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W5a

Staff: C Kenyon–A
Date: July 25, 2014

ADMINISTRATIVE PERMIT

Application No.: **1-14-0205**

Applicant: **Humboldt County Department of Public Works**

Location: Morgan Slough Road crossing over Morgan Slough, near Ferndale, Humboldt County (adjacent to APNs 100-091-06 and 100-101-01).

Project Description: Replace a deteriorating flatcar bridge at the Morgan Slough crossing with a new flatcar bridge.

I. EXECUTIVE DIRECTOR'S DETERMINATION:

The findings for this determination and any special conditions appear on subsequent pages.

Note: Public Resources Code Section 30624 provides that this permit shall not become effective until it is reported to the Commission at its next meeting. If one-third or more of the appointed membership of the Commission so request, the application will be removed from the administrative calendar and set for public hearing at a subsequent Commission meeting. Our office will notify you if such removal occurs.

This permit will be reported to the Coastal Commission at the following time and place:
Wednesday, August 13, 2014 – 9:00 a.m.
Catamaran Resort
3999 Mission Blvd.
San Diego, CA 92109

IMPORTANT: Before you may proceed with development, the following must occur:

Pursuant to Title 14, California Administrative Code Sections 13150(b) and 13158, you must sign the enclosed duplicate copy acknowledging the permit's receipt and accepting its contents, including all conditions, and return it to our office. Following the Commission's meeting, and once we have received the signed acknowledgement and evidence of compliance with all special conditions, we will send you a Notice of Administrative Permit Effectiveness.

BEFORE YOU CAN OBTAIN ANY LOCAL PERMITS AND PROCEED WITH DEVELOPMENT, YOU MUST HAVE RECEIVED BOTH YOUR ADMINISTRATIVE PERMIT AND THE NOTICE OF PERMIT EFFECTIVENESS FROM THIS OFFICE.

The Executive Director hereby determines that the proposed development is a category of development which, pursuant to PRC Section 30624, qualifies for approval by the Executive Director through the issuance of an administrative permit. Subject to Standard and Special Conditions as attached, said development is in conformity with the policies of Chapter 3 of the California Coastal Act, including those policies regarding public access and coastal recreation opportunities, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act. If located between the nearest public road and the sea, this development is in conformity with the public access and public recreation policies of Chapter 3.

CHARLES LESTER
Executive Director

By: _____

CRISTIN KENYON
Coastal Program Analyst

II. STANDARD CONDITIONS:

This permit is granted subject to the following 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 is not commenced, the permit will expire two years from the date this permit is reported to the Commission. 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 or 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.

III. SPECIAL CONDITIONS:

This permit is granted subject to the following special conditions:

1. **California Department of Fish & Game Approval.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the applicant shall provide to the Executive Director a copy of a permit or permit amendment issued by the California Department of Fish and Wildlife, or evidence that no permit is required. The applicant shall inform the Executive Director of any changes to the project required by the Department. 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 legally required.

2. **State Lands Commission Review.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the applicant shall provide to the Executive Director a written determination from the State Lands Commission that:

   (A) No State or public trust lands are involved in the development; or

   (B) State or public trust lands are involved in the development and all permits required by the State Lands Commission have been obtained; or

   (C) State or public trust lands may be involved in the development, but pending a final determination, an agreement has been made with the State Lands Commission for the approved project as conditioned by the Commission to proceed without prejudice to that determination.

3. **Construction Responsibilities**. The permittee shall comply with the avoidance, minimization, and erosion control measures listed in the County's "Project Description" dated May 1, 2014 (**Exhibit 6**), except as modified herein. Construction-related requirements shall include, but shall not be limited to, the following Best Management Practices:

   (A) Prior to commencement of construction, the staging and stockpiling area shall be delineated with a perimeter fence, limiting the potential area affected by staging and stockpiling, and workers shall be educated about the limitations on construction. All vehicles and equipment shall be restricted to pre-established work areas and established or designated access routes.

(B) To minimize soil disturbance, straw shall be placed on the ground to act as bedding for the RSP and crushed rock or gravel deposited at the stockpiling location.

(C) Upon completion of project activities in the area and prior to November 15th, all temporarily disturbed seasonal wetlands (including but not limited to the temporary staging and stockpiling area) shall be decompacted and reseeded, as needed, with a mix of regionally appropriate native grasses and/or noninvasive agricultural species. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be identified from time to time by the State of California, shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the governments of the State of California or the United States shall be utilized within the property.

(D) Heavy equipment shall not operate within the slough channel.

(E) All construction activities shall be limited to the dry season and all work shall be completed before October 31st except for decompacting and reseeding of all temporarily disturbed seasonal wetlands as required by (C) above which shall be completed prior to November 15th.

(F) Construction work shall be scheduled during a forecasted period of dry weather and all work shall cease upon the onset of precipitation at the project site. If rainfall is forecasted during the time construction activities are being performed, any exposed soil areas shall be promptly mulched or covered with plastic sheeting and secured with sand bagging or other appropriate materials before the onset of precipitation.

(G) Fuels, lubricants, and solvents shall not be allowed to enter 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. Any accidental spill shall be rapidly contained and cleaned up.

(H) Any storage, fueling, or maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas.

(I) No riparian trees within or adjacent to the project area shall be disturbed.

(J) Silt exclusion fences shall be placed around each abutment work area to intercept sediment before it enters the channel. Silt fencing shall be removed once construction is complete.

(K) No construction materials, debris, or waste shall be placed or stored where it may be subject to entering coastal waters or wetlands, except within the designated staging and stockpiling area.

(L) Any debris discharged into coastal waters shall be recovered immediately and disposed of properly.

(M) Any and all debris resulting from construction activities shall be removed from the project site immediately upon cessation of construction activities and disposed of at an authorized upland disposal site.

4. **Protection of Archeological Resources**. If an area of cultural deposits or human remains is discovered during the course of the project, all construction shall cease and shall not re-commence until a qualified cultural resource specialist analyzes the significance of the find and prepares a supplementary archaeological plan for the review and approval of the Executive Director, and either: (a) the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are *de minimis* in nature and scope, or (b) the Executive Director reviews the Supplementary Archaeological Plan, determines that the changes proposed therein are not *de minimis*, and the permittee has thereafter obtained an amendment to coastal development permit 1-14-0205.

IV. FINDINGS FOR EXECUTIVE DIRECTOR'S DETERMINATION

A. PROJECT LOCATION & BACKGROUND

Humboldt County's Department of Public Works proposes to replace a deteriorating flatcar bridge with a new flatcar bridge at the Morgan Slough crossing on Morgan Slough Road roughly three miles northwest of the City of Ferndale, Humboldt County (**Exhibits 1 and 2**). Morgan Slough Road is a one-lane, approximately quarter-mile-long, public, rural road that branches off of Camp Weott Road to provide access for three agricultural properties. Morgan Slough Road crosses Morgan Slough just north of its intersection with Camp Weott Road (**Exhibit 3**).

Morgan Slough is a tributary of the Salt River located in the Salt River Delta, a gently sloping alluvial floodplain that comprises the southern tier of the larger Eel River Delta. The subject bridge crosses Morgan Slough approximately one mile upstream of where Morgan Slough connects to the Salt River's active channel, which, in turn, is approximately 0.3 miles from the mouth of the Salt River, where the Salt River empties into the Eel River (See **Exhibits 2 and 3**). Large-scale efforts to reclaim tidelands in the Salt River Delta began in the 1880s, with levees and tidegates installed along and across waterways. Today, the vast majority of the Salt River Delta is in agricultural production, including the lands surrounding Morgan Slough Road. As former tidelands, these farmed wetlands remain within the Coastal Commission's retained jurisdiction.

Morgan Slough's channel is roughly 60 feet wide, and the active wetted portion during the summer months is 4-8 feet wide and is located along the southern embankment. A continuous corridor of riparian shrub and woody vegetation including arroyo willow (*Salix lasilepis*) and California blackberry (*Rubus vitifolius*) borders the southern side of the slough in the vicinity of the project, while the northern side of the slough is dominated by grasses and other low-lying ruderal vegetation. On a recent site visit by Commission staff, the bank of the slough to

the northeast of the bridge crossing was trampled and largely devoid of vegetation due to extensive cattle use.

The existing flatcar bridge at the Morgan Slough crossing was adapted from an old railroad freight flatcar. The bridge measures 89-feet long by 11-feet wide and was installed in 1984. The bridge has been rapidly deteriorating over the past several years and Caltrans inspection engineers have recommended that the bridge be replaced. The existing bridge abutments also require maintenance work to bring them up to standards. The northern abutment contains wooden timbers supported by rock slope protection (RSP). Several of the timbers have rotted and in some places have failed or are non-existent (See **Exhibit 4** for pictures of the existing flatcar bridge and its abutments).

B. DEVELOPMENT PROPOSAL

Humboldt County's Department of Public Works proposes to remove the old bridge, repair the failing abutments, and place a new flatcar bridge of the same size in the same location. The County proposes to replace the flatcar bridge by lifting and pulling the existing bridge in one direction along the right-of-way and then subsequently placing and pushing the new bridge in the opposite direction over the slough. Construction would occur in the summer months, when the wetted portion of Morgan Slough is confined to a narrow channel near its southern embankment.

The County would proceed with the project by first transporting materials necessary for the project across the channel and staging them on the adjoining private property to the northwest. The staging area is pastureland containing seasonal wetlands. Materials to be staged in this area would include: (1) the new flatcar bridge; (2) concrete slabs and RSP for the bridge's abutments; (3) gravel or crushed concrete for roadway maintenance and abutment-backing material; (4) pre-cut treated wood for wheel-rubs, posts, and rails; and (4) silt fencing, straw, and seed implementing construction Best Management Practices (BMPs).

Once the new flatcar bridge and other materials have been delivered and staged, the County proposes to remove the old bridge. The bridge would be removed with a front-end loader or excavator working from the north side of the slough to pull the bridge off of its foundations, and an excavator assisting from the south side of the slough to keep the bridge suspended over the wetted portion of the channel. The old bridge would be placed in the staging area until the new bridge is installed. Once the new bridge installation is complete, the County would transport the old bridge to the County maintenance yard in Loleta where it would most likely be auctioned off for scrap or additional use by private entities.

