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Staff:	Tiffany S.Tauber
Staff Report:	August 26, 2005
Hearing Date:	September 14, 2005
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-05-022**
APPLICANT:	**CALIFORNIA DEPARTMENT OF PARKS AND RECREATION**
PROJECT LOCATION:	Gold Bluffs Beach, Prairie Creek Redwoods State Park, north of Orick, Humboldt County (APNs 519-021-01 & 519-031-05)
PROJECT DESCRIPTION:	Remove approximately 15 acres of European beachgrass and other invasive, exotic vegetation from the dunes using an experimental heavy equipment method to determine optimal removal techniques.
GENERAL PLAN DESIGNATION:	Public Recreation
ZONING DESIGNATION:	Public Recreation (A, E, W, B, R, U combining zones)
LOCAL APPROVALS RECEIVED:	None Required

OTHER APPROVALS RECEIVED:	U.S. Fish and Wildlife Service Technical Assistance
OTHER APPROVALS REQUIRED:	None
SUBSTANTIVE FILE DOCUMENTS:	Humboldt County Local Coastal Program; CDP No. 1-04-071, Department of Parks and Recreation

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SUMMARY OF STAFF RECOMMENDATION:

Staff recommends that the Commission approve with conditions the coastal development permit for the proposed experimental dune restoration project at Gold Bluffs Beach in Prairie Creek State Park north of Orick in Humboldt County.

Gold Bluffs Beach provides habitat for several special status plant and wildlife species including; (1) pink sandverbena, a CNPS List 1B species indicating its rarity in California and elsewhere, (2) the federally threatened western snowy plover, and (3) the federally endangered brown pelican. The project site also provides potential habitat for (1) the federally endangered beach layia, and (2) the federally endangered tidewater goby.

The applicant has proposed various measures to minimize potential disturbance to the ESHA including timing project construction outside of the breeding period for western snowy plovers, conducting pre-project vegetation surveys to identify and avoid sensitive plant species, and imposing construction equipment restrictions to avoid potential tidewater goby habitat and to avoid collisions with plovers. To ensure that these measures are implemented as proposed to minimize disturbance to ESHA, staff recommends Special Condition Nos. 1-5.

Staff believes that the project, as conditioned, is for a use dependent on the resources of the environmentally sensitive dune habitat in which it is located and will protect the habitat against any significant disruption of habitat values.

Furthermore, public access would be maintained at Gold Bluffs Beach during the extent of the project and the project would have only insignificant impacts on public access use. Therefore, staff believes the proposed development is fully consistent with the ESHA protection, archaeological resource protection, public access, and all other applicable policies of Chapter 3 of the Coastal Act.

The motion to adopt the staff recommendation of approval with conditions is found on Page 3.

STAFF NOTES:

1. **Standard of Review**

The proposed project is located in Humboldt County within the Commission's area of retained permit jurisdiction. Humboldt County has a certified LCP, but the proposed project is within an area shown on 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.

I. MOTION, STAFF RECOMMENDATION AND RESOLUTION:

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve Coastal Development Permit No. 1-05-022 pursuant to the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment.

II. STANDARD CONDITIONS: See Attachment A.

III. SPECIAL CONDITIONS:

1. Protection of Sensitive Plant Species

Prior to ground-disturbing activities, the applicant shall conduct vegetation surveys following the guidelines established by the Department of Fish and Game (*Guidelines for Effects of Proposed Projects on Rare, Threatened, and Endangered Plants*), in accordance with the terms of the Project Description as proposed by the applicant, to determine the presence of (1) pink sandverbena (*Abronia umbellate* ssp. *breviflora*), and (2) beach layia (*Layia carnosa*) in the project area.

If surveys indicate the presence of pink sandverbena and/or beach layia in the project area, the following measures shall be implemented as proposed by the applicant:

(a). Sensitive plant species shall be flagged to alert work crews to their location so as to be avoided;

(b). Equipment and vehicle routes shall be designated in a location that avoids the flagged plants;

(c). A minimum buffer of 1 meter shall be established around any identified populations of pink sandverbena; and

(d). A minimum buffer of 15 meters shall be established around any identified populations of beach layia and all equipment shall be excluded from the buffer area until after the plants have completed their annual cycle and set seed.

