

# ENVIRONMENTAL INITIAL STUDY

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USE PERMIT 07-021  
SIERRA PACIFIC INDUSTRIES

March 26, 2008

INITIAL STUDY CHECKLIST  
References and Documentation

Prepared by  
SHASTA COUNTY DEPARTMENT OF RESOURCE MANAGEMENT  
PLANNING DIVISION  
1855 Placer Street, Suite 103  
Redding, California 96001

**SHASTA COUNTY  
ENVIRONMENTAL CHECKLIST FORM  
INITIAL STUDY**

1. **Project Title:**  
Use Permit 07-021 (Sierra Pacific Industries)
  
2. **Lead agency name and address:**  
  
Shasta County Department of Resource Management, Planning Division  
1855 Placer Street, Suite 103  
Redding, CA 96001-1759
  
3. **Contact Person and Phone Number:**  
Lio Salazar, Associate Planner (530) 225-5532
  
4. **Project Location:**  
The project is located in the Anderson area on a 121.39-acre parcel at the end of Riverside Avenue, five-tenths of a mile west of the Interstate 5 Interchange.
  
5. **Applicant Name and Address:**  
Sierra Pacific Industries  
P.O. Box 496014  
Redding, CA 96049-6014
  
6. **General Plan Designation:**  
Industrial (I)
  
7. **Zoning:**  
General Industrial (M)
  
8. **Description of Project:** Sierra Pacific Industries is requesting approval of a Use Permit for the construction and operation of a cogeneration power plant at an existing lumber manufacturing facility located near Anderson, California. The proposed cogeneration plant will involve construction of a new fuel handling building, boiler building, turbine building, cooling tower, electrostatic precipitator, ash silo, and electric substation. The boiler would burn biomass fuel (i.e., non-treated wood and agricultural residues, as well as urban wood waste) generated by the on-site lumber manufacturing facility, regional lumber manufacturing facilities and other biomass fuel sources. At completion the boiler would produce approximately 200,000 pounds of steam per hour. The steam will be used for drying lumber in existing kilns and for the proposed steam turbine, with excess steam being available for sale to nearby businesses. The steam turbine would drive a generator that would have the capacity to produce 21 megawatts of electricity. The electricity would be used to power the lumber manufacturing facility, with excess electricity available for sale to the public utility grid. It is estimated that the cogeneration facility would utilize 605 acre-feet of ground water per year. An existing on-site cogeneration plant would be maintained as a back-up facility in order that the sawmill operation could be normalized during maintenance operations on the proposed cogeneration plant. The 21 megawatt generation capacity of the proposed plant would represent a 4 megawatt increase over the capacity of the existing on-site cogeneration plant.
  
9. **Surrounding Land Uses and Setting:**  
Typical uses on the surrounding properties are commercial and industrial. The site is adjacent to Highway 273 on the southwest, the Sacramento River on the northeast, and Spring Gulch Creek on the southeastern eastern boundary. Properties located across the Sacramento River currently consist of residential and commercial recreational uses. The property to the northwest of the site is currently undeveloped.

**10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**

Shasta County Air Quality Management District  
Shasta County Department of Resource Management, Environmental Health Division  
Regional Water Quality Control Board

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input checked="" type="checkbox"/> Aesthetics	<input type="checkbox"/> Agricultural Resources	<input checked="" type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Geology / Soils
<input checked="" type="checkbox"/> Hazards & Hazardous Materials	<input checked="" type="checkbox"/> Hydrology / Water Quality	<input type="checkbox"/> Land Use / Planning
<input type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Population / Housing
<input checked="" type="checkbox"/> Public Services	<input checked="" type="checkbox"/> Recreation	<input checked="" type="checkbox"/> Transportation / Traffic
<input checked="" type="checkbox"/> Utilities / Service Systems	<input checked="" type="checkbox"/> Mandatory Findings of Significance	

**DETERMINATION: (To be completed by the Lead Agency)**

On the basis of the initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Department of Resource Management, 1855 Placer Street, Suite 103, Redding, CA 96001. Contact Lio Salazar at (530) 225-5532.



