is are considered acceptable.

Staff has identified an alternative route to the O'Banion South switching station site that would potentially reduce the visual impacts of the route along O'Banion Road. The route proceeds south from the proposed switchyard at the power plant site approximately 0.3 mile to a dirt road that runs west from South Township Road. The route then turns west and proceeds to the existing PG&E 500 kilovolt transmission line. The route then runs south parallel to the PG&E line to the O'Banion South switching station site. The route is approximately 3.8 miles long and would be substantially farther from residences and public roads than the route along South Township Road and O'Banion Road. While this route to the O'Banion South switching station site does not provide access to all of the poles, 230 kilovolt lines infrequently require maintenance. It has not been determined how close the SPP

poles could be to the existing PG&E 500 kilovolt lines. It is to be noted also that the adjacent 500 kilovolt and 230 kilovolt lines do not always have road access to the Towers. This route to the degree it parallels existing transmission facilities and could potentially share existing right of way would also comport with the siting criteria stated in Transmission System and Right of Way Planning for the 1990's and Beyond which put forth the findings pursuant to Senate Bill 2431.

These criteria include:

- TSE-Upgrades: The use of existing right of way should be encouraged by upgrading existing facilities where technically and economically feasible;
- TSE-Existing Right of Way: Expansion of existing right of way should be encouraged whenever construction of new transmission lines is required;
- TSE-New Right of Way: New right of way should be created when justified by environmental, technical, or economic reasons, as determined by the appropriate licensing agency; and
- TSE-Efficient Use of New Capacity: Agreement among all interested parties should be sought on efficient use of new transmission capacity whenever there is a need to construct such capacity.

From a transmission system engineering perspective a route that parallels the 500 kilovolt and 230 kilovolt corridor is considered feasible.

Termination Point and Facilities

Calpine considered three termination alternatives to deliver project output to the system. Alternative 1 would have been a double circuit 115 kilovolt line to the PG&E Rio Oso substation some 14 miles southeast of the SPP site. This substation is heavily loaded and could not likely accommodate the project output and was eliminated from consideration (Calpine 1997, Section 6, page 29). Alternative 2 would have terminated at Rio Oso also but with a single circuit 230 kilovolt line. This alternative was eliminated for the same reason. Alternative 3 is a single circuit 230 kilovolt line proposed to terminate at the Sutter Bypass switching station which has been previously discussed. As previously discussed, a two circuit configured line is now proposed by Calpine and would terminate in a Sutter Bypass Switching station which has provisions for additional lines for the future. From a transmission system engineering perspective staff considers the Sutter Bypass switching station at the Tudor-Murray and O'Banion South site termination acceptable. ~~Staff anticipates receipt of sufficient additional information by the adjudicatory hearings, to make recommendations on the O'Banion South switching station sites~~

FACILITY CLOSURE

CPUC GO-95, Rule 31.6 requires that "lines or portions of lines permanently abandoned shall be removed by their owners so that such lines shall not become a public nuisance or a hazard to life or property." Condition of certification TSE-1c requires conformance in the event of closure of the SPP.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Staff concludes that the power plant switchyard, double circuit outlet line, termination point and Sutter Bypass switching stations at the O'Banion South (east and west alternatives) and at the Tudor-Murray site are acceptable. The adoption of the proposed conditions of certification will assure compliance with applicable LORS including reliability criteria.

The SPP provides significant power to the Sacramento Valley area, would help mitigate local system voltage problems and provides moderate power for load growth.

RECOMMENDATIONS

From a transmission system engineering perspective staff recommends that the Commission approve the SPP. Staff recommends that the Commission adopt the following findings and the conditions of certification, if it approves the SPP project:

- The SPP provides significant power to the Sacramento Valley area, would help mitigate local system voltage problems and provides moderate power for load growth.
- With the conditions of certification included herein the switchyard, transmission outlet line, and Sutter Bypass switching station at the Tudor-Murray and O'Banion South site will likely comply with applicable transmission system engineering LORS.

CONDITIONS OF CERTIFICATION

TSE-1

The project owner shall ensure that the design, construction and operation of the proposed transmission facilities will conform to requirements 1a through 1e listed below. The substitution of CPM approved "equivalent" equipment and equivalent switchyard configurations is acceptable.

a. The project 230 kilovolt project switchyard shall include a four circuit breaker ring bus with breaker ratings of 40,000 amperes (interrupting) and ring bus, switches, breakers and buswork rated at 2,000 ampere continuous.

b. An approximately 4 or 5.7 mile double circuit configuration line operated as a single circuit 230 kilovolt line using steel pole construction with conductors sized at a minimum of 1272 thousand circular mill Aluminum Conductor Steel Reinforced shall be constructed to the O'Banion South or Tudor-Murray Sutter Bypass switching station- site, respectively.

Albert A. McCuen

SENIOR ELECTRICAL ENGINEER

Education

A.S., Electronic Engineering, College of the Siskiyous, Weed, CA

B.S., Electrical Engineering, California State University, CA

Professional Background

1990 to present

Senior Transmission Planner for Regulatory Transmission Engineering, Electrical Engineering, and Transmission System Evaluation. Special consultant for Transmission Safety and Nuisance discipline.

1987 to 1989

Supervisor of Transmission Evaluation Unit for Transmission Safety and Nuisance, Electrical Engineering, Transmission Engineering and Transmission System Evaluation technical disciplines.

1978 to 1987

Transmission System Program Specialist/Health and Safety Program Specialist, California Energy Commission (CEC), Siting and Environmental Division.

Expert witness for the Commission's power plant approval process and Commission staff transmission planner. Major assignments in transmission engineering and transmission system planning. Duties emphasize determination of the adequacy, acceptability and relative merit of applicant proposals for major transmission facilities (and staff proposed alternatives) in consideration of economics, reliability, conformance with transmission system planning criteria and coordination of regional transmission and generation facilities. Major assignments have also included scoping macro transmission policies for California, Developing Commission transmission system planning regulations and guidelines, developing common forecasting methodology for transmission system planning utility reporting.

1977 - 1978

Manager, Transmission Line Effects Section, CEC, Compliance and Safety Office.