(e). A qualified botanist shall be on site during construction to supervise heavy equipment operation and ensure avoidance of all identified sensitive plants.

2. Project Timing

Project construction involving ground-disturbing activities shall occur outside the breeding season of the Western snowy plover and shall not commence before September 30 or extend beyond February 15.

3. Construction Equipment and Vehicle Restrictions

To protect sensitive plant and wildlife species, all construction equipment and vehicles used during project construction shall comply with the following restrictions as proposed by the applicant. All construction equipment and work vehicles shall:

(a) be limited to two daily passes on the wave slope to and from the project site;
(b) operate only during daylight hours; and
(c) drive at as slow a speed as possible, but not to exceed 20 mph.

4. Protection of Western Snowy Plovers

Prior to ground-disturbing activities, surveys shall be conducted at the project site to determine if wintering plovers are present in the project area, in accordance with the terms of the Project Description as proposed by the applicant.

(a). If wintering plovers are located within the project area, no construction equipment or vehicles shall be allowed within 325 feet of the plover(s), or as otherwise determined by a qualified biologist.

(b). A qualified wildlife observer shall be present in the construction vehicles or walking in front of the vehicles to detect the presence of Western snowy plovers and direct the vehicles in a manner that would avoid the species.

5. Protection of Potential Tidewater Goby Habitat

To minimize disturbance to potential tidewater goby habitat, no construction equipment or work vehicles are allowed in creeks or wet areas at any time. Vegetation burial pits near creeks or wet areas shall be setback a minimum of 30 feet.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. Background

The proposed project involves a pilot restoration project at Gold Bluffs Beach in Prairie Creek State Park north of Orick in Humboldt County (see Exhibits 1-3). Gold Bluffs Beach encompasses a significant coastal dune system in Redwood National and State Parks (RNSP) and currently provides habitat for rare pink sandverbena (*Abronia umbellata* spp. *breviflora*, CNPS List 1), and the federally threatened western snowy plover (*Charandrius alexandrinus nivosus*), both of which share a habitat requirement of open sandy beaches.

In northern California, coastal dune ecosystems have been severely altered by the invasion of exotic species, primarily yellow bush lupine (*Lupinus arboreus*) and European beachgrass (*Ammophila arenaria*) (Pickart et al. 1998). The presence of

invasive, exotic European beachgrass reduces the area of open sand in coastal dune systems to a narrow strip of wave-washed beach, thereby eliminating snowy plover nesting habitat and displacing pink sandverbena and other native dune species from their historic habitat. Consequently, dune management efforts have largely focused on restoration. Beach and dune restoration projects of varying scope have been implemented throughout the north coast of California and Oregon. Many of these projects have employed manual removal of European beachgrass, and to a lesser extent mechanical removal methods (grading with a dozer). However, the efficacy and cost efficiency of these efforts have not been rigorously analyzed and little published or unpublished data exists regarding European beachgrass removal efforts.

The Redwood National and State Parks Exotic Plant Management Plan (1994) designates European beachgrass as one of the four exotic species requiring immediate action due to its ability to displace rare, threatened, or endangered species. Specific goals in the North Coast Redwoods District Beach and Dunes Management Plan include "increase habitat restoration efforts for the beach and dune habitat," and "implementation of projects aimed at the control and/or eradication of invasive non-native species."

Consistent with management goals set forth in plans for the park, National Park Service funds were used to dig exotic beachgrass by hand from a portion of the project area containing the park's most extensive population of pink sandverbena in 2004. The proposed project is an experimental project to expand upon this initial effort using heavy equipment to increase this area of open sand habitat, eradicating up to 15 acres of European beachgrass from Ossagon Creek to the northernmost end of Gold Bluffs Beach. Other exotic vegetation species proposed to be removed from the area include jubata grass (*Cortaderia jubata*) and Dalmatian toadflax (*Linaria genistifolia* ssp. *dalmatica*), a newly discovered exotic species.