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Lio Salazar  
Associate Planner

March 26, 2008

Date



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Richard W. Simon  
Assistant Director of Resource Management

March 26, 2008

Date

## EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parenthesis following each question. A “No Impact” answer is adequately supported if all the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less-than-significant with mitigation, or less-than-significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more, “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less-than-significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-than-significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section XVIII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures: For effects that are “Less-than-significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. General Plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify the following:
  - a) The significance criteria or threshold, if any, used to evaluate each question; and
  - b) The mitigation measure identified, if any, to reduce the impact to less-than-significant.

<b>I. AESTHETICS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	✓			
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	✓			
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	✓			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	✓			

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a-c) The proposed project involves the construction and operation of a 105-foot-tall boiler. The height of this structure, along with smoke and/or steam plumes from the facility, may be highly visible to people living in the surrounding community and people fishing and/or boating along the Sacramento River.
- d) Lighting associated with development of the new cogeneration plant buildings may potentially create a new source of substantial light or glare which could result in night sky illumination and/or other adverse effects on day and nighttime views in and around the area.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>II. AGRICULTURE RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural, Land Evaluation and Site Assessment Mode (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				✓
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The subject property is not identified as Prime Farmland, Unique Farmland, or Statewide Importance on the map titled Shasta County Important Farmland 2004.
- b) Neither this property nor the surrounding properties are zoned for agricultural use nor are they in a Williamson Act Contract.
- c) The project would not result in the conversion of Farmland to non-agricultural use.



**Mitigation/Monitoring:** None proposed.

<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	✓			
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	✓			
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emission which exceed quantitative thresholds for ozone precursors)?	✓			
d) Expose sensitive receptors to substantial pollutant concentrations?	✓			
e) Create objectionable odors affecting a substantial number of people?	✓			

**Discussion:** Based on related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a-e) According to the Authority to Permit Application prepared by Geomatrix in May 2007, the proposed boiler will emit Nox, carbon monoxide (CO), particulate matter smaller than ten microns (PM 10), PM, sulfur dioxide (SO2), volatile organic compounds, and Toxic Air Contaminants (TACs). Other potential sources of on-site pollutants include particulate emissions from fuel handling and storage, ash handling and storage, and dust generated from the movement of equipment, trucks, and vehicles on the project site. Also, on-site vehicle and dust emissions will occur during construction of the cogeneration facility from heavy-duty vehicles and from construction worker vehicles. These pollutants as well as any potential odors associated with boiler emissions and fuel storage piles could potentially have a significant impact on people living in the vicinity or recreating near the project site.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	✓			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	✓			
c) Have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	✓			

<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	✓			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	✓			
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plan?	✓			

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a-f) Both the Sacramento River and Spring Gulch are located adjacent to the project site. According to the Biological Report prepared by ENPLAN, Chinook salmon and Central Valley steelhead are known to spawn in the Sacramento River. In addition, this report states that 20 special-status wildlife species are known to occur in the project vicinity. Degradation of spawning areas and riparian habitat, and negative impacts to wildlife species along the Sacramento River and Spring Gulch could occur due to additional noise and air pollutants from the facility, and possible stormwater run-off from the project site entering the Sacramento River and/or Spring Gulch.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>V. CULTURAL RESOURCES</b> – Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	✓			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	✓			
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	✓			
d) Disturb any human remains, including those interred outside of formal cemeteries?	✓			

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a-d) According to Cultural Resources Inventory Report prepared by ENPLAN, many prehistoric village sites were located close to permanent water sources and on raised benches and terraces adjacent to the Sacramento River. Due to the proximity to both the river and to known prehistoric villages in the vicinity, the project site is considered to be highly sensitive for prehistoric cultural resources. Potential impacts to possible cultural resources located on property could occur due to the construction of the proposed facility buildings which would involve stripping the existing overburden fill to the level of the native soils on-site.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.



