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Staff Report: March 28, 2008  
Staff: Robert S. Merrill  
Commission Action:

## STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: **1-07-012**

APPLICANT: **North Coast Railroad Authority**

AGENT: David Anderson

PROJECT LOCATION: Along the North Coast Railroad Authority railroad embankment on the eastern shoreline of Humboldt Bay, just north of the Humboldt Bay Power Plant, in the King Salmon area of Humboldt County. (APNs 305-131-003)

PROJECT DESCRIPTION: Repair a total of approximately 3,100 lineal feet of railroad embankment and associated shoreline revetment to prevent flooding of adjacent low-lying areas from tidal inundation.

LOCAL APPROVALS: None Required

OTHER APPROVALS RECEIVED: (1) Humboldt Bay Harbor Recreation & Conservation District Permit;

- (2) U.S. Army Corps of Engineers Nationwide Permit 3 for Maintenance, granted June 1, 2007; and
- (3) Regional Water Quality Control Board Section 401 Water Quality Certification granted June 4, 200.

SUBSTANTIVE FILE DOCUMENTS: (1) Emergency Permit No. 1-07-035G; and  
(2) Humboldt County Local Coastal Program

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### **SUMMARY OF STAFF RECOMMENDATION**

Staff recommends that the Commission approve with conditions the proposed repair of an approximately 3,100-foot-long section of railroad embankment and associated shoreline revetment along the shoreline of Humboldt Bay, north of the Humboldt Bay Power Plant in the King Salmon area of Humboldt County.

The primary purpose of the repair project is to alleviate erosion and flooding concerns. The west or bay side of the revetment and railroad embankment to be repaired is flanked by a narrow sandy beach which along most of its length is inundated at high tides. The project area is opposite and slightly north of the mouth of Humboldt Bay and is subject to strong wave attack. High tides and waves have dislodged much of the un-engineered revetment materials that have been placed in the past along the bay side of the railroad embankment and have also eroded ballast material from the railroad bed in a number of locations compromising the integrity of the track. Much of this eroded material has been deposited on the east or inland side of the railroad embankment which is flanked by agricultural fields and Highway 101.

The repair project consists of two separate project elements. The first element consists of repairs performed in 2007 to the southern 500 linear feet of the section of embankment and its associated revetment under Emergency Permit No. 1-07-035G for which the applicant is now seeking permanent authorization. This repair work involves: (1) the removal and off-site disposal of an estimated 750 cubic yards of concrete, rebar, railcar parts, concrete pipes, metal fragments, and other debris as well as 800 old creosote coated railroad ties found buried in the railroad right-of-way; (2) regrading the railroad embankment in this section using existing sand and gravel fill found adjacent to the inboard side of the existing embankment that had eroded from the embankment in the first place, and (3) rebuilding the revetment in an engineered fashion using existing

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revetment material at the site that was determined to be appropriately sized and shaped for reuse and approximately 1,500 cubic yards of new quarry rock. The second element of the project consists of the repair of the revetment along the 2,600-foot-long section of the railroad embankment immediately north of the section of embankment repaired under the emergency permit. In this northern section, the repairs are limited to filling low spots and voids in the revetment with a total of approximately 3,350 cubic yards of quarry rock to tighten up the structure and minimize intrusion of bay waters into or over the railroad embankment. All of the rock to be placed would be placed above the mean high tide and will not affect the footprint of the revetment.

Staff is recommending six special conditions, most of which are required to ensure the protection of water quality and the biological productivity of adjoining Humboldt Bay to the west and freshwater and grazed seasonal wetlands to the east, as required by Coastal Act Section 30231. Regarding the follow-up authorization of the repairs performed under the emergency permit, staff recommends Special Condition No. 1, which requires the submittal of evidence that (1) all of the approximately 800 old creosote coated railroad ties discovered within the railroad right-of-way during grading of the construction access road and other construction of the emergency repairs authorized by Emergency Permit No. 1-07-035G have been removed from the site and either disposed of at a landfill approved for acceptance of creosote coated ties or at a co-generation plant authorized to accept such materials, and (2) all other construction debris from the embankment repairs authorized by Emergency Permit No. 1-07-035G has been removed from the project site and disposed of at an authorized disposal facility. This condition will ensure that debris and creosote-coated railroad ties left at the site upon completion of the emergency repairs that could either roll or wash directly into the Bay or the wetlands on the inboard side of the railroad embankment or leach or discharge creosote or other pollutants into the Bay or wetlands adversely affecting water quality will be removed.

Regarding the proposed new work to repair the revetment along the northern 2,600-feet of the railroad embankment, staff is recommending Special Condition No. 2 which requires the applicant to minimize or avoid water quality impacts by such means as limiting construction access and staging areas to upland areas, requiring the use of best management practices to control runoff, prohibiting fueling of equipment at the project site, requiring removal of debris, restricting construction activities to the dry season period of April 15 through September 15, and requiring that construction activities shall be conducted during low tide or limited to areas above mean high water. In addition, Special Condition No. 3 requires the submittal of a debris disposal plan prior to issuance of the permit amendment for the appropriate disposal of excess construction-related debris at an authorized disposal site.

Other recommended special conditions include: (a) Special Condition No. 4, which requires submittal of an archaeological plan in the event that cultural resources are unearthed during construction activities on the northern section of the railroad embankment to protect archaeological resources, (b) Special Condition No. 5 requiring

the applicant to assume the risks of injury and damage from hazard and waive any claim of damage or liability against the Commission; and (c) Special Condition No. 6 requiring the applicant to grant Commission staff permission to inspect the premises for determining condition compliance.

Staff believes that the project, as conditioned, will protect the biological productivity and the quality of coastal waters consistent with Section 30231 and archaeological resources consistent with Section 30244. As conditioned, staff believes that the proposed project is fully consistent with all Chapter 3 policies of the Coastal Act.

**The Motion to adopt the Staff Recommendation of Approval with Conditions is found on Page 4.**

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**STAFF NOTES**

1. Standard of Review

The proposed project is located within the Commission's area of retained permit jurisdiction. Humboldt County has a certified LCP, but the proposed project is within an area shown on the State Lands Commission maps over which the state retains a public trust interest. Therefore, the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

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**I. MOTION, STAFF RECOMMENDATION, & RESOLUTION:**

The staff recommends that the Commission adopt the following resolution:

**Motion:**

I move that the Commission approve Coastal Development Permit No. 1-07-012 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 the majority of the Commissioners present.

**Resolution to Approve 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. Removal of Debris From Emergency Repair of 500-Foot-Long Portion of Railroad Embankment Performed Under Emergency Permit No. 1-07-035G**

Within thirty (30) days of Commission approval of Coastal Development Permit 1-07-012, or within such additional time as the Executive Director may grant for good cause, the permittee shall submit for the review and approval of the Executive Director evidence that (1) all of the approximately 800 old creosote coated railroad ties discovered within the railroad right-of-way during grading of the construction access road and other construction of the emergency repairs authorized by Emergency Permit No. 1-07-035G have been removed from the site and either disposed of at a landfill approved for acceptance of creosote coated ties or at a co-generation plant authorized to accept such materials, and (2) all other construction debris from the embankment repairs authorized by Emergency Permit No. 1-07-035G has been removed from the project site and disposed of at an authorized disposal facility. The submitted evidence shall include (a) photographs of the completed section of repair demonstrating that the creosote coated railroad ties and other debris have been removed from the site, (b) a narrative description of the volume of materials removed and where the material was taken, (c) evidence that the receiving facility is authorized to accept the material, and (d) proof of delivery of the material to the receiving facilities.

**2. Standards for Performance of the Repair of the 2,600-foot-long Northerly Section of Retement**

The permittee shall undertake all development authorized for repair of the retement along the northerly 2,600-foot-long section of the railroad embankment at the project site in accordance with the following standards:

- a. The construction access road and staging areas shall be limited to the locations and sizes specified in the permit amendment application and

shall be confined to the upland portion of the railroad right-of-way inboard of the railroad embankment as proposed in the project description

- b. No construction materials, debris, or waste shall be placed or stored where it may be subject to entering the waters of Humboldt Bay or the wetlands inboard of the railroad embankment;
- c. All construction debris shall be removed and disposed of in an authorized disposal location within 10 days of project completion. Any hazardous materials removed from the site, including creosote treated rail ties, shall be taken to a landfill approved for acceptance of creosote coated ties or to a co-generation plant authorized to accept such materials,
- d. All construction activities shall be conducted during the dry season period of April 15 through September 15;
- e. All construction activities shall be conducted during low tide or limited to the areas above mean high water;
- f. During construction, all trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during restoration activities. Following construction, all trash and construction debris shall be removed from work areas and disposed of properly;
- g. Any debris discharged into coastal waters shall be recovered immediately and disposed of properly;
- h. Any fueling and maintenance of construction equipment shall not occur along the railroad embankment or elsewhere at the project site;
- i. Fuels, lubricants, and solvents shall not be allowed to enter the coastal waters or wetlands. Hazardous materials management equipment including oil containment booms and absorbent pads shall be available immediately on-hand at the project site, and a registered first-response, professional hazardous materials clean-up/remediation service shall be locally available on call;
- j. **Revetment Material:** All new revetment material to be used shall consist of clean quarry rock meeting engineering requirements as specified in the application. All exposed reinforcement bar shall be removed prior to installation of any new revetment material. No rock shall be placed outside of the existing footprint of the railroad embankment and its associated revetment.

- k. Placement of Materials: Revetment materials to be placed on the section of railroad embankment to be repaired shall not extend into the Humboldt Bay beyond the footprint of the embankment and its revetment as it existed before the repair. The determination of the location of the bayward side of the existing embankment and revetment shall be made through a 'string line' method, whereby the portions of the structure that are not in need of repair or restoration on each side of the areas that are in need of repair shall be used to determine the maximum extent of the repair. Revetment material shall not be end-dumped, but placed in an interlocking fashion along the embankment face to avoid spreading beyond the former footprint of the structure and to provide a structurally integrated revetment.
  
- l. The permittee shall use relevant best management practices (BMPs) as detailed in the "California Storm Water Best Management (Construction and Industrial/Commercial) Handbooks, developed by Camp, Dresser & McKee, et al. for the Storm Water Quality Task Force (see <http://www.cabmphandbooks.com>).
  
- m. Effective erosion control measures shall be in place at all times during construction. Construction must not commence until all temporary erosion control devices (e.g., silt fences, floating turbidity curtains, etc.) are in place. A supply of erosion control materials shall be maintained on site to facilitate a quick response to unanticipated storm events or emergencies. If continued erosion is likely to occur after construction is completed, then appropriate erosion prevention measures shall be implemented and maintained until erosion has subsided. Erosion control devices are temporary structures and shall be removed after completion of construction
  
- n. Erosion controls shall be used to protect and stabilize stockpiles and exposed soils to prevent movement of materials (e.g., silt fences, berms of hay bales, plastic sheeting held down with rocks or sandbags over stockpiles, etc.).
  
- o. If operations are not adequately containing sediment, the activity shall cease. Turbid water shall be contained and prevented from being carried away in the tides in amounts that are deleterious to marine resources or could violate state pollution laws.

3. **Debris Disposal Plan for the Repair of the 2,600-foot-long Northerly Section of Revetment**

- A. **PRIOR TO THE ISSUANCE OF PERMIT NO. 1-07-012**, the applicant shall submit, for the review and approval of the Executive Director, a plan for the disposal of excess construction-related debris from the repair of the 2,600-foot-long northerly section of revetment. The plan shall describe the manner by which the material will be removed from the construction site and identify an authorized disposal site where materials may be lawfully disposed.
- B. The permittee shall undertake development in accordance with the approved final 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 an amendment to Coastal Development Permit No. 1-07-012.

4. **Area of Archeological Significance for the Repair of the 2,600-foot-long Northerly Section of Revetment**

- A. If an area of historic or prehistoric cultural resources or human remains are discovered during the course of the repair of the 2,600-foot-long northerly section of the revetment, all construction shall cease and shall not recommence except as provided in subsection (B) hereof, and a qualified cultural resource specialist shall analyze the significance of the find.
- B. A permittee seeking to recommence construction following discovery of the cultural deposits shall submit an archaeological plan for the review and approval of the Executive Director.
  - (a) If the Executive Director approves the Archaeological Plan and determines that the Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after this determination is made by the Executive Director.
  - (b) If the Executive Director approves the Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after an amendment to this permit is approved by the Commission.



**5. Assumption of Risk**

By acceptance of this permit for the repair of the railroad embankment and its associated revetment, the applicant acknowledges and agrees (i) that the site may be subject to hazards from flooding; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

**6. Permission to Inspect the Repair**

The Coastal Commission staff shall have the right, upon 24-hours notification to the permittee, to enter and inspect the premises for the purpose of determining compliance with Coastal Development Permit No. 1-07-012.

**IV. FINDINGS & DECLARATIONS:**

The Commission hereby finds and declares the following:

**A. Site Description**

The proposed project involves the repair of an approximately 3,100-foot-long section of railroad embankment and associated shoreline revetment along the shoreline of Humboldt Bay, north of the Humboldt Bay Power Plant in the King Salmon area of Humboldt County (see Exhibits 1-3).

The rail line in this area has not been used since 1998. The track is part of the North Coast Railroad Authority rail system which encompasses the old Northwestern Pacific Railroad and extends from the north end of Humboldt Bay south through Humboldt, Mendocino, Sonoma, and Marin counties and east through Napa County where it connects to interstate rail lines. Significant slide damage along the route of the railroad as it passes through the Eel River canyon many miles south of the project site has blocked through rail service from Humboldt to points south since the 1990s. Extensive environmental analysis and millions of dollars worth of repairs would be needed before any through service could be resumed. Before even local service around Humboldt Bay

can be resumed, extensive brush clearing, bridge repairs, and railroad embankment repairs of the line around the Bay will be needed. Much of this future work would require coastal development permits from the Commission, Humboldt County, the City of Eureka, and the City of Arcata. No applications for such permits have yet been submitted.