The project is designed to experimentally evaluate the proposed mechanical removal technique as it relates to sand movement patterns, removal efficacy, and cost effectiveness for a large-scale European beachgrass removal project. In addition to benefiting the beach and dune ecosystem, this project is expected to improve the recreational and interpretive opportunities at Gold Bluffs Beach.

A similar project to remove invasive beachgrass from the dunes using experimental heavy equipment methods was approved by the Commission at Little River State Beach located approximately twenty miles south of Gold Bluffs Beach (CDP No. 1-04-017, Department of Parks and Recreation).

B. Site Description

Gold Bluffs Beach is located within Prairie Creek Redwoods State Park, one of the three state park units in the Redwood National and State Parks (RNSP) partnership with the National Park Service. The area comprises 108 acres with an eight-mile-long beach that

is accessed from Davison Road, three miles north of Orick near the Humboldt/Del Norte County border. Public access to the shoreline and along the coast is provided by trails and roads from Davison Road and from Highway 101. A gravel road runs parallel to the shoreline from Espa Lagoon to Home Creek. From there, a coastal trail continues north from Home Creek to the RNSP boundary north of Carruthers Cove. The project area encompasses the beach and foredune area between the Ossagon Trail and Carruthers Cove at the northern boundary of the park. (See Exhibits 1-4.)

Habitat types at Gold Bluffs Beach include open sand, the European beachgrass alliance, dunemat, exotic grasslands, coastal meadows, herbaceous wetlands and shrub wetlands. The native dunemat at Gold Bluffs Beach is not well developed. Vegetation surveys conducted in 2003 found that the dominant plant species at the site include: beach strawberry (*Fragaria chiloensis*), yellow sandverbena (*Abronia latifolia*), beach morning glory (*Calystegia soldanella*), beach evening primrose (*Camissonia cheiranthifolia*), and dune knotweed (*Polygonum paronychia*). Sea rocket (*Cakile maritima*), American glehnia (*Clehnia littoralis* ssp. *leiocarpa*), and beach bursage (*Ambrosia chamissonis*) are commonly found along the dune strand. Notably absent are dune buckwheat (*Eriogonum latifolium*) and dune goldenrod (*Solidago spathulata* ssp. *spathulata*), native species which are dominate components in other local dune systems. Remnants of the rare native dunegrass series occur throughout the outer dune vegetation which is currently dominated by European beachgrass (*Ammophila arenaria*). Patches of native dunegrass (*Leymus mollis*) were observed to be heavily grazed by elk.

Gold Bluffs Beach also provides habitat for rare pink sandverbena (*Abronia umbellate* ssp. *breviflora*, CNPS List 1B), found in particular abundance adjacent to the project site. The project area also provides potential habitat for two rare annual species including the federally endangered beach layia (*Layia carnosa),* and dark-eyed gilia (*Gillia millefoliata*, CNPS List 1B). Although previous surveys have failed to detect beach layia at Gold Bluffs Beach, the north end of Carruthers Cove near the project site has been identified by the U.S. Fish and Wildlife Service as some of the best potential beach layia habitat in the park.

In addition to European beachgrass, which State Parks indicates has increased markedly at the park since 2001, two other invasive exotic species are present at the project area including Dalmation toadflax (*Linaria genistifolia* ssp. *dalmatica)*, and jubata grass (*Cortaderia jubata*). Dalmatian toadflax infestations often form large colonies that displace desirable native vegetation. Toadflax is highly competitive for soil moisture with winter annuals and shallow rooted perennials. Occupying the same inner dune area as the perennial form of pink sandverbena, toadflax has the potential to displace this important source of genetic diversity. Toadflax is not known to occur elsewhere in the park. Jubata grass is an aggressive colonizer, which competes with native plants and alters the aesthetic character of vegetation within the park. Jubata grass establishes rapidly in open plant communities including coastal dunes and bare alluvium throughout

northern California. Since infestations of these two species are presently restricted to localized areas, State Parks indicates that early management and eradication is required to control the spread and establishment of these species at Gold Bluffs Beach.

