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Staff Report:	September 1, 2000
Hearing Date:	September 13, 2000
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-00-015**
APPLICANT:	**SIMPSON TIMBER COMPANY**
AGENT:	Winzler & Kelly Consulting Engineers
PROJECT LOCATION:	North Spit of the Samoa Peninsula and along the shoreline of Humboldt Bay near Samoa at the Simpson Timber Company timber processing complex, south side of Vance Road, adjacent to Humboldt Bay, Humboldt County (APNs 401-112-09, 401-031-28, -37, -38, -40)
PROJECT DESCRIPTION:	Demolish and remove several facilities at the Simpson timber production complex including: 1) a sawmill, 2) a power plant, 3) drying kilns, 4) several buildings, 5) three above-ground tanks, 6) a steam cleaning station, 7) two fueling stations, 8) a warehouse, and 9) three docks and approximately 187 miscellaneous piles from within Humboldt Bay.
GENERAL PLAN DESIGNATION:	Coastal Dependent Industrial (MC)

ZONING DESIGNATION:	Coastal Dependent Industrial, with combining zone indicating potential Archaeological Resources (MC/A)
LOCAL APPROVALS RECEIVED:	Humboldt County Coastal Development Permit (July 2000), Humboldt Bay Harbor, Recreation, and Conservation District (August 2000)
OTHER APPROVALS REQUIRED:	Army Corps of Engineers
SUBSTANTIVE FILE DOCUMENTS:	Humboldt County Local Coastal Program, Mitigated Negative Declaration prepared by Winzler & Kelly Consulting Engineers (May 2000)

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval with special conditions the coastal development permit application submitted by Simpson Timber Company for the demolition and removal of several facilities at a timber production complex including: 1) a sawmill, 2) a power plant, 3) drying kilns, 4) several buildings, 5) three empty, above-ground tanks, 6) a steam cleaning station and fueling stations, 7) a warehouse, 8) three docks and approximately 187 miscellaneous piles. The Simpson-owned timber complex is no longer in operation and some of the buildings are in disrepair and in need of removal. The staff further recommends that this approval be subject to conditions that ensure the protection of the marine resources and water quality of Humboldt Bay.

The project site is located directly adjacent to Humboldt Bay. To address water quality concerns and ensure consistency with Section 30230 and 30231 of the Coastal Act, staff is recommending several conditions that would minimize the chances of contaminated storm water runoff and demolition debris from entering Humboldt Bay. Special Condition Nos. 1 and 2 require that: 1) the applicant submit a storm water runoff control plan that implements best management practices during the duration of the project; 2) no construction materials, equipment, or debris be placed or stored where it may be subject to entering the bay; 3) all debris be removed from the site within 30 days following project completion; 4) no machinery or construction materials not essential for the project be allowed at any time in Humboldt Bay; and 5) any non-buoyant debris discharged into the bay be recovered as soon as possible. Special Condition No. 3 requiring that a new coastal development permit or permit amendment be obtained before any below-grade or soil-disturbing work, which is not included as part of this coastal development permit application, occurs at the site.

A portion of the proposed project involves the removal of numerous piles, three docks and other miscellaneous structures from within Humboldt Bay. These structures are proposed to be removed by vibratory extraction using equipment mounted on a floating barge. Some of the work area is shallow and the applicant proposes that situations may arise that would require the barge to

settle on the bottom for a short time during periods of low tides. This work would occur in areas where eelgrass beds (*Zostera marina)* are present and it is possible that the barge may come to settle on eelgrass. Eelgrass is considered to be an environmentally sensitive habitat area because of the cover and foraging habitat that it provides for fish and other wildlife. Although eelgrass has been studied extensively, no known information is available that addresses the question of whether barges resting on eelgrass for short periods of time would result in a significant disruption of habitat values. However, the applicant has submitted an analysis from a qualified biologist that states that no adverse impact to eelgrass is expected as a result of barge operations.

Furthermore, the applicant has proposed an eelgrass mitigation and monitoring plan should inadvertent or unexpected impacts to eelgrass occur. The proposed plan involves pre-construction surveys, monitoring during construction, and post-construction surveys to determine any adverse impacts. The proposed plan provides for replanting and monitoring only if post-construction densities fall below 85% of pre-construction densities. However, the proposed plan does not provide that pre-construction densities *and* extent of vegetated cover would be restored to pre-construction levels. Therefore, to ensure that the mitigation and monitoring plan is adequate to prevent significant disruption to eelgrass, staff recommends Special Condition No. 4 that requires the applicant to submit a revised eelgrass mitigation and monitoring plan be submitted for review and approval that adds additional elements and modifications to the plan. The plan as conditioned would require that pre-construction densities and extent of vegetated cover are restored to pre-construction levels and would include provisions for remediation should the success standard fail to be met after five years. Staff believes that as conditioned, the mitigation and monitoring plan protect eelgrass habitat values from significant disruption.

As conditioned, staff believes that the project is fully consistent with the Chapter 3 policies of the Coastal Act.

STAFF NOTES:

1. Standard of Review

The proposed project is located in Humboldt County. Humboldt County has a certified LCP, but the portion of the project that is the subject of Coastal Development Permit No. 1-00-015 is within the Commission's retained jurisdictional area onshore and in submerged and tidal areas along Humboldt Bay. Therefore, the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

I. MOTION, STAFF RECOMMENDATION AND RESOLUTION:

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve Coastal Development Permit No. 1-00-015 pursuant to the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS: See Attachment A.

III. SPECIAL CONDITIONS:

1. Demolition Phase Storm Water Runoff Control Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for review and approval of the Executive Director, a storm water runoff control plan prepared for the proposed demolition project.

The storm water runoff control plan shall demonstrate that:

(1) Run-off from the project site shall not result in pollutants entering coastal waters;

(2) Best Management Practices (BMPs) shall be used to prevent the entry of polluted storm water runoff into coastal waters during the demolition and removal of industrial facilities and support structures including but not limited to the following:

(a) Monitoring and maintaining all drop inlets and associated oil/water separators periodically to ensure proper functioning during the duration of

the demolition project. Inspection of the storm water BMPs should take place prior to the start of the rainy season (no later than October 15th), after the first storm of the rainy season, and monthly thereafter until April 30th.

(b) Remove all demolition debris from the site immediately when possible, but if necessary, stockpile debris at least 75 feet from the edge of the bay waterline and cover and contain stockpiles at all times;

(c) Barrier all drop inlets within the project area with filter fabric, straw bales, or sand bags to trap sediment and debris;

(d) Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff with access to spill controls;

(e) Maintain and wash equipment and machinery in confined areas specifically designed to control runoff; (Thinners or solvents should not be discharged into sanitary or storm sewer systems.) and

(f) Vacuum-sweep paved areas of the project site within 5 days following project completion if it occurs between October 15th and April 30th, or vacuum-sweep within 14 days following project completion if it occurs during the non-rainy season.

The plan shall include, at a minimum, the following:

(1) A schedule for installation, use and maintenance of appropriate best management practices (BMPs) to prevent the entry of polluted storm water runoff into coastal waters during the demolition, removal, storage, and transportation of project materials.

B. The permittee shall undertake development in accordance with the approved runoff control plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

2. Construction Responsibilities and Debris Removal

The permittee shall comply with the following construction-related requirements:

(a) No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to entering coastal waters;

(b) Any and all debris resulting from construction activities shall be removed from the site within 30 days of project completion;

(c) No machinery or construction materials not essential for project improvements shall be allowed at any time in Humboldt Bay;

(d) Non-buoyant debris discharged into coastal waters shall be recovered by divers as soon as possible after loss;

(e) No propellers, anchors, construction equipment, or piles shall be dragged over the mudflats or eelgrass beds;

(f) Grounding and direct contact of the barge with eelgrass beds shall be minimized;

(g) All piles to be removed shall be removed in their entirety.

3. Permitted Activity and Future Development

This coastal development permit authorizes the demolition and dismantling of structures and facilities to their existing foundations. No below grade or soil-disturbing work is authorized by this permit. Any proposed removal of foundations or on-site soils will require an amendment to this permit, or a new coastal development permit unless it is determined by the Executive Director that no permit is necessary.

4. Final Revised Eelgrass Mitigation and Monitoring Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and written approval of the Executive Director, a final revised eelgrass mitigation and monitoring plan that substantially conforms with the plan submitted to the Commission in May, 2000 entitled "Proposed Eelgrass Survey, Planting & Monitoring Methods at Simpson," except that it shall be revised to include the following provisions:

(a) The pre-construction survey shall be completed during the months of May through August, the period of active growth of eelgrass. The pre-construction survey shall be completed no more than 120 days prior to the beginning of construction;

(b) The post-construction survey shall be completed no more than 30 days following the completion of construction;

(c) Adverse impacts to eelgrass shall be measured as the difference between the pre-construction and post-construction estimates of eelgrass cover and density. The

extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density is defined as the average number of turions per unit area;

(d) If post-construction survey results indicate that eelgrass densities are less than 85% of pre-construction survey results, or if there is a loss of extent of vegetated cover, then the area shall be replanted consistent with the approved final revised eelgrass mitigation and monitoring plan;

(e) If post-construction densities decrease, but by less than 15%, then the site shall be monitored consistent with the approved final mitigation and monitoring plan for five years or until the performance criteria in section 1(g) have been met;

(f) Adverse impacts to eelgrass shall be mitigated at a ratio of 1.2 m^2 replanted for each 1 m^2 impacted;

(g) Within five years of the completion of planting, the entire mitigation site shall have an extent of vegetated cover and an average density of eelgrass equal to the pre-construction extent of vegetated cover and average density at the impacted site. Changes in density and extent of vegetated cover of the control areas will be used to adjust the density and extent of vegetated cover in the impacted areas;

(h) The mitigation site shall be remediated within a year of a determination by the permittee or the Executive Director that monitoring results indicate that the site does not meet the performance standards identified in section 1(g) the and in the approved final monitoring and mitigation program. If the performance criteria have not been met at the end of five years following the completion of planting, the applicant shall submit an amendment to the coastal development permit proposing additional mitigation.

B. The permittee shall undertake development in accordance with the approved eelgrass mitigation and monitoring plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

5. U.S. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall provide to the Executive Director a copy of a permit issued by the U.S. Army Corps of Engineers, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers. Such changes shall not be incorporated into the project until the applicant obtains a Commission

amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

1. Site & Project Description

The project site is located approximately one mile northwest of Eureka on the east side of the Samoa Peninsula adjacent to Humboldt Bay in Humboldt County (Exhibit No 1-2). The project site includes approximately 9 of the 115 acres of a timber production complex owned by Simpson Timber Company. Existing development at the site includes primarily heavy industrial buildings, support structures, and asphalt log decks. Surrounding development includes the town of Samoa to the north, and similar industrial development along the bayfront to the south. The proposed project involves the demolition and removal of numerous industrial and support facilities at the site that are no longer in operation.

A portion of the proposed project involves removing approximately 187 wood piles, an 80-square-foot water in-take structure, three docks and a small building from within Humboldt Bay. Eelgrass (*Zostera marina*) beds are found near each of the three docks proposed to be removed. A narrow strip of ruderal (weedy) vegetation occurs above the bay margin that consists of pampus grass (*Cortaderia jubata*), coyote brush (*Baccharis pilularis*), soft chess (*Bromus hordeaceus*), velvet grass (*Holcus lanatus*), perennial rye grass (*Lolium perenne*), Himalyan blackberry (*Rubus discolor*), coastal willow (*Salix hookeriana*), and wild radish (*Raphanus sativa*). Scattered patches of ruderal vegetation occurs throughout the site.

Project Description

In 1998, Simpson Timber Company acquired the timber production complex on the Samoa Peninsula from Louisiana Pacific. Simpson proposes to demolish many of these industrial facilities because they are no longer operational and some structures are unsound. The upland facilities to be demolished cover an area of approximately nine acres and include a sawmill, a power plant, drying kilns, several buildings, and three empty, above-ground tanks. The facilities to be removed within Humboldt Bay include approximately 187-creosote-treated piles, an 80-square-foot concrete water in-take structure, three docks and a small building all of which total 2,660-square-feet.

Following is a more specific list of the facilities proposed for demolition and removal from south to north along the project site with reference to the associated site photos included as Exhibit No. 3:

- South Fueling Station: (See Figure 3 and Photo #1). Includes removal of tank, pump, and concrete containment berm.

- Steam Vats: (See Figure 3 and Photo #1). Includes removal of a cement block structure.

- South Dock and Pump House: (See Figure 3 and Photos #2 and #3). Includes removal of a 500-square-foot dock, pump house, pipe, and 36 miscellaneous piles.

- Middle Dock: (See Figure 3 and Photos #4 and #5). Includes removal of a 900-square-foot dock and 90 miscellaneous piles.

- Sawmill Building and Log In-feed: (See Figure 3 and Photo #6). Includes removal of metal structures, approximately 8 power poles, and 3 light standards.