The west or bay side of the portion of the revetment and railroad embankment to be repaired is flanked by a narrow sandy beach which along most of its length is inundated at high tides. The project area is opposite and slightly north of the mouth of Humboldt Bay and is subject to strong wave attack. High tides and waves have dislodged much of the unengineered revetment materials that have been placed in the past along the bay side of the railroad embankment and have also eroded ballast material from the railroad bed in a number of locations compromising the integrity of the track.

The east or inland side of the portion of the revetment and railroad embankment to be repaired is flanked by agricultural fields. A buried sanitary sewer line owned by the Humboldt Community Services District runs adjacent to and parallel to the railroad right-of-way approximately 10 feet east of the right-of-way. Highway 101 is located further inland, approximately ¼ mile to the east of the railroad right-of-way and runs in a nearly parallel north-south direction.

The existing revetment consists of a combination of rock and assorted debris that was not placed in an engineered fashion. The debris consists of old rail car bodies and parts, concrete with exposed rebar taken from demolished structures, broken concrete pipes, and metal fragments. In the past, as repairs were needed, rock and debris were apparently placed along eroded portions of the railroad embankment. The use of large odd-shaped pieces of debris and concrete fragments with tangled protruding rebar prevented the material from being placed in an interlocking compacted form and instead left numerous voids and gaps in the revetment. Seawater from waves and high tides has intruded through these gaps and voids and eroded the railroad embankment from within, causing the embankment to settle and lower and in some cases leaving railroad track hanging in space. The lowering of the railroad embankment has led to further overtopping of the structure by storm waves.

According to a biological assessment prepared by the applicant's consultant Mad River Biologist (see Exhibit 7), there is little vegetation within the railroad right-of-way. What vegetation exists within the right-of-way is predominantly upland consisting primarily of Himalayan blackberry, pampas grass, coyote brush, and poison oak, as the substrate is imported gravel fill and wetland hydrology is absent. The agricultural fields inland of the railroad contain lower elevation emergent wetlands. These wetlands extend up to the edge of the railroad right-of-way at several locations.

The adjoining waters of Humboldt Bay are relatively shallow and contain a mostly sandy substrate. Humboldt Bay is home for a variety of fish species. The Bay is designated as

critical habitat for three threatened salmonid species: Southern Oregon/Northern California Coastal (SONCC) coho salmon (*Oncorhynchus kisutch*); the California Coastal (CC) Chinook salmon (*O.tshawytscha*); and the Northern California (NC) steelhead (*O.mykiss*). Fish from all these species could stray into the waters adjacent to the revetment at high tide.

**B. Project Description**

The primary purpose of the repair project is to alleviate erosion and flooding concerns. The project area encompasses a 3,100-foot-long section of railroad embankment and associated revetment that is severely eroded by tidal action from Humboldt Bay causing Bay waters to flood and erode adjacent low-lying lands to the east.. The southernmost 500 feet had been in the worst condition, and its repair was approved on a temporary basis by Emergency Permit No. 1-07-035G granted by the Executive Director to prevent further flooding and to protect a 14-inch diameter pressure sanitary sewer line located approximately 10 feet east of the railroad right-of-way.

The proposed project includes two separate, but related, elements as discussed below. The first component consists of the applicant's request for permanent authorization of railroad embankment repairs performed under an emergency permit in 2007 along the southernmost 500 feet of the railroad right of way at the site. The second component consists of proposed repairs to the revetment lining the northernmost 2,600 feet of the railroad right-of-way at the site (see Exhibits 4-6).

- 1. Permanent Authorization for Repair of 500-Foot-Long Portion of Railroad Embankment Performed Under Emergency Permit No. 1-07-035-G:** In August of 2007, the North Coast Railroad Authority applied for an emergency permit to perform repairs along the southernmost 500 feet of the railroad right of way at the site. The Executive Director granted the Emergency Permit No. 1-07-035-G on August 22, 2007 upon a determination that an emergency existed as an unexpected occurrence in the form of storm surge and high tidal inundation. Related erosion had compromised the structural integrity of the railroad embankment and threatened to cause a catastrophic breach in the embankment/levee during the on-coming winter season which could result in the severing of the parallel and adjacent Humboldt Community Services District sewer line and inundation of significant areas of coastal agricultural lands, commercial property and public roads by tidal waters. The Emergency Permit included 15 special conditions that required, among other things, that (a) pre and post project surveys be conducted for use in determining whether the repair of the embankment and revetment expanded the footprint towards the Bay and into tidal wetlands, (b) construction and silt fences be installed along the inboard edge of the construction zone, (c) fueling of mechanized equipment be performed off-site, (d) no stockpiling of materials or use of heavy equipment occur in wetland areas,

(e) all debris be hauled off-site to an appropriate disposal facility, (f) all rock used in the repair meet certain engineering standards, and (g) the seaward slope of the repaired section of revetment shall be no steeper than 2.0H:1V to better ensure stability.

The development along this 500-foot-long southern section of the railroad embankment involved first the removal and off-site disposal of an estimated 750 cubic yards of concrete, rebar, railcar parts, concrete pipes, metal fragments, and other debris. In the course of the work performed under the emergency permit, the contractor discovered the presence of approximately 800 old railroad ties that had been buried within the railroad right-of-way. All of these old creosote treated railroad ties were removed and taken to a co-generation plant in Redding California that is equipped with the technology and is permitted to cleanly burn the ties.

Following removal of the unsuitable material and debris, eroded portions of the railroad embankment were proposed to be regraded using existing sand and gravel fill adjacent to the inboard side of the existing embankment. Much of this material consists of sand and gravel that had eroded from the embankment in the first place. The railroad embankment was proposed to be regraded with slopes no steeper than 2 horizontal to one vertical (2H:1V). Any rail ties detached from the rails during grading process are proposed to be reattached.

After the embankment was regraded, the revetment was proposed to be rebuilt in an engineered fashion using existing revetment material at the site that was determined to be appropriately sized and shaped for reuse and approximately 1,500 cubic yards of new quarry rock. The reconstructed revetment is proposed to be reconstructed in two layers. The first layer consists of ½-ton quarry rock with a spherical diameter of approximately 2.2 feet. The minimum thickness of the first layer is proposed at 4.3 feet. The outer armoring layer consists of larger rock, mainly 2-ton rock with a spherical diameter of approximately 3.6 feet. The minimum thickness of the outer layer was proposed at 5.4 feet. As constructed, the maximum elevation of the top of the new revetment was proposed to be 16 feet above mean sea level, with a minimum revetment width of 5 feet. The seaward slope of the revetment was proposed to be no steeper than 2 horizontal to 1 vertical (2:1) and the landward slope was proposed to be no steeper than 1.25 horizontal to 1 vertical.<sup>1</sup> The repairs as proposed will not encroach into the Bay beyond the original foot print of the revetment. All of the proposed fill was to be placed above Mean High Tide.

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<sup>1</sup> The proposed slope of the revetment was revised by an email from David Anderson to Coastal staff dated July 5, 2007 which refers to a June 21, 2007 letter from Shannon & Wilson, Inc. that describes a redesign of the revetment repair which flattens the slope on the bayward side to 2 horizontal to 1 vertical.

2. **Proposed Repair of 2,600-Foot-Long Section of Revetment:** The second component of the project is the proposed repair of the revetment along a 2,600-foot-long section of the railroad embankment immediately north of the section of embankment repaired under the emergency permit. In this northern section, the development is limited to repairs to the revetment and does not include reconstruction of the railroad embankment itself. Low spots and voids in the revetment would be filled with a total of approximately 3,350 cubic yards of quarry rock to tighten up the structure and minimize intrusion of bay waters into or over the railroad embankment<sup>2</sup>. All of the rock to be placed will be placed above the mean high tide and will not affect the footprint of the revetment.

A total of approximately 4,600 cubic yards of quarry rock is proposed to be imported to the site for the revetment repairs in both sections of the project. Materials are proposed to be placed by an excavator. The stone would be wedged into voids to fit in close contact the existing rock. Placement of revetment materials below high tide elevation will be limited to placement during times in which the tide allows the rock to be placed above water.

Construction access for both portions of the project would be provided by grading an access road within upland areas of the railroad right-of-way immediately adjacent to the existing track. No wetlands would be affected by construction of the access road. Construction fencing would be placed along the east side of the railroad right-of-way to delineate the construction area. No refueling of vehicles and equipment would occur on the revetment to avoid spilled fuels from entering the Bay.

The applicant proposes to limit construction on the northern section of the revetment to the period between April 15 to September 15 to avoid the rainy season. No construction equipment would be allowed to enter tidal or freshwater/brackish wetland areas. The applicant indicates that the contractor will prepare a Stormwater Pollution Prevention Plan

### C. **Permit Authority, Extraordinary Methods of Repair & Maintenance**

Coastal Act Section 30610(d) generally exempts from Coastal Act permitting requirements the repair or maintenance of structures that does not result in an addition to, or enlargement or expansion of the structure being repaired or maintained.

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<sup>2</sup> As originally proposed, the existing voids in the revetment were proposed to be filled with a cement grout. To eliminate concerns regarding the possible leaching of cement into the bay before the grout hardens, the applicant revised the project description via a letter dated January 11, 2008 to eliminate the proposed use of grouting and substitute the placement of approximately 500 additional tons or 250 cubic yards of quarry rock within the voids.

Section 13252(b) of the Commission's regulations further limits what can be considered a repair or maintenance project, stating that "unless destroyed by natural disaster, the replacement of 50 percent or more of a single family residence, seawall, revetment, bluff retaining wall, breakwater, groin or any other structure is not repair and maintenance under section 30610(d) but instead constitutes a replacement structure requiring a coastal development permit." In this case, the railroad embankment and associated shoreline revetment to be repaired extends for 3,100 lineal feet along the bay shoreline. As discussed in the project description finding above, a 500-foot-long portion of the embankment and revetment is essentially proposed to be reconstructed. However, the proposed improvements along the remaining approximately 84 per cent (2,600 feet) of the embankment and revetment are limited to augmenting the existing rock revetment by placing additional quarry rock in existing voids and low spots without replacement of the existing railroad embankment or revetment. As only an approximately 16 percent portion of the embankment and its associated revetment is being replaced, less than 50% of the structure, the project constitutes a repair or maintenance project and not a replacement structure as defined under Section 13252(b).

However, not all repair and maintenance projects are exempt from coastal development permit requirements. The Commission retains authority to review certain extraordinary methods of repair and maintenance of existing structures that involve a risk of substantial adverse environmental impact as enumerated in Section 13252 of the Commission regulations. Section 30610 of the Coastal Act provides, in relevant part, the following:

*Notwithstanding any other provision of this division, no coastal development permit shall be required pursuant to this chapter for the following types of development and in the following areas: . . .*

*(d) Repair or maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of those repair or maintenance activities; provided, however, that if the commission determines that certain extraordinary methods of repair and maintenance involve a risk of substantial adverse environmental impact, it shall, by regulation, require that a permit be obtained pursuant to this chapter. [emphasis added]*

Section 13252 of the Commission administrative regulations (14 CCR 13000 *et seq.*) provides, in relevant part, the following:

*(a) For purposes of Public Resources Code section 30610(d), the following extraordinary methods of repair and maintenance shall require a coastal development permit because they involve a risk of substantial adverse environmental impact:...*

*(3) Any repair or maintenance to facilities or structures or work located in an environmentally sensitive habitat area, any sand area, within 50 feet of the edge*

*of a coastal bluff or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams that include:*

*(A) The placement or removal, whether temporary or permanent, of rip-rap, rocks, sand or other beach materials or any other forms of solid materials;*

*(B) The presence, whether temporary or permanent, of mechanized equipment or construction materials.*

*All repair and maintenance activities governed by the above provisions shall be subject to the permit regulations promulgated pursuant to the Coastal Act, including but not limited to the regulations governing administrative and emergency permits. The provisions of this section shall not be applicable to methods of repair and maintenance undertaken by the ports listed in Public Resources Code section 30700 unless so provided elsewhere in these regulations. The provisions of this section shall not be applicable to those activities specifically described in the document entitled Repair, Maintenance and Utility Hookups, adopted by the Commission on September 5, 1978 unless a proposed activity will have a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean.... [emphasis added.]*

The proposed development is a repair and maintenance project because it does not involve an addition to or enlargement of the railroad embankment and its associated shoreline revetment. Although certain types of repair projects are exempt from CDP requirements, Section 13252 of the regulations requires a coastal development permit for extraordinary methods of repair and maintenance enumerated in the regulation. The proposed development involves the placement of construction materials and removal and placement of solid materials within 20 feet of coastal waters. Therefore, the proposed project requires a coastal development permit under Sections 13252(a)(1) of the Commission regulations.

In considering a permit application for a repair or maintenance project pursuant to the above-cited authority, the Commission reviews whether the proposed *method* of repair or maintenance is consistent with the Chapter 3 policies of the Coastal Act. The Commission's evaluation of such repair and maintenance projects does not extend to an evaluation of the conformity with the Coastal Act of the underlying existing development.