<b>VI. GEOLOGY AND SOILS</b> – Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>i) Rupture of a known earthquake, fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publications 42.</li> <li>ii) Strong seismic ground shaking?</li> <li>iii) Seismic-related ground failure, including liquefaction?</li> <li>iv) Landslides?</li> </ul>				<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>
b) Result in substantial soil erosion or the loss of topsoil?				✓
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	✓			
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				✓
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a) The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault;

According to the Alquist-Priolo Earthquake Fault Zoning Maps for Shasta County, there is no known earthquake fault on the project site.

ii) Strong seismic ground shaking;

According to the Shasta County General Plan Section 5.1, Shasta County has a low level of historic seismic activity. The project site is located in Uniform Building Code Zone 3, described as an area of "moderate seismicity." According to the Seismic Hazards Assessment for the City of Redding, California, prepared by Woodward Clyde, dated July 6, 1995, the most significant earthquake at the project site may be a background (random) North American crustal event up to 6.5 on the Richter scale at distances of 10 to 20 km.

All structures shall be constructed according to the seismic requirements of the currently adopted Uniform Building Code.

iii) Seismic-related ground failure, including liquefaction;

According to the South Central Region Liquefaction Map, the project site is located within an area considered to have a moderate potential for liquefaction. The proposed buildings for the cogeneration facility could be subject to seismic-related ground failure.

iv) Landslides.

Since the topography of the site is fairly level, the threat of landslides would likely be less than significant.

b) The project would not result in substantial soil erosion or the loss of topsoil.

The Soil Survey of Shasta County, completed by the United States Department of Agriculture, Soil Conservation Service and Forest Service in August, 1974, identified the soils in the project site with a hazard of erosion ranging from none to slight.

A grading permit is required prior to any grading activities. The grading permit includes requirements for erosion and sediment control, including retention of topsoil.

c) According to the South Central Region Liquefaction Map, the project site is located within an area considered to have a moderate potential for liquefaction. The proposed buildings for the cogeneration facility could be subject to seismic-related ground failure.

d) The site soils are not described as expansive soils in the "Soil Survey of Shasta County."

e) The project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>VII. HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	✓			
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	✓			
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	✓			
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	✓			
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas, or where residences are intermixed with wildlands?				✓

**Discussion:** Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a-c) Potential hazards from the proposed cogeneration facility include the following: 1) possible release of hazardous materials (e.g. ammonia) into the environment due to improper handling and storage, and/or release of hazardous materials due to a boiler explosion. 2) Creation of a breeding ground for mosquitos if standing water on-site is allowed to become stagnant. In addition, fuel storage piles on-site could become a breeding ground for rodents. 3) Fire hazards from fuel storage piles on-site due to accidental ignition and/or spontaneous combustion, and fire hazards from improper cooling and storage of boiler ash waste.
- d) The project is not located on a site which is included on a list of hazardous materials sites and would not create a significant hazard to the public or the environment.
- e) The project is not located within an airport land use plan or within two miles of a public airport or public use airport.
- f) The project is not located within the vicinity of a private airstrip.
- g) See above comments under (a-c).
- h) The project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas, or where residences are intermixed with wildlands.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>VIII. HYDROLOGY AND WATER QUALITY:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	✓			
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	✓			
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	✓			
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	✓			
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	✓			
f) Otherwise substantially degrade water quality?	✓			
g) Place housing within 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓

<b>VIII. HYDROLOGY AND WATER QUALITY:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	✓			
j) Inundation by seiche, tsunami, or mudflow?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a,c-f) The construction of the proposed cogeneration facility would create impermeable surfaces resulting in an increase in the amount of surface run-off and possible changes in drainage patterns on-site. Storm water run-off carrying waste material from the proposed cogeneration facility could potentially enter the Sacramento River and/or Spring Gulch.
- b) According to the Hydrogeologic Analysis prepared by Lawrence & Associates in December 2007, the proposed cogeneration facility would use approximately 605 acre feet of groundwater per year which may substantially deplete groundwater supplies or interfere substantially with groundwater recharge in the area.
- g) The project would not place housing within the 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- h) The project would not place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- i) According to the Shasta Dam Breach Simulation Map, people, buildings, and structures on-site would be exposed to significant flooding in the event of a dam failure.
- j) The project would not result in inundation by seiche, tsunami, or mudflow.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>IX. LAND USE AND PLANNING</b> - Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The project would not physically divide an established community.
- b) The project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. The project is consistent with the Industrial (I) General Plan land use designation and the General Industrial (M) zone district of the project site.

- c) The project would not conflict with any applicable habitat conservation plan or natural community conservation plan.

There are no adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plans for the project site or project area.