- Power Plant: (See Figure 4 and Photo #7). Includes removal of mostly metal structures, a 20- and a 10-megawatt unit, 2 electrostatic precipitators, empty chemical and water storage tanks, cooling towers, fuel hogger, wood fuel bin, approximately 5 power poles, and associated piping, wiring and instrumentation.

- North Dock: (See Figure 4 and Photos #8 and #9). Includes removal of a 1,260-square-foot dock, pipe, 80-square-foot concrete water intake structure, associated hardware, and 61 miscellaneous piles.

- Warehouse 16: (See Figure 4 and Photos #10 and #11). Includes removal of wooden building and associated hardware.

- Water Tank and Pump House: (See Figure 4 and Photo #11). Includes removal of a steel water tank, cement block pump house, and associated machinery.

- Dry Kilns and Cooling Sheds: (See Figure 5 and Photos #12 and #13). Includes removal of dry kilns and cooling sheds, associated steam equipment, insulation, and hardware.

- Steam Cleaning Station: (See Figures 6 and 14 and Photo #14). Includes removal of wood and steel building, light standard, and tank.

- North Fueling Station: (See Figures 6 and 14 and Photo #15). Includes removal of a wooden shed, above-ground tank containment, light standard, and hardware.

- Steam Lines: (See Figures 3-6 and Photo #12). Includes removal of approximately one mile of above-ground line including steel pipe, insulation, outer sheet metal wrap, and structural supports.

The majority of the demolition would be accomplished using a PC-400 excavator, or equal, with a hydraulic hammer for concrete and a bucket and thumb for building demolition. It is anticipated that the demolition project would require approximately 12-18 months to complete. The structures on land would be demolished down to their foundations, but all foundations and pavement would remain. The project does not involve any below grade or soil-disturbing activity.

The applicant proposes to recycle building materials and machinery when feasible. Other debris and non-recyclable materials would be removed from the site and disposed of in locations proposed by the applicant. Asbestos-containing building materials exist on-site and would be removed for proper disposal prior to the commencement of demolition. Permits required for asbestos removal have been obtained from the North Coast Regional Air Quality Control Board. Friable asbestos-containing building material is considered a hazardous waste and would most likely be disposed of at Anderson Landfill. Non-friable asbestos is not considered a hazardous waste and would be triple wrapped in visquene and disposed of at Cummings Landfill in Eureka. Creosote-treated piles would be disposed of at Redwood Landfill in Novato, California which is a Class 3 disposal site permitted by the North Coast Regional Water Quality Control Board to accept creosote material. It is estimated that over 80% of the demolition tonnage would be recycled or reused including wiring, metals, concrete, wood beams and bricks. Material such as broken siding, roofing and other non-reusable material would be considered general construction debris and brought to the local transfer station.

Structures and piles within the bay would be removed by means of vibratory extraction using barge-mounted equipment. Much of the proposed work within the bay is in shallow water and as a result, the barge may settle on the bottom while working during low tides. It is expected that the barge would only settle on the bottom once or twice in the same location. A debris boom would be used around the pile removal operation in the bay to contain pieces of wood that may potentially break off during removal.

The applicant has submitted a proposed plan for eelgrass monitoring and mitigation in the event that barge operations result in inadvertent or unexpected impacts to eelgrass. The plan involves pre-construction eelgrass surveys, observation and documentation during construction activities involving the barge in areas of eelgrass, and post-construction eelgrass surveys. The plan proposes to gather pre-construction and post-construction turion density and percent cover information along designated transects as well as photo documentation from established photo-points. Any inadvertent or unexpected impacts to eelgrass as a result of the project will be qualitatively described, located, and measured relative to the adjacent control sites. The plan proposes that if post-construction eelgrass surveys demonstrate a decrease in density of greater than 15% of pre-construction densities, that the area would be replanted from donor eelgrass beds adjacent to the site and monitored for five years or until 85% cover is obtained in two years.

Although the entire site is within the coastal zone, the coastal permit jurisdiction is split between the County of Humboldt and the Coastal Commission. In a few cases, a single structure straddles the jurisdiction boundary and requires a permit from both agencies. The Humboldt

County Planning Department granted a coastal development permit for the portions of the project within the County's jurisdiction in July of 2000.

2. Protection of Coastal Water Quality

Section 30231 and 30230 of the Coastal Act address the protection of coastal water quality and marine resources in conjunction with development and other land use activities. Section 30231 states:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of wastewater discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantially interference with the surface water flow, encouraging, wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.* (emphasis added)

Section 30230 of the Coastal Act states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

The proposed project includes the demolition of numerous facilities previously used for timber industry operations. The project also involves the removal of docks and piles from Humboldt Bay. Due to the project's location adjacent to and within the bay, the proposed project has the potential to adversely impact water quality within the marine environment. Water quality could be impacted in two general ways: (1) storm water runoff from contaminated surfaces, and (2) demolition debris entering the water.

Humboldt Bay receives surface water from storm water runoff, discharged from the facility and surrounding areas. All access roads to the project site and areas surrounding the facilities to be demolished are paved with the exception of a small, unpaved area near the north fueling station. Elevations at the site range between approximately 10 and 15 feet above mean sea level. The majority of the site drains to a main ditch along the eastern edge of the site to a skimmer and pumping system that discharges to the Louisiana Pacific water treatment facility and ocean outfall to the south. Two areas near the power plant and the drying kilns drain to drop inlets and oil/water separators before discharging directly to Humboldt Bay.

As a timber processing facility, numerous potential pollutants were historically used at the site including petroleum products, lubricating oils, hydraulic fluid, grease, water treatment chemicals, and solvents. Although the facility is no longer in operation, residuals of these pollutants could potentially become entrained in storm water as a result of the demolition of numerous facilities in which these substances were used for many years. The anticipated 12-18 month duration of the demolition project could potentially coincide with two rainy seasons (October-April). As buildings are demolished and removed, concrete foundations and portions of buildings that were previously covered and protected from runoff would become exposed to rainfall.

The industrial facility is covered under a General Industrial Storm Water Permit issued by the State Water Resources Control Board which requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that emphasizes the implementation of Best Management Practices (BMPs). The existing SWPPP was compiled for the Samoa facility in 1998 in accordance with the New General Industrial Storm Water Permit Conditions adopted by the State Water Resources Control Board. The two major objectives of the SWPPP, according to the permit, are to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and to identify and implement site specific BMPs to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. The SWPPP prepared for the site in 1998 states, "This SWPPP takes into consideration only current operations and proposed operation modifications." As noted previously, the timber production facility is no longer in operation and many of the facilities are proposed to be demolished and removed. Therefore, the existing SWPPP does *not* take into account the activities and potential impacts associated with the proposed demolition of numerous facilities at the site.

Staff consulted with the California Regional Water Quality Control Board (RWQCB) about permitting requirements and potential impacts resulting from the proposed project. The RWQCB determined that although not in operation, the site is still covered under the General Industrial Storm water Pollution Prevention Permit, but that as noted above, the SWPPP prepared in 1998 pursuant to general permit requirements does not include BMPs specific to the proposed demolition project. Therefore, in a letter to the applicant dated August 18, 2000, the RWCQCB required the applicant to submit to the RWQCB a revised SWPPP that incorporates BMPs specific to the proposed demolition. The applicant must submit the revised SWPPP to the RWQCB by September 25th, 2000 for administrative review and approval. The RWQCB has not yet acted on this request, and the revised SWPPP is not yet available for review by the Commission. Therefore, conditions and/or BMPs required by the Commission to minimize adverse impacts to water quality from the proposed demolition activities would not conflict with actions of the RWQCB pursuant to the requirements of Coastal Act Section 30412. Section 30412 prevents the Commission from modifying, adopting conditions, or taking any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality.

To ensure that adverse impacts to the biological productivity and water quality of Humboldt Bay from contaminated storm water runoff are minimized, the Commission attaches Special Condition No. 1. This condition requires that prior to issuance of the coastal development permit, the applicant submit a storm water runoff control plan for review and approval by the Executive Director. The plan shall include provisions to implement Best Management Practices including at a minimum: protection, monitoring and maintenance of the existing drop inlets, locating debris stockpiles at least 75 feet from the edge of the bay, covering and containing debris stockpiles at all times, designating and designing areas with runoff controls for vehicular, equipment, and machinery fueling and maintenance, and vacuum-sweeping the site upon project completion.

In addition to impacts from storm water runoff, the water quality of the bay could be adversely affected by demolition debris entering the water. The demolition of numerous existing structures would generate a significant amount of debris including wood, steel, and concrete. To ensure that project debris does not adversely impact water quality, the Commission attaches Special Condition No. 2(a-e) which requires the applicant to adhere to construction related responsibilities. These responsibilities include: (a) storing construction materials and debris in a manner such that they will not be subject to entering coastal waters; (b) removing all construction debris from the site within 30 days of project completion; (c) preventing machinery or materials not essential to project construction from being placed in the bay at any time, (d) employing booms around the pile removal operation to contain debris that may break off, and (e) recovering any non-buoyant debris that may be discharged into coastal waters as soon as possible.

In a comment letter submitted by the RWQCB during circulation of the Mitigated Negative Declaration, the agency commented on the potential for contaminated sediments to exist at the site and referred to a leaking underground storage tank currently under investigation by the Local Oversight Program. The letter states, "Care needs to be taken that soils or fill material are not disturbed and/or transported from the site without adequate sampling and analysis to determine the proper permitted disposal locations." The Commission notes that the proposed project involves *only* the demolition of structures and facilities down to their existing foundations and that no below grade or soil-disturbing work is proposed or approved as part of this coastal development permit. Removal of existing foundations, under-ground tanks, and/or contaminated soil remediation is expected to be proposed as a later phase of the overall clean-up project at the industrial site. To ensure that no below grade or soil-disturbing work occurs without further coastal development permits or permit amendment, the Commission attaches Special Condition No. 3 which defines the permitted activity of this coastal development permit.

The Commission finds it necessary to require the utilization of Best Management Practices and to identify the applicant's responsibilities during demolition to minimize significant adverse impacts to the biological productivity and water quality of Humboldt Bay and has conditioned the project accordingly. Therefore, as conditioned, the Commission finds that the proposed project is consistent with Sections 30230 and 30231 of the Coastal Act.

2. Protection of Environmentally Sensitive Habitat Area (ESHA)

Section 30240 of the Coastal Act states:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Section 30240 requires that only uses dependent on the resource are allowed within an environmentally sensitive habitat area. A portion of the proposed project involving the demolition and removal of facilities within Humboldt Bay would occur within an environmentally sensitive habitat area. However, the proposed project site is an existing timber production complex that is no longer in operation and the proposed demolition and removal of industrial facilities does not constitute a new use within an ESHA.

As noted previously, eelgrass beds are located within the portion of the project site located within Humboldt Bay where the removal of three docks and numerous piles would occur. Eelgrass is a flowering plant that extends long rhizomes (roots) an average of 1.5 – 8 inches below the substrate from which the turions (stems) sprout with long, green blades (leaves) and it thrives in protected coastal waters with sandy or muddy bottoms. Eelgrass (*Zostera marina)* is considered to be an environmentally sensitive habitat area worthy of protection because it functions as important shelter and foraging habitat. For example, black brant, small migratory geese, feed almost exclusively on eelgrass. In addition, eelgrass provides cover for juvenile fish and in some locations serves as a spawning ground for herring. Anadromous fish species that may occur in Humboldt Bay include federally listed threatened and endangered species including Coho salmon, Chinook salmon, and steelhead trout. Although these species may occur in the area, staff at the Department of Fish and Game has indicated that they are not aware of anadromous fish use of eelgrass habitat in Humboldt Bay. Information submitted by the applicant indicates that monthly fish population surveys of eelgrass habitat along the Samoa Peninsula conducted for two years by Humboldt State University fisheries department indicated little or no salmonid presence in eelgrass. Pacific herring occur as a commercial fishery in Humboldt Bay. According to information provided by the applicant from the Department of Fish and Game and a local herring fisherman, herring are known to spawn in eelgrass in North Bay and King Salmon areas outside the area of the proposed project. According to this information, a herring spawn at the project site would not be expected.

The applicant is proposing to remove 187 piles, an 80-square-foot concrete water in-take structure, three docks and a small building from within Humboldt Bay. Because many of these structures and piles cannot be accessed from the shore, removal would be accomplished using

equipment mounted on a floating barge. The barge would be tied to the existing pier in deep water as much as possible during the project. However, the applicant proposes that because some of the work area is shallow, the barge may potentially come to rest on the bottom while operating during periods of low tides. Removal of the structures is expected to proceed rapidly and it is anticipated that the barge would settle on the bottom only once or twice in the same location, if at all. The applicant has noted that it is in their best interest to avoid instances in which the barge would need to settle on the bottom, as once the barge comes to rest, the operation essentially becomes idle until the tide is sufficient to float the barge. However, the applicant finds that to prohibit the barge from settling on the bottom entirely is not acceptable because some instances may arise where it is unavoidable.