Research, analysis and evaluation of public health, safety and nuisance concerns for transmission lines. Duties included engineering calculations of transmission line electrical effects, review and assessment of technical publications and health, safety and nuisance standards.

1976 - 1977

Energy Facility Siting Planner, CEC, Compliance and Safety Office

Research and evaluation of existing material and health and safety standards applicable to thermal power plants and transmission lines. Responsible for coordination of expert witness to testify at hearings. preparation of cross examination questions, analysis of impact of effects and preparation of staff summary reports on Notice of Intent(s) and hearing testimony.

1969 - 1976

Electrical Engineering. Private firm - Electrical, Mechanical and Systems Engineering Construction Contractor

Engineering duties and coordination responsibilities for the construction of power plants, switchyards, power lines, industrial buildings and process control systems. Responsible for code and specification interpretation and compliance, design, project cost estimates and installation.

ERRATA - WASTE MANAGEMENT

CONDITIONS OF CERTIFICATION

WASTE-1 The project owner shall obtain a hazardous waste generator identification number and hazardous waste treatment permits for neutralization facilities and ~~oil water separator(s)~~ from the Department of Toxic Substances Control prior to generating any hazardous waste.

Verification: The project owner shall keep copies of the identification number and permits on file at the project site and notify the CPM via the monthly compliance report of their receipt.

TO: Paul Richins
FROM: Steve Baker
DATE: October 29, 1998
SUBJECT: Sutter FSA - Noise Changes

Please make the following changes to Noise CofC-6, per our 10/28/98 conference call with Calpine and my communications today with George Carpenter:

NOISE-6 Upon the project first achieving an output of 80 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey, utilizing the same monitoring sites employed in the pre-project ambient noise survey as a minimum. The survey shall also include the octave band pressure levels to ensure that no new pure-tone noise components have been introduced. ~~No single piece of equipment shall be allowed to stand out as a dominant source of noise that draws complaints.~~ If the results from the survey indicate that operation of the power plant causes noise levels in excess of 45 dBA (L_{eq}) measured at the ~~property line of the~~ nearest residence, additional mitigation measures shall be implemented to reduce noise to a level of compliance with this limit. No single piece of equipment shall be allowed to stand out as a dominant source of noise.

Verification: Within 30 days after first achieving an output of 80 percent or greater of rated output, the project owner shall conduct the above described noise survey. Within 30 days after completing the survey, the project owner shall submit a summary report of the survey to the Sutter County Community Services Department and the CPM. Included in the report will be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. Within 30 days of completion of installation of these measures, the project owner shall submit to the CPM a summary report of a new noise survey, performed as described above and showing compliance with this condition.



Appendix E

**Sutter County Community
Services Department
Correspondence to Sutter County
Planning Commission
Regarding General Plan Amendment
Land Use Change and Rezoning;
Dated Nov. 12, 1998**

Sierra Nevada Customer Service Region



SUTTER COUNTY
COMMUNITY SERVICES DEPARTMENT

Animal Control
Building Inspection
Emergency Services
Fire Services
Planning
Environmental Health

Rick Hall, Director
Larry Bagley, Assistant Director
Permitting Services
Gary Kraus, Assistant Director
Fire & Emergency Services

November 12, 1998

To: Sutter County Planning Commission

Re: Agenda Item #6: Public hearing on General Plan Amendment #97-04 to change the land use designation from Ag-20 and Ag-80 to Industrial; and

Agenda Item #7: Public hearing on Rezoning #97-07 to change the zoning of the subject property from AG (General Agricultural) District to M-2 PD (General Industrial, Combining Planned Development) District and to establish a development plan, including criteria of development for a power plant facility; located on the west side of South Township Road, south of Best Road, Yuba City; A.P. #21-230-025; applicant - Calpine Corporation; property owner - Calpine Greenleaf Holdings, Inc. (Location: District 5 - Commissioner Michel)

Post-It® Fax Note	7671	Date	11/12/98	# of Pages	15
To	Cur Hubbard	From	George Carleton		
Co/Dept	Calpine	Co.	Sutter Co.		
Phone #		Phone #	530 822 7400		
Fax #	(408) 995-5158	Fax #			

Current Proposal

A. Project Description:

The Calpine Corporation (Calpine) proposes to construct and operate a 500 megawatt (MW) natural gas fueled, combined cycle, electric generation facility. The new facility would be located directly west of the existing Greenleaf 1 power plant. Due to the size of the plant, Calpine is required to secure approval from the California Energy Commission. In addition to the application submitted to the state, Calpine has requested to amend the General Plan land use designation of the subject property from Ag-20 and Ag-80 to Industrial and has requested to change the zoning district of the property from AG to M-2 PD. As part of the zoning change the applicant is requesting establishment of a Planned Development District which would allow the construction and operation of the proposed power plant.

As part of this project, Calpine proposes to construct a new 4-mile 230 kilovolt (kV) overhead transmission line which would be routed from the project site south along the west side of South Township Road to O'Banion Road, then west along the south side of O'Banion Road to a switching station which would be constructed on the property immediately east of the Sutter Bypass levee on the south side of O'Banion Road. The switching station site would consist of approximately two acres.

Calpine has also proposed to construct a new 16-inch natural gas pipeline from a PG&E natural gas pipeline in western Sutter County (near the intersection of Meridian and Girdner Road) to the plant site. The gas line would be placed in county road rights-of-way, generally following Oswald Road. Through the bypass, the line would be placed along or under Hughes Road. The pipeline would be placed underneath the levees.

The transmission lines, switching station and gas lines are not included as part of the rezone and general plan amendment applications per se, because they come under the siting authority of the California Energy Commission, and no use permit or other local entitlement is necessary.

B. Environmental Consideration:

Under the California Environmental Quality Act (CEQA) and the Guidelines, the Energy Commission is the lead agency and Sutter County is a responsible agency for environmental review. As the lead agency, the Energy Commission through its staff, has prepared a Final Staff Assessment (sent to you on October 25, 1998), which acts as the functional equivalent of a draft environmental impact report (EIR). The Final Staff Assessment (FSA) represents the Energy Commission staff's review of the feasibility of the project, an evaluation of the potential environmental impacts, and an assessment of the project's compliance with local laws, ordinances, regulations and standards.

