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STAFF REPORT: REGULAR CALENDAR

Consistency Determination No.: **CD-014-12**

Federal Agency: **U.S. Coast Guard**

Location: U.S. Coast Guard Station Humboldt Bay (Exhibit 1)

Project Description: Construction of a stone revetment to stabilize the shoreline and protect an existing building and parking lot.

Staff Recommendation: Conditional Concurrence

SUMMARY OF STAFF RECOMMENDATION

The United States Coast Guard (USCG) has submitted a federal consistency determination to construct a 510 ft rock revetment along the shoreline at the Humboldt Bay Station, located on the east side of the north spit of Humboldt Bay (see Exhibit 1). The purpose of the proposed revetment is to protect an existing structure, Building 8, and its associated parking lot from flooding and damage resulting from ongoing shoreline erosion (see Exhibits 2 & 3).

To be approvable under Section 30235 of the Coastal Act, a shoreline altering structure must be: (1) necessary to protect an existing structure in danger from erosion; and (2)

designed to eliminate or mitigate adverse impacts on shoreline sand supply. The existing structure at the project site is clearly subject to erosion. In addition, none of the five alternatives assessed by the USCG provide a feasible less environmentally damaging alternative. Thus, the proposed project is necessary to protect the structure in danger of erosion. The project would not result in adverse impacts to shoreline sand supply. Due to the highly erosive nature of the site, sand from dune erosion is quickly carried into the navigation channel and does not substantially contribute to local littoral sand supplies. Thus, eliminating erosion from the site will essentially have no impact on the local sand budget. However, Commission staff is recommending that the Commission adopt Condition 1, which would require removal of the revetment and restoration of the site if and when the revetment is no longer needed.

Because the project involves "fill" of estuarine and open coastal waters, Coastal Act Section 30233(a) also applies. Although the proposed project is not a listed allowable use under Section 30233(a), the provisions and specific direction of Section 30235 supersede this list and mandate approval. However, the alternatives and mitigation tests of Coastal Act Section 30233(a) still apply. No feasible less environmentally damaging alternative is available, and with respect to mitigation measures, the USCG proposes to time all construction work to minimize impacts to marine resources and to implement standard construction BMPs to minimize effects on water quality. In addition, the USCG has agreed to remove debris from the sandy beach portion of the project site to improve existing sandy intertidal habitat. With these measures, the proposed project meets the third test of Section 30233(a).

The project also involves the removal of 0.03 acres of coastal dune ESHA. This habitat currently supports two pink sand verbena plants, a species on the California Native Plant Society's 1b.1 list. The project is inconsistent with the requirement of Section 30240(a) of the Coastal Act that uses of such sensitive habitats be limited to uses that are "dependent on the resources." Under the remaining provisions of Section 30240, this impact must still be mitigated. The Commission staff is recommending that the Commission adopt Condition 2, which would require the USCG to submit a coastal dune restoration plan that mitigates the loss of 0.03 acres of coastal dune habitat at a 3:1 ratio. If the USCG agrees to this condition, the project could be found consistent with the remaining Section 30240 requirements

The project is consistent with the water quality, public access, and cultural resources policies of the Coastal Act (i.e. Sections 30231, 30210-14, and 30244, respectively). The staff therefore recommends that the Commission find the proposed project, as conditioned, consistent with the applicable policies of the Coastal Act.

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I. FEDERAL AGENCY'S CONSISTENCY DETERMINATION

The U.S. Coast Guard has determined the project consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

II. MOTION AND RESOLUTION

Motion:

> *I move that the Commission conditionally concur with consistency determination CD-014-12 on the basis that, as conditioned, the project described therein will be fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program.*

Staff recommends a **YES** vote on the motion. Passage of this motion will result in a conditional agreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Conditionally Concur with Consistency Determination:

The Commission hereby conditionally concurs with consistency determination CD-014-12 by the U.S. Coast Guard on the grounds that the project would be fully consistent, and thus consistent to the maximum extent practicable, with the enforceable policies of the CCMP, provided that the USCG agrees to assure that the project will be modified consistent with the conditions specified below, as provided for in 15 CFR §930.4.

III. CONDITIONS

1. **Revetment Removal**. The Coast Guard will remove the revetment and restore the site to its pre-project condition if and when the revetment is no longer needed to protect structures existing as of this action.

2. **Habitat Mitigation.** The USCG will submit to the Commission's Executive Director, for review and concurrence prior to the commencement of construction, a coastal dune restoration plan that assures mitigation of the loss of 0.03 acres of coastal dune habitat at a 3:1 ratio. This plan shall include: (a) identification of an appropriate restoration site on the north spit, (b) methodology for the removal of non-native and invasive plant species from the restoration site; (c) methodology for the replanting of pink sand verbena and other native dune vegetation; (d) the use of container stock in place of seed whenever possible; (e) performance criteria for each of the three years of post-planting site monitoring that reflect a goal of achieving 80 percent vegetative cover of the project site with native species; (f) a requirement to obtain plantings from local sources; and (g) contingency measures in case performance criteria are not achieved. Within 60 days of completion of construction of the revetment, USCG shall implement the

approved Restoration and Monitoring Plan. Compliance with this plan shall include monitoring and reporting to the Executive Director for three years. If at the completion of the three year monitoring and reporting period (dated from the completion of planting activities), the Executive Director determines that the performance criteria described within the plan have not been met, USCG shall submit, within 120 days of the Executive Director's determination, a new Restoration and Monitoring Plan for Executive Director review and concurrence.

III. FINDINGS AND DECLARATIONS

A. APPLICABLE LEGAL AUTHORITY

Standard of Review

The federal Coastal Zone Management Act ("CZMA"), 16 U.S.C. § 1451-1464, requires that federal agency activities affecting coastal resources be "carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs." Id. at § 1456(c)(1)(A). The implementing regulations for the CZMA ("federal consistency regulations"), at 15 C.F.R. § 930.32(a)(1), define the phrase "consistent to the maximum extent practicable" to mean:

> *… fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency.*

This standard allows a federal activity that is not fully consistent with California's Coastal Management Program ("CCMP") to proceed, if full compliance with the CCMP would be "prohibited by existing law." In its consistency determination, the USCG did not argue that full consistency is prohibited by existing law or provide any documentation to support a maximum extent practicable argument. Therefore, there is no basis to conclude that existing law applicable to the Federal agency prohibits full consistency. Since the USCG has raised no issue of practicability, as so defined, the standard before the Commission is full consistency with the enforceable policies of the CCMP, which are the policies of Chapter 3 of the Coastal Act (Cal. Pub. Res. Code §§ 30200-30265.5).