As noted above, the area where the barge would be operating contains scattered eelgrass beds. Therefore, it is possible that should the barge need to settle on the bottom, it could potentially rest directly on eelgrass. The applicant asserts that this would not result in a significant adverse impact to the eelgrass. Although there has been a significant amount of scientific research done on various aspects of eelgrass, no information has been found that addresses this issue specifically of whether a barge resting on an eelgrass bed for a short duration of time would adversely affect the eelgrass. However, the applicant has submitted an analysis from a qualified biologist dated August 21, 2000 that addresses the potential impact to eelgrass as a result of the barge settling down on it (see Exhibit No. 5). The biologist states in his analysis that he does not expect that the barge grounding for short periods of time would cause substantial damage to the eelgrass. The following is an excerpt of the written statement:

> "I anticipate that a barge grounding during pier removal would settle to the bottom in place. The barge would not be moved while in contact with the bottom. This would be similar to the oyster barges. Any effect to the eelgrass would be from the physical pressure of the barge resting on the blades. The barge would cause little or no disruption of the sediment. This would allow the rhizomes to remain undisturbed, even if some blade damage occurred. Thus, I would not expect a barge grounding for one or several low tide periods to cause substantial damage to the eelgrass beneath the barge."

Staff has consulted with the Department of Fish and Game and the National Marine Fisheries Service regarding the issue of barge impacts to eelgrass. Although these consultations have indicated that an impact to eelgrass from the barge grounding on eelgrass is possible, the agency representatives indicate that there is no known evidence that demonstrates such impacts would occur. As noted above, the analysis from a qualified biologist indicates that an impact from resting the barge on eelgrass is not expected. Therefore, the Commission finds that there is no evidence that the use of barges in the project would have a significant adverse impact on eelgrass.

Although the project is not expected to result in adverse impacts to eelgrass, the applicant has proposed a monitoring and mitigation plan to address any unexpected or inadvertent impacts to eelgrass from the project. The proposed mitigation plan involves conducting a pre-construction survey to document eelgrass cover and density, monitoring the barge activity during the project,

and conducting a post-construction survey to assess any damage. The proposed surveys would be performed by collecting density (turions/plot) and cover data (visual estimate) along 50m transects through the area of potential eelgrass disturbance and in "control" areas where the barge would not operate. Each transect would be photographed from a permanent photo-point. The post-construction survey would be conducted using the same survey methods utilized for the pre-construction survey. The applicant recently completed and submitted a pre-construction eelgrass survey. The survey is dated August 2000 and is entitled, "Pre-Construction Eel Grass Survey for Simpson Timber Company's Samoa Deconstruction Project."

The applicant proposes that if post-construction survey results show a 15% decrease in pre-construction densities, then replanting and monitoring would be implemented. If post-construction density falls below 85% of pre-construction density, the applicant proposes to replant the impacted area using donor eelgrass beds adjacent to the project area. Post-project monitoring is proposed to begin immediately upon completion of replanting and would continue for five years or until 85% pre-construction densities are met after two years. Monitoring results are proposed to be presented in a report after the first six months and each year afterward until the success densities have been met.

According to the analysis submitted by the applicant's biologist, transplanting eelgrass at the site has a high chance of success. Information provided by the biologist states:

> "If damage to eelgrass did occur it is feasible to replant the area from which plants have been lost. Eelgrass transplants have been conducted a number of times in Puget Sound and other areas. Eelgrass transplants have been more successful in recent years than with the earliest attempts."
>
> "Generally eelgrass has been transplanted to locations where it does not currently grow. Many of the early failures to transplant eelgrass have likely been due to less than desirable conditions at the transplant site. In your situation you would be transplanting eelgrass to a location where it has been growing. This would ensure a high probability of success."

As noted previously, no known research has been performed on the specific question of whether a barge resting on the eelgrass for short periods of time would have significant impacts on the eelgrass and it is not certain that the proposed barge operation would not affect the eelgrass beds at the site. The Commission finds that even though the evidence in the record indicates that the use of barges is not expected to result in a significant disruption to the eelgrass beds at the site, monitoring of the actual effects of the barge operation on the eelgrass beds with follow up mitigation as appropriate is necessary to ensure that impacts from the project on eelgrass beds are in fact insignificant. As discussed below, the Commission further finds that the mitigation and monitoring plan submitted by the applicant does not provide sufficient provisions to ensure that the eelgrass would be protected against any significant disruption of habitat values as required by Section 30240(a). Therefore, to ensure that any disruptions to eelgrass are insignificant, the Commission attaches Special Condition No. 4 that requires the applicant to

submit for review and approval of the Executive Director, a revised eelgrass mitigation plan incorporating additional elements discussed below.

As noted previously, the mitigation and monitoring plan submitted by the applicant proposes to mitigate for inadvertent impacts only if post-construction surveys indicate a 15% or more decrease in pre-construction eelgrass densities. No mitigation or monitoring provisions are proposed by the applicant for any eelgrass impact other than a greater than 15% decrease in eelgrass density. The applicant further proposes that the mitigation consist of replanting the area and monitoring for five years, or until 85% post-construction densities are met. Therefore, the mitigation proposed would not ensure that eelgrass density would be restored to pre-construction levels. Furthermore, the proposal does not make it clear that if inadvertent impacts are great enough to not just reduce density of eelgrass growth, but to actually obliterate parts of the bed, that such a loss in eelgrass *area* would be mitigated. As the proposed mitigation would thus allow for some diminishment of habitat values, the plan as proposed would not include mitigation measures that would protect habitat values from significant disruption, inconsistent with Section 30240(a) of the Coastal Act.

Therefore, to ensure that habitat values are fully restored, Special Condition No. 4(e) requires that if *any* post-construction decrease in density or extent of eelgrass cover is detected, the site shall be monitored for five years. Monitoring of the impacted area must occur for five years or until monitoring results indicate that eelgrass density has reestablished to a level equal to pre-construction densities. The Commission recognizes however, that transplanting eelgrass to mitigate for impacts resulting in loss of eelgrass density of less than 15% with no associated loss of actual extent of eelgrass cover may not be effective or necessary because of the associated impacts it would have on the donor eelgrass bed. For example, if post-construction surveys indicate only a 5% density decrease, requiring replanting for such minimal density impact would require that donor plants be harvested from otherwise undisturbed eelgrass beds. Under the applicant's mitigation proposal, transplanting from the donor bed would reduce densities at the donor bed by up to 15%. Thus, if only minor decreases in density occur as a result of the barge operation at the impact site, the mitigation could cause a greater degree of damage to eelgrass resources than the degree of benefit that would be derived from the mitigation. Furthermore, a 15% or less decrease in density would indicate that the rhizomes of the eelgrass bed are still in tact and that the areas of minimal density impact would most likely be replenished naturally without replanting. Therefore, the Commission is not requiring replanting for a density decrease less than 15%. Special Condition No. 4(d) requires that transplanting be performed if densities at the affected eelgrass bed drop below 85% of pre-construction levels or if there is *any* loss of extent of vegetated cover. The Commission notes that if the degree of impact is less than this standard and no replanting is performed, pursuant to Special Condition Nos. 4(e) and 4(g), the applicant is still required to monitor the site and ensure that the eelgrass bed has replenished naturally.

Special Condition No. 4(c) requires the plan to be revised to incorporate criteria for determining the degree of adverse impacts. This condition requires that the extent of vegetated cover be defined as that area where eelgrass is present and where gaps in coverage are less than one meter

between individual turion clusters. Density shall be defined as the average number of turions per unit area.

As noted previously, the mitigation performance standard proposed by the applicant was that 85% of pre-construction densities would be achieved after five years. The Commission finds that to ensure that habitat values are not diminished to any extent as a result of the project, the mitigation site must achieve average densities and an extent of vegetated cover equal to pre-construction levels within five years. This performance standard is required as section 1(g) of Special Condition No. 4. This condition also notes that changes in density and cover of the control areas will be used to adjust the density and cover in the impact areas in the event that uncontrollable factors affect eelgrass within Humboldt Bay (i.e. disease, storm events, etc.).

As conditioned, the revised eelgrass mitigation and monitoring plan requires that adversely impacted areas be replanted and monitored if post-construction densities decrease by more than 15%, or if the post-construction survey results in any decrease in the extent of vegetated cover. The applicant has proposed planting methods using donor eelgrass beds adjacent to the project area. The donor shoots would be transplanted in approximately one cubic foot "planting units" with the sediment remaining in tact as much as possible. The "planting units" would be transported to the site and planted on 2.6 foot centers. In the recently submitted pre-construction survey, the applicant proposed a replanting ratio of 1.2:1 meaning for each square meter adversely impacted, 1.2 meters of eelgrass will be replanted. The rationale for this ratio is based on 1) the time necessary for a mitigation site to reach full fishery utilization (i.e. generally three years), and 2) the need to offset any productivity losses during this recovery period within five years. The Commission notes that although information indicates that the eelgrass in the project area does not currently provide significant herring or anadromous fish habitat as discussed previously, the beds are utilized by other fish species and wildlife. The additional planting reflected in the ratio is required to accommodate for biological productivity loss over time. Although the applicant proposed this ratio in a later submittal, it was not included in the initial mitigation plan submitted with the application. The Commission attaches Special Condition No. 4(f) to ensure that this replanting ratio is incorporated into the requirements of the final revised mitigation and monitoring plan.

The mitigation plan proposed by the applicant does not include provisions for remediation should the required performance standard fail to be met after five years. Therefore, to ensure that additional measures would be taken to ensure no significant disruption of eelgrass habitat values, Special Condition No. 4(h) requires the revised plan to include provisions for remediation. This condition requires that if the performance criteria have not been met at the end of five years following the completion of the project, the applicant shall submit an amendment to the coastal development permit for additional mitigation.

To further ensure that the project does not result in a significant disruption to eelgrass, the Commission attaches Special Condition No.4(a) and (b) which require criteria regarding the timing of pre- and post-construction surveys. As noted previously, the applicant has submitted the pre-construction eelgrass survey dated August, 2000. Special Condition No. 4(a) requires the

pre-construction survey to be completed between the active eelgrass growing season (May-August) within 120 days of project commencement. If the project does not commence within 120 days following the completion of the pre-construction survey, a new survey must be completed during the active growing season. This condition ensures that project conditions including monitoring and mitigation requirements will be based on an accurate inventory of eelgrass present at the site. Special Condition No. 4(b) requires that post-construction surveys be completed within 30 days following project completion to assess any impacts to eelgrass that occur as a direct result from the proposed project.

Special Condition No. 4 requires the additional elements discussed above be incorporated into a revised eelgrass mitigation and monitoring plan. These elements are based in part on the standards and criteria set forth in the Southern California Eelgrass Mitigation Policy. This policy was adopted in July, 1991 by state and federal agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game) to standardize and maintain consistency regarding mitigating adverse impacts to eelgrass resources. The Commission has conditioned numerous south coast projects involving adverse impacts to eelgrass to require an eelgrass mitigation and monitoring plan that complies with the guidelines set forth in the SCEMP. The DFG and NMFS have indicated that although a similar policy for Northern California is expected to be prepared and adopted in the near future, currently an eelgrass mitigation policy specific to Northern California, including Humboldt Bay, has not been adopted. Therefore, the Commission has adopted some guidelines set forth in the policy such as the mitigation ratio and the measures of adverse impact, but notes that the attached Special Condition No. 4 requires some additional elements to find the project consistent with Section 30240. Most significantly, the performance standard of the SCEMP requires 100% sustained coverage and only 85% density be achieved after five years. The Commission finds that to ensure that the mitigation is adequate to minimize significant disruption to eelgrass, the performance standard shall require both 100% of pre-project density and 100% of pre-project cover be achieved within five years.

To further minimize the potential for impacts to eelgrass from the barge resting on the bottom, the Commission attaches Special Condition No. 2(f). This condition requires that all grounding and direct contact of the barge with eelgrass beds shall be minimized. In addition, the Commission finds that adverse impacts to eelgrass could occur if the piles or other equipment were to be dragged over the bottom in areas of eelgrass beds. Therefore, to further minimize impacts to eelgrass, the Commission attaches Special Condition No. 2(e) which prohibits propellers, anchors, construction equipment, or piles from being dragged over the mudflats or eelgrass beds.

Therefore, the Commission finds that the project as conditioned would not result in a significant disruption to the ESHA.

4. Visual Resources

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas

The Simpson Timber Company timber complex is visible from many vantage points in and around Humboldt Bay as well as from New Navy Base Road. The industrial facility has existed at the site for many years, and the proposed project will not result in a change to the site that would adversely impact visual resources. The site is located along the waterfront in an area surrounded by similar industrial facilities to the south and the town of Samoa to the north. The proposed project will remove numerous industrial facilities and structures in poor condition, thereby resulting in an improvement to the visual qualities of the site.