The railroad embankment to be repaired in this location functions as a levee protecting low-lying adjacent areas from tidal inundation from the waters of Humboldt Bay. The repair and maintenance of levees can have adverse impacts on coastal resources if not properly undertaken with appropriate mitigation, in this case primarily to bay waters and the inboard seasonal wetlands. The applicant does not propose to encroach bayward of

the existing embankment and revetment and the repairs will be performed in an engineered fashion. The applicant has included a number of mitigation measures as part of its proposal such as routing the construction access road only within upland areas of the railroad right-of-way immediately adjacent to the existing track, installing construction fencing along the east side of the railroad right-of-way to delineate the construction area and keep equipment out of wetland areas, not allowing refueling of vehicles and equipment to occur on the revetment to avoid spilled fuels from entering the Bay, limiting construction on the northern section of the revetment to the period between April 15 to September 15 to avoid the rainy season, and preparing and implementing a Stormwater Pollution Prevention Plan to reduce water quality impacts. These measures and others proposed by the applicant in their application are appropriate; however, additional measures are also needed to further avoid, as necessary, or minimize impacts to water quality and wetlands. The conditions required to meet this standard are discussed in the Findings in the following sections. Therefore, as conditioned, the Commission finds that the proposed development is consistent with the Chapter 3 policies of the Coastal Act.

**D. Public Access**

This proposed amended development is located between the first public road and the sea (see Exhibit Nos. 1-3). Section 30604(c) of the Coastal Act requires that every coastal development permit issued for development between the first public road and the sea “shall include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3 (commencing with Section 30200).”

Coastal Act Policies:

Section 30210 of the Coastal Act states the following:

*In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Section 30211 of the Coastal Act states the following:

*Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30212 of the Coastal Act states the following:



(a) *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated access way shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the access way.*

(b) *For purposes of this section, "new development" does not include:*

(1) *Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.*

(2) *The demolition and reconstruction of a single-family residence; provided, that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than 10 percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.*

(3) *Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.*

(4) *The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not seaward of the location of the former structure.*

(5) *Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a coastal development permit will be required unless the commission determines that the activity will have an adverse impact on lateral public access along the beach.*

*As used in this subdivision, "bulk" means total interior cubic volume as measured from the exterior surface of the structure.*

(c) *Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution. [Emphasis added.]*

The access policies cited above are those relevant to the proposed development and direct the Commission to generally require maximum public access in new development unless

the access would be inconsistent with public safety, resource protection, private property rights, or military security needs (§30210 and §30212) or would be otherwise exempt from providing access by statute [§30212(b)(5)]. Coastal Act Section 30211 requires that new development shall not interfere with existing public access that has been acquired either by use or through legislative authorization. In applying Sections 30210, 30211, 30212, and 30214 of the Coastal Act, 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 public access.

Consistency Analysis:

As stated above, the proposed amended development is for repair and maintenance of a pre-Coastal Act railroad embankment and associated revetment. Ordinarily, routine repair and maintenance is an exempt activity under Coastal Act Section 30610(d), and thus no coastal development permit would be required. As discussed in Finding C above, certain repair and maintenance activities are, however, excepted from this general exemption by regulation, as authorized by Section 30610(d), because they may “*involve the risk of substantial adverse environmental impact.*” The Commission’s regulations identify repair and maintenance activities performed within 20 feet of coastal (as proposed by this permit application) as needing to obtain coastal development permits and are not exempt under Section 30610(d) [CCR, Title 14, Sec. 13252(a)(3)]. However, because repair and maintenance is not considered new development for purposes of Section 30212, Coastal Act Section 30212(b)(5) excludes these repair and maintenance activities from Coastal Act public access requirements unless the Commission “*determines that the activity will have an adverse impact on lateral beach access.*”

Up until 1998, this portion of the railroad embankment was in active railroad use, and the railroad embankment and its associated revetment have not been opened with the permission of the owner for the general use by the public for access to the shoreline. Nonetheless, the railroad embankment has been physically accessible from an existing shoreline public access trail along the adjoining P.G.&E. property immediately to the south and from the end of Herrick Avenue to the north, and people may have trespassed along the embankment to view the Bay or gain access to the narrow sandy beach that flanks the bayward side of the embankment. However, the project as proposed does not include any fences, barriers, or other development that would block any use of the embankment by the public. In addition, the proposed repairs do not expand the footprint of the embankment and its associated revetment bayward on to the adjacent beach and other tidal areas. Thus, the proposed project would have no impact on lateral beach access or any other form of public access to the shoreline. Therefore, the Commission finds the project is not considered new development for the purposes of application of the public access policies of the Coastal Act because it is a repair and maintenance activity that would not adversely affect lateral beach access and is excluded from Coastal Act public access requirements pursuant to Section 30212(b)(5) of the Coastal Act. The

Commission further finds that the project as proposed without new public access is consistent with the requirements of Sections 30210, 30211, and 30212.

**E. Water Quality**

The Coastal Act contains policies requiring the protection of coastal waters to ensure biological productivity and to protect public health and water quality. New development must not adversely affect these values and should help to restore them when possible.

Coastal Act Policies:

Section 30231 of the Coastal Act states the following:

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

Section 30233 of the Coastal Act states the following:

*(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*

- (4) *Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (5) *Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (6) *Restoration purposes.*
- (7) *Nature study, aquaculture, or similar resource dependent activities.*
- (b) *Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable longshore current systems.*
- (c) *In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...*
- (d) *Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

The proposed repair project is located along a railroad embankment located immediately adjacent to Humboldt Bay on the outboard side and freshwater emergent and seasonal wetlands on the inboard side. Implementation of the proposed repair and maintenance project would involve the grading and placement of fill material on the portion(s) of the railroad embankment to be maintained, the use of tracked or wheeled vehicles, and the stockpiling of materials and staging of equipment to be used for the repairs. Unless appropriate protocols are followed, these activities could result in fuel or oil spills, improper storage of materials in or adjacent to sensitive habitat areas, and increased erosion, sedimentation, and turbidity that would have adverse impacts on the biological productivity and water quality of Humboldt Bay and the wetlands on inboard side of the railroad embankment.

Coastal Act Section 30231 protects the quality of coastal waters, streams, wetlands, and estuaries through, among other means, controlling runoff. Grading and soil disturbance can result in the discharge of sediment into site runoff, which, upon entering coastal waters, increases turbidity and adversely affects fish and other sensitive aquatic species. Sediment is considered a pollutant that affects visibility through the water, and affects plant productivity, animal behavior (such as foraging) and reproduction, and the ability of animals to obtain adequate oxygen from the water. In addition, sediment is the medium by which many other pollutants are delivered to aquatic environments, as many pollutants are chemically or physically associated with the sediment particles.

Consistency Analysis:

a. **Permanent Authorization for Repair of 500-Foot-Long Portion of Railroad Embankment Performed Under Emergency Permit No. 1-07-035-G**

The proposed project includes a request for authorization on a permanent basis of the repair of the 500-foot-long southern portions of the section of levee in the project area. The development along this 500-foot-long southern section of the railroad embankment involved first the removal and off-site disposal of an estimated 750 cubic yards of concrete, rebar, railcar parts, concrete pipes, metal fragments, old railroad ties, and other debris. In addition, approximately 800 old creosote coated railroad ties that had been buried in the railroad right-of-way inboard of the embankment are proposed to be removed and taken to co-generation plant in Redding California that is equipped with the technology and is permitted to burn the ties. Following removal of the unsuitable material and debris, eroded portions of the railroad embankment were proposed to be regraded using existing sand and gravel fill adjacent to the inboard side of the existing embankment. Much of this material consists of sand gravel that had eroded from the embankment in the first place. The railroad embankment was proposed to be regraded with slopes no steeper than 2 horizontal to one vertical (2H:1V). Any rail ties detached from the rails during grading process are proposed to be reattached. After the embankment was regraded, the revetment is proposed to be rebuilt in an engineered fashion using existing revetment material at the site that was determined to be appropriately sized and shaped for reuse and approximately 1,500 cubic yards of new quarry rock. The repairs as proposed will not encroach into the Bay beyond the original foot print of the revetment. All of the proposed fill would be placed above Mean High Tide.

The repair project was conditioned under Emergency Permit No. 1-07-035-G to be conducted in a manner that would protect the biological productivity and water quality of Humboldt Bay and the inboard wetlands consistent with Coastal Act Section 30231. The Emergency Permit included 15 special conditions that required, among other things, that (a) pre and post project surveys be conducted for use in determining whether the repair of

the embankment and revetment expanded the footprint towards the Bay and into tidal wetlands, (b) construction and silt fences be installed along inboard edge of the construction zone, (c) fueling of mechanized equipment be performed off-site, (d) no stockpiling of materials or use of heavy equipment occur in wetland areas, and (e) all debris be hauled off-site to an appropriate disposal facility. Given that the sand and gravel materials used in reestablishing the railroad embankment do not generally provide a suitable substrate for plant growth, the Executive Director did not require reseeding of the disturbed areas, which is a common soil erosion control measure employed in grading projects.

The required pre and post project surveys of the completed project were submitted to Commission staff upon completion of the emergency work. The surveys demonstrate that the repair work did not expand the footprint of the railroad embankment and associated revetment towards the bay and the embankment did not encroach into wetland areas on the inboard side of the structure.

Any significant amount of debris or creosote-coated railroad ties left at the site upon completion of the project could either roll or wash directly into the Bay or the wetlands on the inboard side of the railroad embankment or leach or discharge creosote or other pollutants into the Bay or wetlands adversely affecting water quality. Therefore, to ensure that such materials are removed from the site and properly disposed of following completion of this segment of the project and do not contribute to the degradation of water quality, the Commission attaches Special Condition No. 1 requiring the submittal within 30 days of Commission action for the review and approval of the Executive Director evidence that (1) all of the approximately 800 old creosote coated railroad ties discovered within the railroad right-of-way during grading of the construction access road and other construction of the emergency repairs authorized by Emergency Permit No. 1-07-035G have been removed from the site and either disposed of at a landfill approved for acceptance of creosote coated ties or at a co-generation plant authorized to accept such materials, and (2) all other construction debris from the embankment repairs authorized by Emergency Permit No. 1-07-035G has been removed from the project site and disposed of at an authorized disposal facility

The Commission finds that repair of the 500-foot-long portion of Railroad embankment and its associated revetment performed under Emergency Permit No. 1-07-035-G as conditioned is consistent with Section 30231 of the Coastal Act as the proposed repair work would protect the biological productivity and water quality of Humboldt Bay and the wetlands inboard of the railroad embankment.

b. **Proposed Repair of 2,600-Foot-Long Section of Revetment:** The second component of the project is the proposed repair of the revetment along a 2,600-foot-long section of the railroad embankment immediately north of the section of embankment repaired under the emergency permit. The proposed

repairs involve filling low spots and voids in the revetment with a total of approximately 3,350 cubic yards of quarry rock to tighten up the structure and minimize intrusion of bay waters into or over the railroad embankment<sup>3</sup>. All of the rock to be placed will be placed above the mean high tide and will not affect the footprint of the revetment.

The repair and maintenance project proposed by the applicant includes a number of protocols to protect water quality including preventing encroachment of the structure bayward of the existing embankment, repairing the embankment section and its associated revetment in an engineered fashion to reduce potential collapse of the structure and resulting increase erosion and sedimentation, routing the construction access road only within upland areas of the railroad right-of-way immediately adjacent to the existing track, installing construction fencing along the east side of the railroad right-of-way to delineate the construction area and keep equipment out of wetland areas, not allowing refueling of vehicles and equipment to occur on the revetment to avoid spilled fuels from entering the Bay, limiting construction on the northern section of the revetment to the period between April 15 to September 15 to avoid the rainy season, and preparing and implementing a Stormwater Pollution Prevention Plan.

In general, the protocols proposed by the applicant are, in part, appropriate to protect water quality. However, the proposed protocols lack adequate specificity in some instances and are incomplete in other areas. For example, the proposed erosion control measures are not specific enough or do not go far enough to assure that no construction materials or spills enter the bay or wetlands, that all construction debris is properly disposed of, and that erosion control measures are effectively in place for the duration of project activities. Therefore, the Commission attaches Special Condition Nos. 2 through 3, which specify various construction protocols that must be implemented for the duration of the project, including requirements that (2-a) the construction access road and staging areas shall be confined to the upland portion of the railroad right-of-way inboard of the railroad embankment; (2-b) no construction materials, debris, or waste shall be placed where it may be subject to entering coastal waters or wetlands; (2-c) all construction debris shall be removed and disposed of at an authorized disposal facility and any creosote treated rail ties shall be taken to an appropriate disposal location or co-generation facility authorized to accept such material; (2-d) construction activities shall be restricted to the dry season period of April 15 through September 15; (2-e) construction activities shall be conducted during low tide or limited to areas above mean high water; (2-f) during construction, all trash shall be properly contained, removed, and disposed of regularly and properly; (2-g) any debris discharged into coastal waters shall be recovered as soon as possible; (2-h) any fueling and maintenance of construction

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<sup>3</sup> As originally proposed, the existing voids in the revetment were proposed to be filled with a cement grout. To eliminate concerns regarding the possible leaching of cement into the bay before the grout hardens, the applicant revised the project description via a letter dated January 11, 2008 to eliminate the proposed use of grouting and substitute the placement of approximately 500 additional tons or 250 cubic yards of quarry rock within the voids.

equipment shall not occur along the railroad embankment or elsewhere at the project site and hazardous materials management equipment shall be ready and available on-site and a professional clean-up/remediation service shall be locally available on call if necessary; (2-j) all revetment shall consist of clean quarry rock; (2-k) revetment materials to be placed shall be prevented from encroaching into the Bay beyond the footprint of the existing structure; (2-l) best management practices for controlling runoff shall be used; (2-m) effective erosion control measures shall be in place at all times during construction, (2-n) stockpiled materials and exposed soils shall be contained and stabilized with proper erosion control devices; and (2-o) turbid water shall be contained and prevented from being carried away in the tides in amounts deleterious to marine resource or that would violate state pollution laws. Finally, the Commission attaches Special Condition No. 3, which requires the applicant to submit to the Executive Director for review and approval (prior to the issuance of the permit) a debris disposal plan demonstrating that all construction debris be removed from the site and disposed of at a site where such materials may be lawfully disposed.