Conditional Concurrences

The federal consistency regulations (15 CFR § 930.4) provide for conditional concurrences, as follows:

> *(a) Federal agencies, … should cooperate with State agencies to develop conditions that, if agreed to during the State agency's consistency review period and included in a Federal agency's final decision under Subpart C … would allow the State agency to concur with the federal action. If instead a State agency issues a conditional concurrence:*
>
> *(1) The State agency shall include in its concurrence letter the conditions which must be satisfied, an explanation of why the conditions are necessary to ensure consistency with specific enforceable policies of the management program, and an*

identification of the specific enforceable policies. The State agency's concurrence letter shall also inform the parties that if the requirements of paragraphs (a)(1) through (3) of the section are not met, then all parties shall treat the State agency's conditional concurrence letter as an objection pursuant to the applicable Subpart . . . ; and

(2) The Federal agency (for Subpart C) … shall modify the applicable plan [or] *project proposal, … pursuant to the State agency's conditions. The Federal agency … shall immediately notify the State agency if the State agency's conditions are not acceptable; and*

…

(b) If the requirements of paragraphs (a)(1) through (3) of this section are not met, then all parties shall treat the State agency's conditional concurrence as an objection pursuant to the applicable Subpart.

B. PROJECT DESCRIPTION AND BACKGROUND

The U.S. Coast Guard (USCG) proposes to build a stone revetment to stabilize the shoreline and protect an existing structure, Building 8, and its associated parking lot at the USCG Station Humboldt Bay (see Exhibit 1). Building 8 was built between 1934 and 1943 and houses the Humboldt Bay Aids to Navigation Team (ANT), which is responsible for maintaining and repairing all aids to navigation for a large geographic area. The project site experiences significant tidal action, boat wakes and winter storm waves, resulting in beach erosion and flooding. This is a recurrent problem at this site, and the USCG has attempted to address it in several ways. Prior to 1958, the Navy placed riprap on the beach to control erosion. Unfortunately, a combination of poor maintenance, storms and settling resulted in the dismantling of the riprap and continued erosion at the site. In 1999, concrete barriers, known as K-rails, were placed on the beach to protect Building 8 and its parking lot from winter storms. Although these barriers provided some protection, they were not sufficient to alleviate all flooding of the building and parking lot. In 2000, the USCG attempted to address the erosion problem by placing 10,000 cubic yards of sand on the beach. This action was somewhat successful, and in 2001, the USCG applied for a 10-year permit to continue beach nourishment as an ongoing method of shoreline protection. Although the Coastal Commission concurred with the USCG's negative determination (ND-011-01) for this 10-year beach nourishment plan, the Regional Water Quality Control Board denied certification under Clean Water Act (CWA) section 401, due to concerns over the ecological impacts of continued beach nourishment.

As a more permanent solution to the erosion problems at the site, the USCG proposes to build 510 linear feet of rock revetment along the high tide line. The revetment would be placed on the waterside of the existing K-rail retaining wall. The USCG would first excavate and remove existing soil and debris along the landside portion of the beach, and contour the shoreline to achieve the appropriate slope at Mean Higher High Water (MHHW). Next, the USCG would place geotextile filter fabric, stone bedding and armor

rock on the beach to create the revetment. Finally, previously excavated clean sand would be used to backfill the waterside of the revetment. The work crew will start at one end of the site and proceed parallel to the shoreline, working only while the tide is out and the area is dry. Once the revetment is complete, the USCG will restore any areas damaged by project activities. Existing rip rap farther into the tidal zone will not be removed. Construction staging and access to the beach will occur on paved or previously disturbed areas within the USCG Station. Construction will be conducted during daylight hours, Monday through Friday and is expected to last approximately 90 days. Construction will occur between May 15 and October 15 to avoid effects on salmonid migration.

Up to 700 feet of an existing underground communications cable may need to be relocated landward to accommodate the new revetment. The work crew will not know if the cable can be protected in place or must be relocated until it begins excavation. If the cable can be protected in place, the work crew will accomplish this without using rock or other hard material beyond what is proposed for the revetment. If the cable does need to be relocated, it will require excavation of a trench (1-foot-wide by 2-feet-deep). Although the exact location of the trench will be determined onsite, the potential area for cable relocation is shown in Exhibit 4.

C. HAZARDS

Section 30235 of the Coastal Act states, in part:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.*

Coastal Act Section 30235 requires that seawalls, revetments, cliff retaining walls, groins and other such structures be approved under certain circumstances. However, Section 30235 also acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" solutions alter natural shoreline processes. Thus, such devices are required to be approved only when the devices are: (1) necessary to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion; and (2) designed to eliminate or mitigate adverse impacts on shoreline sand supply.

Need to Protect Existing Structures

The applicant seeks authorization for a shoreline revetment. As described above, the constructed revetment would be composed of approximately 4931 cubic yards of rock revetment extending approximately 510 feet along the western shoreline of Humboldt Bay.

Tidal action, winter storm surge and passing boat wake waves erode the beach at the project site, resulting in flooding at Building 8 and its associated parking lot. This site is especially vulnerable to wave attack because of its specific location within Humboldt Bay. Waves gather energy passing through the deep and narrow entrance channel to Humboldt Bay to the west of the project site. These high energy waves reflect off the largely armored shore opposite the USCG Station and travel directly toward the western shoreline of the Bay. The resulting erosion is a significant problem at the project site, but also at other sites along the western shoreline. For example, since 1987, the shoreline at the project site has eroded between 50 to 100 feet inland. If this problem is not addressed, erosion will continue, resulting in increased duration and frequency of flooding, and eventually, directly threatening the parking lot and foundation of Building 8.

Alternatives

The USCG analyzed a range of alternatives in addition to the proposed revetment to address erosion at the project site. These alternatives included (1) alternative stone revetment alignments; (2) vertical wall/structure; (3) sand dune/beach nourishment; (4) relocating Building 8; and (5) the no project alternative.