The FSA is broken down into various technical areas which assess the potential environmental impacts. Specifically, they are: air quality, public health, worker safety and fire protection, transmission line safety and nuisance, hazardous materials management, waste management, land use, traffic and transportation, noise, visual resources, cultural resources, socioeconomic resources, biological resources, soil and water resources, and paleontological resources. Additionally, the FSA addresses the power plant itself including the design, reliability, efficiency, monitoring and closure.

Background

A. Property Description:

The subject property, approximately 77 acres in size, is located southwest of the intersection of Best Road and South Township Road. The east portion of the property is currently developed with the Greenleaf 1, which consists of a 49.5 MW cogeneration plant and ancillary storage and office buildings. The west half of the site, which is proposed for development is currently not developed nor is it farmed.

B. Surrounding Land Use, Zoning District and General Plan Designation:

	Use	Zoning	General Plan
Subject Property	Power plant facility	AG	Ag-20/Ag-80
North	Residence/field crop	AG	Ag-80
East	Orchard	AG	Ag-20/Ag-80
South	Field crop	AG	Ag-20/Ag-80
West	Field crop	AG	Ag-80

C. Previous Planning Commission Actions:

In 1984, the Planning Commission approved Use Permit No. 1201 to allow the construction and operation of a 49.5 MW power plant based on a finding that the plant was consistent with the County General Plan by allowing full development of natural resources located in the County. In 1986, the project had not been constructed, so the applicant resubmitted the application. It was again approved (Use Permit No. 1392) based on the same finding. Use Permit No. 1392 was approved subject to a number of conditions which were intended to address biological, noise and traffic impacts of the project.

Staff Comments

A. Planning Staff:

Staff's comments in this section pertain to the main issues raised during the review of this project by the Energy Commission and County staff. The subject matter areas below include either a general discussion of the concern and/or potential mitigations, conditions and monitoring. This section does not address every issue raised during public comment process on the preparation of the Final Staff Assessment; it would be redundant since the issues are also discussed in the FSA and the amendments to it. Page references below are to the FSA unless otherwise specified.

1. Air Quality

The FSA is incomplete because the regulatory agencies involved in reviewing the air quality impacts have not yet completed their review. In particular, the Feather River Air Quality Management District (FRAQMD) has not completed their Final Determination of Compliance, in which the District will indicate whether it believes that the proposal complies with the applicable air quality standards. This document is expected to be published the week of November 9, 1998. After it is published, the Energy Commission staff is expected to complete their staff assessment on air quality and publish their proposed conditions of certification. This document is expected to be published November 16, 1998 and will be provided to the Planning Commission before the November 18, 1998 hearing.

2. Noise

The Sutter County General Plan sets a policy for noise levels for new projects. Specifically, Policy 8.A-2 limits noise levels during daytime to 50 dB (hourly L_{eq}) and during the nighttime to 45 dB (hourly L_{eq}). The FSA concludes that the noise control measures to be implemented by Calpine will be sufficient to allow the project to be quiet enough to meet the 45 dB standard. As a way to monitor the noise mitigations proposed by Calpine, the FSA suggests condition Noise-6 (page 238) which will require Calpine to conduct a noise survey that demonstrates that the facility is meeting the standard required by the General Plan. The recommended language of the condition of Noise-6 has been modified from the way it reads in the FSA. Originally, the FSA indicated that the standard should be met at the property line of the nearest residence. However, County staff reads the language of Policy 8.A-2 to require the measurement to be made at the nearest noise sensitive receptor (i.e. the nearest residence) instead of the property line of the nearest residence. Staff's reasoning was based on the fact that there is no specific language in the policies indicating where the measurements are to be taken. Absent specific language, we looked to the intent which was to protect the residents of the area, and they mostly live in and around their homes, not at the property lines, particularly in an agricultural area where property lines can be several hundred to thousands of feet from a home.

In the case of this project, there is an approximate 2,000-foot difference between the two. Accordingly, the Energy Commission staff amended its recommendation based on County input, and the revision is reflected in the supplement to FSA forwarded to the Planning Commission by memorandum dated November 12, 1998.

3. Soil and Water Resources

Originally, Calpine proposed to operate a water-cooled plant which would have required two wells pumping approximately 3,000 gallons per minute (gpm) to supply the facility with the 4.336 million gallons per day needed to cool the system. In order to address concerns raised by neighbors and staff and to mitigate the potential effect of the project on ground water supply and quality, Calpine amended the project to use 100 percent dry cooling technology. This reduced the water supply needs by 95 percent, from approximately 3,000 gpm to 140 gpm.

County and Energy Commission staff also identified a potential issue with respect to additional storm water runoff generated by the proposed development. The area of the project already suffers from localized flooding during heavy storm events and neighbors and staff are concerned that the additional impervious surface proposed would increase the problem. In order to address this concern, the Energy Commission staff, after working with County staff, developed recommended condition "SOIL&WATER-6" which requires Calpine to: 1) provide for on-site storm water retention; and 2) prepare a report of the potential impacts of project runoff on downstream storm water facilities, including verification of coordination with public and private entities that own or maintain facilities downstream from the project. The FSA originally contained language requiring "approval of all public and private entities." The language was changed when it was determined that it would be inappropriate to give private entities "approval" authority over the project.

4. Visual Resources

Visual resources is the only area in which the FSA indicates that there is a significant impact. Although numerous mitigations are proposed, such as using dry cooling to eliminate the cooling tower plume, painting the facility to reduce its obtrusive view, and landscaping around the entire site to screen views from residents, Energy Commission staff indicates that impacts will still result from both the transmission lines and power poles and from the plant itself.

County staff does not necessarily agree with the conclusion reached by the Energy Commission staff that the project will result in a significant visual impact. The concern is twofold. First, the methodology used to determine substantial impact appears overly subjective. Specifically, there is no information to determine what constitutes a small, moderate or high impact on viewers. There are approximately 10 homes in the area which will have clear views of the power plant. There are an additional nine homes with partial views of the plant facility; most having limited views due to existing orchards and landscaping surrounding the homes. Most of the views to the power plant from adjacent roads have views obstructed by existing orchards and power lines. When a clear view from roadways exists it is only for a short duration. The longest duration of view to the power plant is driving north on South Township, which is a two-mile stretch. The views to the Sutter Buttes, the County's most predominant land feature, will be affected for about one mile of this two-mile stretch. Additionally, all local roads with views of the plant facility have limited daily traffic when compared to alternative sites evaluated below. Only 2 or 3 homes would have their view of the Sutter Buttes further affected by the plant facility and transmission lines. It should be noted that these homes already have some view obstruction to the Sutter Buttes. Based on this level of visual exposure, staff does not believe a substantial impact on visual resources exists.