**Mitigation/Monitoring:** None proposed.

<b>X. MINERAL RESOURCES</b> – Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. There are no known mineral resources of regional value located on or near the project site.
- b) The project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The project site is not identified in the General Plan Minerals Element as containing a locally-important mineral resource. There is no other land use plan which addresses minerals.

**Mitigation/Monitoring:** None proposed.

<b>XI. NOISE</b> – Would the project result in:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	✓			
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels	✓			
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	✓			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	✓			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓



**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a-d) Noise generated during construction and operation of the proposed cogeneration facility would increase noise levels in the area and potentially impact nearby residents, and people fishing and/or boating along the Sacramento River.
- e) The project is not located within an airport land use plan or within two miles of a public airport or public use airport.
- f) The project is not located within the vicinity of a private airstrip.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>XII. POPULATION AND HOUSING</b> – Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The proposed project is projected to employ 6 additional people on a full and part-time basis, which is not expected to induce substantial growth in the area.
- b) The project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- c) The project would not displace substantial numbers of people.

**Mitigation/Monitoring:** None proposed.

<b>XIII. PUBLIC SERVICES:</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Fire Protection?	✓			
Police Protection?			✓	
Schools?			✓	
Parks?				✓
Other public facilities?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:



The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for:

**Fire Protection:**

The proposed project has the potential to increase fire hazards in the area and subsequently increase the need for fire protection services provided by the Shasta County Fire Department. Also, see comments under VII. HAZARDS AND HAZARDOUS MATERIALS, (a-c).

**Police Protection:**

The County has a total of 147 sworn and 119 non-sworn County peace officers (Sheriff's deputies) for the County population of 71,091 (Calif. Dept. of Finance, Official State Estimates as of May 2009) persons in the unincorporated area of the County. That is a ratio of one officer per 256 persons. Although the construction and operation of the cogeneration facility may increase the demand for the services of the Shasta County Sheriff's Office, it is not expected to be significant.

**Schools:**

The resultant development from the project will be required to pay the amount allowable per square foot of construction to mitigate school impacts.

**Parks:**

The County does not have a neighborhood parks system.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>XIV. RECREATION:</b>	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	✓			
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) See comments under Aesthetics, Air Quality, Noise, and Biological Resources.
- b) The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>XV. TRANSPORTATION/TRAFFIC:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?			✓	

<b>XV. TRANSPORTATION/TRAFFIC:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highway?	✓			
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓
e) Result in inadequate emergency access?				✓
f) Result in inadequate parking capacity?				✓
g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?				✓

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- The project would probably not cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system. The project is expected to result in an additional 18 truck trips per day for the delivery of additional fuel to the facility and 21 trips per week for hauling the ash waste from the project site. In addition, the new cogeneration facility would require 6 additional employees (3 on each shift).
- The traffic impact study prepared by Omni-Means in February 2008, indicates there are three locations that would be cumulatively impacted as of result of this project. These locations are identified as the Ox Yoke Road/Riverside Avenue intersection, and the Riverside Avenue/I-5 SB Ramp and the Riverside Avenue/I-5NB Ramp interchanges. In this traffic study, it was noted that the level-of-service (LOS) for each of these intersections will be considered to be unacceptable by the year 2030.
- The project would not result in a change in air traffic patterns.
- The project would not substantially increase hazards due to a design feature or incompatible uses.
- The project would not result in inadequate emergency access. Access to the project site is provided by Riverside Avenue.
- The project would not result in inadequate parking capacity. There is more than adequate parking available for on-site parking.
- The project would not conflict with adopted policies, plans or programs supporting alternative transportation.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

<b>XVI. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓

<b>XVI. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	✓			
d) Have sufficient water supplies available to serve the project which serves or may serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	✓			
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with Federal, State, and local statutes and regulations related to solid waste?	✓			

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a,b) There are no indications at this time that the project would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- c) See comments under VIII. HYDROLOGY AND WATER QUALITY (a-c,f)
- d) See comments under VIII. HYDROLOGY AND WATER QUALITY (b)
- e) The project would not result in a determination by the wastewater treatment provider that it has adequate capacity to serve the project.
- f) If boiler ash waste is permitted and transported to a local landfill for disposal, the landfill would likely have sufficient permitted capacity to accommodate the project's need to dispose of this waste.
- g) According to the applicant, the cogeneration facility will generate approximately 10,400 tons of boiler ash per year. Currently, insufficient information has been provided regarding how the testing and final deposition of this waste is currently handled and regulated.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report