The USCG considered two additional alignments for the stone revetment. One alignment followed the placement of the existing failed revetment located seaward of the proposed alignment. The second alignment was slightly different, but also located seaward of the proposed alignment. Both these alignments are located farther into the tidal zone, requiring additional in-water work and thus incurring additional cost and environmental impacts and eliminating a larger area of valuable intertidal habitat. Revetment alignments further landward are not feasible due to the location of the K-rail and the edge of the parking lot. For these reasons, these alternatives were eliminated. The Commission agrees with the USCG that these alternatives would not be less environmentally damaging.

The USCG also considered constructing a vertical wall at the project site. Specifically, the USCG evaluated 3 vertical structures: (1) a concrete seawall; (2) a sheetpile wall; and (3) stone-filled gabions. The USCG eliminated these alternatives for several reasons. Specifically, a vertical wall is likely to result in more scour as compared to a rock revetment. In addition, geotechnical and engineering constraints would complicate founding a vertical wall into the sand and mud stone that is typical of this area. Further, these options would require borings or test pits and some tidal construction activity, leading to additional cost and environmental impacts. For these reasons, the Commission concurs with the USCG's assessment that a vertical wall would not be less environmentally damaging than the proposed revetment.

The USCG also evaluated beach nourishment as a means of addressing beach erosion. In 2000, the USCG placed 10,000 cubic yards of sand on the beach to protect the shoreline. At the time, this option was selected because it resulted in lower costs and fewer adverse environmental impacts than other alternatives. Although only a short-term solution, it was effective in retarding the loss of beach at the project site. In 2001, the USCG

submitted a negative determination to the Coastal Commission for continued beach nourishment on an as-needed basis over a ten-year period. The Commission concurred with the USCG determination, but the North Coast Regional Water Quality Control Board (NCRWQCB) denied certification of the project under Section 401 of the Clean Water Act. The NCRWQCB had three principal concerns: (1) the addition of large volumes of sand to the site, requiring costly maintenance and dredging of the harbor; (2) potential adverse impacts to sensitive marine species and habitats; and (3) potential impairment of the Bay by sedimentation and siltation pollution. These concerns, presented in 2001, would still be applicable if this alternative were selected for the proposed project. In addition, the cost of fill material has increased and local sources of sand used in the past are no longer available. Thus, the USCG eliminated beach nourishment as a viable alternative because of the considerable ecological impacts to the project site, financial considerations, and the temporary nature of the solution. At this time, the Commission agrees this would not be a feasible or less environmentally damaging alternative.

In response to the Commission staff's request, the USCG examined the potential of relocating Building 8 out of the erosion impact area. The building is older, relatively large and attached to a slab foundation, so simply moving the building away from the shoreline is not feasible. The USCG also considered relocating Aids to Navigation Team (ANT) operations to another existing building, but there is not adequate space in the Air Station or other building for the relatively large area required for the ANT. Finally, the USCG considered tearing down and rebuilding Building 8. They estimated it would cost 2.64 million dollars to demolish the existing building and build a new building. In this case, the USCG determined it would not be able to obtain funding for this project and no clear environmentally preferable building site at the Humboldt Bay station exists. Furthermore, even if the USCG were able to relocate the building, there is a road allows access between the Building 8 area and the main Station Building on the far side of the building that would soon become threatened by the significant erosion at this site, and thus, would likely require future protection. For these reasons, the USCG determined, and the Commission concurs, that this alternative is not feasible.

Finally, the USCG assessed the "no action" alternative. Under this alternative, no shoreline protection measures would be implemented at the USCG Humboldt Bay Station. Wave action would continue to erode the shoreline, resulting in increased frequency of flooding at Building 8 and its attached parking lot over time. During flooding events, the USCG could temporarily lose use of these facilities, thereby compromising its ability to meet its mission. For this reason, this alternative was eliminated from consideration.

Based on this analysis, none of the identified alternatives can be considered feasible and less environmentally damaging as compared to the proposed project. Because of the threat to Building 8 and its parking lot from shoreline erosion, and because there is no other feasible alternative to protect it, the Commission finds that the proposed revetment is required to protect existing structures at the site.

Impacts on Shoreline Sand Supply

Although construction of the revetment is necessary to protect an existing structure at the USCG Humboldt Bay Station, Section 30235 of the Coastal Act requires that even necessary shoreline protection be approved only if it is designed to eliminate or mitigate adverse impacts on local shoreline sand supply. A number of potential adverse impacts to public resources are associated with the construction of shoreline protective structures. Generally speaking, the natural shoreline processes referenced in Section 30235, such as the formation and retention of sandy beaches, can be significantly altered by construction of a seawall, since shoreline retreat is one of several ways that beach area and material is added to the shoreline. For example, some of the effects that a shoreline structure may have on local shoreline sand supply shoreline processes include: (1) the loss of the beach area on which the structure is located; (2) the long-term loss of beach that will result when the back beach location is fixed on an eroding shoreline (also known as "passive erosion"); and (3) the amount of material that would have been supplied to the beach if the back beach or bluff were to erode naturally.

Given the non-public nature of the project location and the specific sediment dynamics associated with Humboldt Bay, the loss of sand supply from the project site is not likely to negatively impact the local shoreline. The first and second potential impacts listed above, loss of beach area due to the structure itself and loss of beach due to passive erosion, are generally framed as an impact to public access and recreational use of the beach. The beach at the USCG Humboldt Bay Station is not open to the public for recreational or other uses. Thus, although the proposed revetment will result in a loss of approximately 2700 square feet of beach area, the Commission finds that this direct effect would not adversely impact public access or recreational use of the area.

The third potential impact, loss of material to the shoreline from natural erosion processes, would also not result in an adverse impact in this location due to the sediment dynamics of the local estuarine environment. Generally, material that is eroded from coastal dunes and bluffs contributes to the local sand budget, with a significant portion retained within the local area. However, due to the highly erosive nature of the project site, sand from dune erosion in this location is quickly carried into the navigation channels in Humboldt Bay and does not contribute to the local littoral sand supply. This is problematic because sediment inputs to Humboldt Bay, primarily consisting of coarse sand, actually exceed the current needs and use of the Bay, resulting in regular maintenance dredging of large volumes of material to allow safe ship passage on the navigation channels. Thus, the proposed revetment, in this particular situation, may benefit efforts to maintain the overall sediment balance in the Bay and would not significantly impact local littoral sand supply.