Secondly, the Environmental Impact Report prepared for the County-wide General Plan concluded that development along the Highway 20 -Sutter Industrial Park would create only *potentially* significant impacts. This area has much greater vehicular traffic (6,000-10,000 vehicle trips per day on Highway 20 versus 113 on South Township Road and 129 on O'Banion Road) and has many more residents whose view of the Sutter Buttes may be affected. The conclusion in the FSA would be inconsistent with the conclusions reached in the General Plan EIR. This is particularly true when considering that a power plant and power lines already exist in the area and have some effect on views to both the Sutter Buttes and general landscape. Additionally, Condition of Certification VIS-4 requires a landscape screen around the power plant which will reduce visual impacts created by the power plant. Staff will include an overhead illustrating the photo simulation of the landscape screen. Because of the higher HRSG stacks and cooling tower of the proposed project, some residents would see more of the facility than they currently do. But County staff does not believe this is a significant impact.

5. Alternatives

As required by CEQA, the FSA examines the feasibility of available site and facility alternatives to the applicant's proposal which substantially lessen the significant adverse

impacts of the proposal on the environment. The FSA evaluated industrial sites in Sutter County south of the Sutter Buttes, in the City of Yuba City, and in the South Sutter County Industrial/Commercial Reserve and agricultural sites in other locations of the County. As well as sites outside of Sutter County.

Each of these sites encountered their own constraints, which led none of them to be a preferred alternative. The site south of the Sutter Buttes would have been in direct conflict with the General Plan policy which requires that new development along Highway 20 to be designed to protect views of the Buttes. The 145-foot stacks and air cooled condenser would have made this standard nearly impossible to meet.

The sites in Yuba City were dropped from consideration because of the city's 60-foot height restriction and the proximity of the industrial area to medium and high density residential.

The site in the South Sutter County Industrial Commercial Reserve faced problems with its proximity to residential uses and the potential adverse visual impacts because of the site's visibility from Highway 99. The site was also not considered as a preferred alternative because it did not have access to proper public facilities (i.e. sewer, water, storm drainage) as required by the General Plan for development in that portion of the County.

Other agricultural sites were considered, and in fact the site of the proposed switching yard (located at on the property immediately east of the Sutter Bypass levee on the south side of O'Banion Road) was determined to be a preferred alternative, until it was discovered that the site was currently under cultivation. County staff does not favor these alternative sites due to the conflict with the General Plan policies that discourage the conversion of agricultural land to non-agricultural uses, as indicated below under the "Land Use" discussion.

6. Compliance Monitoring

The Energy Commission has an elaborate compliance program to ensure that all of the conditions of the new facility are satisfied. The program provides a process where citizens may request that the Commission conduct investigations into alleged non-compliance with the terms and conditions of the certification. If there is a significant failure to comply with the terms or conditions of the certification, the Energy Commission has the authority to revoke the certification or impose civil penalties.

7. Traffic and Transportation

The Community Services Department continues to receive complaints regarding the truck traffic going to and from the existing Greenleaf One facility. At the center of the dispute is the language of condition #14 of Use Permit No. 1392 which reads: "Truck traffic shall be directed to use State Highway 99, Oswald Road and Township Road as access routes to the site when feasible." The use of the language "when feasible" provides difficulty in enforcing the route specified as a mandatory route because the definition of when it is feasible is subjective.

Since the County is considering an application to establish a planned development plan for the entire site, this is an appropriate time to address traffic-related issues for the existing plant. As part of the new project, Calpine has offered to use Highway 20 to George Washington Boulevard to Oswald Road to South Township Road and Highway 99 to Oswald Road to South Township Road as the routes for truck traffic to and from the project site. For consistency and to avoid future confusion, planning staff recommends that the language included in Condition #14 of Use Permit No. 1392 be modified so that all traffic going to Greenleaf 1 and the Sutter Power Project use the same. Accordingly, a language modification is included below in the Criteria of Development.

8. Land Use

Calpine has requested a rezone and general plan amendment. These applications are needed by the applicant as part of their licensing application to the Energy Commission. Under the Warren-Alquist Act, the Energy Commission has jurisdiction over the proposed power plant and all related facilities. Accordingly, their issuance of a license supersedes the county's authority to approve or deny the project. However, the Energy Commission must make findings concerning whether the proposed project conforms with state and local laws and ordinances, including land use plans and zoning ordinances. If the County were to deny the applications for rezone and general plan amendment, making the facility not consistent with the local land use plans and ordinances, then the Energy Commission could either approve the project if it finds that the "facility is required for public convenience and necessity and that there are not more prudent and feasible means of achieving such public convenience and necessity" or deny the project because it is inconsistent with local regulations.

Below is County staff's assessment of the land use implications of the General Plan Amendment and rezone applications and the proposed locations of the transmission lines.

a. General Plan Amendment

A change in the General Plan land use designation must be evaluated for its consistency with the policies of the General Plan to ensure that an internal inconsistency is not created by the proposed change. The FSA includes a review of the "Project's Conformity with the Sutter County General Plan." The review, completed with the assistance of County staff, indicates each of the applicable policies and discusses their applicability and whether the project will conform to them (pages 200-203).

Because the project includes a request to change the General Plan land use designation from Ag-20/Ag-80 to Industrial, this project has the potential to conflict with General Plan policy 6.A-1 which reads:

6.A-1 The County shall preserve agriculturally-designated areas for agricultural uses and direct non-agricultural development to areas designated for urban/suburban growth, or rural communities and/or cities.