Therefore, the Commission finds that as conditioned to add specificity to proposed pollution control protocols and add additional protocols to ensure the protection of water quality and the biological productivity of Humboldt Bay and other wetlands adjoining the site, the project is consistent with Coastal Act Sections 30231.

**F. 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 project site is located along the Humboldt Bay shoreline across an approximately 1/4 mile wide swath of agricultural grazing lands from U.S. Highway 101. The railroad embankment and its associated revetment is prominently within the view of travelers along the highway as travelers look west toward the Bay and ocean. As noted above, portions of this section of the pre-project railroad embankment revetment consists of a combination of rock and assorted debris that was not placed in an engineered fashion. The debris consists of old rail car bodies and parts, large pieces of concrete with exposed rebar taken from demolished structures, broken concrete pipes, and metal fragments. This unusual assortment of debris rises up alongside and above the top of the railroad embankment, blocking views of the Bay and presenting an appearance that detracts from the visual landscape and is not compatible with the character of the surrounding baylands.

As proposed, the miscellaneous debris that had been placed within and upon the revetment will be removed. The revetment along the southern 500-feet of the



embankment will be completely re-engineered, and all of the debris and other material inappropriate to use for an engineered revetment is proposed to be removed. The bulk of the debris is found along this section of the revetment. The debris found on the northern 2,600 feet of the railroad embankment revetment to be repaired will also be removed. All removed debris is proposed to be hauled to an authorized disposal site.

The proposed railroad embankment and revetment repair project will not result in the opening up of views of Humboldt Bay. As repaired, the top of the revetment will still be at an elevation of 16 feet above Mean Sea Level, high enough to continue to block most views of Bay waters from Highway 101. The railroad embankment and revetment must be constructed that high to protect against tidal inundation and wave attack. However, removing the debris as proposed and repairing the revetment in an engineered fashion with clean quarry rock will greatly improve the appearance of the railroad embankment, resulting in an embankment that is compatible with the character of the area. To ensure that the debris removal occurs consistent with the applicant's proposal resulting in this enhancement of the visual appearance of the railroad embankment and its revetment, the Commission attaches Special Condition Nos. 1 and 3. Special Condition No. 1 requires the submittal within 30 days of Commission action for the review and approval of the Executive Director evidence that all construction debris from the embankment repairs authorized by Emergency Permit No. 1-07-035G along the southern 500-feet of the railroad embankment has been removed from the project site and disposed of at an authorized disposal facility. Special Condition No. 3 requires the applicant to submit to the Executive Director for review and approval (prior to the issuance of the permit) a debris disposal plan demonstrating that all construction debris from the northern 2,600-foot-section of the railroad embankment revetment that will be repaired is removed from the site and disposed of at an appropriate disposal facility.

The Commission finds that the project, as conditioned, is consistent with Section 30251 of the Coastal Act as the project will not adversely affect any existing views to or along the coast and will be compatible with the character of the surrounding area.

**G. Archaeological Resources**

Coastal Act Section 30244 provides protection of archaeological and paleontological resources and requires reasonable mitigation where development would adversely impact such resources.

The proposed project area is located within the ethnographic territory of the Wiyot Indians, who lived almost exclusively in villages along the protected shores of Humboldt Bay and near the mouths of the Eel and Mad Rivers. The relatively larger and sedentary populations of these villages engaged in an economy of salmon fishing, marine-mammal hunting, shellfish gathering, and seasonal excursions inland for acorns. Pioneers from the gold rush era of the mid-1800's subsequently settled in the Humboldt Bay region, and

small farms that included gardens, pastures, and animal husbandry were established in the area by the 1860s. Lumber operations began in the area around 1875.

To ensure protection of any cultural resources that may be discovered during construction of the proposed project, staff recommends Special Condition No. 4, which requires that if an area of cultural deposits is discovered during the course of the repair of the 2,600-foot-long northerly section of the revetment, all construction must cease and a qualified cultural resource specialist must analyze the significance of the find. To recommence construction following discovery of cultural deposits, the permittee is required to submit a supplementary archaeological plan for the review and approval of the Executive Director to determine whether the changes are *de minimis* in nature and scope, or whether an amendment Coastal Development Permit No. 1-07-012 is required.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30244, as the development will not adversely impact archaeological resources.

#### **H. California Environmental Quality Act**

The North Coast Railroad Authority acted as the lead agency for this project and filed a Notice of Exemption under Section 15269 of the CEQA Guidelines.

Section 13906 of the Commission's administrative regulation requires Coastal Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified by any conditions of approval, is consistent with any applicable requirements 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 any feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full, including all associated environmental review documentation and related technical evaluations incorporated-by-reference into this staff report. Those findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed above, the proposed project has been conditioned to be consistent with the policies of the Coastal Act. As specifically discussed in these above findings, which are hereby incorporated by reference, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse impacts that the activity may 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
2. Aerial Map
3. Vicinity Map
4. Site Plan
5. Cross-Sections
6. Site Photos
7. Biological Report

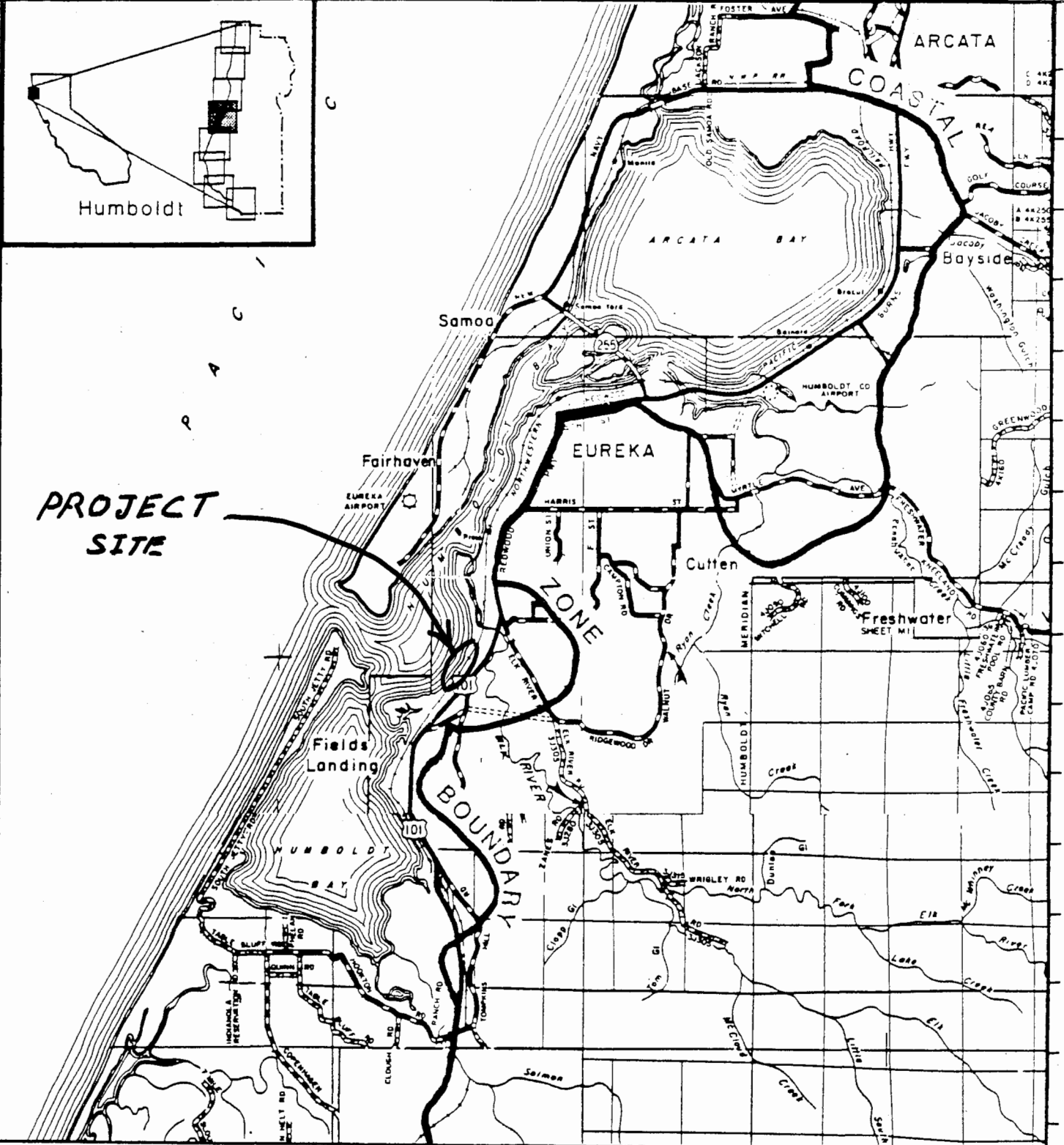
ATTACHMENT A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. 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 amount 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 of 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 bind all future owners and possessors of the subject property to the terms and conditions.

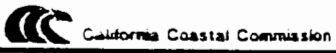
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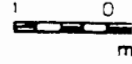


**PROJECT SITE**

**BOUNDARY ZONE**



# LOCATION MAP



County of Humboldt

**EXHIBIT NO. 1**  
**APPLICATION NO.**  
 1-07-012  
 NORTH COAST RAILROAD  
 AUTHORITY  
 REGIONAL LOCATION

AERIAL MAP

PROJECT SITE



EXHIBIT NO. 2

APPLICATION NO.