Conclusion

In conclusion, the Commission finds that the USCG has shown that Building 8 and its associated parking lot, located at the USCG Humboldt Bay Station, are in danger of flooding and potential loss of use due to coastal erosion. The Commission further finds that there is no feasible, less environmentally damaging alternative than the one proposed

available for protecting these structures, and that the installation of the revetment would not result in a significant adverse impact on shoreline sand supply. Therefore, the Commission concludes that the proposed project must be approved pursuant to Coastal Act Section 30235.

This finding is predicated on the fact that Building 8 is in imminent danger due to coastal erosion at the site. If Building 8 were to be abandoned or relocated at some later date, the revetment would no longer be approvable pursuant to Section 30235 of the Coastal Act, and, as is explained below, it would violate other policies in the CCMP. To ensure that long-term consistency of the proposed project and to ensure that coastal resources are protected to the maximum extent possible, the Commission adopts the following condition:

> **1. Revetment Removal.** The Coast Guard will remove the revetment and restore the site to its pre-project condition if and when the revetment is no longer needed to protect structures existing as of this action.

If the USCG agrees to modify the project to implement this condition, the Commission finds the proposed project could be found consistent with Section 30235 of the Coastal Act. However, despite Section 30235's mandate, projects approved pursuant to that section must comply, to the extent possible, with all other enforceable policies of the Coastal Act. Among the other applicable policies are those relating to fill of open coastal waters and the protection of environmentally sensitive habitat, water quality, access, and cultural resources.

D. FILL OF COASTAL WATERS

Section 30233(a) of the Coastal Act states:

> *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.*

The proposed project involves the placement of 4931 cubic yards of material to install a rock revetment within and along the shoreline in front of Building 8 at the USCG Humboldt Bay Station. This includes 926 cubic yards of material to be placed in the tidal zone, thereby qualifying as the type of fill governed by section 30233. Coastal Act Section 30233(a) imposes a 3-part test for projects involving fill or wetlands, estuaries and open coastal waters. The first test requires that the proposed activity must fit into one of seven categories of uses enumerated in Coastal Act Section 30233(a). The second test requires that there be no feasible less environmentally damaging alternative. The third and last test mandates that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

Allowable Use Test

The proposed revetment requires fill below the mean high tide line (i.e., fill of coastal waters). Section 30233 of the Coastal Act identifies seven allowable uses for the dredging, diking, and filling of coastal waters; seawalls and revetments are not among the listed uses. As a result, a revetment is not an allowable use of coastal waters under Section 30233(a). However, Section 30235 of the Coastal Act requires the Commission to permit revetments if necessary to protect an existing structure in danger from erosion and if it meets the other requirements of that section. The Commission has historically determined that Section 30235 clearly anticipates filling of coastal waters for seawalls and revetments and is a more specific policy than Section 30233(a) in this regard. In other words, Section 30235 of the Coastal Act requires the Commission to permit seawalls and revetments in certain circumstances, even though such activities may not comply with the allowable-use test of Section 30233(a) of the Coastal Act. Thus, to the extent Section 30235 requires that the Commission find this project consistent with the Coastal Act, the more specific direction of Section 30235 would control in this case.[1]

[1] Note that other coastal resource issues associated with such fill are addressed in subsequent findings. Note too that the requirements of Section 30233(a) with regard to mitigating impacts and identifying the last environmentally damaging feasible alternative would still apply. The intent of this finding is to explain the distinction between Sections 30233(a) and 30235 as it relates to seawalls occupying coastal waters. Giving precedence to the more particular provisions of Section 30235 over the more general provisions of sections 30233(a) is in accord with generally applicable principles of California law. See, for example, Civil Code Section 3534 ("Particular expressions qualify those which are general").

Alternatives
The second test of Section 30233(a) is whether there are feasible less environmentally damaging alternatives to the proposed project. The USCG analyzed four alternatives to the proposed project: (1) alternative stone revetment alignments; (2) vertical wall/structure; (3) sand dune/beach nourishment; (4) relocating Building 8; and (5) the no project alternative. As discussed in detail in the previous section, no feasible less environmentally damaging alternative is available as compared to the proposed project.

Mitigation
The third test set forth in Section 30233(a) is whether feasible mitigation measures have been provided to minimize significant adverse environmental impacts. The proposed revetment could have potential adverse effects on the marine environment of Humboldt Bay, including impacts to: (1) intertidal habitat where the proposed fill would be placed; (2) essential fish habitat below MHHW; and (2) estuarine water quality from construction activities conducted in the intertidal zone.

The project site is located at the interface between terrestrial and marine environments, typically a particularly rich and productive ecosystem. The terrestrial portion of the project, including the potential area of relocation for the underground telecommunications cable, consists of disturbed coastal dune habitat that has been developed for many years. This area includes existing structures, a parking lot, a lawn, and a small strip of largely invasive salt-tolerant vegetation growing on dredge deposited material below the K-rails (see Exhibit 2). The small stretch of coastal dune does support a rare plant, the pink sand verbena. Impacts associated with this habitat are addressed in Section D. Environmentally Sensitive Habitat. The project is not expected to impact other terrestrial portions of the project site. The marine portion of the project, located below the MHHW mark can be divided into two bands: (1) lower intertidal habitat, consisting mostly of sandy substrate with a minor shell/cobble component and strewn with larger pieces of rip-rap from previous shoreline protection efforts and (2) upper intertidal habitat, consisting of sandy beach with some gravel and shell material. The lower band is regularly inundated and the upper band is inundated only during high tides and storm events. Eelgrass or surfgrass may be present in the lower intertidal band. This intertidal habitat is designated as critical habitat for several federally-listed fish species, including the Southern DPS Green Sturgeon (*Acipenser medirostris*), Southern Oregon/Northern California coho salmon (*Oncorhynchus kisutch*), Northern California steelhead (*Oncorhynchus mykiss*) and California coastal Chinook salmon (*Oncorhynchus tshawytscha*). These intertidal areas are also designated Essential Fish Habitat (EFH) under the Coastal Pelagic Species fishery management plan (FMP), the Pacific Groundfish FMP, and the Pacific Salmon FMP. The fish species covered by these plans are most likely to be found in the rocky substrate created by the existing riprap in the lower intertidal band.