Recognizing that there may be situations in which some limited agricultural land conversion is needed, the General Plan included Implementation Program 6.3. Pursuant to this program, the Board of Supervisors adopted "Criteria for Agricultural Land Conversion" which were to be used for determining the appropriateness of conversion of agricultural land. These criteria were not intended to be the determining factor whether agricultural land should be converted, but instead they were to be a tool for developers and staff to use for assessing the probability of future application approval. The criteria represent information to be provided to decision makers for consideration when reviewing a project.

The Energy Commission staff evaluated the project for its consistency with the criteria and the score indicated that the project site was not a good candidate for agricultural land conversion. On August 7, 1998, County planning staff wrote a letter to the Energy Commission staff indicating that the criteria were not applicable in this case because the project did not include a conversion of agricultural land to suburban and urban uses. Contrary to statements by the Energy Commission staff in the land use section of the FSA (see page B-3 of Exhibit B of the memorandum dated November 12, 1998 regarding supplemental FSA material), the project site was converted to urban/industrial use in 1984 when the Planning Commission approved Use Permit No. 1201 for the existing facility based on the finding that the project was "... consistent with the General Plan by allowing full development of natural resources located in the county." Regardless of whether the land use designation of the site was changed by the project approval, the project site was no longer used for agricultural production, instead the primary use became energy production. If approved, the current project, which is an expansion of an existing industrial use, would merely assign a land use designation consistent with the current usage.

Concerns have been raised that approval of this project could be a catalyst for future development in this area. However, Planning staff does not share the concern for two reasons. First, while the Criteria for Conversion of Agricultural Land does not apply to the Calpine project (as explained above), the Criteria would apply to any proposal for development on adjacent agricultural land which is under production and has not yet been converted to non-agricultural use. Application of the Criteria to any of the parcels in the area would reveal that none of them are good candidates for conversion for future development. The second reason is that staff is recommending that Calpine grant to Sutter County the development rights and an open area easement on the portion of the site that is not proposed for development. Such a grant would prevent Calpine and future owners of the land from developing any more of the project site beyond what is approved as part of this request, unless the agreement was rescinded by a resolution adopted by the Board of Supervisors.

b. **Rezoning**

The applicant has requested a change to the M-2 PD (General Industrial, Combining Planned Development) District. The County's Planned Development overlay district allows the Planning Commission (or Board of Supervisors) to establish criteria and standards for development of each specific parcel to allow the type of development

proposed. Proposals for planned developments are evaluated for their conformance to the base zoning district and for their consistency with the County General Plan.

For a zone change to be approved with a development plan, the proposed uses must be consistent with the base zoning district (i.e. Is a power plant permitted in the M-2 District?). Under the Zoning Code in effect at the time the applications were submitted, there were no provisions in any zoning district to allow for a electric generation facilities providing regional electric supply. However, the M-2 District allowed, with a use permit, all "[l]awful uses not otherwise provided for . . ." in the Zoning Code. The Sutter County Zoning Code in effect on November 13, 1998 allows, with a use permit, uses which are determined by the Community Services Department Director to be compatible and in character with the intent of the District. The Community Services Department Director has determined that this use is in character with the intent of the M-2 District and therefore the facility may be approved with a use permit.

A rezone must be consistent with the General Plan. Since the application requests a zone change to an M-2 PD District, the General Plan land use designation must be changed to Industrial (IND) for the project to maintain consistency. The discussion under the "General Plan" subheading above discusses this projects consistency with the General Plan. To achieve the goal of minimizing conflicts between agricultural and non-agricultural uses, the applicant has submitted a site plan for the proposed development of the site which shows the existing facility located on the east side of the site, the proposed facility located on the west side of the site, which has been designed to include maximum buffering from adjacent agricultural land.

If the Planning Commission supports the applications in its recommendation to the Board of Supervisors, then planning staff suggests that it include the recommended criteria below which includes by reference the 100+ proposed conditions of certification.

c. Transmission Line Route Consistency with the General Plan

The transmission lines are not included as part of the general plan amendment and rezoning applications. The Sutter County Zoning Code permits transmission lines subject to use permit approval. Since the Energy Commission's certification of a site and its related facilities supersedes the County's authority to issue permits, a use permit is not needed. However, since the transmission line is a foreseeable consequence of the project, it must be evaluated for its impacts to the environment and for its consistency with the local land use ordinances and regulations.

Three different transmission line routes have been discussed; they are:

Route #1 South down the west side South Township Road to Tudor Road, then, either continuing straight south to the switching station at the Sutter Bypass or turning west at that point and heading to Murray Road and

11/12/1998 15:18

530-922-7109

then south to the switching station at the Bypass. This route is referred to in the FSA as the "proposed route."

Route #2 South down the west side of South Township Road to O'Banion Road, then west along the south side of O'Banion to the switching station on the south side of O'Banion Road at the Sutter Bypass. This has been referred to as the "mitigation route."

Route #3 South from the plant site .3 miles to a private dirt road, then west along the road to its end and continuing beyond that point to the PG&E 500kV transmission line, then south along the east side of the PG&E transmission line. This was the latest route alternative analyzed by the Energy Commission staff and rejected after the workshop on November 4, 1998.

The discussion of Route #1 which is found on pages 196-199 indicates that the impact from the transmission lines will have the potential to impact agricultural operations but the impacts will not be significant. Route #2 is discussed on pages 205-208, under the "Mitigation" heading, where the FSA concludes that Route #2 will have less impacts on agriculture than Route #1 and that it will not have a significant impact on agricultural resources.

Following the discussion of Route #2, on page 207 there is a discussion indicating that Route #3, identified by the Energy Commission staff, is a preferred route because Route #2 has significant visual impacts and because Route #3 will have less of an impact to agriculture. Following the workshop on November 4, 1998, the Energy Commission staff withdrew their recommendation for Route #3 being a preferred alternative.

Planning staff recommends below that you recommend to the Board of Supervisors that they approve the project. We would point out that this recommendation is consistent with our previous recommendations where we have supported the expansion of existing businesses in the agricultural areas where the proposed expanded businesses' original approvals were found to be consistent with the General Plan and where we believed that the findings for approval could be made on the subsequent request. Recently, County staff supported applications from Valley Farm Transport and Woodland Nut Company to expand their existing facilities. In each case the projects were originally approved under use permit found to be consistent with the General Plan. The subsequent applications which were both considered by the Planning Commission and both approved by the Board of Supervisors were supported by staff after we concluded that each of the projects were consistent with the General Plan.