Gold Bluffs Beach also provides habitat for the federally threatened western snowy plover (*Charadrius alexandrinus)* and the federally endangered brown pelican (*Pelecanus occidentalis californicus*). The snowy plover has historically used the area at the mouth of Ossagon Creek. Most recently, a pair of plovers successfully nested at the site in 2004 and the species has been observed at the park since January 2005. Brown pelicans are commonly observed roosting and foraging along the entire coastline of the park. The federally endangered tidewater goby (*Eucyglobius newberryi*) has the potential to occur in some locations in the park, but surveys in 2004 failed to detect gobies in any potentially suitable habitat.

C. Project Description

The proposed project involves removing three invasive plant species including European beachgrass, jubata grass, and Dalmatian toadflax from approximately 15 acres of dunes at Gold Bluffs Beach to protect rare plants, and restore western snowy plover nesting habitat and native dune conditions. Up to 15 acres of beachgrass from 6 plots ranging in size from 0.7 to 5.9 acres would be dug with mechanical equipment to a depth of 3 meters and capped with 1.5 meters of clean sand to the original grade. Jubata grass would be uprooted and left on site. Toadflax is a smaller infestation and would be largely dug by hand. Approximately six Sitka spruce trees less than 6" in diameter that are growing opportunistically in the beachgrass stands as a result of sand stabilization would be removed prior to digging the beachgrass. Heavy equipment work is expected to last 1 to 2 months and would start no earlier than October and end no later than February 15 to ensure that the project would occur outside of the snowy plover nesting season.

Mechanical Exotics Removal

The project would employ excavators to dig up and bury the exotic beachgrass. The burial of the beachgrass would occur in a four-step process completed in multiple adjacent pits, ultimately clearing a large area. First, an area of approximately 4m x 5m x 1-2m deep would be cleared of shrubs, small trees and European beachgrass. Care would be taken to dig deep enough to remove all the rhizomes and roots of the beachgrass. This beachgrass and "dirty sand" would then be piled on top of adjacent European beachgrass. Second, the clean sand beneath would be dug out from a pit at least 3m deep and stockpiled in an adjacent clean sand area. The final excavated pit size would be about 4m x 5m x 3m deep. Thirdly, the large pit would be filled with the recently removed beachgrass, the beachgrass beneath, and all the "dirty sand". The hole would then be filled to within about 1-1.5 m of the surrounding elevation. Lastly, the stockpiled clean sand would be used to cap the buried beachgrass to a depth of 1.5 m and would be smoothed to grade.

Excavators would also dig up jubata grass found growing in the project site and all excavated material of this species would be turned upside down and left on site to decompose to prevent the plants from re-rooting. Dalmation toadflax would be removed mechanically in conjunction with beachgrass removal, or removed by hand in areas that are less densely populated. Resprouts of beachgrass, jubata grass, and toadflax would be dug by hand in follow-up efforts during the spring and summer following completion of the heavy equipment work.

Equipment Access and Fueling

Heavy equipment would access the work site along the wave slope and would remain on site during the work week. In addition to heavy equipment, one to three pickup trucks would be used to transport work crews, equipment and fuel to the work site. Under normal circumstances there would be one round trip with vehicles to and from the work site per day. Vehicles accessing the beach would enter at the designated access point, drive as low on the wave slope as possible, and drive as slowly as conditions allow, but not to exceed a maximum speed of 20 mph. If tides or storm conditions require moving vehicles into the dunes, they would be moved into pre-designated areas to avoid sensitive resources. Heavy equipment would be fueled at the start of every day at a predetermined location. Fuel would be delivered via a fuel dispenser held in the bed of a 4 x 4 truck that would enter the beach from the Gold Bluffs Beach entrance.