The proposed project could have both direct and indirect impacts to intertidal habitat in the vicinity of the project site. Of particular concern is the potential for sedimentation/siltation from construction-related activities. Excessive sedimentation

degrades the quality of the receiving waters, potentially leading to series of negative impacts including burial of marine and benthic organisms, gill laceration, stress and reduction in foraging ability. The USCG proposes to address this concern through a combination of construction timing and construction best management practices (BMPs). Construction for the proposed project will occur below the MHHW mark only when the tide is below the work area. Eliminating any construction during periods when the work area is inundated will avoid impacts to fish and other organisms that live in the water column. In addition, construction will take place between May 15 and October 15 to avoid the migration season for salmonids. The USCG will also institute a series of standard construction BMPs, including appropriate erosion control and spill prevention measures, to minimize the potential for impacts on aquatic organisms due to sedimentation and degraded water quality. Equipment staging and maintenance will take place on developed land outside of the intertidal zone; all appropriate measures will be taken to control runoff and accidental spills from this area. With these measures in place, impacts to marine organisms and habitat would be negligible.

In addition to sedimentation concerns, the proposed project will directly impact sandy intertidal habitat within the 15 ft by 180 ft footprint of the proposed revetment in the area below the MHHW mark. Placement of rocks and rip rap on the shoreline will lead to the conversion of sandy intertidal habitat to rocky intertidal habitat. This impact is not likely to adversely alter the overall habitat quality for listed fish species or fish species covered under the various fishery management plans. The proposed project may also indirectly impact sandy intertidal habitat in the project area due to temporary reduction of forage quality and shifts in substrate composition due to the redirection of wave energy. However, sandy intertidal habitat regularly experiences some disturbance and redistribution of substrate due to wave action. In addition, this type of habitat is plentiful in the general vicinity and the potentially impacted area is relatively small. Thus, the proposed project would not significantly impact sensitive fish species or EFH. Also, because construction will not occur in the lower intertidal zone and BMPs will control sedimentation and pollution runoff, eelgrass beds adjacent to the project site would not be subject to adverse impacts.

Finally, to mitigate for the loss of a small area of sandy intertidal habitat under the revetment footprint, the Commission's biologist suggested that the USCG remove debris from the sandy beach portion of the project site to improve existing sandy intertidal habitat. As shown in Exhibit 5, the beach at the project site is littered with pieces of old pipe and other debris. The USCG has agreed to implement this measure and has incorporated this commitment into the project description.

As proposed, the project would not result in any significant adverse impacts associated with the proposed filling of coastal waters. In addition, the USCG has included sufficient mitigation to address minor impacts associated with the conversion of sandy intertidal habitat to rocky intertidal habitat. Finally, upland mitigation impacts are addressed in the following section of this report.

Conclusion
The Commission finds that while the fill of estuarine waters associated with the project is not for one of the allowable uses enumerated in Coastal Act Section 30233(a)(1) through (7), it can nevertheless be authorized under Coastal Act Section 30235. The Commission finds that the USCG has established that Building 8 and its associated parking lot at the USCG Humboldt Bay station are being threatened by erosion, and that the project is necessary to protect an existing structure. The Commission also finds that no less damaging feasible alternative is available to protect the structure, reduce the risk from continued erosion or minimize impacts on shoreline sand supply, and that adequate mitigation has been provided. Therefore, notwithstanding the inconsistency of the project with the allowable use test of Section 30233(a), the proposed project is consistent with the remaining tests of Section 30233(a) and can be authorized under Section 30235 of the Coastal Act.

E. ENVIRONMENTALLY SENSITIVE HABITAT

Section 30240 of the Coastal Act states:

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

Section 30107.5 of the Coastal Act defines "environmentally sensitive areas" as follows:

> *"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

The proposed project site includes disturbed coastal dune habitat that has been developed for many years. This area includes existing structures, a parking lot, a lawn, and a small strip of largely invasive salt-tolerant vegetation growing on dredge deposited material below the K-rails (see Exhibit 2). On a site visit in June 2012, the Commission's biologist discovered two pink sand verbena (*Abronia umbellate)* plants on the strip of dredge deposits adjacent to the K-rails (see Exhibit 5). The pink sand verbena is a rare perennial coastal dune plant. Most occurrences of the plant contain only a few plants and are inconsistent from year to year. Although this plant is not federally or state listed as endangered, it is included on the California Native Plant Society's 1b.1 list for plants considered seriously threatened in California. Based on this status, the Commission's biologist determined that the strip of disturbed sand just below the K-rails that supports

the pink sand verbena falls within the above Coastal Act definition of an Environmentally Sensitive Habitat Area (ESHA) (see Exhibit 5).

The proposed project would eliminate approximately 0.03 acres of ESHA that support the pink sand verbena. The USCG proposes to build the rock revetment on the waterside of the K-rail in essentially the same location as the ESHA. It is not possible to avoid the ESHA, and thus, project activities would result in the removal of the pink sand verbena plants and the surrounding habitat. In addition, construction of a revetment cannot be considered a use dependent on the existing ESHA. Thus, the proposed project is not consistent with the "allowable use test" of Section 30240(a) of the Coastal Act. However, Section 30235 of the Coastal Act requires the Commission to permit revetments if necessary to protect an existing structure in danger from erosion and if it meets the other requirements of that section. As discussed in the previous section of this report concerning the limited allowable uses test of Section 30233(a), the greater specificity contained in Section 30235, which requires the Commission to permit seawalls and revetments in certain circumstances, would supersede the "allowable use" requirement of Section 30240(a) of the Coastal Act.[2]

However, under the remaining provisions of Section 30240, this impact must still be minimized or, as is the case here, where it cannot be minimized, mitigated, based on the remaining Section 30240 requirements for protection against any significant disruption of habitat values, for avoidance of significant degradation, and for compatibility with the continuance of sensitive habitat areas. To this end, the USCG proposes to compensate for the loss of 0.03 acres of ESHA by conducting a one-time removal of exotic species on 0.1 acre of coastal dune habitat on the USCG property at Humboldt Bay. A report documenting removal of the exotic species would be prepared, but no ongoing monitoring is proposed.