Once the old bridge is removed and staged, the County would begin to prepare the bridge foundations and abutments. Some excavation of the old abutments would be necessary to prepare the site for the new bridge. Old, rotten timbers would be removed and RSP would be placed to form the new abutments. Gravels, rock, and/or soil would be placed behind the abutments to act as backing material for the new abutments and approaches. A concrete slab (measuring 4-feet wide, by 12-feet long, by 8-inches-thick) would be placed at each bridge approach for the new bridge ends to rest on. The work being proposed at the abutments would

not expand the existing footprint of the abutments and would not encroach into any wetlands or the slough channel.

Next, the County proposes to install the new bridge by using a front-end loader or excavator to push the bridge from the north side of the slough. Once the bridge is pushed far enough across the slough, it would be attached by a chain to an excavator on the south end of the slough. The excavator on the southern side of the slough would prevent the bridge from tilting down and coming into contact with the wetted portion of the channel and would help guide the bridge onto the southern abutment.

Once the new flatcar bridge is placed on its foundations, final measures would be performed to insure the stability and integrity of the bridge and abutments. Additionally, the road bed may need to be supplemented and graded in order to obtain a smooth conformation to each side of the bridge. The County proposes to perform this additional work with either a backhoe or excavator.

The new bridge would be fitted with arsenic-free, pressure-treated wood wheel rubs, posts, and rails. The timber components for the new bridge would be pre-cut off site and would be installed by handheld tools once the bridge is installed. Some finishing cuts would potentially need to be completed onsite, and would occur in upland areas (i.e. the roadway and turnout) on tarps or other containment devices.

C. STANDARD OF REVIEW

Humboldt County has a certified Local Coastal Program (LCP), but the site is within an area shown on 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.

D. LOCAL GOVERNMENT AND OTHER APPROVALS

County of Humboldt

The proposed development meets all zoning requirements of the County and needs no local permits other than building permits.

California Department of Fish and Wildlife (CDFW)

CDFW Code Section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that will substantially modify a river, stream or lake. If CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. The County is currently finalizing a Long-Term Maintenance Agreement with CDFW that will authorize several types of maintenance activities and projects that the County routinely undertakes. It is anticipated that the proposed flatcar bridge replacement project will be authorized under this agreement once it is issued in the summer of 2014. To ensure that the project ultimately approved by CDFW is the same as the project authorized herein, the Executive Director attaches **Special Condition 1**, which requires the County to submit to the

Executive Director evidence of CDFW's approval of the project prior to the commencement of construction activities. The condition requires that any project changes resulting from CDFW's approval not be incorporated into the project until the applicant obtains any necessary amendments to this coastal development permit.

North Coast Regional Water Quality Control Board

The Regional Board requires a water quality certification (WQC) for projects involving dredging and/or filling activities under Section 401 of the Clean Water Act. On June 27, 2014, the Regional Board gave notice to the County that the proposed flatcar bridge replacement project is authorized under an existing General 401 WQC 5C Waiver that covers road maintenance activities and other types of projects [*Waiver of Waste Discharge Requirements and General Water Quality Certification for County Road Management and Activities Conducted Under the Five Counties Salmonid Conservation Program in the Counties of Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity in the North Coast Region* (5C Waiver), Order No. R1-2013-0004].

U.S. Army Corps of Engineers

The Corps has regulatory authority over the proposed project under Section 404 of the Clean Water Act, which regulates the discharge of dredged and fill materials into waters of the United States, including wetlands. The proposed project meets the conditions of the non-reporting Nationwide Permit 3(a) for maintenance activities under Section 404. An application to the Army Corps is not required.

State Lands Commission

The project site is located in an area subject to the public trust. Therefore, to ensure that the applicant has the necessary authority to undertake all aspects of the project on these public lands, the Executive Director attaches **Special Condition 2**, which requires that the project be reviewed and where necessary approved by the State Lands Commission prior to commencement of construction.

E. FILL OF COASTAL WATERS; PROTECTION OF WATER QUALITY AND MARINE RESOURCES

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.*

Section 30231 of the Coastal Act states:

> *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, in applicable part, as follows:

(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 on 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.

…

(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…

Coastal Act Section 30108.2 defines "fill" as "*earth or any other substance or material… placed in a submerged area*." This project includes (1) temporary fill of 10,000 square feet of farmed wetlands for staging and stockpiling materials during construction; (2) permanent fill of 300 square feet of the slough banks for the replacement bridge abutments, and (3) a maximum of 40 square feet of temporary fill in the slough channel resulting from either the new or replacement bridges tipping into the channel as they are moved.

The Commission may authorize a project that includes filling of wetlands if the project meets the three tests of Coastal Act Section 30233. The first test requires that the proposed activity fit within one of seven use categories described in Coastal Act Section 30233(a)(1)-(7). The second test requires that no feasible less environmentally damaging alternative exists. The

third and final test mandates that feasible mitigation measures are provided to minimize any of the project's adverse environmental effects.

Allowable Use

The first test for a proposed project involving fill is whether the fill is for one of the eight allowable uses under Section 30233(a). The purpose of the proposed project is to replace an existing flatcar bridge with a new flatcar bridge on a public roadway. Among the allowable uses listed under Section 30233(a), the use which most closely matches the project objectives is subcategory (4), "incidental public service purposes." The Commission has in many past actions determined that fill for certain road safety improvement projects that did not increase vehicular capacity was considered to be for an "incidental public service" pursuant to the requirements of Coastal Action Section 30233(a)(4). In reaching such conclusion, the Commission has typically determined that a bridge replacement project without expansion of vehicular capacity is a public safety project and is thus undertaken for a public service purpose, and that the project is incidental to the primary transportation service provided by the bridge.

The County is proposing to replace the existing flatcar bridge over Morgan Slough primarily because Caltrans inspection engineers have determined that the existing bridge is structurally deficient and its replacement is necessary to maintain public safety. The proposed replacement bridge will be approximately the same size as the existing bridge (89 feet by 11.5 feet), will serve existing users, and will not be part of a new route or roadway expansion. Given that the proposed bridge replacement project is driven primarily by safety needs and will not increase vehicular capacity, the Executive Director concludes that it qualifies as an incidental public service within the meaning of Section 30233(a)(4), and therefore meets the allowable use test for fill of wetlands under the Coastal Act.

Alternatives

The Commission must further find that there is no feasible less environmentally damaging alternative to placing fill in wetlands. Coastal Act Section 30108 defines "feasible" as "*…capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.*" In this case, alternatives that have been identified include: (1) a "no project" alternative, (2) staging alternatives, (3) construction alternatives, and (4) crossing alternatives.

a. <u>No project alternative</u>
   The existing flatcar bridge crossing over Morgan Slough is thirty years old and in need of repair. A Caltrans inspection on August 24, 2011 found the bridge structurally deficient and recommended that the bridge be replaced. Under the "no project" alternative, the existing bridge would continue to deteriorate, resulting in a safety hazard for the cattle ranchers that rely on the bridge for access to their properties. Although the "no project" alternative would avoid the adverse impacts to coastal resources that are posed by the bridge replacement project, this benefit would disappear when the existing bridge ultimately fails. A collapsed bridge could crush vegetation, damage the slough banks and channel, and spread debris within the slough, adversely affecting riparian and aquatic habitat and water quality. In addition, bridge

failure could result in the need for emergency replacement of the bridge, and the subject construction would potentially need to take place within sensitive wetland habitat, resulting in greater damage to the wetland resources of Morgan Slough. Therefore, the no project alternative is not a feasible less environmentally damaging alternative.

b. Staging alternatives

The County proposes to transport the new bridge across the old bridge and stage it on private property to the northwest of the crossing. The area where staging is proposed is farmland that also functions as seasonal wetlands. The use of grazed seasonal wetlands for staging cannot be avoided. The Morgan Slough crossing is surrounded on all four sides by farmed wetlands characterized as having "prime" agricultural soils (**Exhibit 5**). Furthermore, the lands to the southwest and southeast of the crossing are also identified as Williamson Act Agricultural Preserves. Staging can sometimes occur in the roadway, but in this case the roadway and shoulders do not provide enough space to stage all the materials necessary for the construction project and allow large trucks to make deliveries and turn around if necessary. Therefore there is no less environmentally damaging staging alternative.

c. Construction alternatives

The County proposes to use a front-end loader or excavator working from the north side of the channel to pull the old bridge and push the new bridge across the channel. In both cases there is the possibility that either bridge could tip while being pushed or pulled and make contact with the slough channel. Removing the existing bridge and placing a new bridge using a crane would avoid any potential contact of the bridges with the slough channel. However, flatcar bridges weigh in excess of 40,000 pounds and it would take a very large crane to not only lift a flatcar bridge, but also to extend a boom out far enough to complete the work. The weight and size of such a crane would most likely cause extensive damage to the roadway, shoulders, stream banks, and surrounding wetlands. In addition, there are overhead power lines along the east and south sides of the bridge that make it dangerous to maneuver a crane in the area. Therefore, using a crane to move the bridges is not a feasible, less environmentally damaging alternative.

During the summer months, when the bridge replacement is scheduled, the wetted portion of the slough is confined to an approximately six-foot-wide channel along the southern embankment. The potential to impact this wetted portion of the slough channel would be lower if the new bridge were installed from the south instead of from the north as proposed. The potential for contact with the wetted channel would be lower because a bridge being pushed from the south would not likely be pushed beyond its tipping point until after it had spanned the wetted channel on the south side of the slough. Installing the new bridge from the south would also avoid having to transport the new bridge across the old bridge to stage it on farmed wetlands to the northwest. Instead, the new bridge could be brought to the site after the old bridge is removed and staged on the south side of the crossing along the roadway shoulder. However, the contractor has determined that this is not feasible due to limited space,

as the County does not have the necessary rights to use the agricultural parcel immediately south of the intersection of Morgan Slough Road and Camp Weott Road as a staging area for maneuvering the old and new bridges out of and into position, which would be required because of the length of the bridge.

d. Crossing alternatives
The proposed project replaces the flatcar bridge in-kind, remaining within the existing bridge footprint. The bridge (new and old) is the minimum size necessary to allow vehicles to cross the slough. The bridge is 11.5-feet-wide, making it just wide enough for a nine-foot-wide single-lane crossing. In addition, the slough channel is roughly 60-feet-wide, while the bridge is approximately 90-feet-long, just long enough to span the slough channel with the bridge abutments remaining above the ordinary high water (OHW) line. Because of the minimal size of the bridge, and because there will be no permanent impacts beyond the footprint of the existing bridge, replacing the bridge in-kind is less environmentally damaging than other bridge designs.