Hazardous Substance Contingency Plan

State Parks proposes to implement several precautions and preventative measures to minimize the risk of impacts caused by the accidental release of hazardous substances into the environment. These measures are as follows:

- Prior to daily operations, all equipment operators will visually inspect their machinery to identify potential sources of spills. Hoses, caps, etc. will be inspected to assess integrity. Any and all suspect situations will be remedied before the equipment is operated.
- Equipment will be cleaned and repaired at an established maintenance facility. All contaminated water, sludge, or other hazardous compounds will be disposed of at a lawfully permitted or authorized location.
- All lubricating oils and hydraulic fluids will be stored in proper, approved containers. All containers will be securely capped or sealed when in storage, and protected from the rain. Because of the presence of residuals, all empty hydrocarbon containers, oily rags, etc., are to be disposed of in accordance with existing hazardous material regulations.
- All fuel containers will be located in stable, secure locations that are chosen to minimize the potential for a spill and the impact to resources should a spill occur. Valves, caps, hoses, etc., will be routinely inspected. Any identified problems will be promptly fixed.

- No maintenance or fueling activities shall be permitted within 200 feet of a stream.
- Absorbent materials will be placed on the ground beneath the equipment to catch any fuel or lubricants that may leak during fueling.

A spill kit would be readily available in the event of a spill and appropriate materials provided in the kit would be used to contain and absorb the spill. These materials would continue to be used until such time as the hazardous material is completely removed or a HAZMAT specialist takes over the spill treatment. Spills in the sand would be quickly contained by shoveling contaminated sand into large buckets. Once the spill is treated, all material used during cleanup would be removed from the site and disposed of in accordance with proper handling guidelines for hazardous material.

In the event of equipment breakage, which results in a spill, repairs would be carried out in such a way as to prevent further spillage. Containers and absorbent materials would be used to capture fluids during hose removal and replacement, filter replacement, routine maintenance, etc. If equipment breaks proximal to or within a watercourse, the equipment is to be removed, if possible, from its proximity to the waterway before initiating repairs. If equipment cannot be removed, devices for total containment of potential spills associated with repairs would be in place to insure the protection of the watercourse. All captured material would be properly contained and disposed of.

Monitoring

Monitoring of vegetation, snowy plovers, and physical conditions would be conducted following completion of the project. Monitoring results would show whether project objectives have been met and would allow for comparisons with other similar projects to determine the most efficient and cost-effective means of non-native dune vegetation removal.

As proposed by State Parks, vegetation monitoring goals are: 1) to reduce the density of beachgrass to between zero and 5 culms, with a 95% confidence level, to within +/- 5% of the true population mean; and 2) to increase the frequency and cover of native species by 20%, with a 95% confidence level, to within +/- 5% of the true population mean.

To monitor the results of beachgrass removal and changes in species composition in the removal areas, one or two macro plots 50 x 25 or 50 x 100-meter in size would be established. They would be marked with two stakes of rebar capped with plastic, placed diagonally, and their positions located using GPS. Fifty to 100 plots 0.25-1m^2 in size would be randomly located within the macro plot, and cover, density and frequency data recorded for each. Every culm of beachgrass would be counted to determine accurate densities. If the level of re-sprouting of invasive exotics is greater than expected, percent cover would be estimated. For natives, a cover frame with a grid would be placed over the plot and multiple point intercept data would be recorded for species at each point, pre

and post-treatment. An average frequency and cover for each species would be calculated for the macro plot.

Western snowy plover surveys and monitoring have been an ongoing activity throughout the project area and would continue following project completion. Monitoring would determine where and when western snowy plovers move into the project area.

Additionally, physical conditions including wind speed and direction would be measured throughout the project duration. Erosion pins would be placed at the edge of selected beachgrass stands immediately after the plants are removed to assess changes in sand accumulation at the downwind end of the project site. Photo points would also be established to monitor changes to dune morphology.