However, the Commission finds that a one-time removal of exotic species would be inadequate mitigation for the removal of ESHA. Coastal dune habitat in general, and habitat for the pink sand verbena specifically, provide considerable biological value, and the USCG must do more than simply enhance dune habitat, but must mitigate (including monitoring) for the sensitive species loss by ensuring that the net regional extent of coastal dune habitat is increased and improved and that habitat is created for the pink sand verbena plants to reestablish. To assure that appropriate mitigation is achieved, the Commission adopts the following condition, compliance with which would be necessary to enable the Commission to find the project consistent with the requirements of Section 30240:

> **2. Habitat Mitigation.** The USCG will submit to the Commission's Executive Director, for review and concurrence prior to the commencement of construction, a coastal dune restoration plan that assures mitigation of the loss of 0.03 acres of coastal dune habitat at a 3:1 ratio. This plan shall include: (a) identification of an appropriate restoration site on the north spit, (b) methodology for the removal of non-native and invasive plant species from the restoration site; (c) methodology

[2] See footnote 1, page 13 above

for the replanting of pink sand verbena and other native dune vegetation; (d) the use of container stock in place of seed whenever possible; (e) performance criteria for each of the three years of post-planting site monitoring that reflect a goal of achieving 80 percent vegetative cover of the project site with native species; (f) a requirement to obtain plantings from local sources; and (g) contingency measures in case performance criteria are not achieved. Within 60 days of completion of construction of the revetment, USCG shall implement the approved Restoration and Monitoring Plan. Compliance with this plan shall include monitoring and reporting to the Executive Director for three years. If at the completion of the three year monitoring and reporting period (dated from the completion of planting activities), the Executive Director determines that the performance criteria described within the plan have not been met, USCG shall submit, within 120 days of the Executive Director's determination, a new Restoration and Monitoring Plan for Executive Director review and concurrence.

If the USCG agrees to modify the project to implement this condition, the Commission finds the proposed project could be found consistent with Section 30240 of the Coastal Act.

F. WATER QUALITY

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.*

As described in Section III.D. above, the intertidal portion of the proposed project site supports significant marine resources, including eel grass beds, critical habitat for federally-listed species and EFH, all of which are sensitive to water quality impacts as addressed in Coastal Act Section 30231. However, again as described in detail in Section III.D., the project, as proposed, would not result in degradation of marine water quality. The BMPs and construction schedule incorporated into the project will ensure that excessive sedimentation is avoided. In addition, pollution control measures will be implemented to control stormwater runoff from the project area and any off-site staging or equipment maintenance areas. Finally, vehicles and equipment will be kept in good repair and any leaks will be cleaned up immediately. With these measures in place, the construction of the revetment will not adversely affect the water quality of the marine environment. Therefore, Commission finds that the project, as proposed, will maintain

water quality of the estuarine habitat consistent with the requirements of Section 30231 of the Coastal Act.

G. PUBLIC ACCESS

Section 30210 states:

> *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 30212(a) states, in part:

> *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.*

Section 30214 states:

> *(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*
>
> *(1) Topographic and geologic site characteristics.*
>
> *(2) The capacity of the site to sustain use and at what level of intensity.*
>
> *(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.*
>
> *(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.*
>
> *(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.*
>
> *(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which*

> *would minimize management costs and encourage the use of volunteer programs.*

The proposed project is located at the USCG Humboldt Bay Station. This site is generally not open to public access or recreation for military security purposes. Only visitors that have specific business with the USCG are permitted entry. The new development proposed in this project will not change public access to the site or otherwise generate any burdens on public access. However, under Section 30212(a)(1), public access to the shoreline is not required for new development projects if it is inconsistent with military security needs. As the Commission has historically found with respect to this USCG facility, opening this site to general public access would compromise the USCG's ability to safely and successfully fulfill its mission. Thus, the Commission finds the proposed project consistent with the public access and recreation policies, including Section 30210, 30212(a) and 30214 of the Coastal Act.

H. CULTURAL RESOURCES

Section 30244 states:

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

Several cultural resources on and near the project site could potentially be impacted by the proposed project. Prior to European arrival in the early 1800's, the project site was in the territorial boundary of the Wiyot Tribe. Although no recorded National Register of Historic Places (NRHP)-eligible resources are located at the project site, a 2010 surface inspection of the site identified the possibility that cultural resources may be buried in the area. After the USCG inquired, the Native American Heritage Commission determined in October 2010 that no known Native American cultural resources were known within the project site. The USCG also contacted several local Native American Tribal representatives to request consultation on potential resources in the area. These consultations identified the corridor of possible telecommunications cable relocation as an area with a potential for cultural resources.

The USCG has used the site since 1878. During World War II, the Navy built a support facility for seaplanes within the project site, including Building 8, which was used as a warehouse. Although other structures at the USCG Humboldt Bay Station, including the main Station building and marine railway are listed in the National Register of Historic Places (NRHP), Building 8 does not meet the eligibility criteria for listing.

The proposed project would not adversely impact historical resources in or near the project site, including the historic Station house and marine railway. The proposed project is located a significant distance, approximately 650 feet, from the historic Station building. Due to this distance, construction impacts, including noise, vibration and air emissions would not adversely impact this structure. There will be short-term visual

impacts from construction activities, but these are only expected to last for 90 days, the estimated duration of construction. The proposed project would also not have any long-term impacts, specifically visual impacts, on the historic properties. A large portion of the revetment will be built underground and only an approximately 12-foot-wide by 1-foot-high portion of the revetment will be visible above the existing ground surface. The relatively small portion of the revetment that would be visible will also be partially blocked by trees and would blend in with existing riprap.

With appropriate mitigation measures included, the proposed project would also not adversely impact potential archeological or paleontological resources. Although ground disturbance and erosion have been present at the site for many years, the excavation required for the revetment and the possible relocation of the telecommunications cable could reach the depth of undisturbed soils. To ensure that potential archeological resources are identified and protected, an archeological monitor familiar with local tribal interests, military history, and construction activities will be present on the site during any excavation activities. Both the State Historic Preservation Officer (SHPO) and local Native American Tribal representatives agreed that archeological monitoring would adequately protect any potential artifacts discovered during the construction of the revetment. However, both groups requested that, if relocation of the telecommunications cable becomes necessary, the USCG would survey the area to determine the best possible route for the cable and then consult with their organizations on the results of this survey. To address the SHPO's and tribes' concerns, the USCG will conduct a Cultural Resources Investigation should relocation of the cable become necessary. With the inclusion of an archeological monitor and a process to address concerns with the potential cable relocation route, the Commission finds that adequate mitigation measures are included to ensure protection of archeological and paleontological resources. Thus, the Commission finds the proposed project consistent with Section 30244 of the Coastal Act.