1-07-012

NORTH COAST RAILROAD  
AUTHORITY

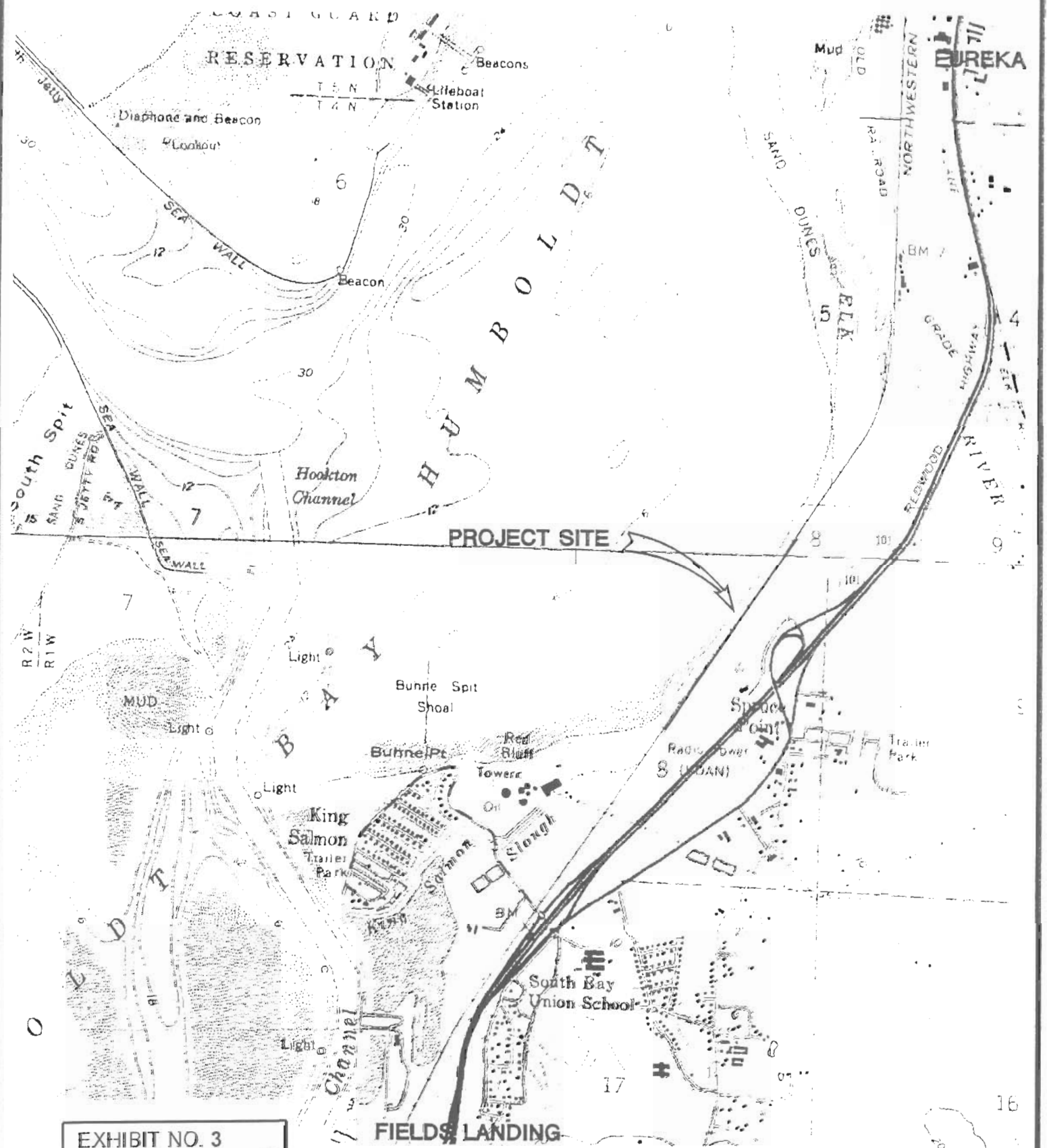
AERIAL MAP

NCRA RIPRAP SHORE PROTECTION  
HUMBOLDT COUNTY, CA  
JANUARY 2007

OSCAR LARSON & ASSOCIATES



VICINITY MAP



**EXHIBIT NO. 3**  
**APPLICATION NO.**  
 1-07-012  
 NORTH COAST RAILROAD  
 AUTHORITY  
 VICINITY MAP (1 of 2)

**NCRA RIPRAP SHORE PROTECTION**  
**HUMBOLDT COUNTY, CA**  
**JANUARY 2007**  
**OSCAR LARSON & ASSOCIATES**

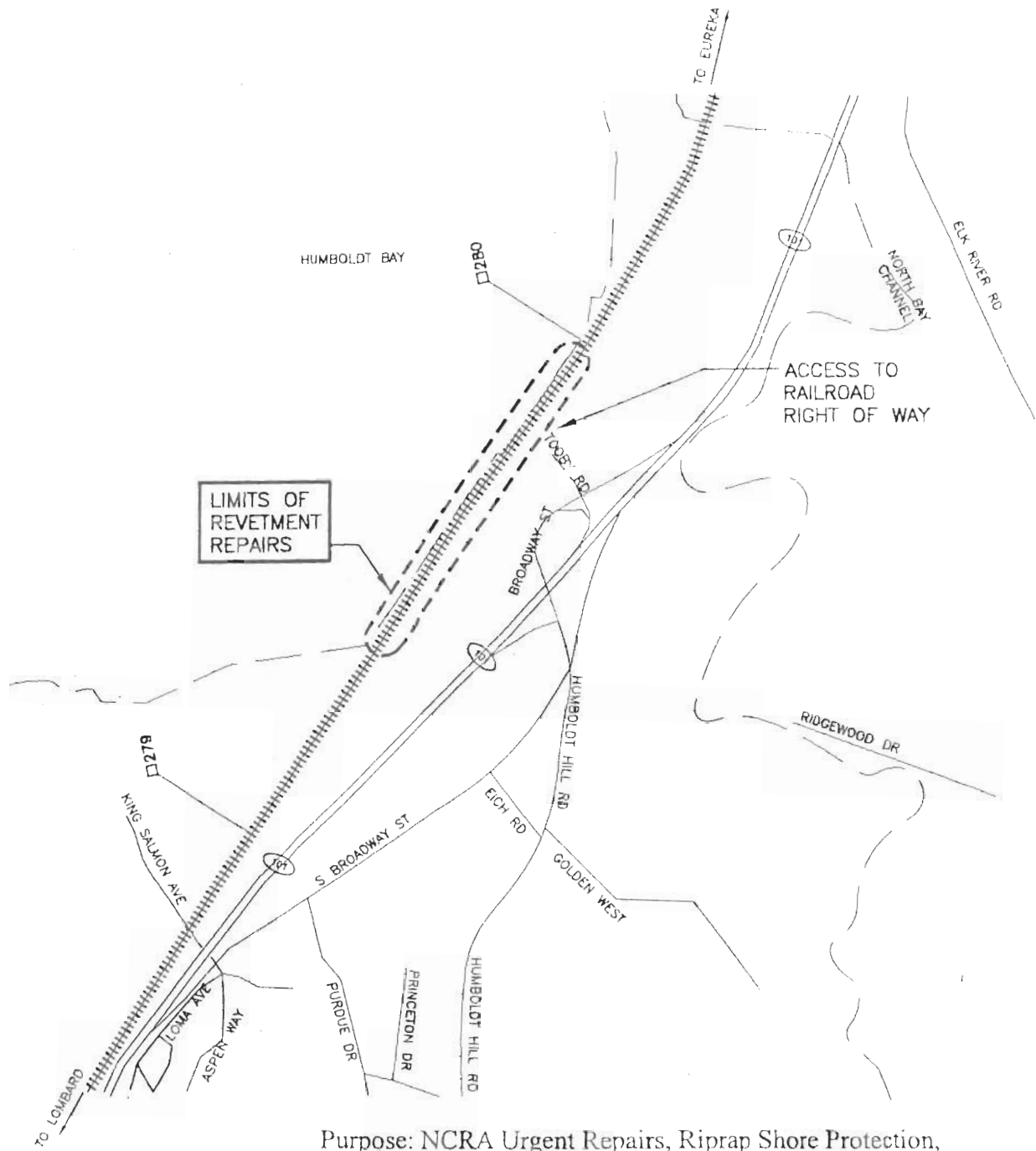


FIG. 1

VICINITY MAP - REVETMENT REPAIRS

Enclosure 1

File No. 400378A



LIMITS OF REVETMENT REPAIRS

Purpose: NCRA Urgent Repairs, Riprap Shore Protection, At: MP279.37 to MP 280, Railroad between Eureka-King Salmon, In: Humboldt and adjacent tidelands, County: Humboldt, State: CA, Application By: NCRA Date: March 19, 2007

MAP LEGEND

- HIGHWAY
- RAILROAD
- RIVER OR CREEK
- ROAD



Sheet 3 of 4

2 of 2



HNTB Corporation  
Engineers Architects Planners  
1330 Broadway, Suite 1100  
Oakland, California 94612



CHIEF ENGINEER  
PROJECT MANAGEMENT  
STRUCTURES  
TRACK/CIVIL

NORTH COAST RAILROAD AUTHORITY

MP 279.37 TO MP 279.47  
REVETMENT REPAIRS  
GENERAL NOTES  
LEGENDS, INDEX DRAWINGS,  
AND VICINITY MAP

CADD FILE NO NCF_001.DWG	CADD DATE 031407
SCALE NOT TO SCALE	
CONTRACT NO	MILEPOST
DWG NO G001	REV PAGE NO A

APPROVED



**NOTES:**

1. FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES SEE SHEET 0001-0002
2. SURVEY DATA PROVIDED BY OSCAR LARSON & ASSOCIATES
3. PROFILE PROVIDED BY OSCAR LARSON & ASSOCIATES
4. MP 279 = STA 0+00

**LIMIT OF WORK:**

- AREA 2 (46+00 TO 52+00)
- FOR REPAIRS, SEE SECTION
- FOR CROSS SECTIONS, SEE REFERENCE NO 2 AND 3.

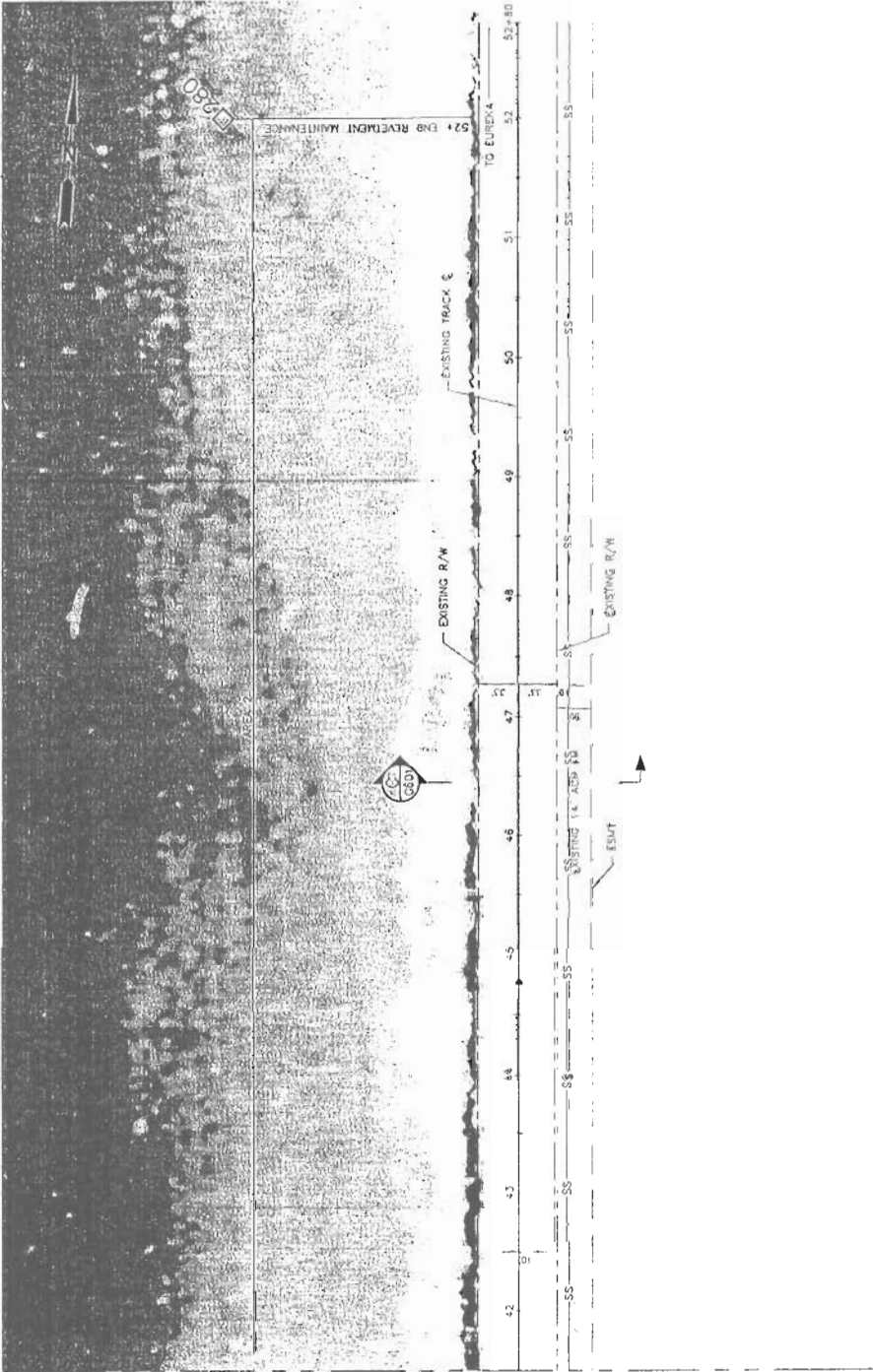
**EXHIBIT NO. 4**

**APPLICATION NO.**

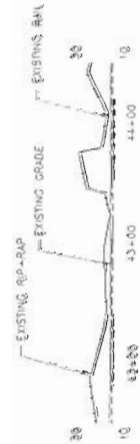
1-07-012

NORTH COAST RAILROAD  
AUTHORITY

SITE PLAN (1 of 3)



**PLAN**



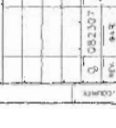
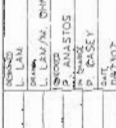
**PROFILE**

SCALE: 1" = 10' V, 1" = 100' H

SCALE: 1" = 25' H, 1" = 100' V  
GRAPHIC SCALE



<p><b>REVISIONS</b></p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>CHK</th> <th>DESCRIPTION</th> </tr> <tr> <td>0</td> <td>08/23/07</td> <td>...</td> <td>...</td> <td>ISSUED FOR B.O.</td> </tr> </table>		NO.	DATE	BY	CHK	DESCRIPTION	0	08/23/07	...	...	ISSUED FOR B.O.	<p><b>DESIGNER</b></p> <p>L. LAN</p>		<p><b>PROJECT NUMBER</b></p> <p>082307</p>		<p><b>DATE</b></p> <p>08/23/07</p>	
NO.	DATE	BY	CHK	DESCRIPTION													
0	08/23/07	...	...	ISSUED FOR B.O.													
<p><b>PROJECT</b></p> <p>MP 279.37 TO MP 280.00 REVENTMENT REPAIRS</p>		<p><b>SCALE</b></p> <p>1" = 25' H, 1" = 100' V</p>		<p><b>PROJECT NO.</b></p> <p>082307</p>		<p><b>DATE</b></p> <p>08/23/07</p>											
<p><b>ISSUED FOR B.O.</b></p> <p>...</p>		<p><b>PROJECT NO.</b></p> <p>082307</p>		<p><b>DATE</b></p> <p>08/23/07</p>		<p><b>PROJECT NO.</b></p> <p>082307</p>											
<p><b>SCALE</b></p> <p>1" = 25' H, 1" = 100' V</p>		<p><b>PROJECT NO.</b></p> <p>082307</p>		<p><b>DATE</b></p> <p>08/23/07</p>		<p><b>PROJECT NO.</b></p> <p>082307</p>											
<p><b>SCALE</b></p> <p>1" = 25' H, 1" = 100' V</p>		<p><b>PROJECT NO.</b></p> <p>082307</p>		<p><b>DATE</b></p> <p>08/23/07</p>		<p><b>PROJECT NO.</b></p> <p>082307</p>											