<b>XVII. MANDATORY FINDINGS OF SIGNIFICANCE:</b>	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below the self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	✓			

<b>XVII. MANDATORY FINDINGS OF SIGNIFICANCE:</b>	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	✓			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	✓			

**Discussion:**

- a) Based on the discussion and findings in Section IV. Biological Resources, there is evidence to support a finding that the project would have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below the self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

Based on the discussion and findings in Section V. Cultural Resources, there is no evidence to support a finding that the project would have the potential to eliminate important examples of the major periods of California history or prehistory.

- b) Based on the discussion and findings in all Sections above, there is evidence to suggest that the project would have impacts that are cumulatively considerable.
- c) Based on the discussion and findings in all Sections above, there is evidence to support a finding that the project would have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

**Mitigation/Monitoring:** To be developed and analyzed in the Environmental Impact Report.

## INITIAL STUDY COMMENTS

PROJECT NUMBER Use Permit 07-021 - Sierra Pacific Industries

### GENERAL COMMENTS:

**Special Studies:** The following project-specific studies have been completed for the proposal and will be considered as part of the record of decision for the Negative Declaration. These studies are available for review through the Shasta County Planning Division.

1. Authority to Construct Permit Application, prepared by Geomatrix, (May, 2007).
2. Hydrogeologic Report, prepared by Lawrence & Associates, (December, 2007).
3. Traffic Impact Study, prepared by OMNI-MEANS, (February, 2008)
4. Biological Wetland Screening, prepared by ENPLAN, (November 6, 2007)
5. Cultural Resources Inventory, prepared by ENPLAN, (October, 2007)

**Agency Referrals:** Prior to an environmental recommendation, referrals for this project were sent to agencies thought to have responsible agency or reviewing agency authority. The responses to those referrals (attached), where appropriate, have been incorporated into this document and will be considered as part of the record of decision for the Negative Declaration. Copies of all referral comments may be reviewed through the Shasta County Planning Division. To date, referral comments have been received from the following State agencies or any other agencies which have identified CEQA concerns:

1. Caltrans

**Conclusion/Summary:** Based on a field review by the Planning Division and other agency staff, early consultation review comments from other agencies, information provided by the applicant, and existing information available to the Planning Division, the project, (\*as revised and mitigated), is not anticipated to result in any significant environmental impacts.



## SOURCES OF DOCUMENTATION FOR INITIAL STUDY CHECKLIST

All headings of this source document correspond to the headings of the initial study checklist. In addition to the resources listed below, initial study analysis may also be based on field observations by the staff person responsible for completing the initial study. Most resource materials are on file in the office of the Shasta County Department of Resource Management, Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001, Phone: (530) 225-5532.

### GENERAL PLAN AND ZONING

1. Shasta County General Plan and land use designation maps.
2. Applicable community plans, airport plans and specific plans.
3. Shasta County Zoning Ordinance (Shasta County Code Title 17) and zone district maps.

### ENVIRONMENTAL IMPACTS

#### I. AESTHETICS

1. Shasta County General Plan, Section 6.8 Scenic Highways, and Section 7.6 Design Review.
2. Zoning Standards per Shasta County Code, Title 17.

#### II. AGRICULTURAL RESOURCES

1. Shasta County General Plan, Section 6.1 Agricultural Lands.
2. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.

#### III. AIR QUALITY

1. Shasta County General Plan Section, 6.5 Air Quality.
2. Northern Sacramento Valley Air Basin, 2003 Air Quality Attainment Plan.
3. Records of, or consultation with, the Shasta County Department of Resource Management, Air Quality Management District.

#### IV. BIOLOGICAL RESOURCES

1. Shasta County General Plan, Section 6.2 Timberlands, and Section 6.7 Fish and Wildlife Habitat.
2. Designated Endangered, Threatened, or Rare Plants and Candidates with Official Listing Dates, published by the California Department of Fish and Game.
3. Natural Diversity Data Base Records of the California Department of Fish and Game.
4. Federal Listing of Rare and Endangered Species.
5. Shasta County General Plan, Section 6.7 Fish and Wildlife Habitat.
6. State and Federal List of Endangered and Threatened Animals of California, published by the California Department of Fish and Game.
7. Natural Diversity Data Base Records of the California Department of Fish and Game.