Therefore, the Commission finds that the proposed development is consistent with Section 30251 of the Coastal Act as the development will not block views to and along the coast, will not involve any alteration of land forms, and the demolition activities proposed will not result in any change to the visual character of the waterfront area.

5. Public Access

Section 30212 of the Coastal Act requires that access from the nearest public roadway to the shoreline be provided in new development projects except where it is inconsistent with public safety, military security, or protection of fragile coastal resources, or adequate access exists nearby. Section 30211 requires that development not interfere with the public's right to access gained by use or legislative authorization. In applying Section 30211 and 30212, the Commission is also limited by the need to show that any denial of a permit application based on these sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential access.

The proposed project involves the removal of numerous piles from Humboldt Bay. If the piles are only partially removed, or broken off during removal and left in the water, they could pose a safety and navigation hazard to boaters and recreators on the bay. Therefore, to avoid adverse impact to public access and recreation on the bay from hazardous piles, the Commission attaches Special Condition No. 2(g) to ensure that all piles are removed in their entirety.

Although the project is located between the first public road, and Humboldt Bay, an inlet of the sea, it will not otherwise adversely affect public access. There are no trails or other public roads that provide shoreline access within the vicinity of the project. Furthermore, the proposed demolition project will not change the nature or intensity of visitor-serving commercial use, and thus will not create any new demand for public access or otherwise create any additional burdens on public access.

Therefore, the Commission finds that as conditioned to ensure that piles are removed in their entirety, the proposed project does not have any adverse effect on public access, and that the project as proposed without new public access is consistent with the requirements of Coastal Act Sections 30210, 30211, and 30212.

6. U.S. Army Corps of Engineers Review

The project is within and adjacent to a navigable waterway and is subject to review by the U.S. Army Corps of Engineers (USACE). Pursuant to the Federal Coastal Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the USACE, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit. To ensure that the project ultimately approved by the Corps is the same as the project authorized herein, the Commission attaches Special Condition No. 5 that requires the applicant prior to the commencement of construction, to demonstrate that all necessary approvals from the USACE for the proposed project have been obtained.

7. California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of a coastal development permit application to be supported by findings showing that the application, as modified by any conditions of approval, is consistent with any applicable requirement of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

As discussed above, the proposed project has been conditioned to be found consistent with the policies of the Coastal Act. As specifically discussed in these above findings which are hereby incorporated by reference, mitigation measures which will minimize or avoid all significant adverse environmental impact have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act and to conform to CEQA.

EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Site Photos
4. Eelgrass Mitigation Plan
5. Biologist Eelgrass Statement

ATTACHMENT A

Standard Conditions:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

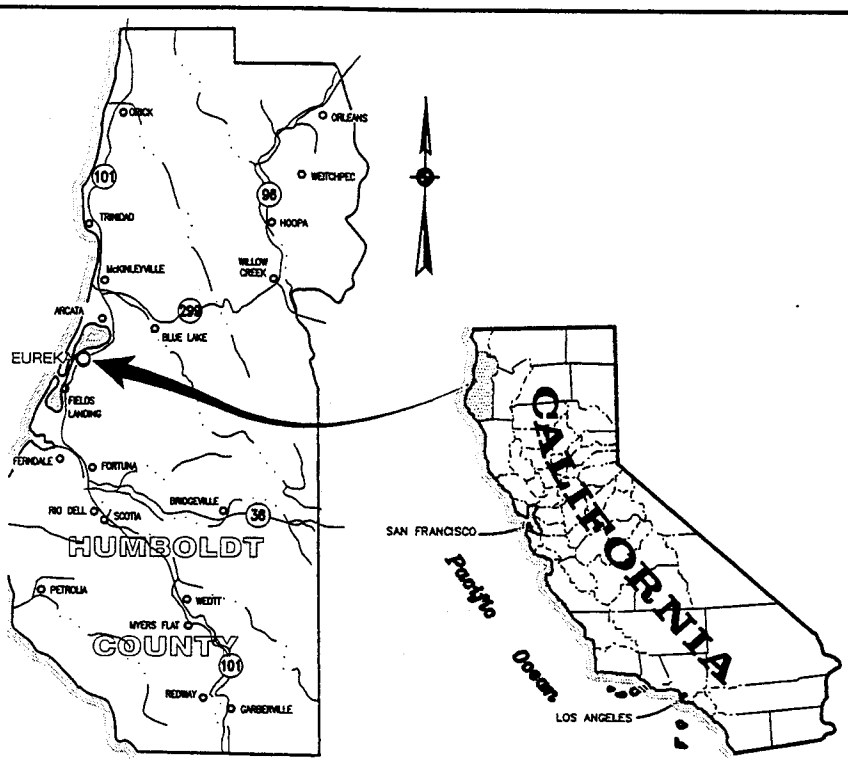
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

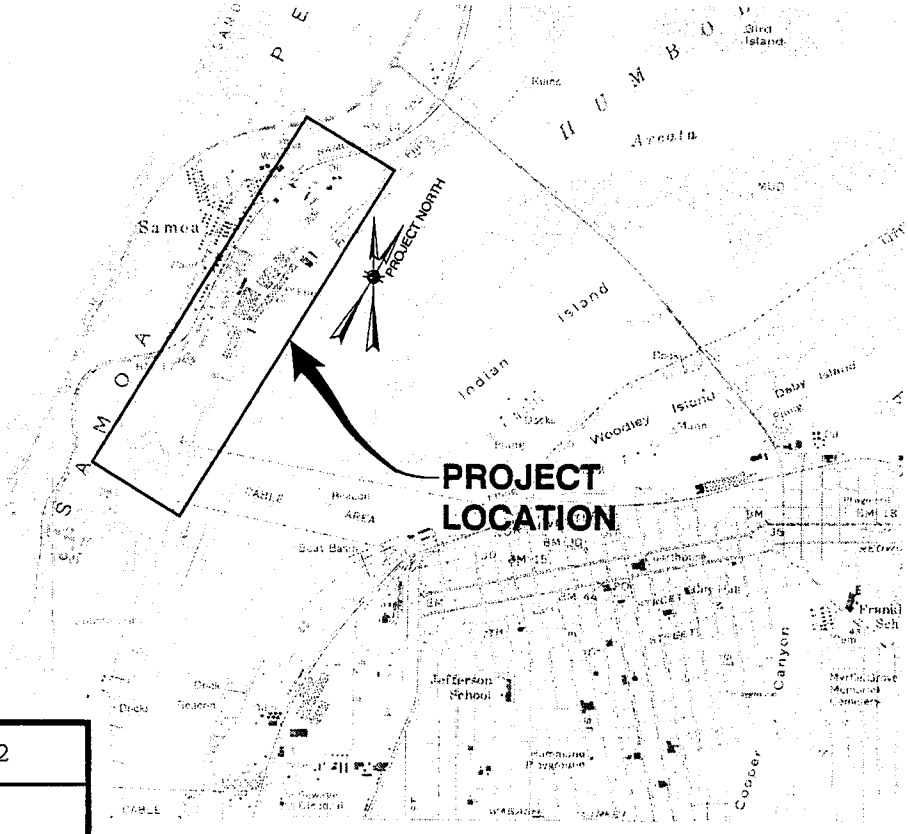
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

Humboldt
PROJECT LOCATION
EXHIBIT NO. 1
APPLICATION NO. 1-00-015
SIMPSON TIMBER CO.
REGIONAL LOCATION
ARCATA
COASTAL
ARCATA BAY
Bayside
Samoa
EUREKA
Fairhaven
Cutten
Freshwater
ZONE
BOUNDARY
Fields Landing
HUMBOLDT BAY
101
Salmon
Creek
River
Ryan
Elk
Lake
Little
Dunlap
Wrigley Rd
Humboldt Co Airport
Greenwood
Meridian
Ridgewood
Union St
Harris St
Broadway
Golf Course
Eureka Airport
Freshwater Sheet Mill
1 0 1 2
miles
N
California Coastal Commission
LOCATION MAP
County of Humboldt



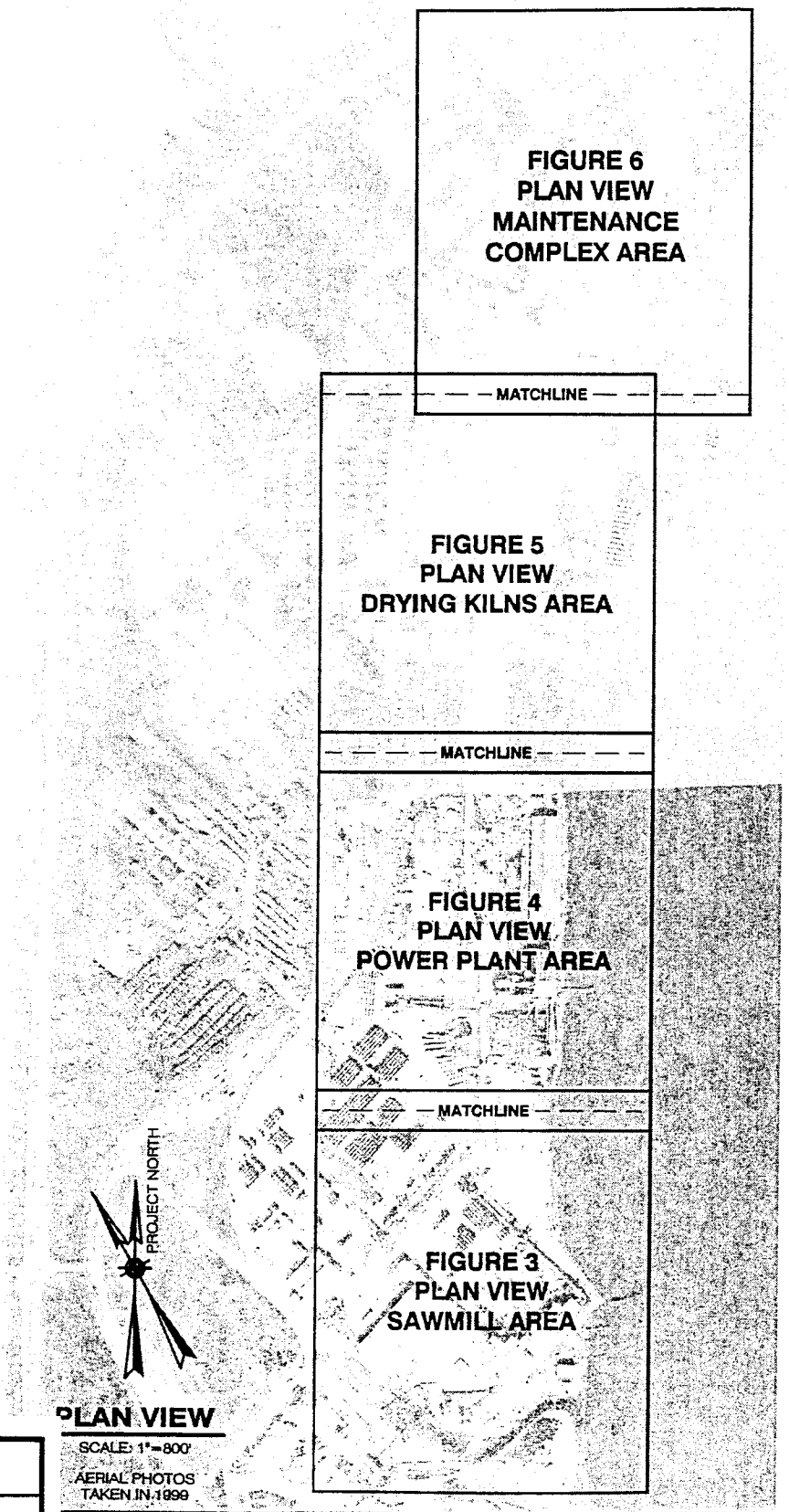
VICINITY MAPS

N.T.S.