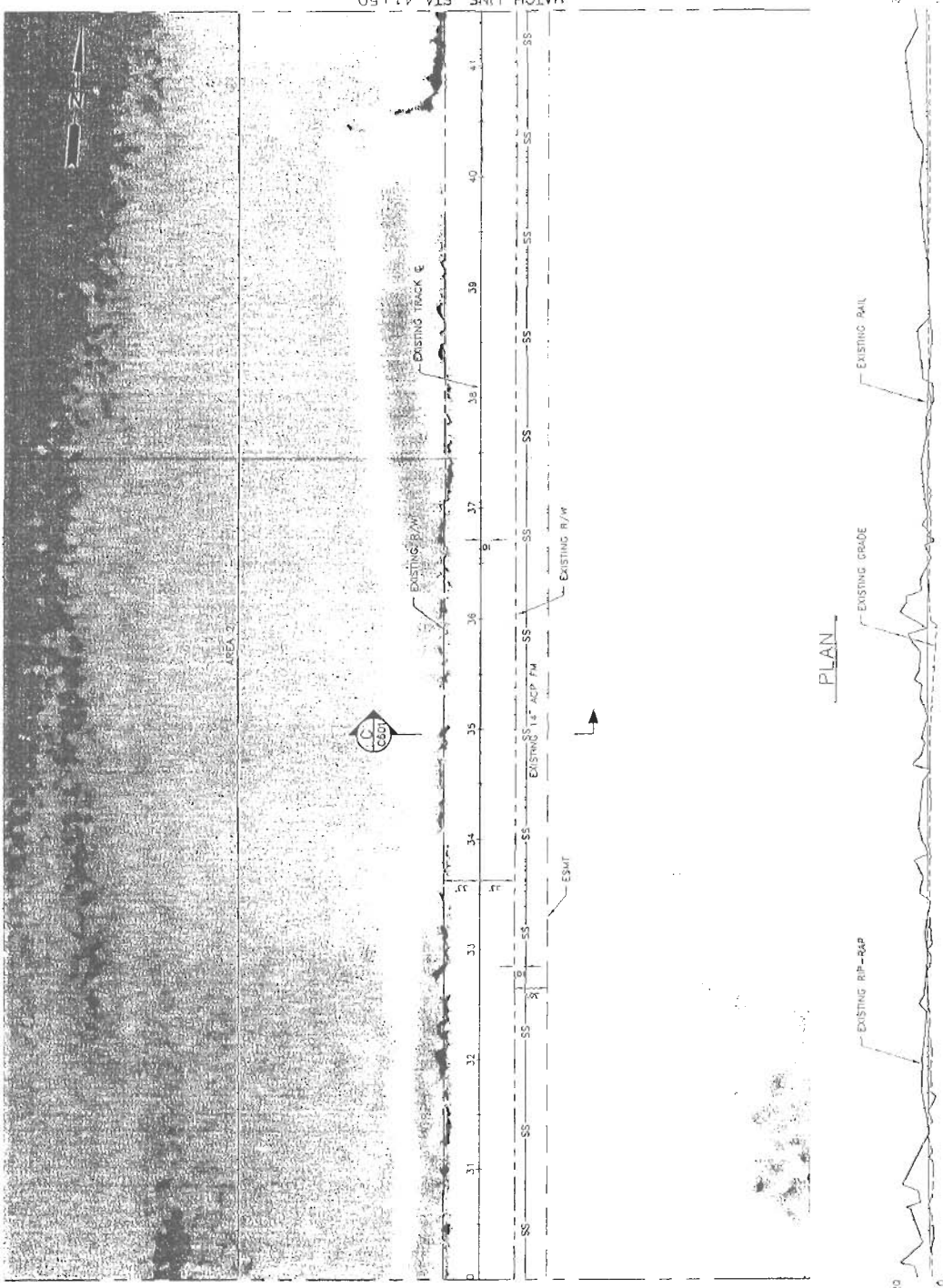


**NOTES:**

1. FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES SEE SHEET 0801-0002.
2. SURVEY DATA PROVIDED BY OSCAR LARSON & ASSOCIATES
3. PROFILE PROVIDED BY OSCAR LARSON & ASSOCIATES
4. MP 279 @ STA. 0+00

**LIMIT OF WORK:**

- AREA 2 (36+00 TO 50+00)
- FOR REPAIRS, SEE SECTION C-2007
- FOR CROSS SECTIONS, SEE SEE REFERENCE NO. 2 AND 3.



<p>PROJECT: NORTH COAST RAILROAD AUTHORITY          MP 279.37 TO MP 280.00          REVENUE REPAIRS</p>		<p>DATE: 08/22/07</p>
<p>SCALE: 1" = 50' H, 1" = 10' V</p>		<p>PROJECT NO: 08222007</p>
<p>ISSUED FOR BID</p>		<p>CONTRACT NO: 279.37 - 380</p>
<p>REVISION</p>		<p>DATE: 08/22/07</p>
<p>DESCRIPTION</p>		<p>NO. 1012</p>



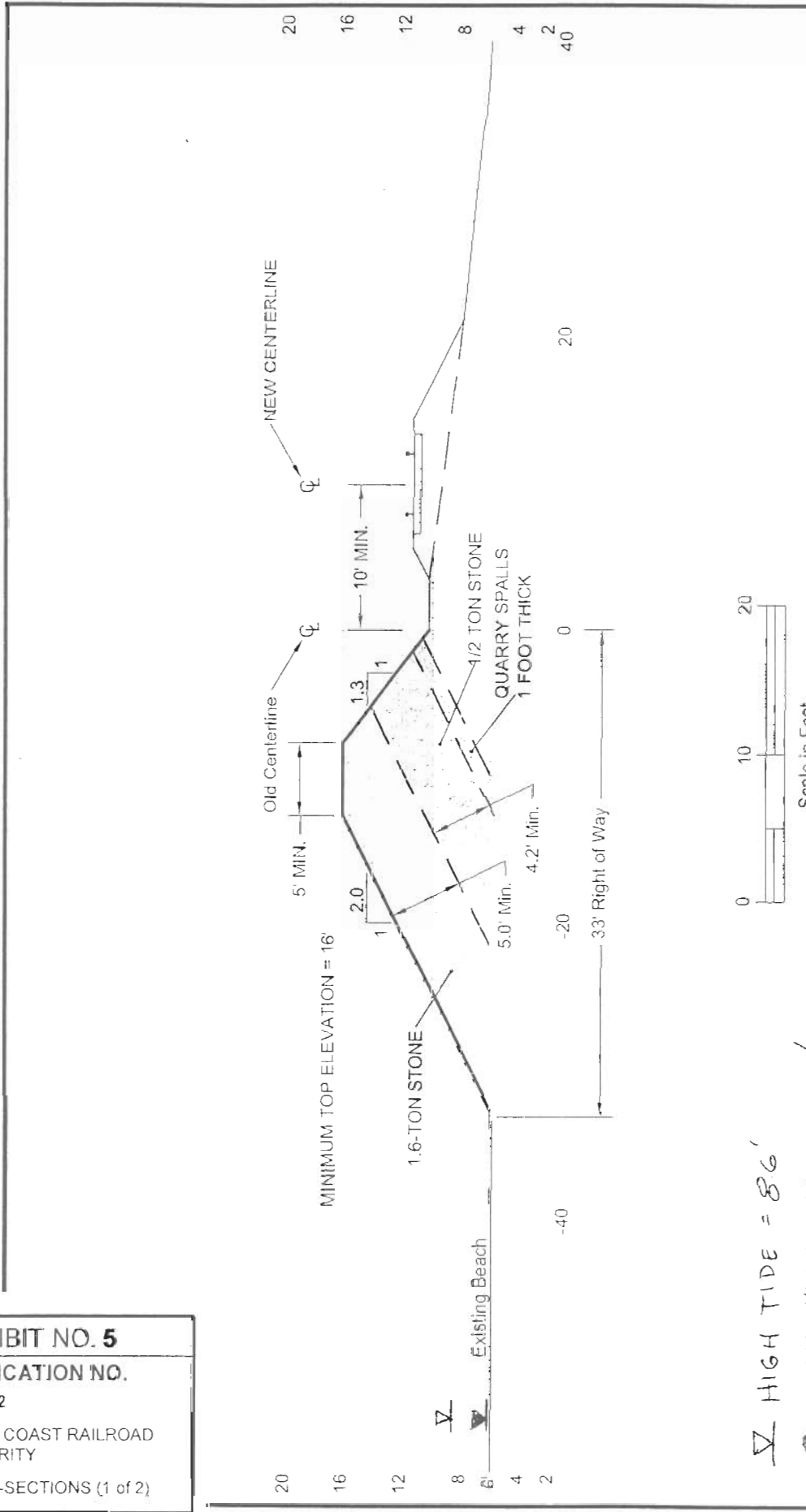
**HNTB**  
 HNTB Corporation  
 Engineers, Architects, Planners  
 1140 Peachtree Street, N.E.  
 Atlanta, Georgia 30309



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**EXHIBIT NO. 5**  
**APPLICATION NO.**  
 1-07-012  
 NORTH COAST RAILROAD  
 AUTHORITY  
 CROSS-SECTIONS (1 of 2)



▽ HIGH TIDE = 8.6'  
 ▽ MEAN HIGH WATER = 6.1'

NCRA Urgent Repairs  
 Fields Landing, California

**ROCK SLOPE PROTECTION  
 TYPICAL SECTION**

June 2007 21-1-20603-003

**SHANNON & WILSON, INC.**  
 Geotechnical and Environmental Consultants

**FIG. 1**

**NOTE**  
 This figure is based on a survey by  
 Oscar Larson & Associates, July 2006.

**FIG. 1**

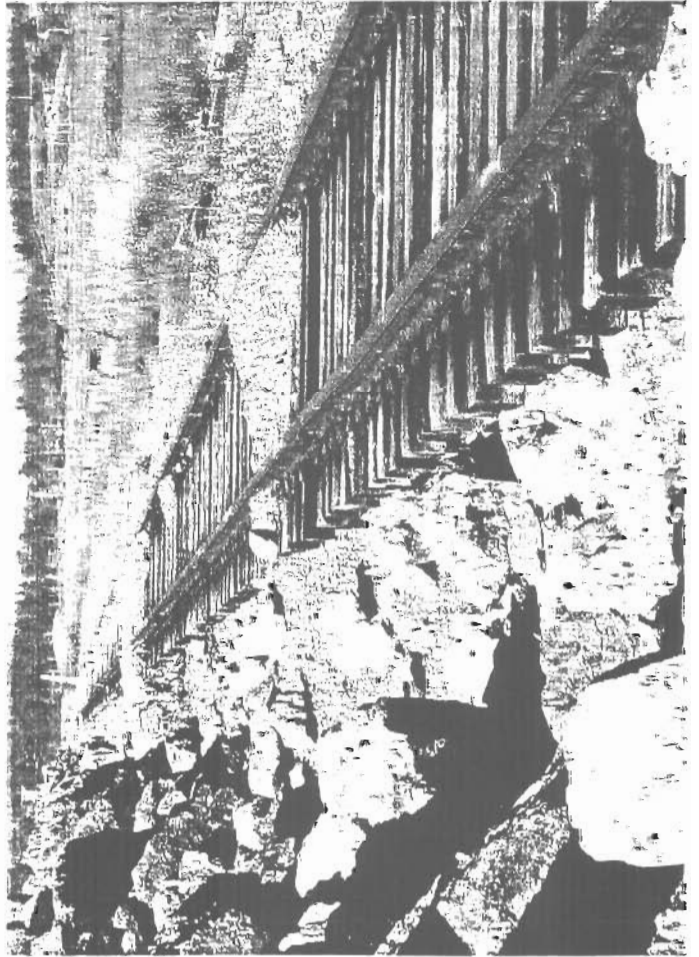
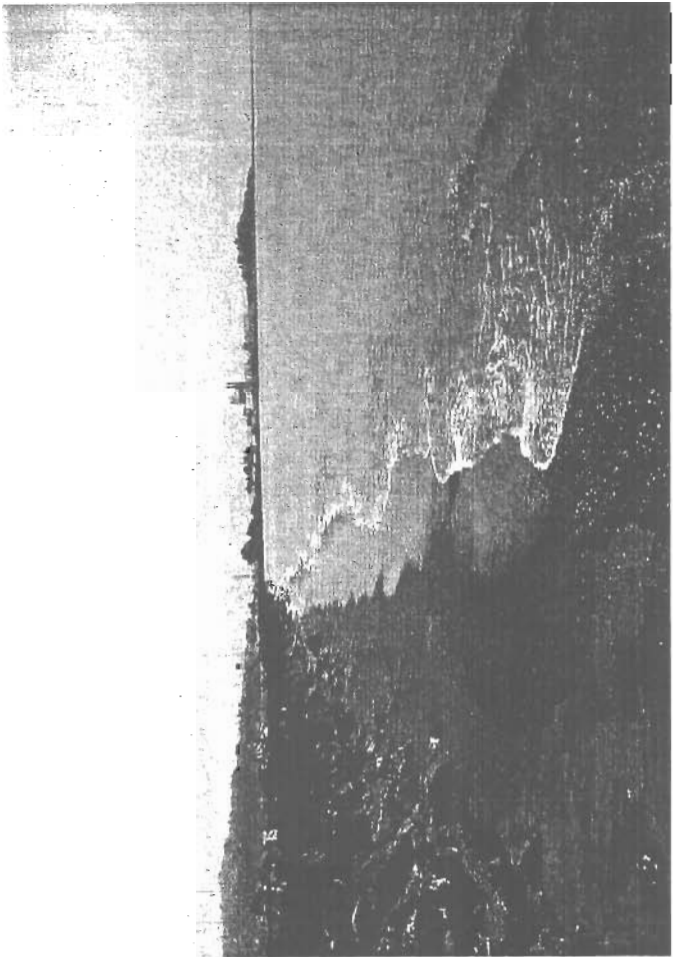
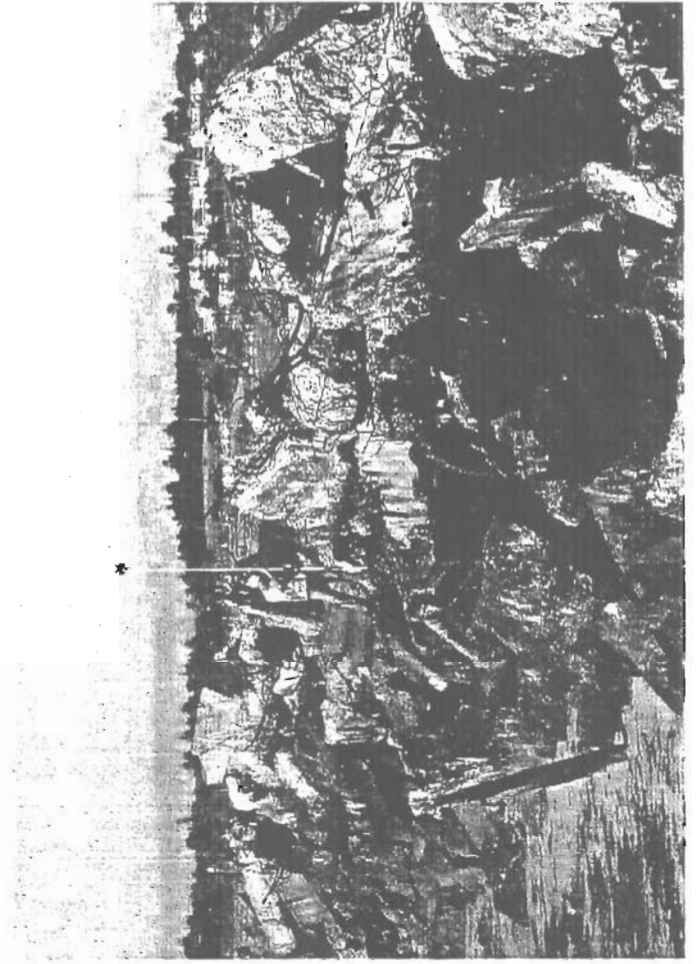
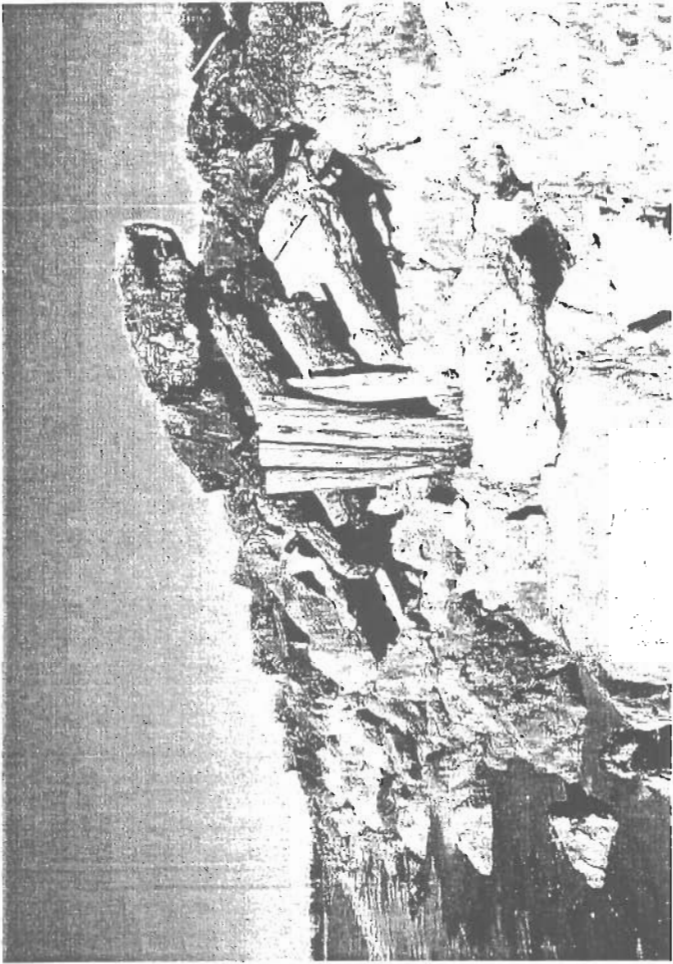