D. Environmentally Sensitive Habitat Area

Section 30107.5 of the Coastal Act defines "environmentally sensitive habitat area" as:

> *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.*

Section 30240 of the Coastal Act states in part that:

> (a) *Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such 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.*

The Humboldt County LCP identifies the vegetated dunes at Gold Bluffs Beach as being an environmentally sensitive habitat area and also generally identifies other critical habitats for rare or endangered species on state or federal lists as being environmentally sensitive habitat areas.

Gold Bluffs Beach provides habitat for several special status plant and wildlife species including; (1) pink sandverbena, a CNPS List 1B species indicating its rarity in California and elsewhere, (2) the federally threatened western snowy plover, and (3) the federally endangered brown pelican. The project site also provides potential habitat for (1) the federally endangered beach layia, and (2) the federally endangered tidewater goby.

The dunes at Gold Bluff Beach, the above mentioned sensitive species, and their habitats all constitute environmentally sensitive habitat (ESHA), as they are rare or especially valuable habitats and are easily disturbed by man.

Section 30240(a) of the Coastal Act limits activities within environmentally sensitive habitat areas (ESHAs) to only uses that are dependent on the resources of the ESHA. In addition, ESHA must be protected against any significant disruption of habitat values.

Section 30240 Allowable Use

The purpose of the experimental beachgrass removal project is to determine the most successful mechanical removal technique, as it relates to sand movement patterns, removal efficacy, and cost effectiveness. The results of the experimental project would be applied to future dune restoration efforts, both at Gold Bluffs Beach and elsewhere along the North Coast. As the project is designed to facilitate future dune habitat restoration, the Commission finds that the proposed development activities within the environmentally sensitive dune habitat are for a use dependent on the resources of the ESHA.

Avoidance of Significant Disruption of Habitat Values

As discussed below, the proposed project includes various measures designed to prevent any significant disruption of habitat values of the dunes, including limitations on areas where heavy equipment can operate within the dune system, restrictions on fueling and operation of heavy equipment, the availability of a hazardous materials management plan that can be utilized to address any accidental spills, and measures to avoid disturbance to existing rare plants, western snowy plover, brown pelican, and tidewater goby.

a). Pink sandverbena

Pink sandverbena historically occurred along the Pacific coast from Marin County to British Columbia. The plant has been extirpated in Washington, reduced to two small populations in British Columbia and occurs naturally in only five locations in Oregon. In California, "the heart of its range is the 3+ mile segment of beach strand between Carruthers Cove and the south end of Gold Bluffs Beach," (CNPS 2003). Mapping of pink sandverbena at Gold Bluffs Beach shows that the highest density occurs adjacent to the project site, which is currently threatened by dense stands of exotic beachgrass (see Exhibit No. 5).

Pink sandverbena is a facultative perennial, persisting in disturbed habitat in the foredunes and inner dunes. Competition with European beachgrass appears to have forced pink sandverbena onto the strand in many parts of its range, where significant disturbance during fall and winter eliminates the perennial form, which accounts for the

largest amount of seed production. The proposed beachgrass removal will restore its required habitat, helping to conserve genetic diversity of this species that has been much reduced throughout its range.

The applicant proposes to conduct sensitive plant surveys prior to ground-disturbing activities following the guidelines established by the Department of Fish and Game (*Guidelines for Effects of Proposed Projects on Rare, Threatened and Endangered Plants*). If pink sandverbena is discovered in the project area, the applicant proposes several measures to avoid disturbance to this species including: (1) flagging species locations and establishing an equipment exclusion zone around any identified populations, (2) designating heavy equipment and vehicle access paths to prevent trampling, and (3) having a qualified botanist present on site to supervise the operation of heavy equipment. To ensure that these measures are implemented as proposed, the Commission attaches Special Condition No. 1.

b). Beach layia

The project area provides potential habitat for the federally endangered beach layia. Although previous surveys have failed to detect beach layia at Gold Bluffs Beach, the Exotic Plant Management Biological Assessment (BA) prepared for RNSP (Schmidt 2001) determined that, after Freshwater Spit (located south of the project site), the best potential beach layia habitat in the park is at the north end of Carruthers Cove. Where exotic beachgrass was removed from Freshwater Spit, beach layia was found in subsequent surveys to have recolonized the area. Thus, the proposed beachgrass removal at Gold Bluffs Beach is also likely to result in recolonization of this endangered species through restoration of the sparsely vegetated open dune habitat it requires.