Another alternative would be to replace the bridge with a culvert. Replacing the bridge with a culvert would be more environmentally damaging because it would result in greater fill and a less natural channel configuration and thus have greater potential adverse effects on flow rates, fluvial processes, and habitat values. Therefore no other potential crossing design would reduce project impacts.

For the reasons described above, the Executive Director finds that the proposed project is the least environmentally damaging feasible alternative, and therefore the second test of Coastal Act Section 30233(a) is satisfied.

Mitigation Measures

The final requirement of Coastal Act Section 30233(a) is that filling of wetlands may be permitted if feasible mitigation measures have been provided to minimize any adverse environmental impacts. The proposed project could have a number of potential adverse effects, including: (1) impacts to farmed wetlands from temporary staging and stockpiling of construction materials; (2) filling of slough bank and channel; (3) impacts on the biological productivity and quality of coastal waters from construction activities; and (4) impacts on water quality from the use of treated wood. The potential adverse impacts and their mitigation are discussed in the following sections:

a. Impacts to farmed wetlands from staging and stockpiling
As discussed above, the County proposes to stage and stockpile materials on 0.23 acres (10,000 square feet) of agricultural land to the northwest of the bridge crossing (See **Exhibits 3 and 4** for photographs of the proposed staging and stockpiling area). In addition to serving as agricultural land for livestock grazing, hay production, and other agricultural uses, the agricultural grasslands in the area also function as seasonal wetlands. To minimize impacts to the farmed wetlands, the County is proposing to install a temporary perimeter fence around the staging area to clearly indicate the limits of land disturbance, restricting the area to the minimum size necessary to complete the project. The County is also proposing to minimize soil disturbance in the

staging area by placing straw on the ground to act as bedding for the stockpiled RSP and crushed rock or gravel. In addition, once the project is complete, the County proposes to reseed the staging area in order to return the land to the condition in which it was found. To ensure that these BMPs are carried out, the Executive Director attaches **Special Condition 3(a)-(c)**, which also require the County to decompact temporarily disturbed seasonal wetlands after project completion, and prohibit the use of invasive plants in the reseeding of disturbed areas. The Executive Director finds that the development, as conditioned, provides feasible mitigation measures to minimize potential adverse environmental impacts to farmed wetlands from construction staging and stockpiling, and is therefore consistent with Section 30233 of the Coastal Act.

b. Impacts on the biological productivity and quality of coastal waters from construction activities

The County requested information from the California Department of Fish & Wildlife and the U.S. Fish & Wildlife Service on the likelihood of listed fish species occurring in Morgan Slough in the vicinity of the project site (**See Exhibit 6, pgs.8-9**). Neither agency had fisheries data specific to Morgan Slough. However, fisheries data from the Salt River includes the capture/observation of listed fish including Coho salmon (*Oncorhynchus kisutch*), California Coastal ESU Chinook salmon (*O. tshawytscha*), and Tidewater Goby (*Eucyclogobius newberryi*). The subject bridge crosses Morgan Slough approximately one mile upstream of where Morgan Slough connects to the Salt River's active channel, which, in turn, is approximately 0.3 miles from the mouth of the Salt River, where the Salt River empties into the Eel River (See **Exhibits 2 and 3**). Given Morgan Slough's connection with and proximity to the Salt and Eel Rivers, sensitive fish species are potentially present at the Morgan Slough bridge replacement site. The project as proposed involves the removal and placement of materials and the use of heavy equipment in and around the slough that could result in sediments, debris, or hazardous materials entering the slough channel and impacting sensitive fish species and their habitat, including the water quality of the slough.

To minimize project impacts to the biological productivity and quality of the slough waters, the County has proposed a number of construction BMPs. **Special Condition 3(e)-(m)** requires that these BMPs include, but are not limited to, the following: (1) all construction activities must be limited to the dry season and all work must be completed before October 31st; (2) construction work must be scheduled during a forecasted period of dry weather and all work must cease upon the onset of precipitation at the project site; (3) fuels, lubricants, and solvents must not be allowed to enter coastal waters or wetlands and hazardous material management equipment must be available immediately on-hand at the project site; (4) any storage, fueling, or maintenance of construction equipment must occur within upland areas or within designated staging areas; (5) no riparian trees within or adjacent to the project area must be disturbed; (6) temporary silt fencing must be placed around each abutment work area to intercept sediment before it enters the channel; (7) no construction materials, debris, or waste may be placed or stored where it may be subject to entering coastal waters or wetlands, except within the designated staging and stockpiling area;

(8) any debris discharged into coastal waters must be recovered immediately; and (9) any and all debris resulting from construction activities must be removed from the project site immediately upon cessation of construction activities and disposed of at an authorized upland location. In addition, to help protect the slough channel, banks, and any riparian vegetation, the County plans to implement a 50-foot buffer between the staging and stockpiling area and the top of the slough bank.

The project as proposed could also have adverse impacts on Morgan Slough if heavy equipment makes contact with the slough channel. **Special Condition 3(d)** has therefore been attached to ensure that no heavy equipment enters the slough channel. Some work may need to occur around the abutments within the active channel, and the County proposes to do this work by hand. Therefore, as conditioned, the Executive Director finds that the biological productivity and quality of slough waters will be maintained and protected, consistent with Sections 30230, 30231, and 30233 of the Coastal Act.

c. Filling of slough banks and channel

The proposed repair of the abutments will result in 300 square feet or 30 cubic yards of permanent fill. All of the proposed fill material will be installed above OHW and will not increase the existing footprint of the abutments in length, width, or height. Because no permanent fill is proposed beyond the existing footprint or within the slough channel, no mitigation for the loss of wetland area is necessary. However, the County proposes to mitigate the project's fill impacts by removing any existing RSP that has fallen into the slough channel and is no longer providing any protection to the abutments. During a site visit with Commission staff, it was observed that possibly two to four pieces of large rock could be removed from the channel, which amounts to one to three cubic yards of fill removal.

As previously mentioned, there is the potential for the existing or replacement bridges to make contact temporarily with the slough channel during removal or installation. The slough channel is roughly 60 feet wide and the active wetted portion during the summer months is 4-8 feet wide and is located along the southern embankment. The bridge (old and new) is 90 feet long. The County proposes to pull the old bridge from the north side of the slough while an excavator assists from the south to keep the bridge suspended over the wetted portion of the channel. The old bridge should be able to be pulled from the north roughly 40 feet before the excavator on the south side of the slough can no longer assist and the bridge could potentially teeter toward the channel bottom. At this point, if the bridge does end up resting on the channel, then it would be on the upper dry portion of the channel. The County believes that if the bridge does make contact with the channel, it would be dragged a maximum of 10 feet across the slough channel. Also, only the two steel beams that run along the bottom of the bridge would make contact with the slough channel – not the entire body width of the bridge. As these beams are roughly eight to ten inches wide, the area of contact would be no greater than twenty square feet (approximately 2 feet for the combined width of the two steel beams by 10 feet for the length of possible dragging).

The County proposes to push the new bridge over the slough channel from the north. The new bridge could tip into the dry portion of the slough channel with the same impact as the old bridge as described above. If the new bridge clears 40 feet of the channel without tipping, an excavator working from the opposite abutment area should be able to be attached by a chain to the bridge to guide it over the wetted channel onto the southern abutment. In total, if both bridges make contact with the dry channel, the maximum impact area is estimated at 40 square feet divided into approximately one-foot-wide strips. Any depressions left in the contact area are expected to silt in within the next rainy season and be quickly recolonized by vegetation growing in adjacent areas. As any impacts to the dry channel will be temporary, no further mitigation is necessary.

d. Impacts on water quality from the use of treated wood

The County is proposing to add timber wheel rubs, posts, and rails to the new flatcar bridge. To avoid release of potentially toxic wood preservative chemicals into coastal waters, the County is proposing to use "NatureWood Copper Arzole" treated wood which is an arsenic-free pressure-treated wood. The County also proposes to cut all treated wood off-site at the County bridge facility in Loleta. If minor additional cutting is necessary on-site, such cutting will be done in upland areas (i.e. the roadway and turnout) and on containment systems like tarps. As the treated wood the County proposes to use is not expected to leach harmful preservatives into the environment and the County will avoid cutting the wood over coastal waters, no further mitigation is necessary.

Conclusion

The proposed project, as conditioned, will maintain marine resources and the biological productivity and quality of coastal waters and wetlands. In addition, the fill in coastal waters associated with the project is for an allowable use, is the least environmentally damaging feasible alternative, and includes feasible mitigation measures to minimize adverse environmental effects. Thus, the Executive Director finds the proposed project, as conditioned, is consistent with Section 30230, 30231, and 30233 of the Coastal Act.

E. ARCHEOLOGICAL RESOURCES

Section 30244 of the Coastal Act states:

> *Where development would adversely impact archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

The project area is located within the traditional territory of the Wiyot division of the Wiyot Tribe. The Wiyot Tribe is understood to have been composed of three tribal divisions (Patawat, Wiki, and Wiyot), each associated with a water-related resource (the Mad River, Humboldt Bay, and the lower Eel River, respectively) and each speaking a common language (Selateluk). The Wiyot used the Salt River and its surroundings for fishing and transport and

settled along its waterways and sloughs. Based on this pattern of Wiyot settlement, the project area has the potential to hold archaeological resources.

While there is a high potential that archaeological resources are present in the project area, the proposed development will not disturb any previously undisturbed areas. The County proposes to conduct all work from the roadway and there will be no permanent impacts beyond the existing footprint of the bridge. Furthermore, the proposed development is not expected to involve any significant ground disturbing activities that would have the potential to uncover cultural artifacts or human remains. Work on the bridge abutments will involve replacing rotten timber forms and supplementing the existing RSP and will not expand the existing footprint or involve ground disturbance below the existing fill.

To ensure protection of any archaeological or paleontological resources that may be discovered at the site, **Special Condition 4** is attached. This condition requires that if an area of cultural deposits is discovered during the course of project operations, all operations 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 minimus in nature and scope, or whether an amendment to this permit is required. Therefore, the Executive Director finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30244, as the development as conditioned will include reasonable mitigation measures to ensure that the development will not result in significant adverse impacts to archeological resources.