NCRA Riprap Shore Protection - Site Photos

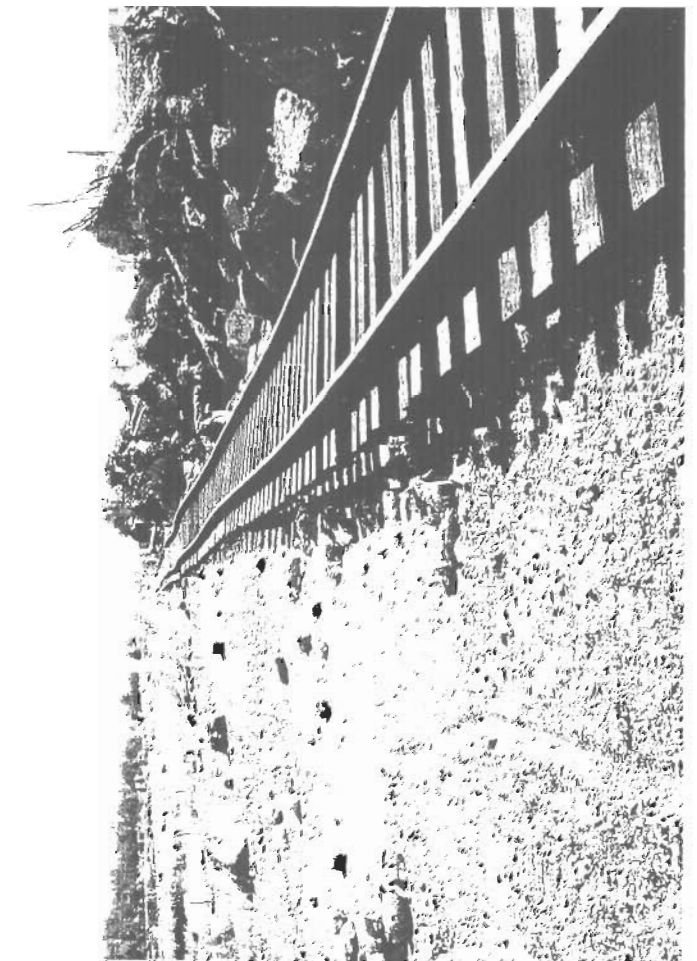
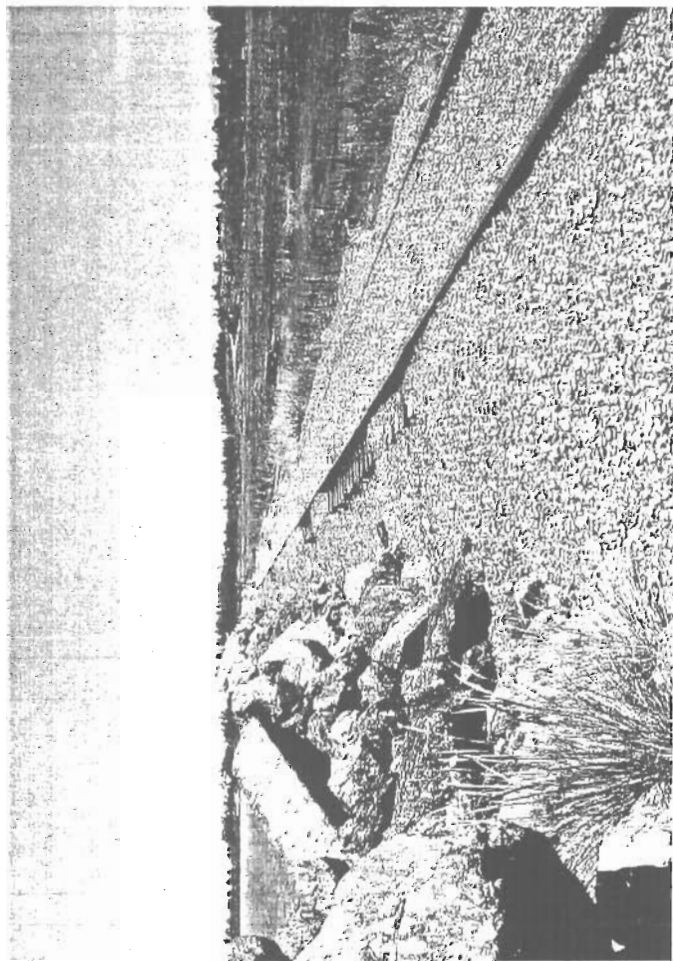
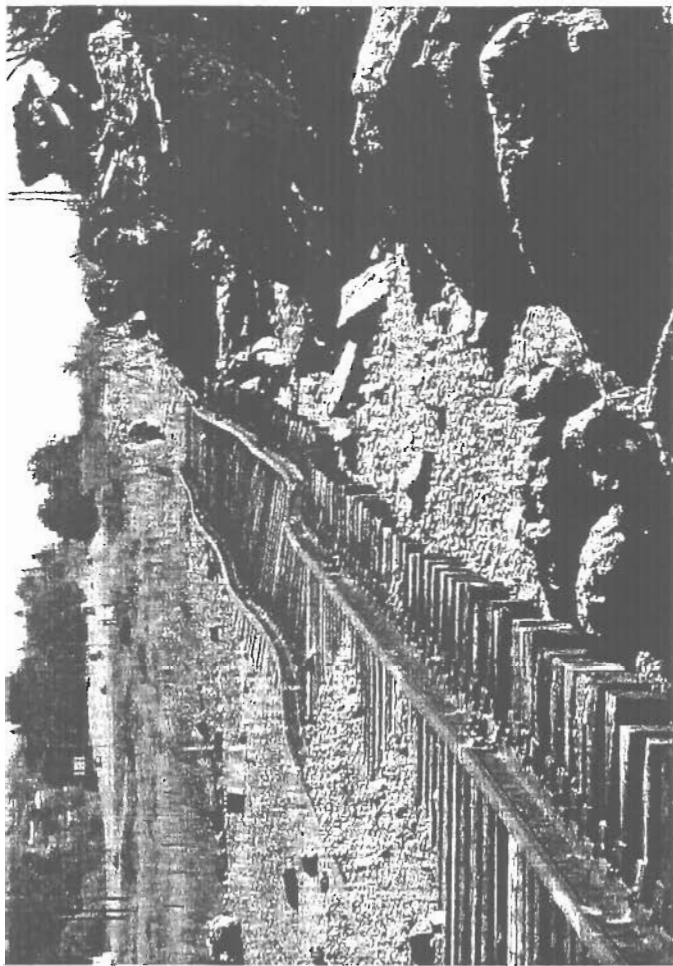