#### V. CULTURAL RESOURCES

1. Shasta County General Plan, Section 6.10 Heritage Resources.
2. Records of, or consultation with, the following:
  - a. The Northeast Information Center of the California Historical Resources Information System, Department of Anthropology, California State University, Chico.
  - b. State Office of Historic Preservation.
  - c. Local Native American representatives.
  - d. Shasta Historical Society.

#### VI. GEOLOGY AND SOILS

1. Shasta County General Plan, Section 5.1 Seismic and Geologic Hazards, Section 6.1 Agricultural Lands, and Section 6.3 Minerals.
2. County of Shasta, Erosion and Sediment Control Standards, Design Manual
3. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.
4. Alquist - Priolo, Earthquake Fault Zoning Maps.

#### VII. HAZARDS AND HAZARDOUS MATERIALS

1. Shasta County General Plan, Section 5.4 Fire Safety and Sheriff Protection, and Section 5.6 Hazardous Materials.
2. County of Shasta Multi-Hazard Functional Plan
3. Records of, or consultation with, the following:
  - a. Shasta County Department of Resource Management, Environmental Health Division.
  - b. Shasta County Fire Prevention Officer.
  - c. Shasta County Sheriff's Department, Office of Emergency Services.
  - d. Shasta County Department of Public Works.
  - e. California Environmental Protection Agency, California Regional Water Quality Control Board, Central Valley Region.

#### VIII. HYDROLOGY AND WATER QUALITY



1. Shasta County General Plan, Section 5.2 Flood Protection, Section 5.3 Dam Failure Inundation, and Section 6.6 Water Resources and Water Quality.
2. Flood Boundary and Floodway Maps and Flood Insurance Rate Maps for Shasta County prepared by the Federal Emergency Management Agency, as revised to date.
3. Records of, or consultation with, the Shasta County Department of Public Works acting as the Flood Control Agency and Community Water Systems manager.

#### **IX. LAND USE AND PLANNING**

1. Shasta County General Plan land use designation maps and zone district maps.
2. Shasta County Assessor's Office land use data.

#### **X. MINERAL RESOURCES**

1. Shasta County General Plan Section 6.3 Minerals.

#### **XI. NOISE**

1. Shasta County General Plan, Section 5.5 Noise and Technical Appendix B.

#### **XII. POPULATION AND HOUSING**

1. Shasta County General Plan, Section 7.1 Community Organization and Development Patterns.
2. Census data from U.S. Department of Commerce, Bureau of the Census.
3. Census data from the California Department of Finance.
4. Shasta County General Plan, Section 7.3 Housing Element.
5. Shasta County Department of Housing and Community Action Programs.

#### **XIII. PUBLIC SERVICES**

1. Shasta County General Plan, Section 7.5 Public Facilities.
2. Records of, or consultation with, the following:
  - a. Shasta County Fire Prevention Officer.
  - b. Shasta County Sheriff's Department.
  - c. Shasta County Office of Education.
  - d. Shasta County Department of Public Works.

#### **XIV. RECREATION**

1. Shasta County General Plan, Section 6.9 Open Space and Recreation.

#### **XV. TRANSPORTATION/TRAFFIC**

1. Shasta County General Plan, Section 7.4 Circulation.
2. Records of, or consultation with, the following:
  - a. Shasta County Department of Public Works.
  - b. Shasta County Regional Transportation Planning Agency.
  - c. Shasta County Congestion Management Plan/Transit Development Plan.
3. Institute of Transportation Engineers, Trip Generation Rates.

#### **XVI. UTILITIES AND SERVICE SYSTEMS**

1. Records of, or consultation with, the following:
  - a. Pacific Gas and Electric Company.
  - b. Pacific Power and Light Company.
  - c. Pacific Bell Telephone Company.
  - d. Citizens Utilities Company.
  - e. T.C.I.
  - f. Marks Cablevision.
  - g. Shasta County Department of Resource Management, Environmental Health Division.
  - h. Shasta County Department of Public Works.