F. FLOOD HAZARDS

Section 30253 of the Coastal Act states, in applicable part:

> *New development shall do all of the following:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*

The project area is located within the 100-year flood zone of the Eel River as designated and mapped by the Federal Emergency Management Agency (FEMA). However, the existing bridge is elevated a few feet above the surrounding agricultural land and, according to the County, the bridge has never been overtopped during flooding. The new bridge will be at the same elevation as the existing bridge and therefore is not likely to be flooded. The surrounding properties and roadways would be inundated by flooding before the new bridge is affected. With sea level rise, the risk of flooding may be higher in the future. However, flatcar bridges located near the ocean usually have a 10-20 year lifespan. Given that the design life of the new bridge ends before the second half of the 21st century when sea level rise is anticipated to significantly accelerate, sea level rise is not anticipated to significantly influence the flooding risk to the proposed development. Furthermore, in the event of a forecasted flood, the County has a flood contingency plan that details procedures and roles/responsibilities for flood monitoring, notification, and response. The Public Works Director has authority, as the county road commissioner, to close roads and bridges under

emergency conditions for public safety purposes, whether or not there is an officially declared emergency. Road closure decisions are made directly by the Public Works Department, in coordination with staff from the local office of the National Weather Service and the regional Department of Water Resources, based on evaluating site conditions and hazard information. Thus, the project as proposed minimizes flood impacts as required by Section 30253.

G. PUBLIC ACCESS AND RECREATION

Pursuant to Coastal Action Section 30604(c), because of the project's location between the nearest public road (Dillon Road) and the sea, a coastal development permit issued for the project must include a specific finding that the development is in conformity with the Coastal Act's public access and recreation policies.

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. In particular:

> *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.* [PRC §30210]
>
> *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.* [PRC §30211]
>
> *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects…* [PRC §30212(a)]
>
> *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible* [PRC § 30223]

In applying Sections 30210, 30211, 30212, and 30223, 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 will have no significant adverse effects on public access. Morgan Slough Road parallels the ocean approximately two miles inland of the ocean. The road crosses Morgan Slough and ends before it reaches the banks of the Eel River to the north. Morgan Slough Road is a short (approximately quarter-mile-long), rural, lightly-travelled road that primarily provides access to three landowners. While construction is occurring, access is available to these private property owners via Brugga Road which is 0.6 miles east of Morgan Slough Road. The County plans to notify property owners and the public of the road closure prior to any construction activities. The County estimates that the road will need to be closed for one day, with work related to the bridge taking one to three days total. No

trails provide shoreline access within the vicinity of the project that would be affected by the project. In addition, the proposed development would not create any new demand for public access or otherwise create any additional burdens on public access. Furthermore, the project as proposed will allow continued access to Morgan Slough, an arm of the sea and a potential destination for coastal recreation. Therefore, the Commission finds that the project as proposed is consistent with the public access and recreation policies of the Coastal Act.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The County served as the lead agency for the project for CEQA purposes. The County filed a notice of exemption for the project on January 14, 2014 pursuant to Section 15301 of CEQA Guidelines (Existing Facilities) which exempts the operation, repair, maintenance, permitting, leasing, licensing or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination.

Section 13096 of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be 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 feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Executive Director incorporates its findings on conformity with the Chapter 3 policies of the Coastal Act at this point as if set forth in full. These 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 development has been conditioned to be found consistent with the policies of the Coastal Act. Mitigation measures, which will minimize all adverse environmental impacts, have been required as permit special conditions. 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 may have on the environment. Therefore, the Executive Director finds that the development as conditioned to mitigate the identified impacts can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

ACKNOWLEDGEMENT OF PERMIT RECEIPT/ACCEPTANCE OF CONTENTS:

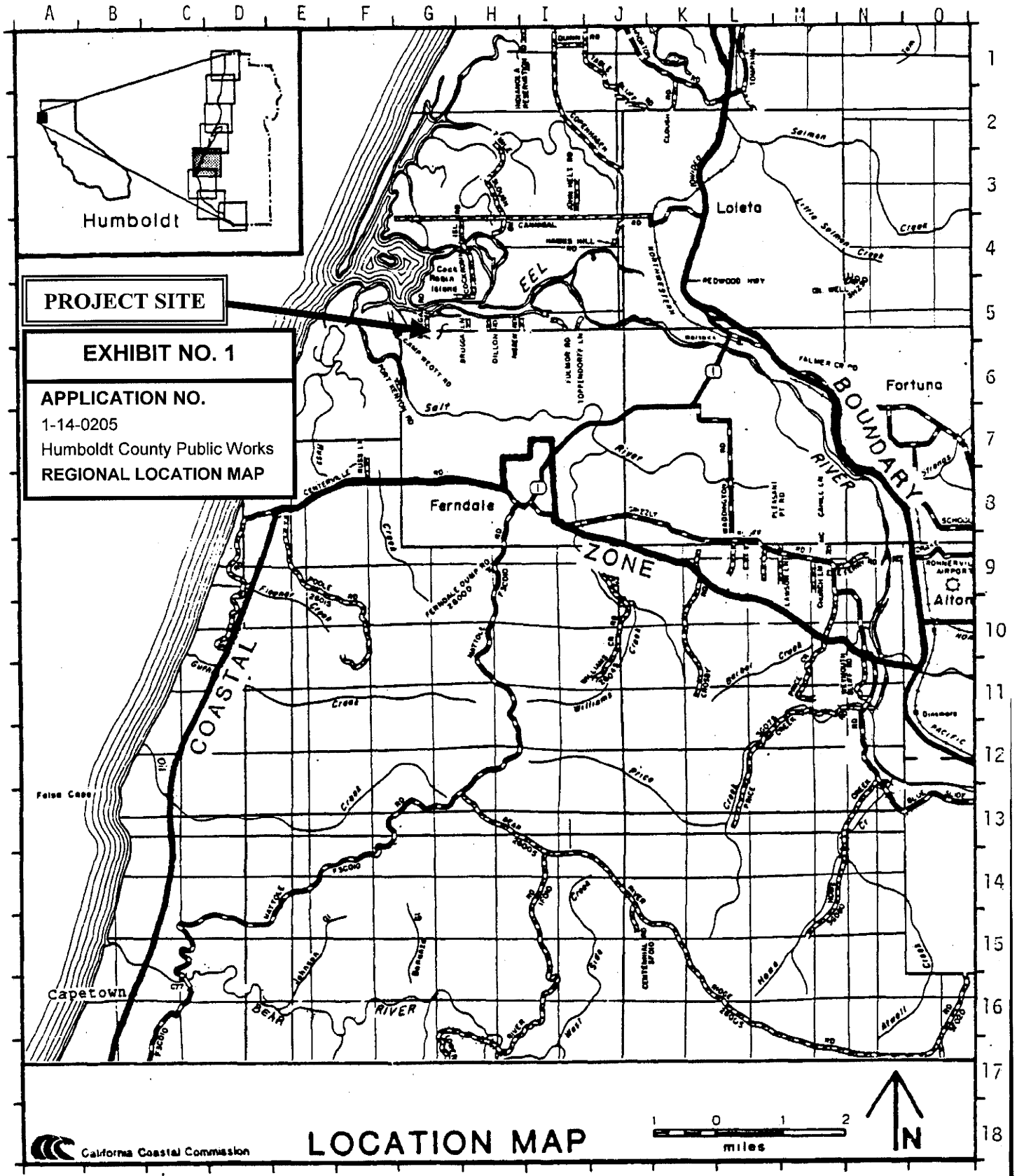
I/We acknowledge that I/we have received a copy of this permit and have accepted its contents including all conditions.

_____ _____

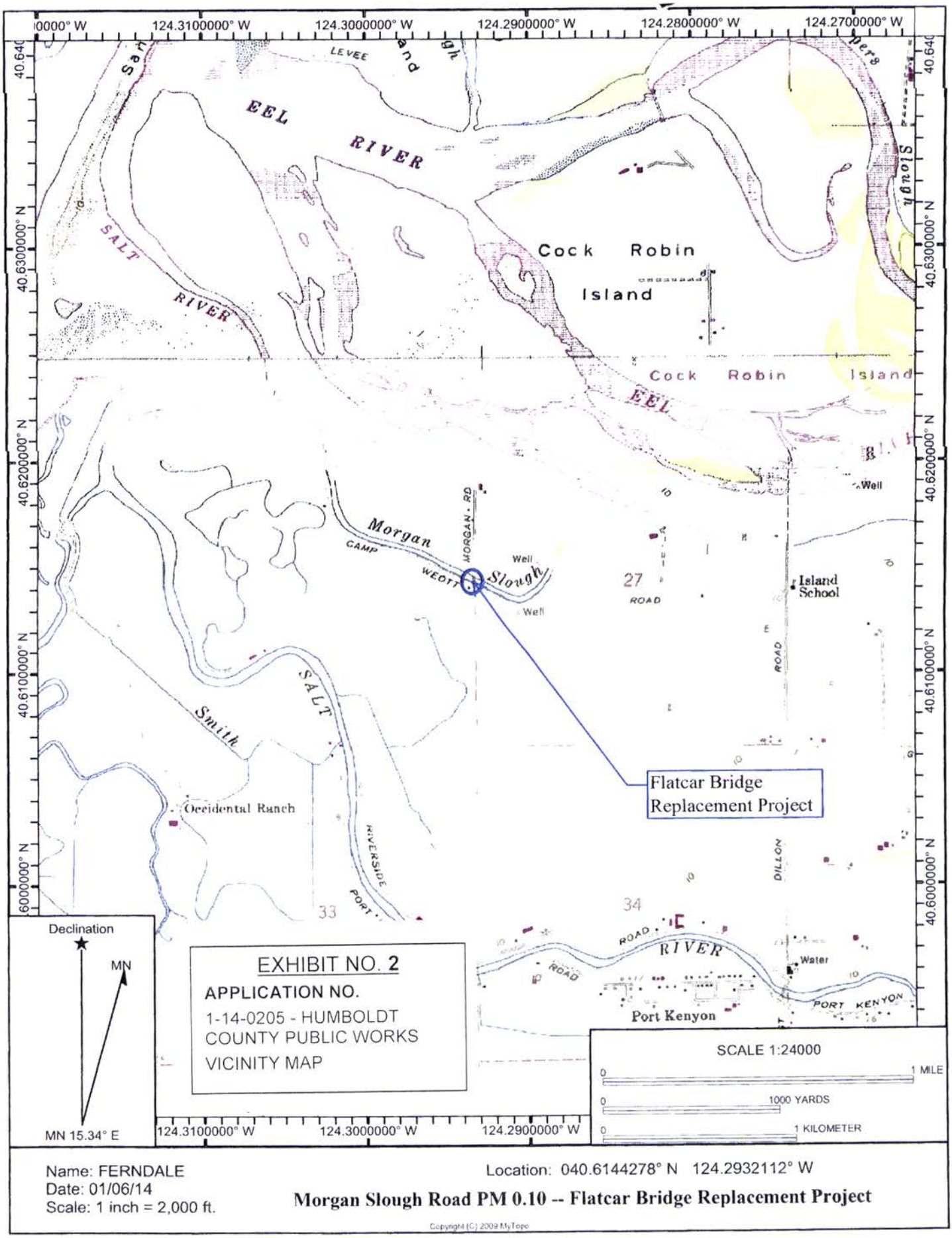
Applicant's Signature **Date of Signing**