<b>EXHIBIT NO. 6</b>
<b>APPLICATION NO.</b> 1-07-012
<b>NORTH COAST RAILROAD AUTHORITY</b>
<b>SITE PHOTOS (1 of 4)</b>



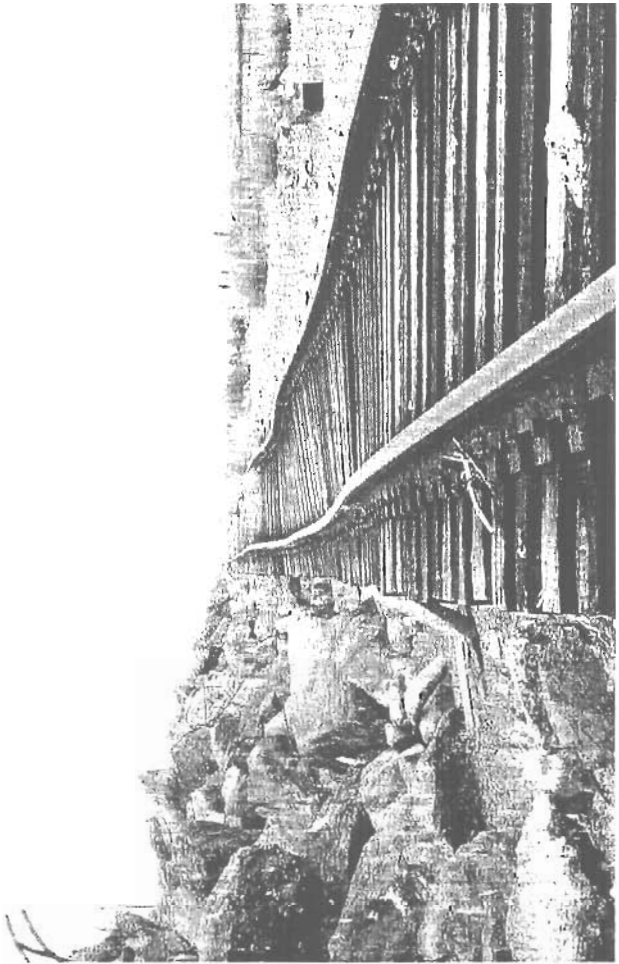
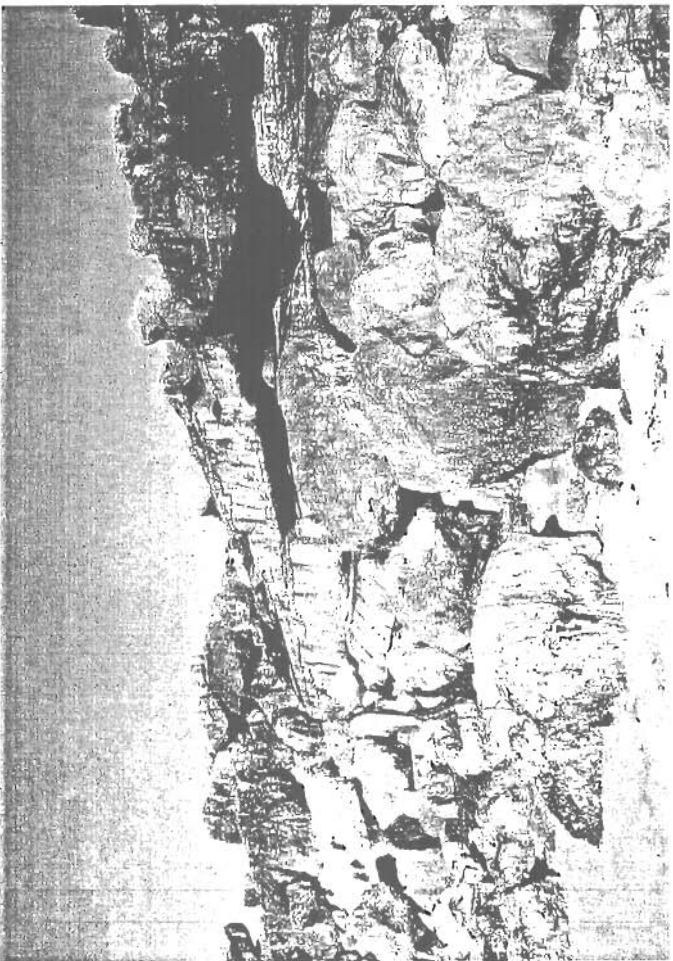
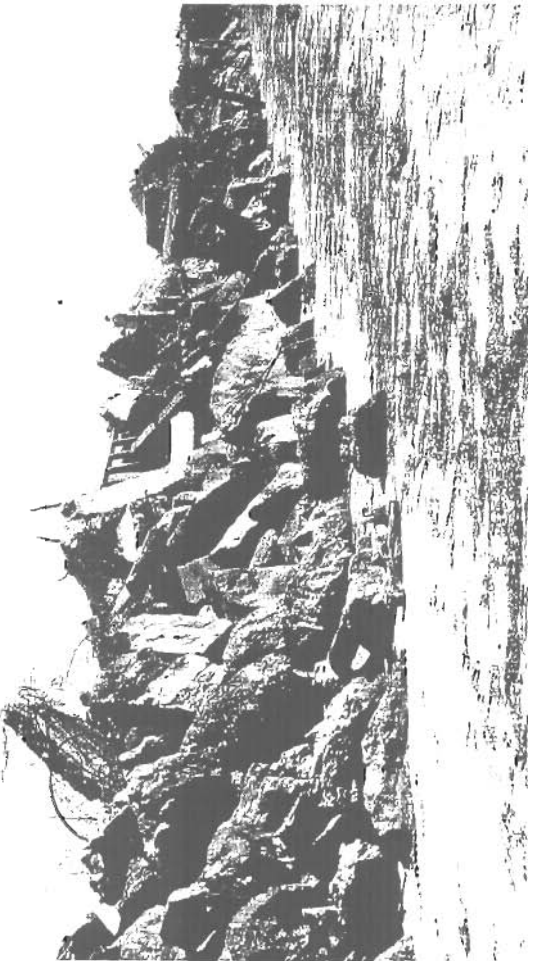
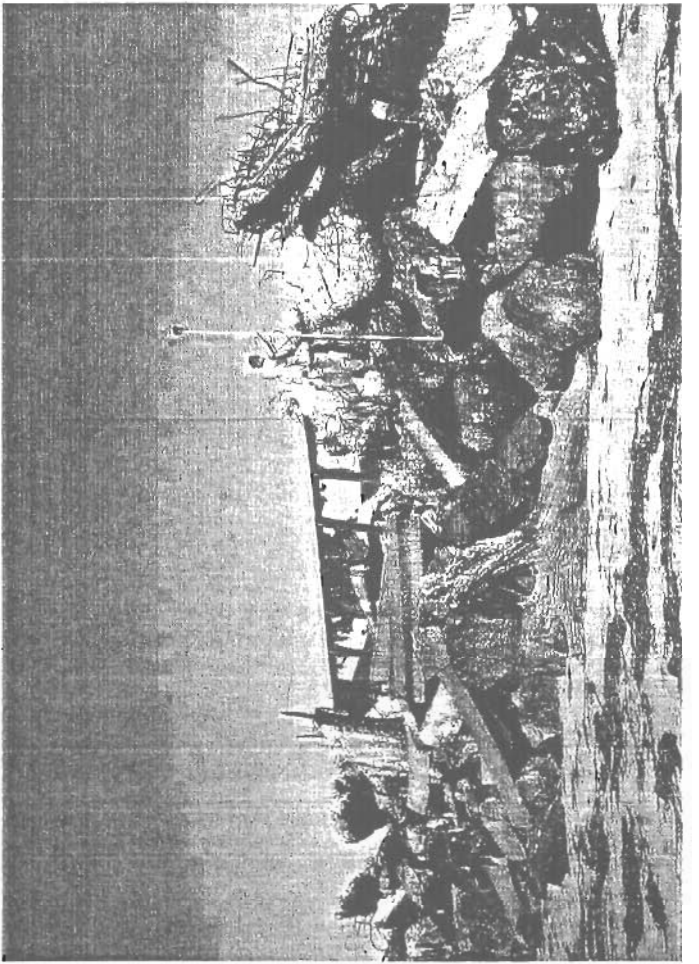


7 of 4



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7 20 7

**MAD  
RIVER  
BIOLOGISTS**

920 Samoa Boulevard, Suite 210, Arcata, CA 95521

Voice: 707/826-0300 • Fax: 707/826-0540 • E-mail: MRB@madriverbio.com

May 24, 2007

To: Dave Anderson  
41 Brena  
Irvine, CA 92620

Cc: Marty McClelland  
McClelland Consulting  
107 Dean Lane  
Kneeland, CA 95549

Bob Merrill  
California Coastal Commission  
710 E Street, Suite 200  
Eureka, CA 95501

RECEIVED  
JUL 11 2007  
CALIFORNIA  
COASTAL COMMISSION

EXHIBIT NO. 7
APPLICATION NO. 1-07-012
NORTH COAST RAILROAD AUTHORITY
BIOLOGICAL REPORT (1 of 3)

Re: Addendum to Biological Constraints Analysis for North Coast Railroad Authority  
Vegetation Management Program, Humboldt Bay Area, Fields Landing to Samoa.

Mr. Anderson,

On May 15, 2007, Marty McClelland and I conducted a site visit to a section of NCRA's rail line along Humboldt Bay where repairs to the roadbed are planned. The site visit was conducted to address the Coastal Commission's request for additional documentation on wetlands located adjacent to the line in that region, and to determine if the proposed repair activities could adversely impact these wetlands.

The specific location corresponds to "Area 7" as described in the Biological Constraints Analysis for North Coast Railroad Authority Vegetation Management Program (Mad River Biologists, October 18, 2006), a ~ 3,500-foot stretch of line located between King Salmon and Elk River. The bay side of the railroad in this section is a high energy shoreline lined by rip-rap with a sandy beach below. Agricultural fields are located on the inland side with lower elevation emergent wetlands that extend up to the edge of the railroad right-of-way at several locations. There is little vegetation within the heavily rocked right-of-way, this mostly represented by Himalayan blackberry, pampas grass, coyote brush, and poison oak. Ballast material from the road bed has been washed away by storm activity and high tides at several locations, compromising the integrity of the track. Near some of these undercuts, saltgrass (*Distichlis spicata*), a facultative-wetland species, and gumplant (*Grindelia stricta*), an upland coastal species, were found within the right-of-way at the junction between the emergent wetlands and the upland railroad berm. The predominant vegetation within the right-of-way is upland, the substrate is imported gravel fill, and wetland hydrology is absent.

The accompanying figures show the location of an old fence that represents the edge of the railroad right-of-way where the emergent wetlands come up to the edge of the easement. The fence is 28 feet from the edge of the closest rail line. Providing that repair activities can be confined to the right-of-way, impacts to the adjacent wetlands would not be expected. Establishing a buffer, designated by temporary construction fencing, 5 feet west of the outer edge of the right-of-way, would help to delineate the construction area and further insure that the adjacent wetlands are not inadvertently harmed while repairs are made.

If you have any questions regarding the information provided here, please do not hesitate to call.

Sincerely,

Stephanie Morrissette, Associate Biologist

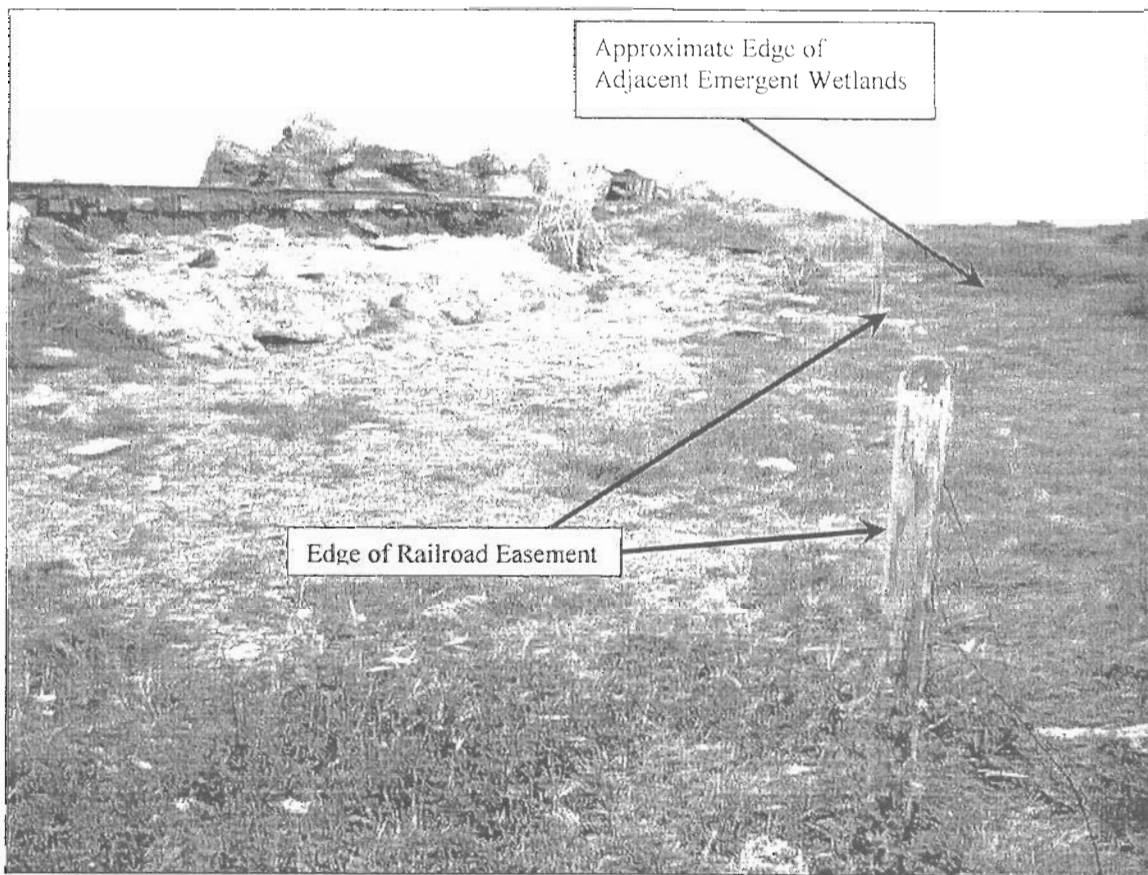


Figure 1 Repair Area looking north. Emergent wetland shown east of railroad right-of-way.

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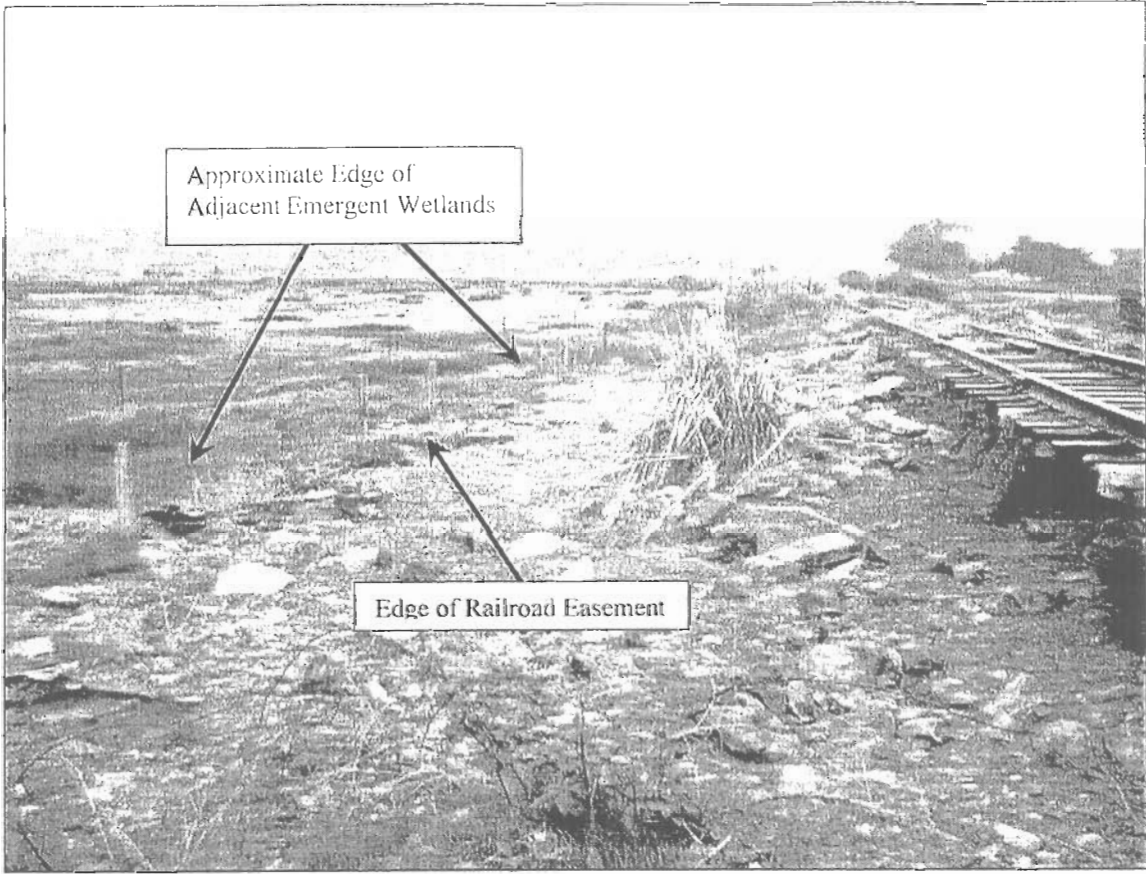


Figure 1 Repair Area looking south.

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