As noted in section a) above, the applicant proposes to conduct sensitive plant surveys prior to ground-disturbing activities following the guidelines established by the Department of Fish and Game (*Guidelines for Effects of Proposed Projects on Rare, Threatened and Endangered Plants*). If beach layia is discovered in the project area, the applicant proposes to implement the following measures to avoid disturbance to the species: (1) flagging species locations and establishing an equipment exclusion zone around any identified populations, (2) designating heavy equipment and vehicle access paths to prevent trampling, and (3) having a qualified botanist present on site to supervise the operation of heavy equipment. To ensure that these measures are implemented as proposed, the Commission attaches Special Condition No. 1.

c). Western snowy plovers

Western snowy plovers are a federally listed threatened species and have been historically observed at Gold Bluffs Beach. In January 2004, two snowy plovers were detected on Gold Bluffs Beach for the first time since the early 1980s. Snowy plovers

returned to Gold Bluffs Beach in January 2005 and have been observed regularly since then. The small shorebird resides and breeds on open beaches, dunes, and gravel bars. Due to their size and cryptic coloring, the birds are highly subject to trampling and disturbance.

Encroachment by European beachgrass is one of the most significant causes of habitat loss for coastal breeding western snowy plovers. The U.S. Fish and Wildlife Service (USFWS) has emphasized the removal of non-native and other invasive vegetation from existing and potential breeding sites, and in particular, the eradication of introduced beachgrass within coastal dunes as necessary management tasks toward the recovery of this species. The proposed removal of exotic dune vegetation will restore nesting habitat in an area where plovers have historically occurred.

The proposed project could negatively impact western snowy plovers due to wave slope access by vehicles and heavy equipment, and concentrated, increased human activity on more remote sections of beach. The USFWS has reviewed the proposed project and has recommended several measures to ensure protection of the plovers and the applicant has incorporated these protection measures into the proposed project (see Exhibit No. 6).

To minimize the potential for disturbance to plovers, the applicant proposes to conduct the project outside of the plover breeding period (after September 30 and before February 15). Additionally, pre-project and weekly surveys of the work site will be conducted to determine if wintering plovers are present in the project area. If wintering birds are located within the project area, no heavy equipment would be allowed within a 100 m (325 ft) buffer around the plovers location, if determined by a wildlife biologist to be necessary. Furthermore, construction equipment and work vehicle access to the site will be limited to two daily passes on the wave slope to minimize the risk of collisions with plovers. Vehicle access will be limited to daylight hours, and to operating at as slow a speed as possible. Qualified wildlife observers would either ride in or walk in front of each vehicle to further minimize the risk of disturbance to plovers. To ensure that these measures to minimize disturbance to western snowy plovers are implemented as proposed by the applicant, the Commission attaches Special Condition Nos. 2, 3, and 4.

d). Tidewater goby

The project site includes two creeks that provide potential habitat for the tidewater goby. Pilot surveys using a draft protocol were conducted in 2004 in the two creeks within the proposed project area that could qualify as potentially suitable tidewater goby habitat, Carruthers Cove (Johnson Creek/Lagoon) and Ossagon Creek. No gobies were detected during these surveys.

Consistent with USFWS consultation on the project, the applicant proposes several protective measures to minimize potential impacts to any gobies that may be present

within the project area including: (1) no heavy equipment will be allowed to enter creeks and wet areas; and (2) no vegetation burial pits will be dug within 9 m (30 feet) of these areas. These measures will ensure that the potential tidewater goby habitat is not disturbed by the introduction of sediment, or by other hydrological changes that may occur from the operation of heavy equipment in or near the water. To ensure that these measures to minimize disturbance to potential tidewater goby habitat are implemented as proposed, the Commission attaches Special Condition No. 5.

e). Brown pelican

Brown pelicans, a state and federally listed endangered species, are commonly observed roosting and foraging along the entire coastline of the park. During the day, small groups of pelicans (e.g., 5-40 birds) have been regularly observed resting on the beach near Ossagon Creek and other places along Gold Bluffs Beach.