EXHIBITS

Exhibit 1 – Regional Location Map
Exhibit 2 – Vicinity Map
Exhibit 3 – Aerial Photos
Exhibit 4 – Site Photos
Exhibit 5 – Parcel and Agricultural Lands Map
Exhibit 6 – Project Description



County of Humboldt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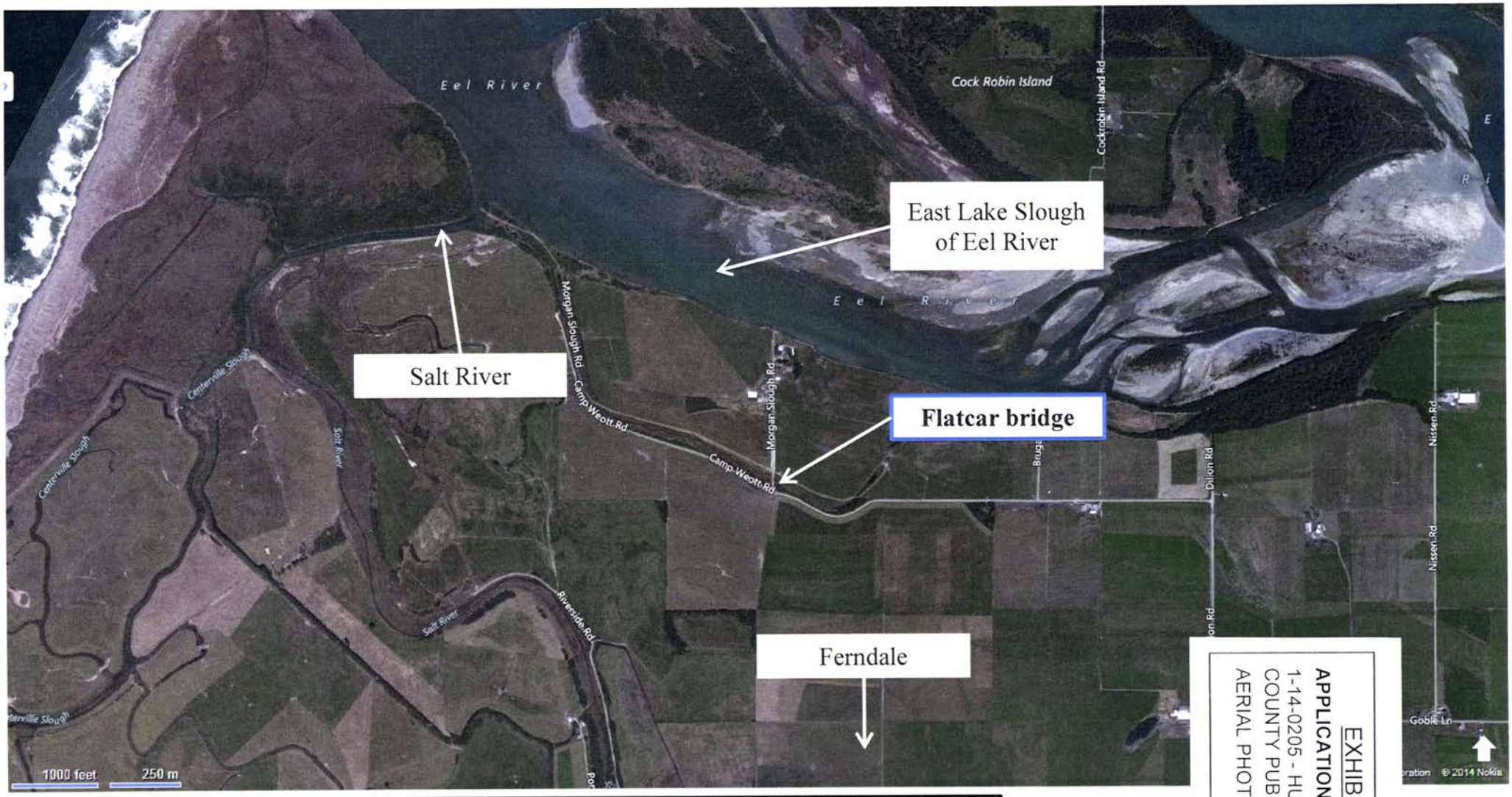
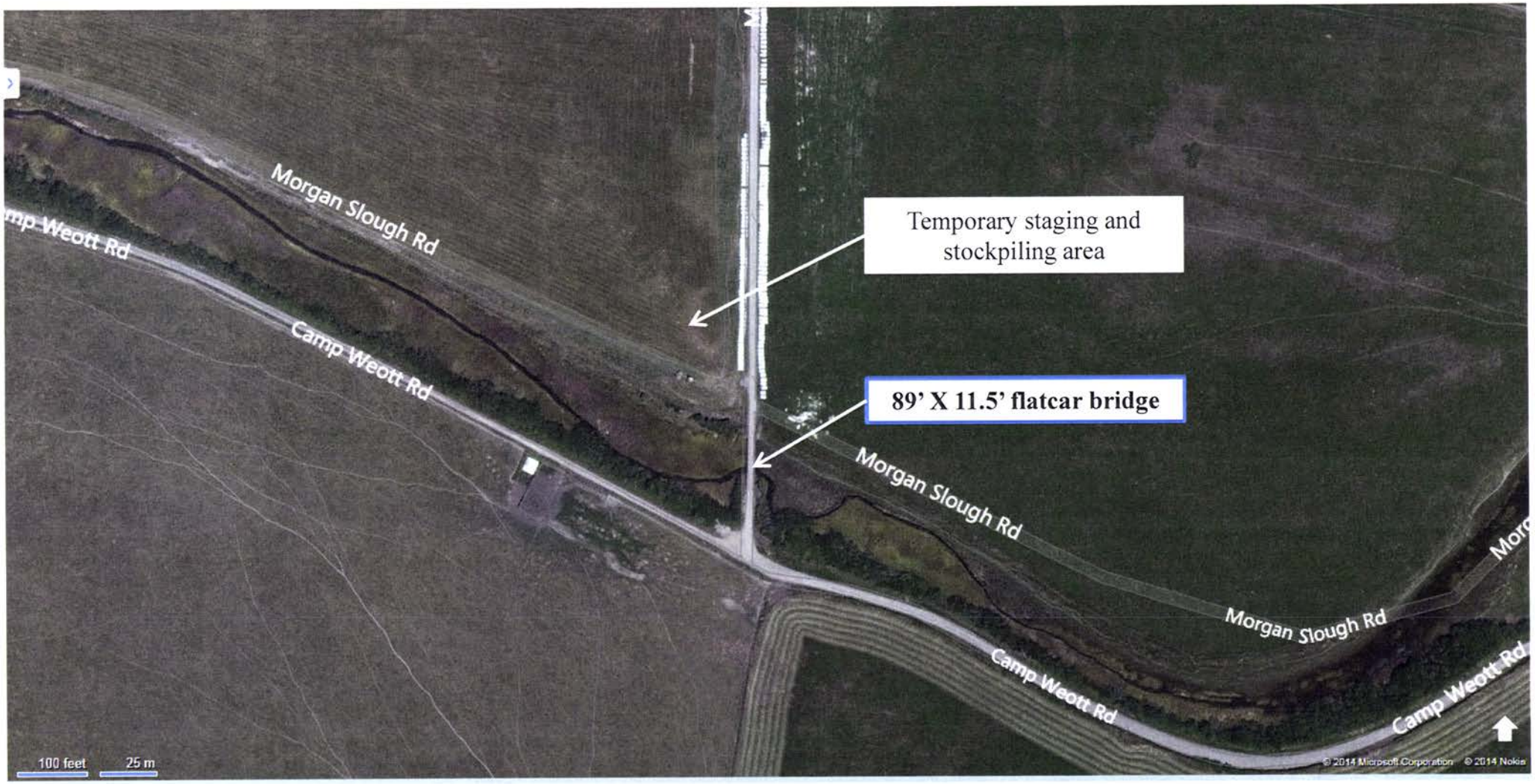
LEVEE
EEL RIVER
SALT RIVER
Cock Robin Island
Morgan
CAMP WEOTT
MORGAN RD
Slough
Well
27
ROAD
Island School
Smith
SALT
Occidental Ranch
RIVERSIDE
33
34
DILLON
RIVER
Water
Port Kenyon
PORT KENYON
Flatcar Bridge Replacement Project
Declination
MN
MN 15.34° E
EXHIBIT NO. 2
APPLICATION NO.
1-14-0205 - HUMBOLDT COUNTY PUBLIC WORKS
VICINITY MAP
SCALE 1:24000
1 MILE
1000 YARDS
1 KILOMETER
Name: FERNDALE
Date: 01/06/14
Scale: 1 inch = 2,000 ft.
Location: 040.6144278° N 124.2932112° W
Morgan Slough Road PM 0.10 -- Flatcar Bridge Replacement Project
Copyright (C) 2009 MyTopo



Aerial: Relation to Salt River, Eel River, and Pacific Ocean
(Bing Maps)

EXHIBIT NO. 3
APPLICATION NO.
1-14-0205 - HUMBOLDT COUNTY PUBLIC WORKS
AERIAL PHOTOS (1 of 2)