APPENDIX A: SUBSTANTIVE FILE DOCUMENTS

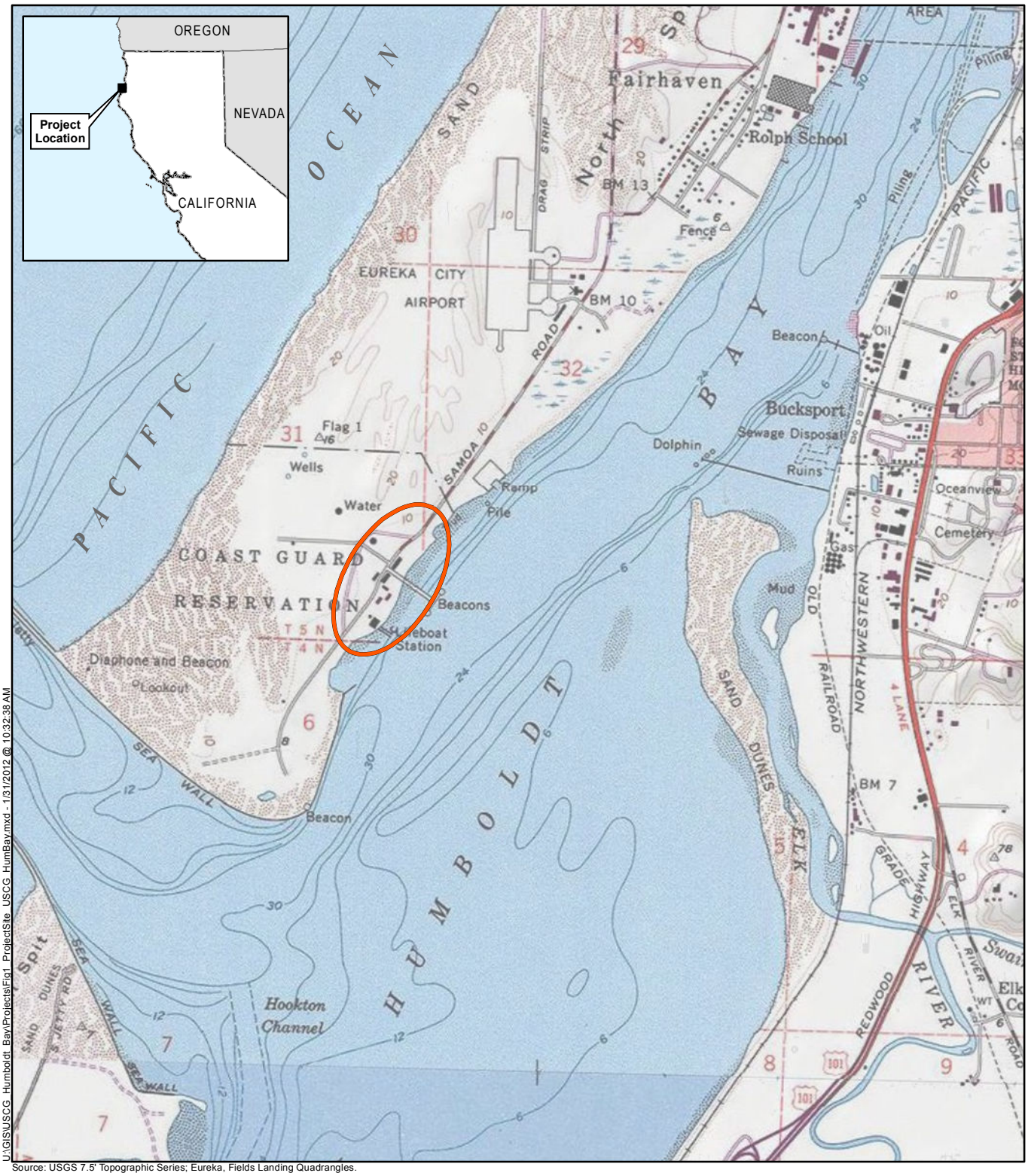
Consistency Determination CD-014-12, U.S. Coast Guard, Proposed Shoreline Protection at Station Humboldt Bay, April 3, 2012.

Biological Assessment for Shoreline Protection at United States Coast Guard Station Humboldt Bay, April 2012.

Draft Environmental Assessment for Shoreline Protection at United States Coast Guard Station Humboldt Bay, March 2012.

Email Correspondence from U.S. Coast Guard representative dated 4/25/2012, 5/8/2012, 6/8/2012, 6/21/2012, 6/25/2012, 7/10/2012, 7/12/2012

Exhibit 1



U:\GIS\USCG_Humboldt_Bay\Projects\Fig1_ProjectSite_USCG_HumBay.mxd - 1/31/2012 @ 10:32:38 AM

Source: USGS 7.5' Topographic Series; Eureka, Fields Landing Quadrangles.