ELLY NEERS 7) 443-8326 7) 444-8330	FIGURE 1 VICINITY MAP	SIMPSON TIMBER COMPANY 2000 DECONSTRUCTION PROJECT

EXHIBIT NO. 2
APPLICATION NO. 1-00-015
SIMPSON TIMBER CO.
VICINITY LOCATION



ELLY NEERS (707) 443-8326 (707) 444-8330	FIGURE 2 PLAN VIEW & INDEX SHEET	SIMPSON TIMBER COMPANY 2000 DECONSTRUCTION PROJECT

EXHIBIT NO. 3

APPLICATION NO. 1-00-015

SIMPSON TIMBER CO. (pg. 1 of 5)

PLAN VIEW

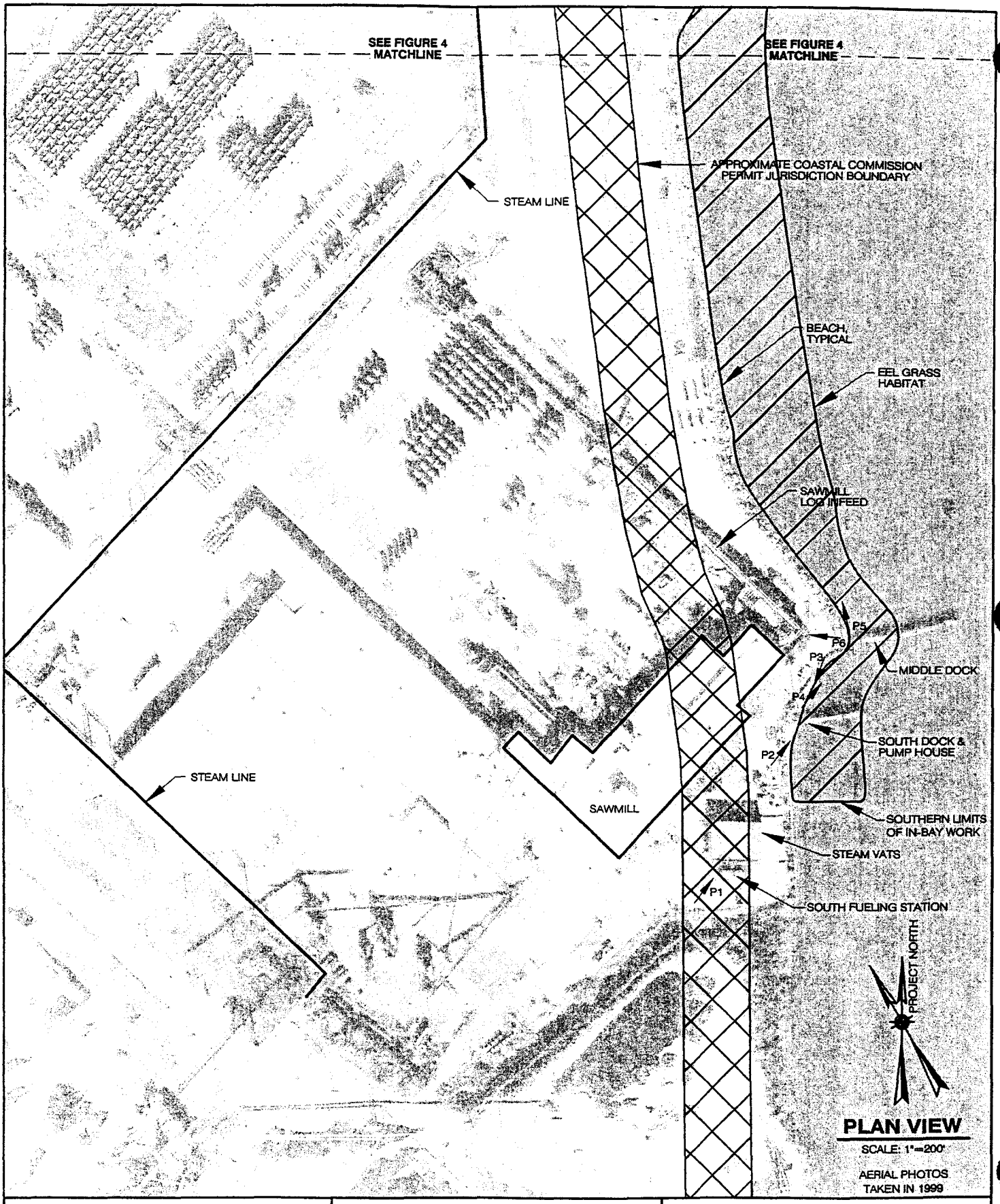


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FIGURE 3
PLAN VIEW SAWMILL AREA

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

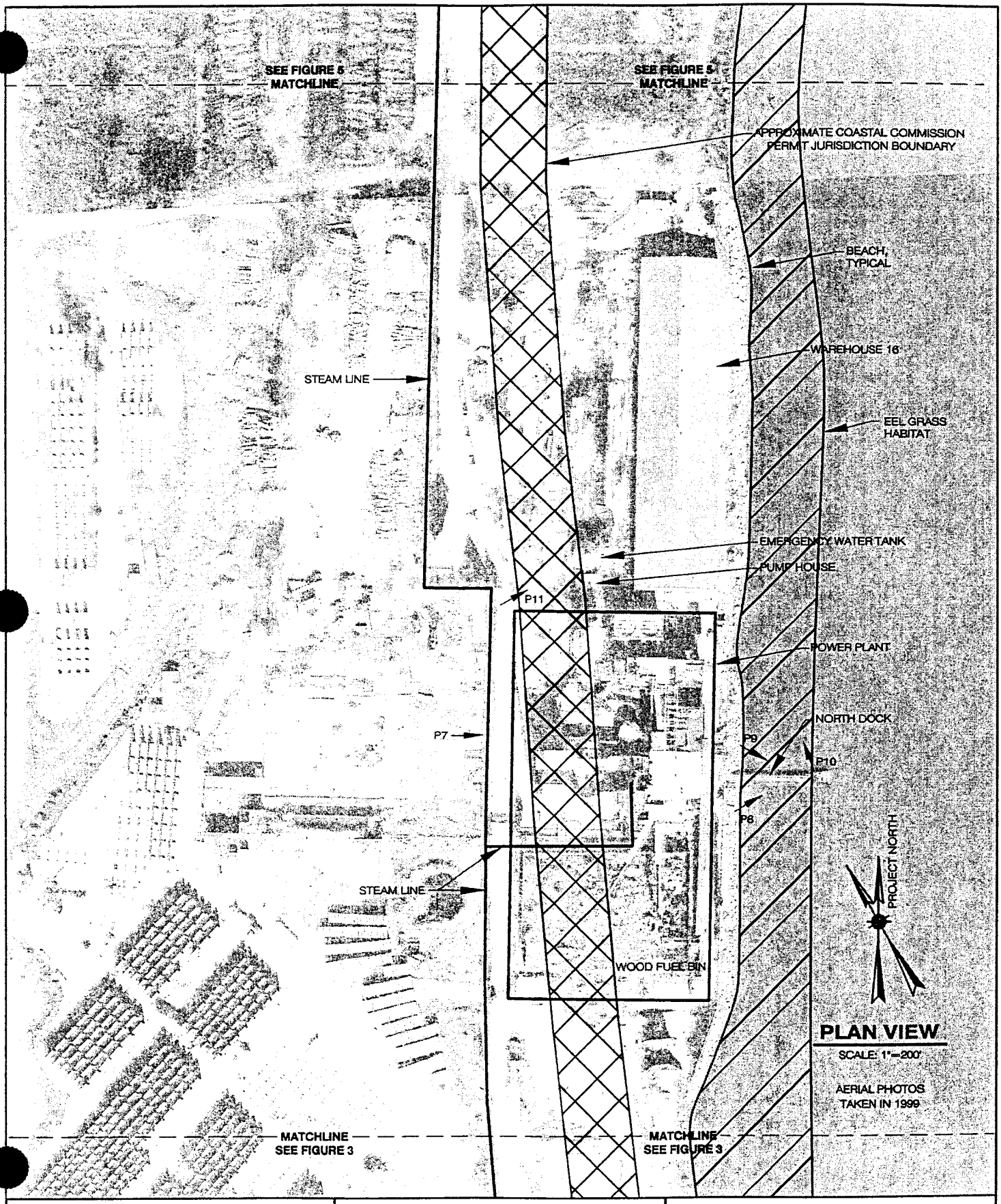

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FIGURE 4
PLAN VIEW POWER PLANT AREA

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

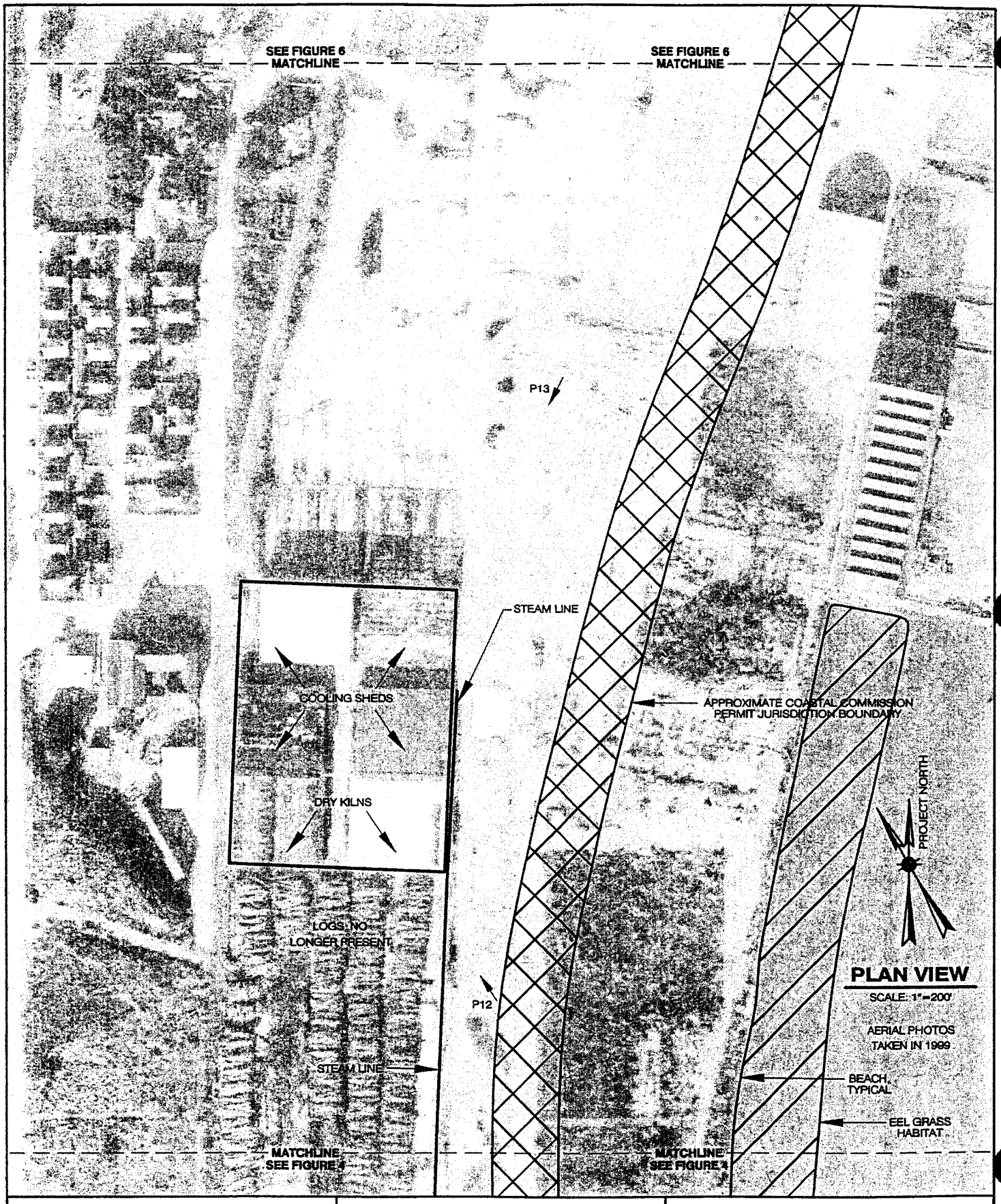

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FIGURE 5
PLAN VIEW DRYING KILNS AREA