Aerial: Staging Area
(Bing Maps)

2 of 2

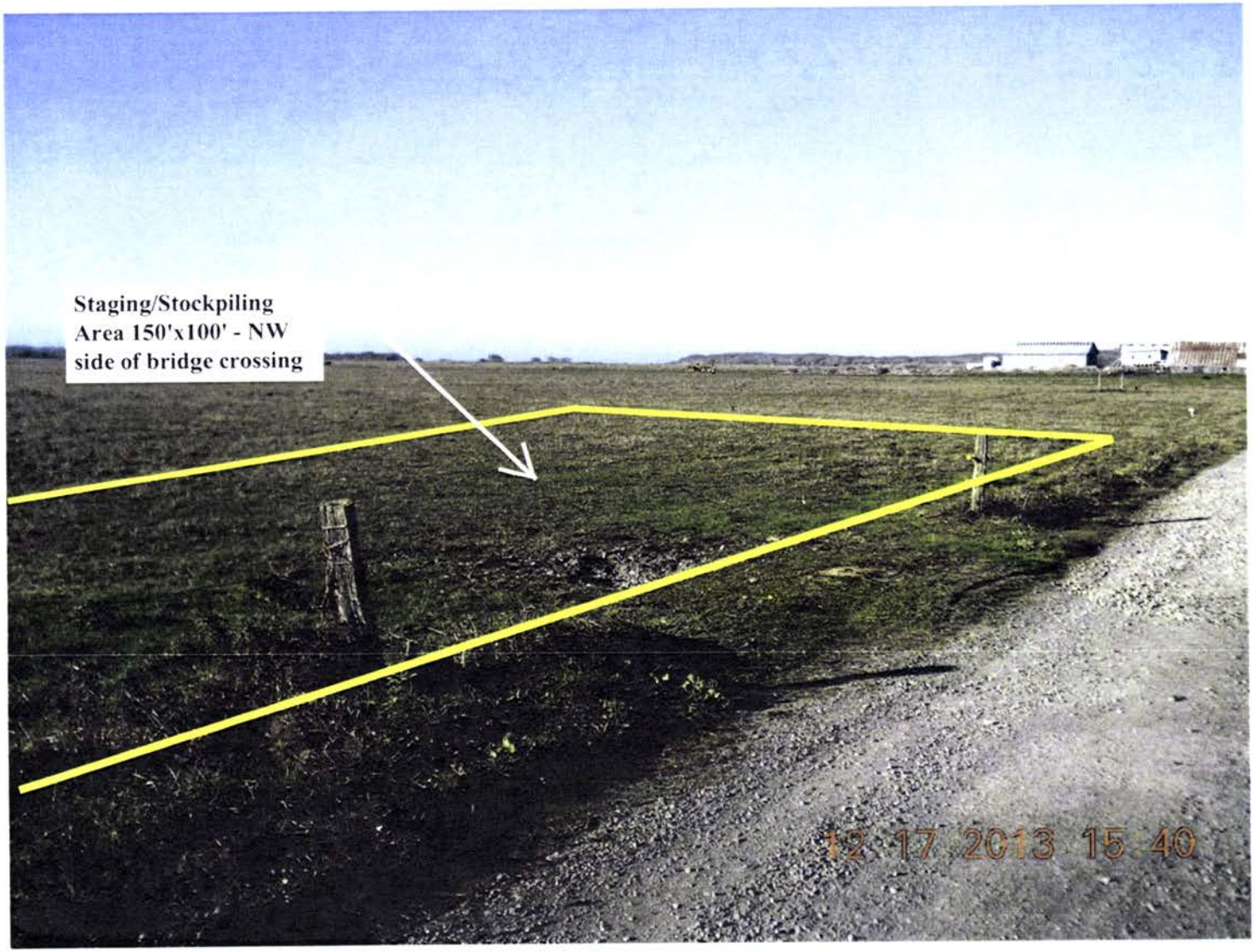
EXHIBIT NO. **4**

APPLICATION NO.

1-14-0205 - HUMBOLDT COUNTY PUBLIC WORKS

SITE PHOTOS (1 of 4)

Staging/Stockpiling Area
Estimated OHW Line (top of active channel)


Staging/Stockpiling
Area 150'x100' - NW
side of bridge crossing
12 17 2013 15:40

3 of 4


Staging/Stockpiling Area
Morgan Slough Flatcar Bridge

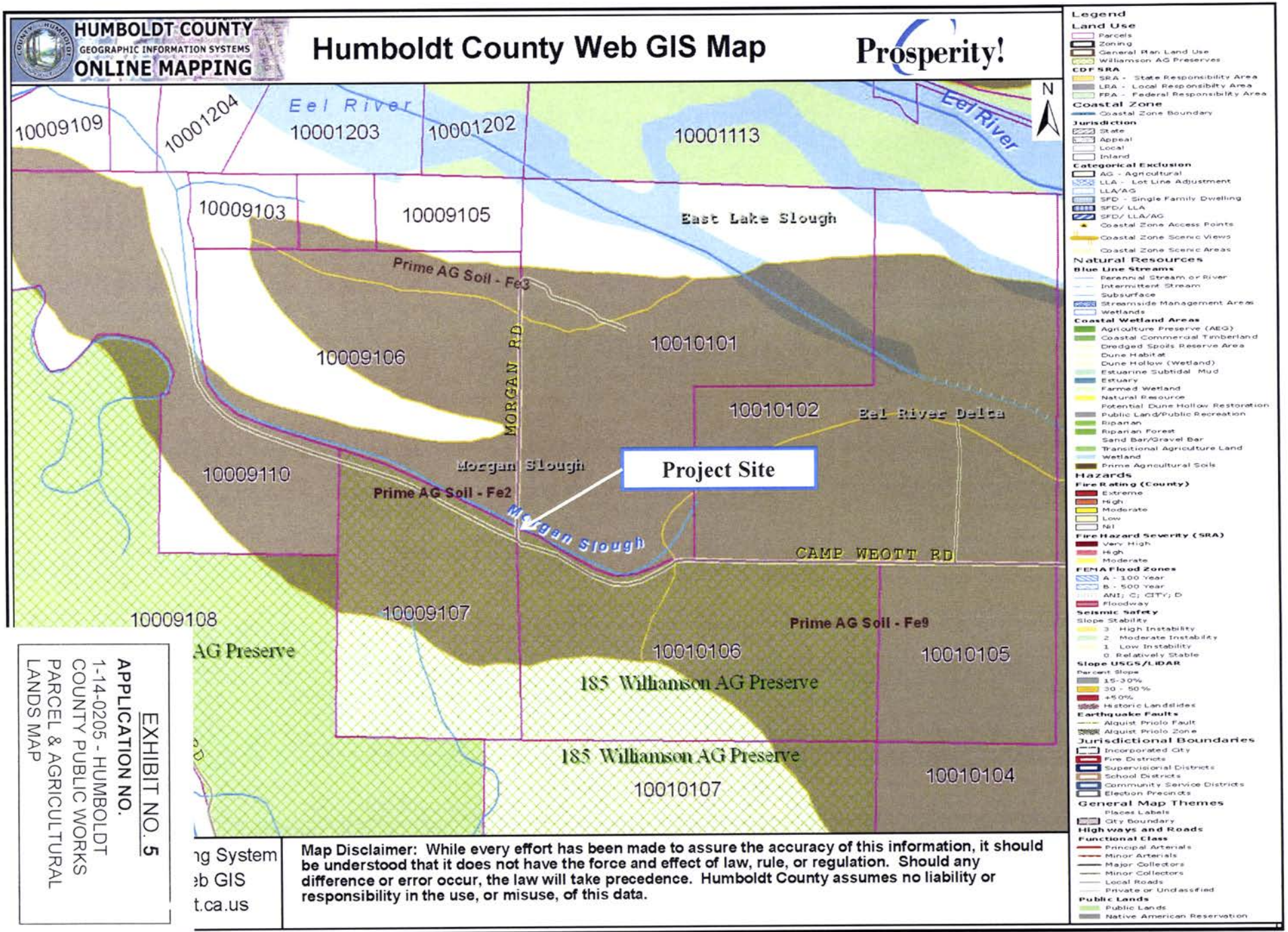


EXHIBIT NO. 5

APPLICATION NO.
1-14-0205 - HUMBOLDT COUNTY PUBLIC WORKS PARCEL & AGRICULTURAL LANDS MAP

ng System
eb GIS
t.ca.us

Map Disclaimer: While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force and effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence. Humboldt County assumes no liability or responsibility in the use, or misuse, of this data.

Location of Prime Agricultural Soil classifications and Williamson Agricultural Preserve lands near project site.

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
NATURAL RESOURCES DIVISION

1106 SECOND STREET
EUREKA, CA 95501-0579
(707) 445-7741 / FAX (707) 445-7409

PROJECT DESCRIPTION

Flatcar Bridge Replacement – Morgan Slough Road PM 0.10
Near Ferndale, Humboldt County
Revised May 1, 2014

Location

The project is located on Morgan Slough Road at post mile (PM) 0.10, which intersects Camp Weott Road roughly 3 miles northwest of Ferndale. The site location can be found in Section 28, Township 3N, Range 2 West and GPS coordinates: Latitude 40.614485°; Longitude -124.293398°.

Background/Purpose

The existing flatcar bridge at the Morgan Slough crossing measures 89-feet long by 11-feet wide and was placed there in 1984. It is considered a single-lane bridge crossing and has been rapidly deteriorating over the last several years. Due to its close proximity to the marine environment, deterioration has been accelerated. It has been recommended by Caltrans inspection engineers that the bridge should be replaced in lieu of performing the outstanding work recommendations. The last inspection by Caltrans was on August 24, 2011.

Proposed Project

The County is proposing to replace the existing flatcar bridge with a new flatcar bridge in equal length and width. The new bridge will be fitted with "NatureWood CA" treated wood wheel rubs, posts and rails. This treated wood is arsenic-free and is of the Copper Azole types of wood preservatives. All treated wood will be cut to size off site at the County bridge facility in Loleta. Some minor cutting may need to be done onsite but will occur within upland areas (i.e. the roadway/turnout) and on containment systems like tarps. The existing abutments may require maintenance work to bring them up to standards. The northern abutment contains wooden timbers supported by RSP. Several of the wooden timbers have rotted and in some places they have failed and/or are non-existent. Additional RSP may need to be used to supplement each abutment for stability and support. Any additional RSP will not expand the existing footprint and will not encroach into any wetlands or the slough channel.