Recommended Action

- A Recommend to the Board of Supervisors that it approve General Plan Amendment No. 97-04 and Rezone No. 97-07, adopt the attached site plan as the development plan for the site, subject to the following criteria of development:

Criteria of Development

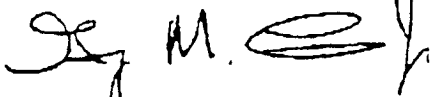
Limitations of Use

1. Use of the area not under the jurisdiction of the California Energy Commission shall be consistent with Use Permit No. 1392, including Conditions 1 through 19 (attached), as approved by the Planning Commission in 1986, except as modified below. The portion of the site under the jurisdiction of the Energy Commission shall be consistent with the site plan, the project description in the Final Staff Assessment, and the conditions of certification.
2. Condition #14 of Use Permit No. 1392 shall be amended to read as follows:

All project traffic, to and from the site, shall use State Highway 99 to Oswald Road to South Township Road to the site or shall use State Highway 20 to George Washington Boulevard to Oswald Road to South Township Road to the site. Use of any other route to and from the site shall not be consistent with this development plan.
3. Prior to issuance of a building permit for construction, the project owner shall grant to Sutter County the development rights and an open area easement on the portion of the site that is not proposed for development. The grant shall preclude Calpine and future owners of the land from expanding the facility beyond the 16-acre area of the footprint and its related facilities (e.g. drainage facilities, evaporation pond) approved as part of this request, unless the agreement is rescinded by a resolution adopted by the Board of Supervisors.
4. The conditions of certification at the end of each of the technical sections of the Final Staff Assessment and the amendments thereto shall serve as the criteria of development for this project. (Staff note: A summary of the conditions will be provided at the meeting for quick reference.)

Sincerely,

THOMAS A. LAST
PLANNING DIVISION CHIEF



George M. Carpenter, Jr.
Associate Planner

Attachments: Exhibit A - Study Sketch
Exhibit B - Site Plan
Exhibit C - Conditions of Approval (Use Permit #1392)

BLVD

ROAD

PG&E
XIB
M.

OSWALD

RD.

A-G

ROAD

STOZE

Rd

PIECE

A-G

WASHINGTON

DEHYDRATOR

EXHIBIT
A

A-G

GREENLEAF
COGENERATION
FACILITY

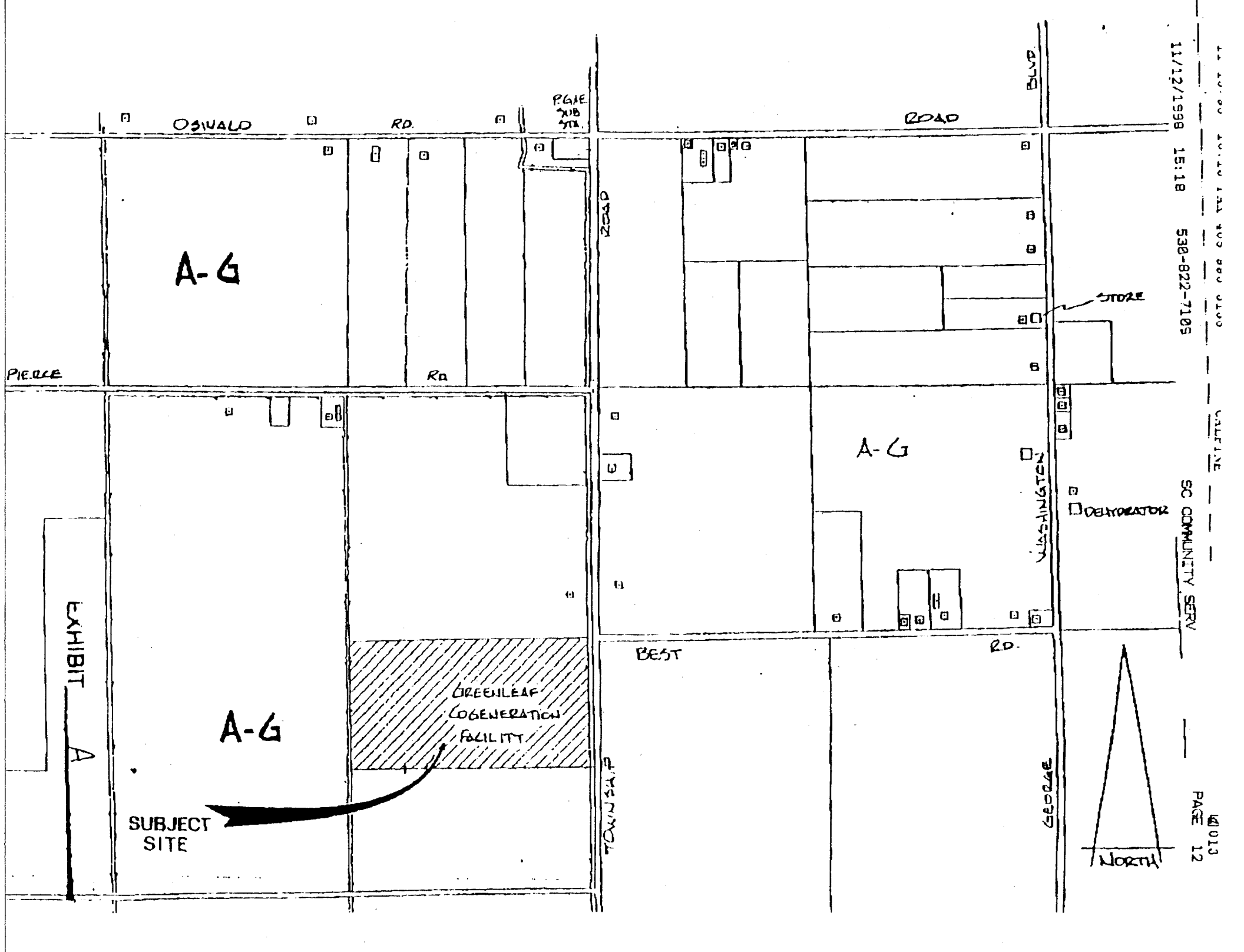
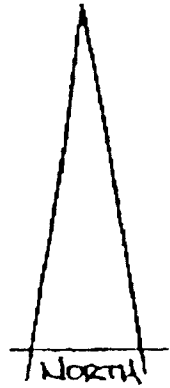
BEST