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

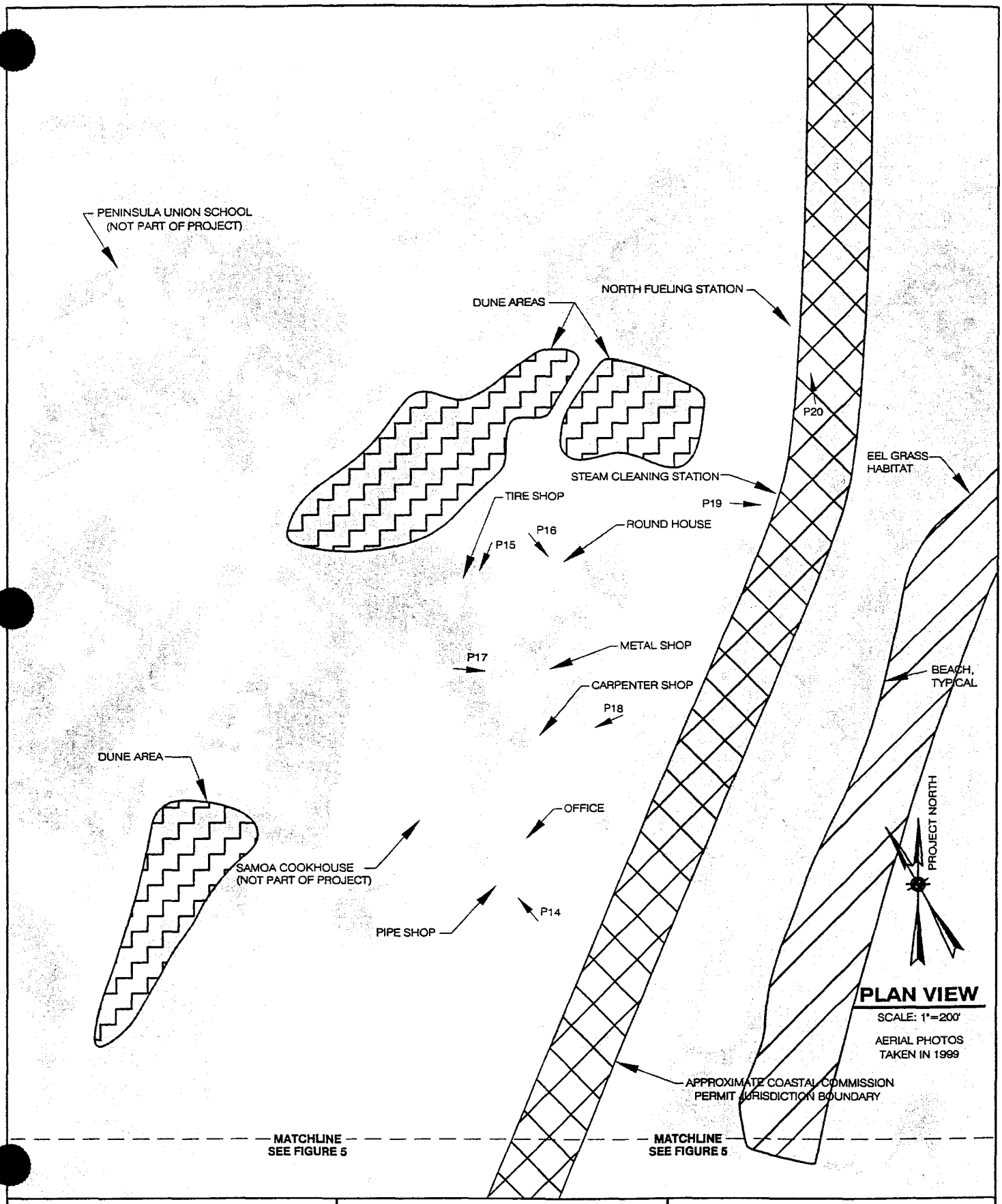

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FIGURE 6 - PLAN VIEW
MAINTENANCE COMPLEX AREA

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

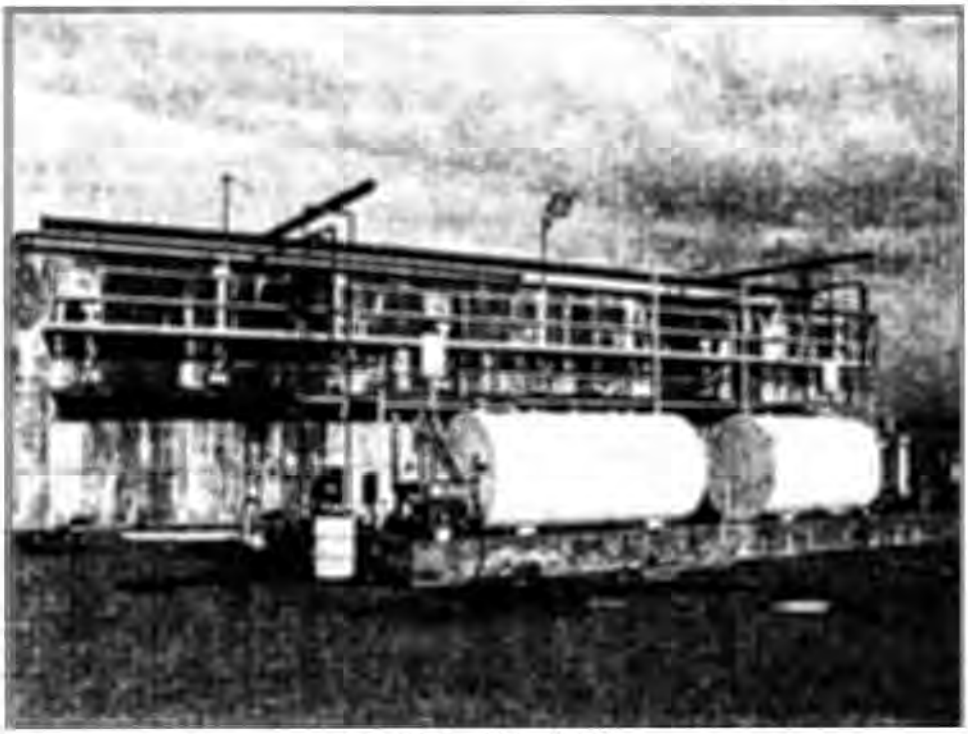

PHOTO #1 (P1)
South fueling station and steam vats behind it, both to be removed.

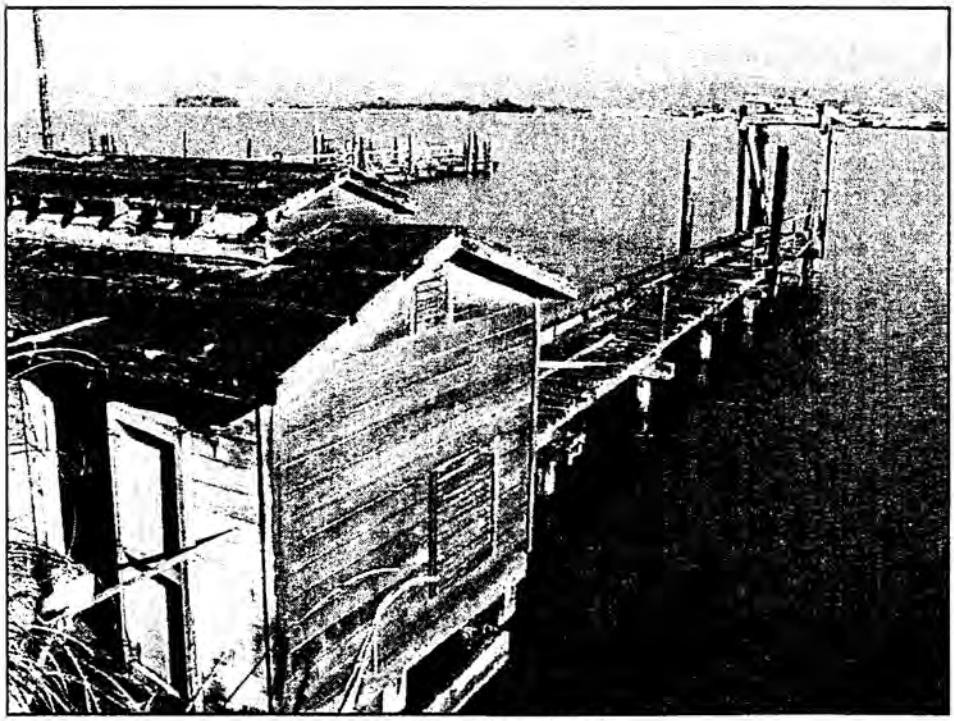

PHOTO #2 (P2)
outh dock and pumphouse to be removed.
(middle dock is in background)

EXHIBIT NO. 4		
APPLICATION NO. 1-00-015		
SIMPSON TIMBER CO. (pg. 1 of 7)		
SITE PHOTOS		
CELLY INEERS (707) 443-8326 (707) 444-8330	FIGURE 7 SITE PHOTOGRAPHS	SIMPSON TIMBER COMPANY 2000 DECONSTRUCTION PROJECT

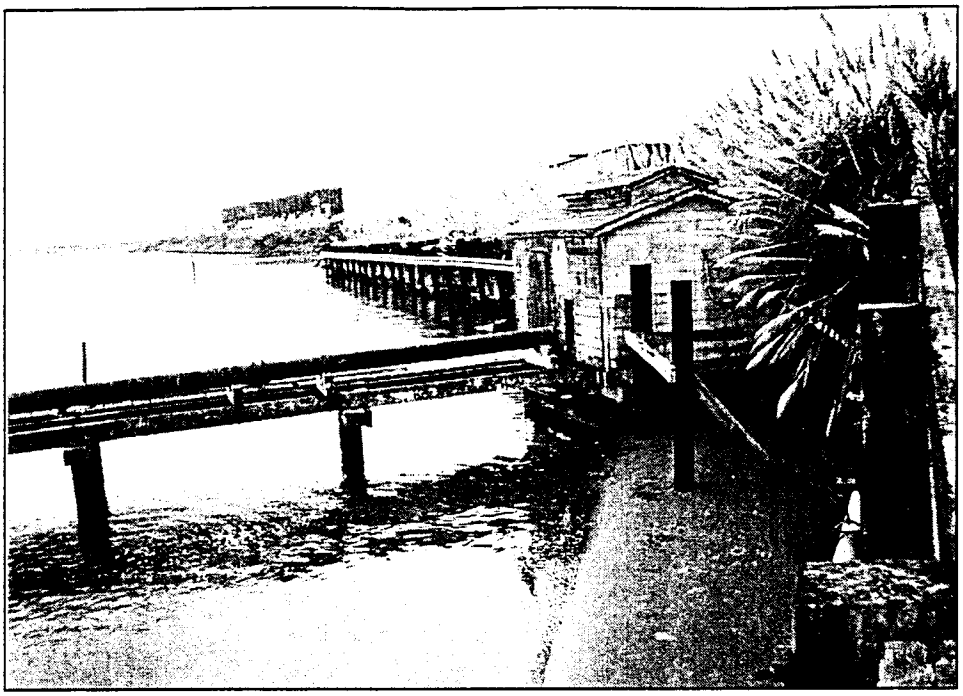

PHOTO #3 (P3)
South dock and pump house seen in relation to shoreline.

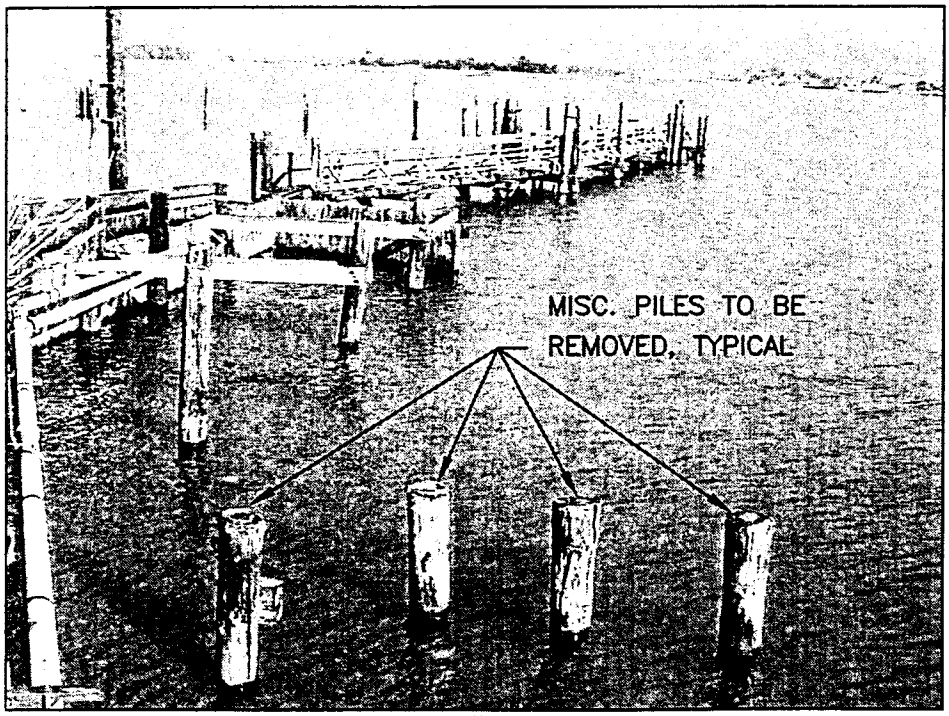

PHOTO #4 (P4)
Middle dock and misc. piles and pipe to be removed.