Two Approaches to Replacing the Flatcar

The County is currently looking at two approaches to implementing the project. The first way would allow the bridge replacement project to be done without impacting the wetted portion of the slough channel. The reasoning behind this is that the wetted channel, during the summer

months, is confined to a narrow channel along the southern embankment. The wetted channel is roughly 6-feet wide and 2-ft deep. Removing the existing bridge would be done with a front-end loader or excavator working from the north and pulling the bridge off its foundation. An excavator on the southern side would assist by keeping the bridge suspended over the wetted channel. If the bridge makes contact to the slough channel, it would be within the dry portion of the channel and impacts would be minimal and short in duration and size. Flatcars are configured in a way in which two steel beams run longitudinally along the bottom of the bridge. If the old or new bridge makes contact with the slough channel, it will actually only be the two beams (roughly 8-10-inches wide) which make contact and not the entire bridge bottom. Furthermore, the impact area will within the footprint of the bridge and only for a short distance until the bridge can be pulled back up and leveled. Once the old bridge is removed and staged, the new bridge would be installed by pushing it from the south. This would insure that the new bridge would span the wetted portion of the slough and would not make any contact with the wetted channel. Again, the new bridge may come in contact with the dry portion of the channel along the north side, but it would be very limited.

The second approach to implementing the project would be to transport the new bridge across the slough and stage it on the adjacent private property (northwest side). The old bridge would still be removed from the north as described above, and additionally, the new bridge would be installed from the north side as well. The potential to impact the wetted portion of the slough channel is higher when installing the new bridge from the north. This is due to the bridge possibly making contact with the wetted channel as it is pushed beyond its tilting point. However, it is believed that the wetted portion of the channel can still be avoided by installing from the north. The bridge could be "tipped" and set down prior to the wetted channel, and then the bridge could be picked up by an excavator on the southern side and lifted up and onto the abutment. It is very reasonable that this could be accomplished without the bridge ever making contact with the wetted channel.

In summary, the old bridge will be removed from the north side of the slough channel and staged along the private property until the new bridge is installed. It is preferred to install the new bridge from the south to minimize the potential to impact the wetted portion of the slough channel. However, if unloading and staging of the new bridge cannot be done on the southern side due to space and power lines, then the new bridge will be transported across the old bridge and staged until the old bridge is removed. Once the new bridge installation is complete, the old bridge will be transported away from the site and taken to the bridge facility in Loleta.

Construction Activities

The new flatcar bridge will need to be transported and staged at the project site. The preferred plan, as described above, is to stage the flatcar bridge on the south side along the roadway shoulder at or near the Morgan Slough Road / Camp Weott Road intersection. If it is determined that there is not enough room to unload and stage the new bridge, or there is safety concerns with the power lines, then the bridge will need to be transported across the channel and staged on the adjacent private property to the northwest (see photos). Additionally, other materials needed for the project will also need to be delivered to the staging area prior to bridge replacement activities. Other materials needed may include: RSP; concrete slabs for the bridge to rest on; gravel (for roadway maintenance and abutment backing material); pre-cut treated wood for

wheel rubs, post and rails; BMPs (silt fencing, straw, seed, etc). Once the new flatcar bridge and other materials are delivered and staged, the old bridge will be removed.

Removing the old bridge will involve either one excavator and a front-end loader or two excavators. The plan is to lift the old bridge up on the northern end and slowly move it off the foundations and into the staging area. Using the heavy equipment to remove the bridge may result in the bridge making contact with the slough channel, thus potentially disturbing the slough area. Temporary and minimal impacts may occur. Once the old bridge is removed and staged, work will begin on preparing the bridge foundation and abutments.

Some excavation of the old abutments may be necessary to prepare the site for the new bridge. Old, rotten timbers will be removed and RSP (and/or concrete forms) will be placed to form the new abutments. Gravels, rock and/or soil may be placed behind the abutments to act as backing material for the new abutments and approaches. A concrete slab measuring 4-ft wide by 12-ft long by 8-in thick will be placed at each bridge approach interface for the new bridge ends to rest on. The new bridge will be placed on the concrete slabs/abutments via the same method the old bridge was removed. Again, minimal temporary impacts may occur to the wetland and/or slough area.

Once the new flatcar bridge has been placed on its foundations, final measures will be done to insure the stability and integrity of the bridge and abutments. Additionally, the road bed may need to be supplemented and graded in order to obtain a smooth conformation to each side of the bridge. If minor work is needed (RSP adjusting, backing material placement, etc), then it will be done by either a backhoe or excavator. At no time will heavy equipment enter the wetland area, slough banks or channel. All work is being proposed to occur from the roadway. Some handwork may occur around the abutments within the active channel. Any impacts to the slough channel from the aforementioned activities are considered temporary in nature.

Before the bridge can be opened to traffic, the timber wheel runners, posts and rails will be installed and/or secured. Most of the wood components of the bridge will be installed off site at the Loleta bridge yard. However, guardrail posts and beams will need to be attached and secured. Currently, single-lane flatcar bridges are made to accommodate vehicles and trailers up to 8-ft wide. However, most horse trailers and heavy load trailers are 8-ft-6-in wide and therefore the bridge wheel runners will need to be "pushed out". Previously it was mentioned that the bridge may need to be widened to accommodate the wider trailers, but there is actually no widening of the structure occurring. The existing I-beams on the bottom of the flatcar bridge allow for the wheel runners to be pushed out an additional six inches on each side. Doing this will allow for one foot of "wider" area for travel without having vehicle/trailer wheels rub or make contact with the runners. So in reality, only the drivable space is being widened, not the bridge itself. This is a common practice done to single-lane flatcar bridges so that larger trailers can cross the bridge and also reduces the chances of standard vehicles from making contact with the wheel runners and guardrails, thus reducing the need for maintenance and repair. As previously mentioned, the timber components for the new bridge will be pre-cut off site and will be installed by handheld tools once the bridge is installed. Some finishing cuts may need to be completed onsite, but will occur in upland areas (i.e. the roadway/turnout) away from any wetlands for sensitive areas. Any sawdust will be collected and removed from the site.

Anticipated Materials

The following is a list of anticipate materials that will be used for the flatcar bridge replacement project:

- One new 89-foot x 11.5-foot flatcar bridge (9-ft travelable lane).
- Two 4'x12'x8" thick concrete slabs for bridge pads.
- 30 cy (~40 tons) of 1-2-ton RSP to supplement the existing RSP around each abutment.
- 20 cy (~25 tons) of crushed rock/gravel for abutment backing and road bed.
- 200 feet of 6x6 PT timber for wheel rubs.
- 100 feet of 4x6 PT timber for guard rail posts.
- 600 feet of 2x6 PT timber for guard rail beams.
- BMPs (silt fencing, straw mulch, barley seed)

Potential Impacts to Sensitive Areas

The County intends to implement the project in a manner that avoids and minimizes impacts to sensitive areas including wetlands, waters of the U.S.and/or State, and/or agricultural lands. Research has identified that the surrounding farmlands are considered to be "Prime" agricultural soil type. Some lands to the south (outside the project area) are designated and Williamson Ag Preserves. The project will not permanently impact any of these farmlands. The County is proposing to use a portion of one of the adjacent properties as a staging and stockpiling area. The proposed area needed is roughly 100 feet by 100 feet (0.23 acre). The property is currently use for grazing and farming purposes and therefore is considered to be already highly disturbed ground. While the farmland may be considered to have wetland characteristics as defined in the Coastal Act, the County is not proposing to disturb the land any more than what is currently occurring on the land due to farming and grazing activities. The proposed staging area contains easy access for equipment and will allow for large trucks to deliver materials and turnaround if needed. Please refer to photo documents for proposed staging area. As a minimization measure to help protect the slough channel, banks, and any riparian vegetation, the County plans to implement a 50-ft buffer, or setback, from the top of bank outwards for any staging or stockpiling.

Temporary impacts to wetlands/sensitive areas include those that may occur if the flatcar bridge (existing and new) ends up making contact with the slough channel as it is moved into place. Replacing the flatcar bridge requires the bridge to be lifted and pulled in one direction and then subsequently the new bridge will be placed and pulled in the other direction. Having either the old or new bridge contact the slough channel may cause disturbance to vegetation and/or the slough bed. These impacts are considered temporary and have been estimated as a maximum impact area of 40 square feet (2-ft wide for each steel beam by 10-ft long of possible dragging).

Permanent impacts beyond the existing footprint of the bridge (including abutments) is not being proposed or anticipated. Any work on the existing abutments will occur within the existing footprint. Temporary impacts may occur due to construction activities (removal of old abutment timbers and resetting RSP for example), but permanent fill beyond the existing footprint and more importantly into the slough channel is not being proposed. No heavy equipment will enter the slough channel; all work is being proposed from the road prism. Existing footprints at each abutment is roughly 15-feet wide by 10-feet deep (150 square feet). Each abutment currently contains RSP as scour protection. The southern abutment contains RSP that continues both

upstream and downstream of the bridge as scour protection measures. No work is being proposed outside of the original abutment footing. As a mitigation measure, the County intends to remove any RSP that is currently laying in the slough channel and not providing protection to any abutments. During a site visit with Commission staff, it was observed that possibly 2-4 pieces of large rock could be removed from the channel.

The County is estimating that roughly 30cy of 1-2-ton RSP may be needed to replace the rotten timber forms at the abutments and supplement the existing RSP. It is also estimated that 25cy of crushed rock/gravel may be needed to backfill the abutments and re-form the roadway approaches. All of the proposed fill material will be used above ordinary high water (OHW). This fill material is also being proposed as replacement and/or supplementing the existing fill that currently exists.

Summary of Impacts

- Temporary impacts to farmland for staging/stockpiling = 10,000 square feet or 0.23 acre.
- Temporary impacts to wetlands/slough channel = 40 square feet.
- Permanent fill above OHW = 30cy in an area of 300 square feet (150 sq. ft. per abutment). Permanent fill will replace existing fill; there should be no net gain of additional fill.
- Permanent fill removed from the channel = 2-4 pieces of RSP. This could amount to 10-16 square feet and 1-3 cy of fill material removed.