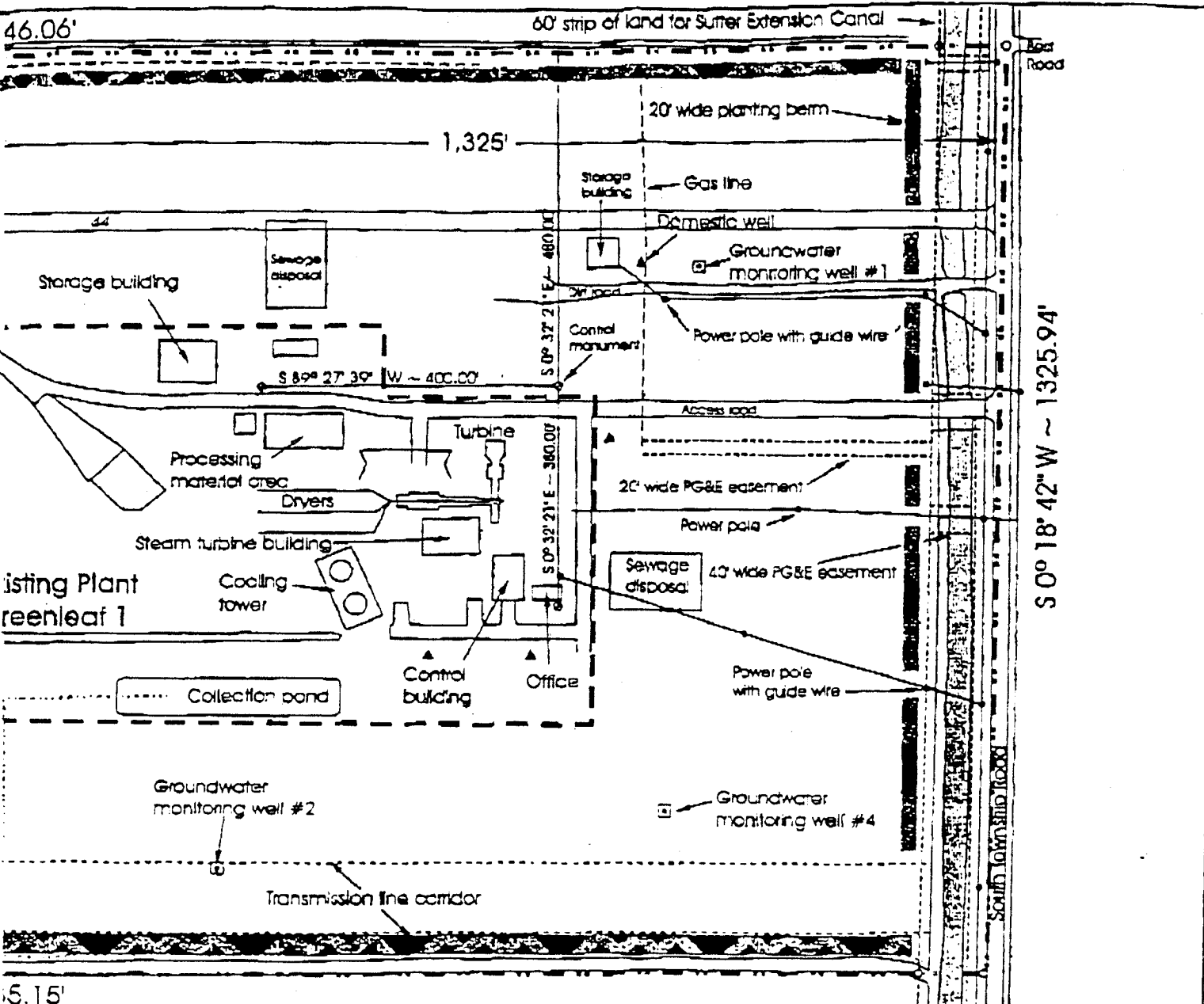
Rd.

TOWN

372037

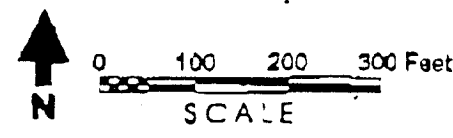
SUBJECT
SITE





5.15'

- Room
- 30. Waste Treatment Basin
- 31. Evaporation System
- 32. Brine Holding Tank
- 33. Crystallizer W/ Sunshade and Dumpster
- dry
- Feed Bldg.
- = Planting berm