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FIGURE 8
SITE PHOTOGRAPHS

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

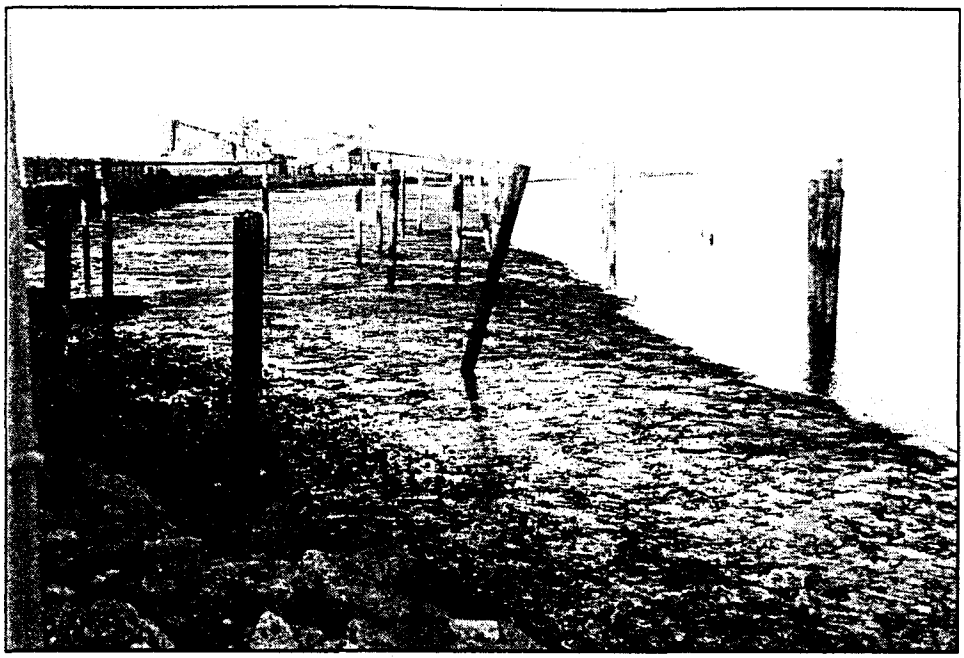

PHOTO #5 (P5)
Misc. piles north of middle dock to be removed.
Tide is approx. −1.4 feet.
(Power plant in background at left)

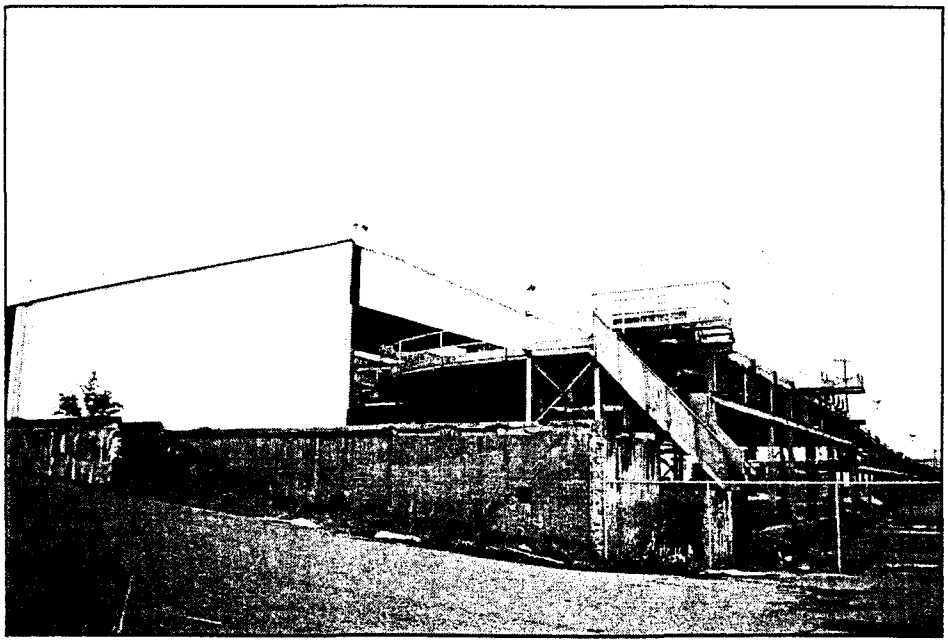

PHOTO #6 (P6)
Sawmill building and log infeed to be removed.

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FIGURE 9
SITE PHOTOGRAPHS

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

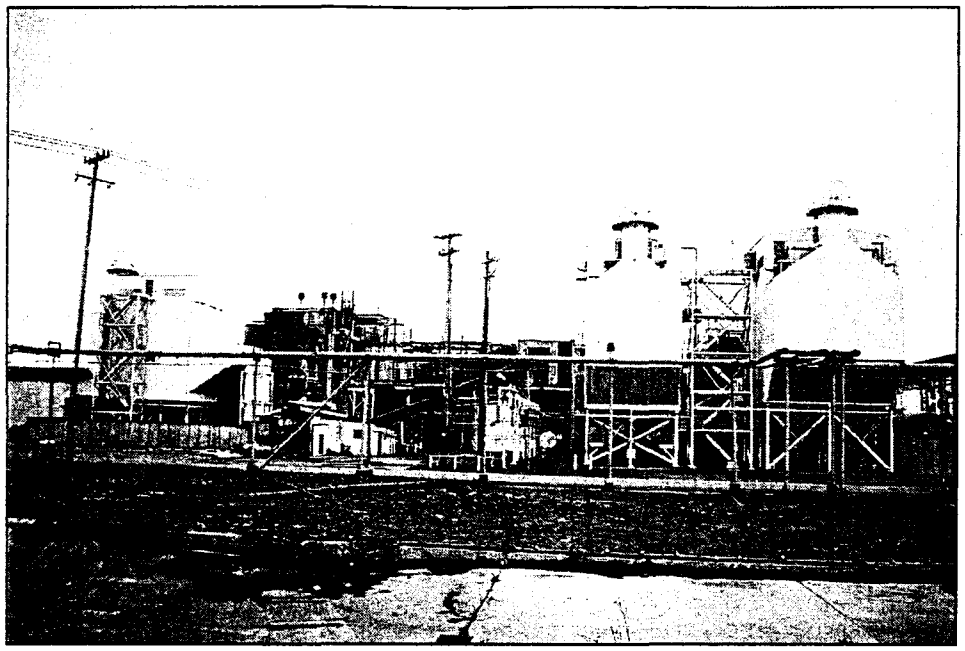

PHOTO #7 (P7)
Power plant to be removed.

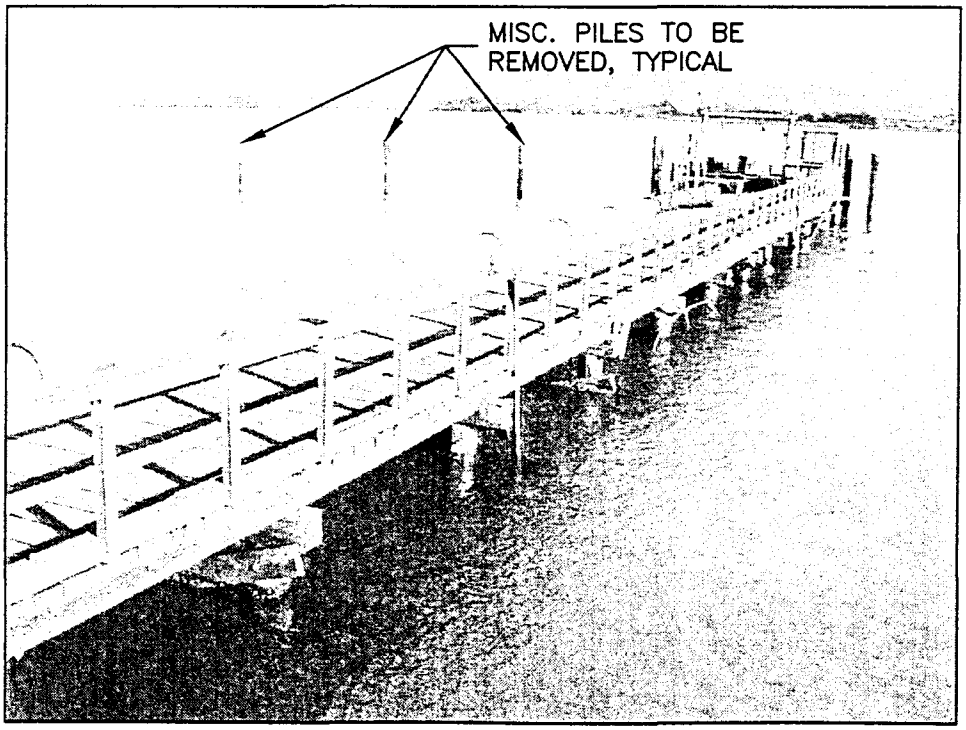

PHOTO #8 (P8)
North dock in front of power plant to be removed.

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PH (707) 443-8326
FAX (707) 444-8330

FIGURE 10
SITE PHOTOGRAPHS

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

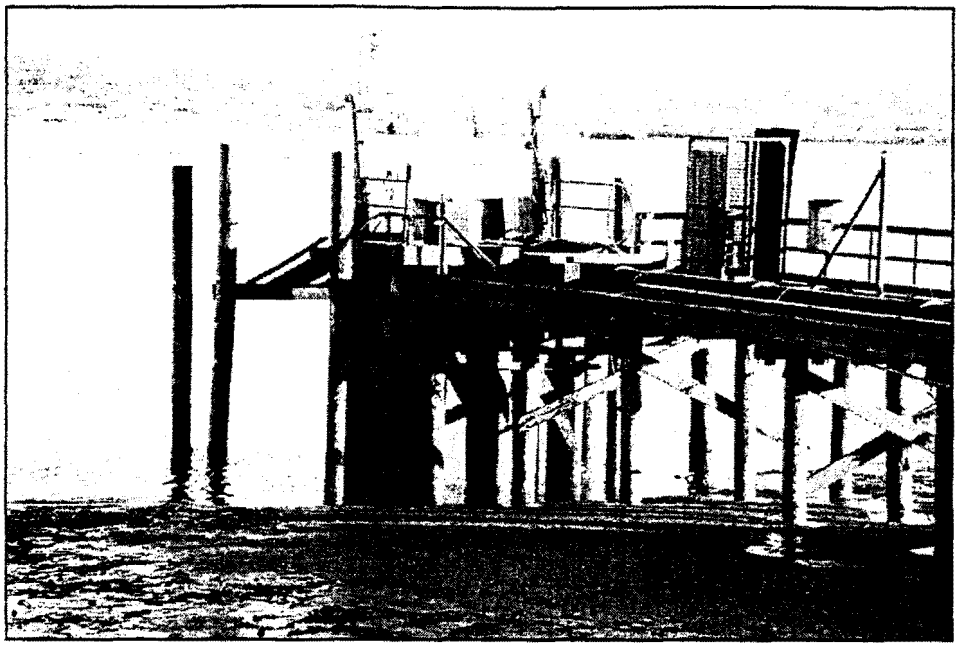

PHOTO #9 (P9)
Concrete structure at end of north dock to be removed.
Tide is approx. −1.4 feet.

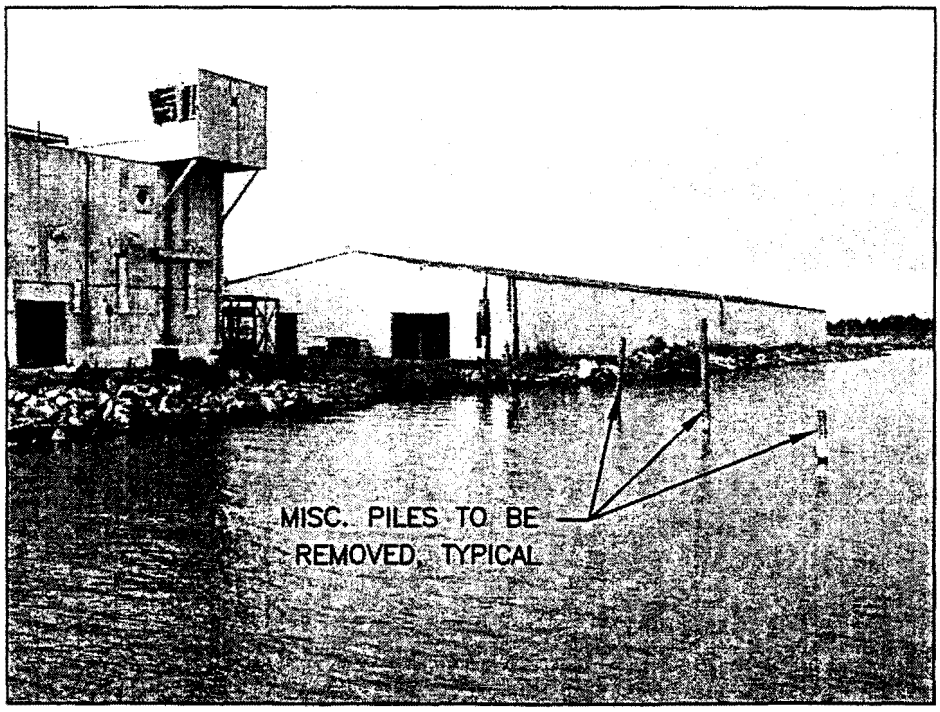

PHOTO #10 (P10)
Warehouse 16 to north of power plant to be removed.
(Corner of power plant in foreground at left)

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FIGURE 11
SITE PHOTOGRAPHS

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

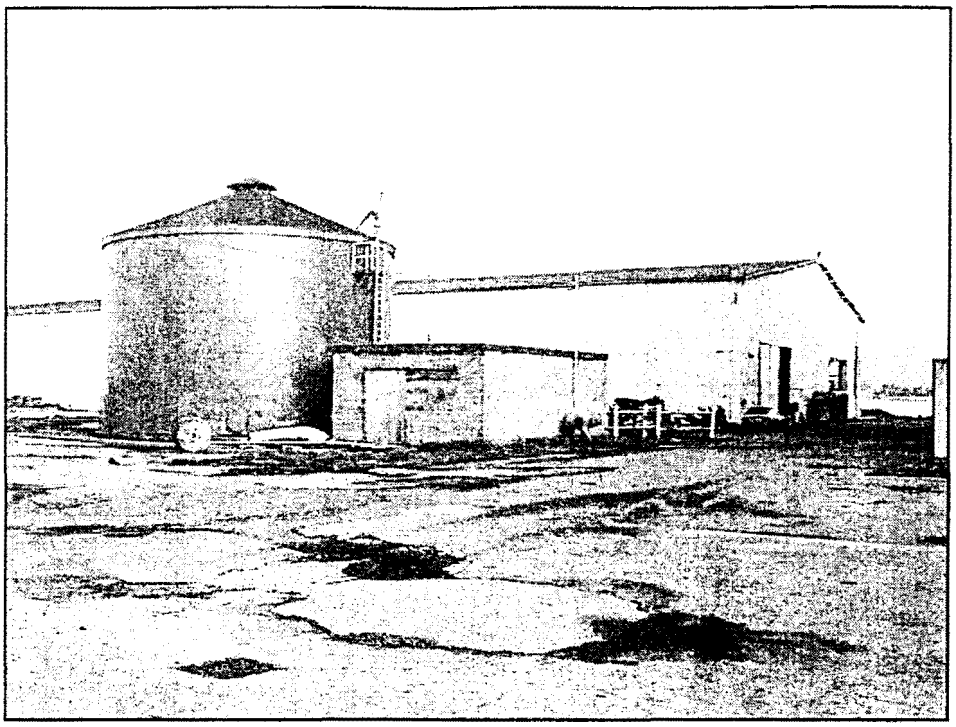

PHOTO #11 (P11)
Emergency water tank, pump house, and warehouse 16 to be removed.