Potential Impacts to Plants and Animals

The County researched the area for sensitive plants and animals via CDFW BIOS website and RareFind 5 Database. No sensitive plants or animals were identified to occur at the project site. DFW and USFWS staff were contacted regarding the likelihood of listed fish species occurring in the slough channel at the project site location. DFW staff stated they have specific information on whether or not Morgan Slough contains fish or listed fish species. Extensive studies were performed as part of the Salt River Restoration Project, and none of these documents provide any information to suggest that listed fish species occur within Morgan Slough. However, DFW staff did state there listed fish do have the potential to be present in Morgan Slough. USFWS staff also stated that it is unknown whether or not tidewater goby are present in Morgan Slough, however, it was their opinion that the proposed project activities would have little or no affect on them if they were present. Email copies from both agencies are attached.

Alternatives Analysis

Unfortunately, there are no other feasible alternatives to replacing the flatcar bridge. While removing the existing bridge and placing a new bridge using a crane seems logical, it is nearly impossible at this location for several reasons. First, flatcar bridges weigh in excess of 40,000 lbs and it would take an extremely heavy duty crane to not only lift a flatcar bridge, but being able to extend its boom out far enough to complete the work. The size of such a crane needed to complete the work would most likely cause extensive damage to the roadway and surrounding wetlands due to its weight and size. While pushing and dragging a flatcar bridge may "sound" extreme, it really is not the case. Many times a flatcar bridge can be pushed far enough out so that it just begins to teeter without touching the channel. Then the excavator on the other side can reach out and pull it and set it down, many times without any impacts occurring to the channel. If the flatcar bridge does make contact with the channel and is "dragged" or "pushed" across the

channel, it is typically for a very short distance until heavy equipment on the opposite side can reach it and lift it up. Again, the only portion of the bridge that makes contact with the channel are the two steel beams that run along the bottom of the bridge. These beams are roughly less than 12 inches wide. In reality, impacts to the channel are more likely isolated to a 10 foot area. Any impacts caused by "dragging" the flatcar bridge a short distance are minimal and temporary in nature. For this project, an alternatives analysis is not needed. The only other way to replace the flatcar bridge would be by picking it up and placing it down with a heavy duty crane. Not only is this not feasible (the County does not have such a crane, and one would most likely have to be transported from outside the area), using a heavy duty crane could actually cause significant damage to the roadway, shoulders, streambanks, and wetlands. Also important to note is that there are overhead power lines along the east and south side of the bridge; using a crane to maneuver a bridge at this location would be dangerous and ill-advised. Furthermore, this is a maintenance project with no special funding; finding a crane to perform the bridge replacement work would be too costly to the Humboldt County tax payers.

Mitigation Measures

While there is potential for the old or new bridge to make contact with the slough channel, the anticipated impacts should be minimal and insignificant. The project description has been revised to illustrate this reasoning that potential impacts are considered to be minor. The slough channel is roughly 60 feet wide with the active wetted portion during the summer months being 4-8 feet wide. The bridge (old and new) is 90 feet long. The bridge should be able to be pushed roughly 40 feet out above the channel before it begins to teeter towards the channel bottom. An excavator working from the opposite abutment area should be able to extend and reach out over 20 feet in length to grab chain hoist attached to the other end of the bridge. It is highly likely that this can be accomplished without the bridge ever touching the surface of the slough channel. If the bridge does end up resting on the channel, then it would only be dragged a short distance while the excavator pulls the bridge up and places it on the raised abutment area. If dragging does occur, it should be no longer than 10 feet of the upper dry portion of the slough channel. Also, only the two steel beams that run along the bottom of the bridge will make contact with the slough channel – not the entire body width of the bridge. The wetted portion of the active slough channel is nearer the southern abutment, which is where the bridge is being pushed from, so any contact with the wetted portion of the channel will be avoided. It is being assumed that impacts by any dragging of the bridge will be minimal and restoring or re-contouring of the channel will not be necessary. Any potential impacts to slough vegetation should be minimal as well and temporary in nature. Disturbed vegetation should rebound quickly and revegetation would occur through natural propagation. No permanent impacts to the slough channel or vegetation therein is anticipated. As previously mentioned, the County does intend on removing RSP that is currently in the channel which is not acting as protection of the bridge abutments. The removal of RSP from within the channel can be considered mitigation for potential impacts to the slough channel.

Avoidance, Minimization & Erosion Control Measures

Best Management Practices will be employed to control silt and erosion of exposed soils. The following measures have been incorporated into the proposed project to minimize impacts to the water resources due to erosion and the presence of fine sediment in the project area.

- The project will be constructed during the dry season. All work will be completed before October 31 of any given year.

- No work will occur during rainfall events. Since the project is short in duration (1-2 days), it will be scheduled for construction during a forecasted period of dry weather.

- Staging/stockpiling area will contain a 50-foot setback from the top of bank of the slough channel. A temporary perimeter fence will be placed around the staging area, and disturbance will be restricted to the minimum necessary to complete the project.

- Vegetation and ground disturbance will be kept to a minimum. To minimize soil disturbance, straw will be placed on ground and act as bedding before rock is end-dumped at stockpiling location.

- All potential hazardous materials (i.e. oil, fuel) will be stored outside of the project area and away from any water source. Fueling of equipment along with equipment storage will occur in an upland area outside the project area. An appropriate "spill kit" for hazardous materials will be on site during all phases of the construction period.

- Silt exclusion fences will be placed around each abutment work area so that they intercept sediment before it enters the channel. Silt fencing will be removed once the project is completed.

- After construction is complete, disturbed areas will be seeded and/or mulched. Barley seed will be used for erosion control in areas where bare soil has been exposed. The staging and stockpiling area will be returned to natural condition as best as possible and upon approval of private land owner.

Anticipated Permits and Approvals

Along with the Coastal Development Permit Waiver, the County anticipates the following regulatory permits:

- Department of Fish and Wildlife 1600 LSAA – The County will have a long-term maintenance agreement in place prior to June, 2014 which will cover the bridge replacement project.
- Regional Water Quality Control Board 401 Certification – The County currently has a General Waste Discharge Requirement and 401 Certification coverage under Order #R1-2013-0004. The County will submit a Notice of Intent for coverage prior to construction.
- U.S. Army Corps 404 Nationwide Permit – The bridge replacement project is covered under Nationwide Permit 3a (maintenance).

Detour

Morgan Slough Road is basically a one-lane road that provides access to three landowners. Providing a detour on Morgan Slough Road is not an option. There is access available to the private property owners via Brugga Road which is 0.6 miles east of Morgan Slough Road. Property owners and the public will be notified of the road closure prior to any construction activities. It is estimated that the road will need to be closed for one day with work related to the bridge taking 1-3 days total.

From: Renger, Allan@Wildlife
To: Bundschuh, Andrew
Cc: Gilroy, Michelle@Wildlife; Golec, Clare@Wildlife
Subject: RE: Morgan Slough, tributary to Salt River
Date: Wednesday, March 12, 2014 12:07:10 PM

Hello Andrew,
CDFW does not have Morgan slough specific fisheries data. Fisheries data from Salt River includes the capture/observation of listed fish Tidewater Goby, Coho, and Chinook, and these species are potentially present at the Morgan Slough bridge replacement site.
-Allan

Allan Renger
California Department of Fish and Wildlife
Southern Humboldt and Mendocino Counties District Fisheries Biologist
1487 Sandy Prairie Court, Suite A
Fortuna, CA 95540
Allan.Renger@wildlife.ca.gov
Office: (707) 725-7194
Cell: (707) 834-4359
Fax: (707) 725-1025

From: Bundschuh, Andrew [mailto:ABundschuh@co.humboldt.ca.us]
Sent: Wednesday, March 12, 2014 11:40 AM
To: Renger, Allan@Wildlife
Cc: Gilroy, Michelle@Wildlife; Golec, Clare@Wildlife
Subject: RE: Morgan Slough, tributary to Salt River

Hi Allan,

I sent an email back a couple weeks ago regarding biological/fish data for Morgan Slough, tributary to Salt River. I talked with Clare Golec and she said that the email was forwarded to you. Have you had a chance to check and see if DFW has any survey data on whether or not fish utilize Morgan Slough and if so how far up the slough channel? The County is replacing a flatcar bridge over the slough off of Camp Weott Rd this summer and just want to make sure any potential impacts to fish are covered.

Thanks,

Andrew

From: Bundschuh, Andrew
To: "Kramer, Steve"
Subject: RE: Humboldt County Project- Bridge Replacement over Swain Slough
Date: Wednesday, March 26, 2014 12:05:12 PM

Thanks for the info Steve...

From: Kramer, Steve [mailto:steve_kramer@fws.gov]
Sent: Wednesday, March 26, 2014 11:58 AM
To: Bundschuh, Andrew
Cc: Gregory Schmidt
Subject: Re: Humboldt County Project- Bridge Replacement over Swain Slough

Hi Andrew
To my knowledge, Morgan Slough has not been surveyed for tidewater gobies. So it's unknown if tidewater gobies occur there. Based on your description of the project (flatcar replacement on existing abutments, approx. 1.0 mile upstream, with no in-water work), if gobies were there, it sounds like the project would have little or no affect on them as long as no pile driving etc. occurs adjacent to the slough, and there is no accident such as a fuel, or lubricant spill.

On Wed, Mar 26, 2014 at 9:47 AM, Bundschuh, Andrew <ABundschuh@co.humboldt.ca.us> wrote:
Good morning Steve,

Thank you for recently providing Caltrans and the County with information regarding gobies and Swain Slough. I was wondering if you could also provide some technical assistance, or information, in regards to goby presence and/or habitat within Morgan Slough, a tributary to Salt River. The County plans to replace a flatcar bridge this summer and we are trying to cover all bases in terms of ESA species that may be present at the site. I've attached a map showing the site location. DFW does not have any biological data for Morgan Slough, but have stated that fish "may be present".

Basically, the County does not plan to impact the wetted portion of the slough with the flatcar replacement. Pushing and dragging the old and new bridges onto the abutments can be down in a manner where only potential impact to the channel may occur in non-wetted portions; so wetlands might be temporarily impacted, but nothing permanently. So with this reasoning, even if gobies or salmonids are present, it is unlikely they would be harmed. However, the County would like to know what the professional opinion is on the likelihood of gobies being present at the site in late September.

Thank you for any information you can provide.

Andrew