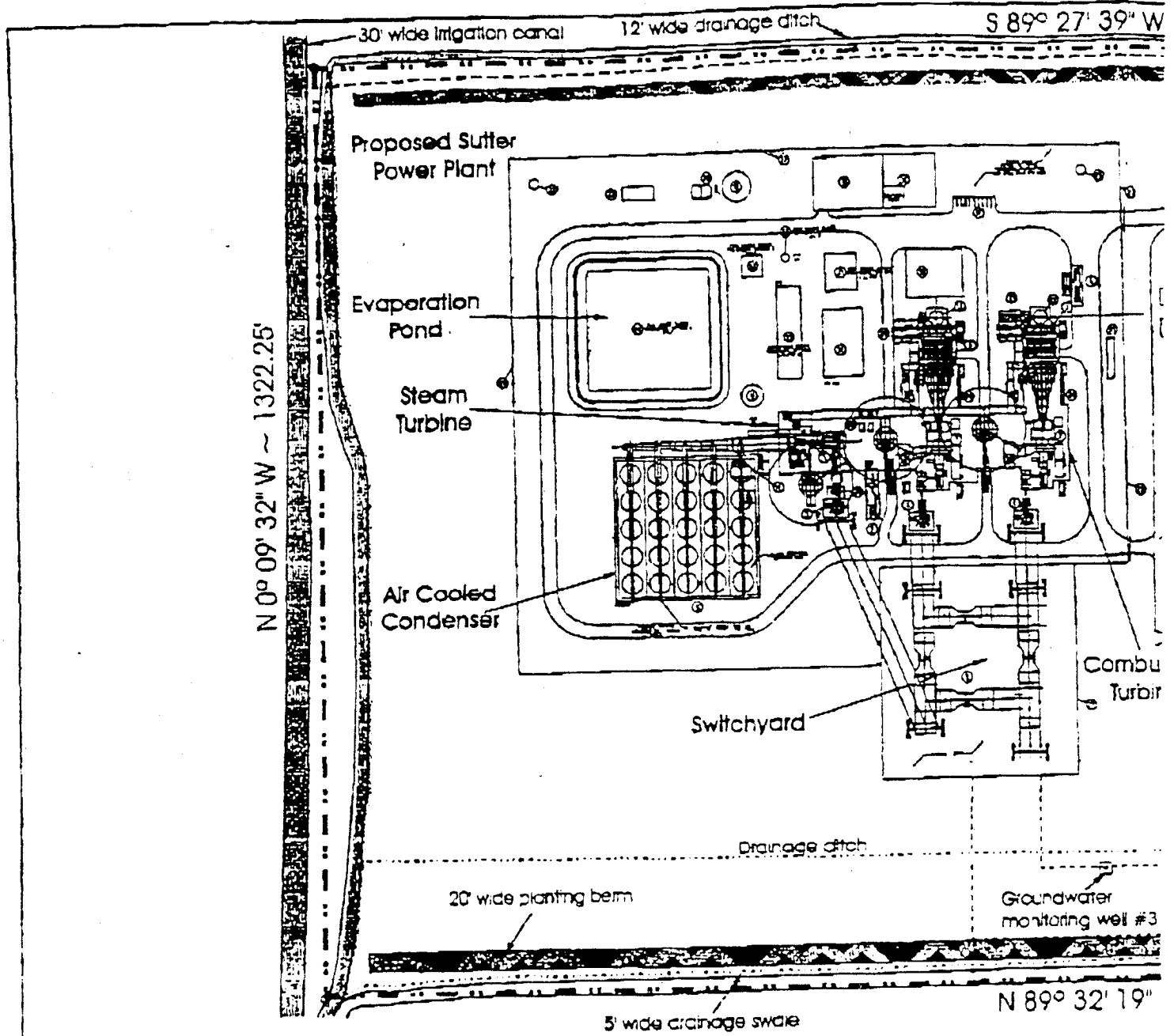


SUTTER POWER PLANT PROJECT

PLANNED SITE ARRANGEMENT

FOSTER WHEELER ENVIRONMENTAL

EXHIBIT 8



Key to Proposed

- | | |
|--|-----------------------------|
| 1. Steam Turbine | 16. Administration Building |
| 2. Combustion Turbine | 17. Parking |
| 3. H.R.S.G., By Owner | 18. Water Treatment Build |
| 4. C.T. Main Transformer | 19. Raw/Fire Water Storage |
| 5. S.T. Main Transformer | 20. Compressed Air Equip |
| 6. Ammonia Unloading/Storage Area | 21. Boiler Feedwater Pum |
| 7. Switchgear Building W/ Battery Room | 21a. Boiler Feedwater Pur |
| 8. Switchyard | 22. Sewage Treatment Pa |
| 9. Air Cooled Condenser | 23. Water Well |
| 10. C.T. Air Inlet Filter, By Owner | 24. Rotor Air Cooler, By O |
| 11. Condensate Collection Tank | 25. Gas Metering Station, |
| 12. Demineralized Water Storage Tank | 26. Firewater Pumphouse |
| 13. Stack, By Owner | 27. Fence |
| 14. Fin Fan Cooler | 28. Unit Aux. / Station Ser |
| 15. Warehouse / Maintenance Shop | 29. Evaporation Pond |

CONDITIONS OF APPROVAL
USE PERMIT #1392 - GREENLEAF POWER CORP.
February 5, 1986

1. The project shall be developed in substantial conformance with the application submitted, including all data identified in the Environmental Information Document.

2. Encroachment permits shall be obtained from the Public Works Department for any new driveway approaches for the project and for any work done in the public right-of-way, including pipeline construction.

3. All necessary rights-of-way and street improvements as required by the Public Works Department shall be provided within the limits of this project.

4. A drainage plan for the project shall be approved by the Public Works Department.

5. All necessary permits shall be obtained from the Sutter County Air Quality Control Officer.

6. A waste water discharge permit shall be obtained from the Water Quality Control Board.

7. Upon completion and operation of the plant, if found necessary, a noise assessment shall be conducted at the nearby residences and sound attenuation measures shall be provided to reduce any noise associated with the plant operation to a level not to exceed 45 dba within the residences.

8. A Steambed Alteration Agreement shall be obtained from the Department of Fish and Game.

9. The location and timing of the construction of the pipeline in the Sutter Wildlife Refuge shall be coordinated with the U.S. Department of Interior, Fish and Game Service, to minimize disruption of wildlife in the area.

10. All necessary permits shall be obtained from the Reclamation Board for crossing of the levees and the Sutter By-Pass.

11. All necessary permits shall be obtained from the Health Department for the locations of wells and septic tank/leach field installation.

12. Solid waste removal shall be accomplished in accordance with the requirements of the Health Department.

13. Any toxic wastes, solvents and/or petroleum wastes shall be disposed of in accordance with the requirements of the Health Department.

14. Truck traffic shall be directed to use State Highway 99, Oswald Road and Township Road as access routes to the site when feasible.

15. If archeological or historic artifacts or other such material are discovered at the site during construction, an archeologist shall conduct a survey of the site and determine what measures must be taken to protect any such materials prior to continued construction on the site. As an alternative, an archeological survey may be conducted on the site prior to start of construction and any archeological or historical data shall be preserved as required.

16. All necessary permits shall be obtained from the Sutter Extension Water District for discharge of water to their facilities.

17. A grading plan for the wood chip storage areas shall be approved by the Health Department.

18. All solid and liquid wastes shall be disposed of in accordance with a plan approved by the Health Department.

19. Applicant shall obtain a non-community water system permit and provide water sample results as required by the Health Department.