Project Vicinity

0 1,000 2,000 FEET

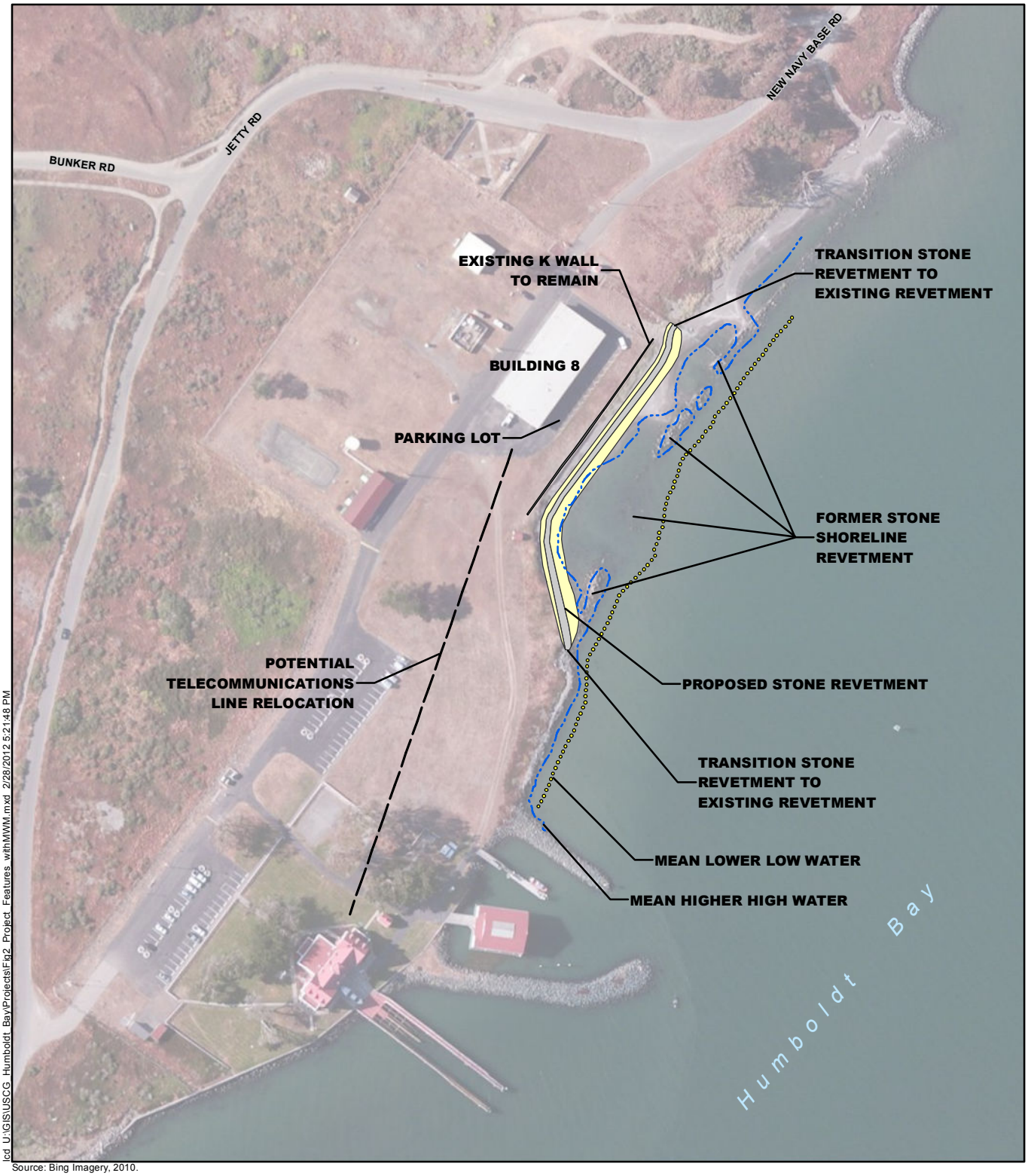
PROJECT LOCATION

USCG Humboldt Bay
Shoreline Erosion Abatement Project
28068026 Humboldt County, California

URS

FIGURE 1

Exhibit 2



PROJECT FEATURES

USCG Humboldt Bay
Shoreline Erosion Abatement Project
Humboldt County, California

URS

FIGURE 2

Exhibit 3

(a) Photograph of the project site. The white building is Building 8. Remnants of a riprap seawall installed prior to 1958 can be seen in the foreground of the photograph.

(b). Historical photograph of the project site taken in 1987.

Area of Potential Effect for Possible Telecommunications Cable Relocation

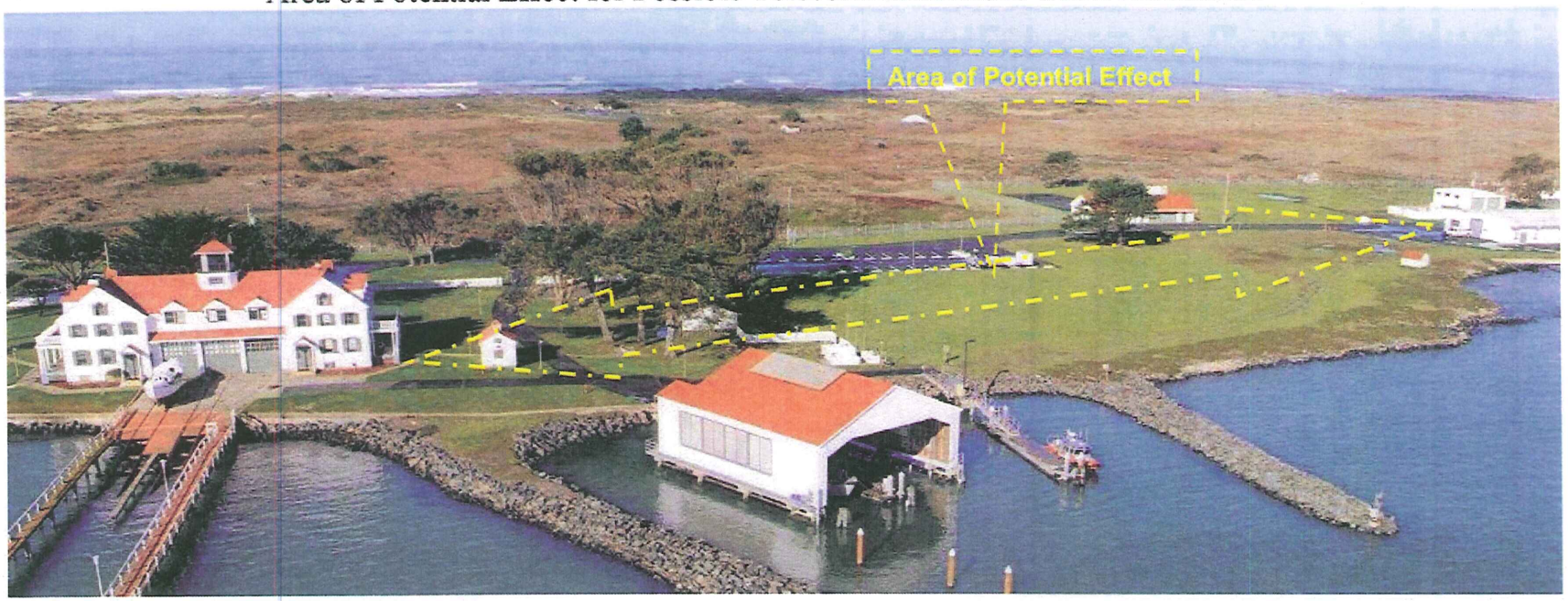


Exhibit 4

Exhibit 5

(a) Location of coastal dune ESHA

(b) Closeup photograph of ESHA. This photograph is taken looking south with the shoreline on the left side of the photograph and the top of the K-rail visible on the right side.

(c) The pink sand verbena (*Abronia umbellate)*