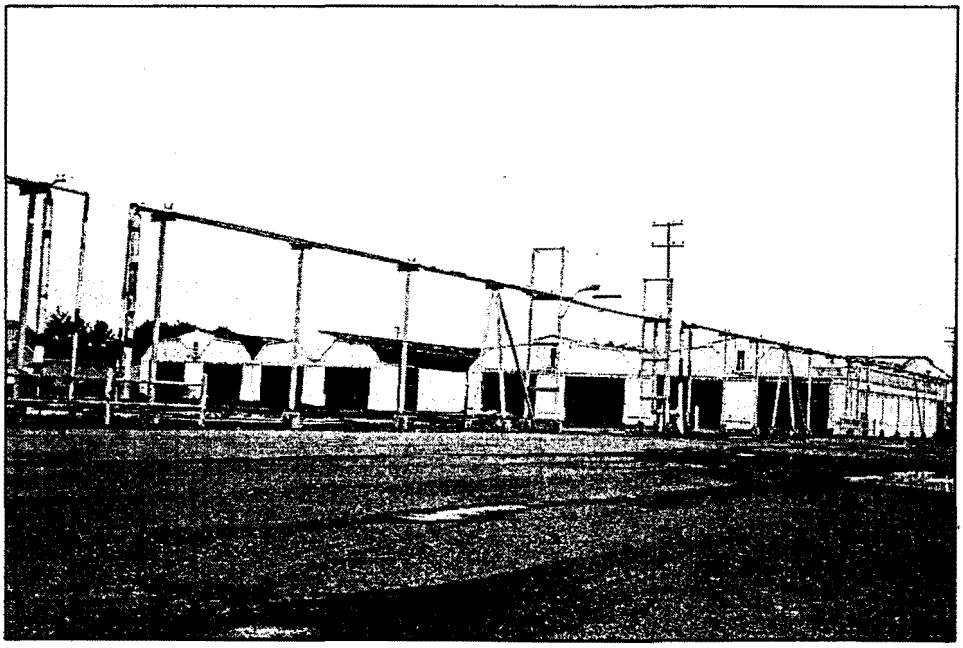

PHOTO #12 (P12)
Dry kilns to be removed. Elevated steam line is shown through middle of photo.

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FIGURE 12
SITE PHOTOGRAPHS

SIMPSON TIMBER COMPANY
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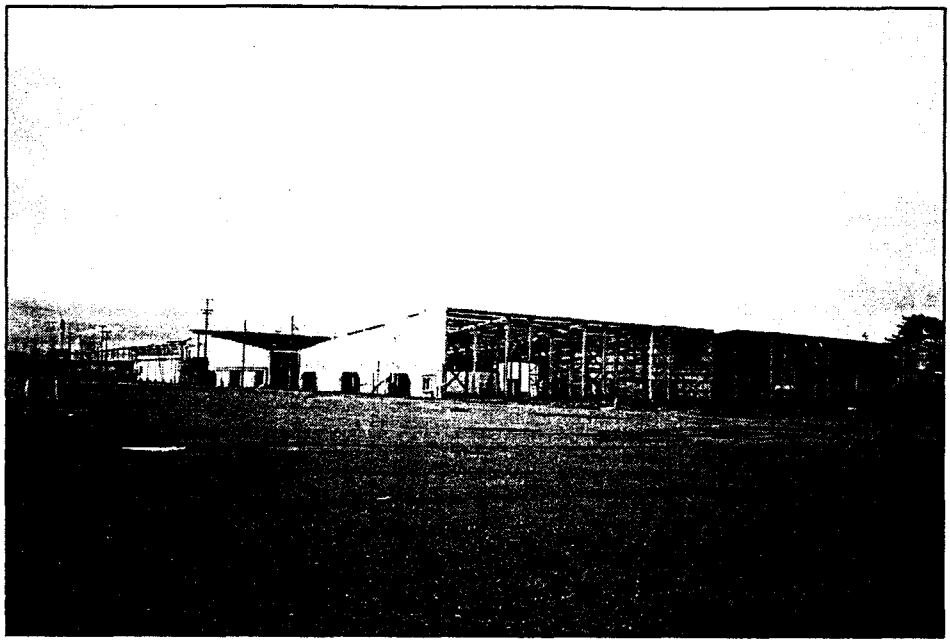

PHOTO #13 (P13)
Cooling sheds to be removed.

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FIGURE 13
SITE PHOTOGRAPHS

SIMPSON TIMBER COMPANY
2000 DECONSTRUCTION PROJECT

Parametrix, Inc.
Consultants in Engineering and Environmental Sciences
5808 Lake Washington Blvd. N.E. Suite 200 Kirkland, WA 98033-7350
(425) 822-4446 • Fax: (425) 889-8808 • www.parametrix.com

Ms. Tiffany Tauber
California Coastal Commission
710 E. Street, Suite 200
Eureka, California 95501

August 21, 2000
553 2209 009

Dear Ms Tauber:

Simpson Timber Co. has asked me to provide you with information regarding potential impacts of barges that might rest on eelgrass areas during deconstruction of several docks and many pilings at the site. Although there has been a great deal of research on eelgrass (*Zostera marina*), I am not aware of any investigations that directly address this issue. I have been dealing with eelgrass issues since my graduate research working with oysters. I have conducted surveys of eelgrass resources and developed eelgrass transplant projects in Puget Sound over the last 30 years. I will provide information that may be of value in your consideration of this issue.

The potential impacts of various human factors on eelgrass were described by Phillips (1984) in a thorough review of eelgrass prepared for the U.S. Fish and Wildlife Service. Generally eelgrass appears to be affected by activities that cause substantial disturbance of the substrate in which the plants are growing, by toxic effects such as oil, or by interruption of light for a prolonged period. Activities such as clam and oyster dredging, scallop harvest, and sediment dredging have been shown to remove eelgrass from the disturbed areas.

Regarding the effects of potential barge grounding, probably the most relevant information I am aware of is that associated with the historic harvest of oysters. Oyster harvesting and relaying has commonly been conducted in many areas from barges. These barges remain at intertidal and shallow subtidal locations for several days while they are loaded and unloaded. During these periods the barges rest on the bottom during low tide periods. It is not uncommon for eelgrass to grow adjacent to and in oyster rearing areas where the barges rest. I have never noticed any obvious impact to the adjacent eelgrass from these barges. I am not aware of any scientific investigations that address barge grounding. I doubt that this has been viewed as a sufficient problem to stimulate scientific effort.

I anticipate that a barge grounding during pier removal would settle to the bottom in place. The barge would not be moved while in contact with the bottom. This would be similar to the oyster barges. Any effect to the eelgrass would be from the physical pressure of the barge resting on the blades. The barge would cause little or no disruption of the sediment. This would allow the rhizomes to remain undisturbed, even if some blade damage occurred. Thus, I would not expect a

EXHIBIT NO. 5
APPLICATION NO. 1-00-015
SIMPSON TIMBER CO. (pg. 1 of 4)
BIOLOGIST STATEMENT

Employee Owned

1 of 4

barge grounding for one or several low tide periods to cause substantial damage to the eelgrass underneath the barge.

There is some information on the basic biology of the plants that may be pertinent to your concerns. Eelgrass plants are naturally displaced by the activity of macro-invertebrates that disturb the sediment surface. Sand dollars (*Dendraster* sp.) and Dungeness crabs (*Cancer magister*) dig into the surface uprooting considerable numbers of plants (Phillips 1984, personal observation). These activities along with storm waves result in substantial changes in some eelgrass beds from one year to the next. Both the amount of area covered and the distribution of the coverage can vary substantial among years. Recently the distribution of eelgrass beds near a relocated Navy fuel pier in Puget Sound was monitored over a six-year period (Weitkamp 1998). Changes in the adjacent eelgrass beds were documented over time to assess the impacts of construction of a new pier and natural changes that occur with time. Although there were substantial changes in the boundary of the eelgrass beds among years, the same basic area tended to support eelgrass over time.

Annual defoliation of eelgrass is a natural phenomenon that should also be considered in your evaluation and monitoring. Short (1975) estimated that 70% of eelgrass experienced seasonal defoliation. Numerous waterfowl feed on eelgrass in estuarine areas such as Humboldt Bay, removing considerable quantities of the blades without any obvious impact to the beds.

Loss of blades and the upper portion of the turions does not mean the plants are lost. The rhizome grows new turions and turions grow new blades the following growing season. Generally growth of turions and their blades occurs during late spring and early summer (late May–early August). I expect eelgrass to be most sensitive to disturbance during this period of rapid growth when the plants are using energy from the rhizomes to rapidly grow the new turions and blades. Lesser growth of new blades occurs in late summer. Some growth occurs in February and March, but it is much less than during mid-summer. During rapid growth new blades reach full development within three weeks. In Puget Sound this period of maximum growth is in July. I would expect to see similar conditions in Humboldt Bay. Seed germination occurs primarily from April through July. During late summer through spring the turions have most likely returned energy to the rhizomes, making the underground portions of the plants relatively resistant to loss of blades. In late summer through spring the blades tend to gradually break down, are consumed, or are torn from the plants to become drift and detritus. The rhizomes are buried 1.5-8 inches deep in the sediment where they are generally protected from surface disturbance.

If eelgrass were damaged by a barge resting on the bottom, the evidence should be visible for some time. Eelgrass blades decompose slowly. Harding and Mann (1975) reported it takes about 50 days for eelgrass to completely break down. About 50% of the material breaks down within the first ten days. Thus, I would anticipate damaged eelgrass to be readily visible for some time, and if an area were denuded, it would probably be visible until replaced during the following or subsequent growing seasons.

If damage to eelgrass did occur it is feasible to replant the area from which plants have been lost. Eelgrass transplants have been conducted a number of times in Puget Sound and other areas. Eelgrass transplants have been more successful in recent years than with the earliest attempts. It is necessary to hold the transplants firmly in place until they become well established. We have found that the natural activity of crabs can displace a substantial number of the transplants, requiring placing more transplants than desired to ensure adequate survival.

Generally eelgrass has been transplanted to locations where it does not currently grow. Many of the early failures to transplant eelgrass have likely been due to less than desirable conditions at the transplant site. In your situation you would be transplanting eelgrass to a location where it has been growing. This would ensure a high probability of success. One factor not considered in past eelgrass transplants is the fertility of the site. Eelgrass is a rooted vascular plant that requires nutrients in its substrate. Unlike alga, eelgrass does not derive its nutrients from the water column. Nutrient conditions at a location where eelgrass has recently been growing are likely to be favorable, while nutrient conditions at a site where it has not been growing are much less likely to be favorable.

The papers by Harding and Butler (1979) and Waddell (1964) may be of interest to you in your evaluation of eelgrass in Humboldt Bay. They provide some historic information on the density of eelgrass in Humboldt Bay.

I hope this information is of help to you in your deliberations. If you have any questions or desire to discuss this issue please call me at 425 822 8880.

Sincerely,

Don Weitkamp Ph.D.

cc: Rex Bones, Simpson
Misha Schwarz, Winzler and Kelly

REFERENCES

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