The proposed project could impact brown pelicans by inadvertently flushing individuals off of resting locations on beaches when vehicles or work crews access vegetation removal sites via the wave slope. The USFWS determined that vegetation removal activities were not expected to cause an adverse impact to brown pelicans, as the applicant proposes, and the Commission requires in Special Condition No. 3(a), that vehicles and crews accessing the work site will make only two trips per day to and from the site. Therefore, disturbance on a daily basis would not be chronic. Additionally, the amount of beach available to pelicans is great when compared to the size of the project work sites. Therefore, the level of potential disturbance would be restricted in area as well as duration and would not be significant.

Conclusion

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30240(a) of the Coastal Act, as the project is for a use dependent on the resources of the environmentally sensitive dune habitat and would not result in a significant disruption to ESHA.

E. Archaeological and Cultural Resources

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

Gold Bluffs Beach is within the ancestral homelands of the Yurok tribe. Currently, members of the tribe use the area to fish for perch. In the 1860s and 1870s, European settlers mined for gold along the beach. The project area was surveyed by a State Parks archaeologist and it was concluded that no cultural resources were present at the project

site. As required by state law, the Yurok Tribal Council has been consulted on this project. It has been determined by a National Parks archaeologist that the nearest designated cultural site is located at least ¼ mile from the project site. No impacts to cultural resources would occur from the proposed project.

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

F. Public Access

Coastal Act Section 30210 requires in applicable part that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30212 of the Coastal Act requires that access from the nearest public roadway to the shoreline be provided in new development projects except where it is inconsistent with public safety, military security, or protection of fragile coastal resources, or adequate access exists nearby. Section 30211 requires that development not interfere with the public's right to access gained by use or legislative authorization. In applying these sections of the Coastal Act, the Commission is also limited by the need to show that any denial of a permit application based on these sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential access.

Gold Bluffs Beach is located within Prairie Creek Redwoods State Park, one of the three state park units in the Redwood National State Park (RNSP) partnership with the National Park Service. The area comprises 108 acres with an eight-mile-long beach that is accessed from Davison Road, three miles north of Orick. Public access to the shoreline and along the coast is provided by trails and roads from Davison Road and from Highway 101. A gravel road runs parallel to the shoreline from Espa Lagoon to Home Creek. From there, a coastal trail continues north from Home Creek to the RNSP boundary north of Carruthers Cove. The project area encompasses the beach and foredune area between the Ossagon Trail and Carruthers Cove at the northern boundary of the park (see Exhibit No. 4).

During October and December, the proposed months of heavy equipment operation, the immediate project area would be closed to the public to ensure public safety. However, the beach will remain accessible via existing trails located to the north and south of the project area. Additionally, as the proposed work is located in the foredune area away from the wave slope, public access along the beach via the wave slope will not be impeded by the project.

Therefore, the Commission finds that the proposed project would not have a significant adverse effect on public access, and that the project as proposed without new public access is consistent with the requirements of Coastal Act Sections 30210, 30211, and 30212.

G. California Environmental Quality Act

Section 13906 of the California Code of Regulation requires Coastal Commission approval of a coastal development permit application to be supported by findings showing that the application, as modified by any conditions of approval, is consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Public Resources Code 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 significantly lessen any significant effect that the activity may have on the environment.

The Commission incorporates its findings on conformity with Coastal Act policies 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 herein in the findings addressing the consistency of the proposed project with the Coastal Act, the proposed project has been conditioned in order to be found consistent with the policies of the Coastal Act. As specifically discussed in these above findings which are hereby incorporated by reference, mitigation measures which will minimize all adverse environmental impact have been required. These required mitigation measures include timing project construction outside of the breeding period for western snowy plovers, conducting pre-project vegetation surveys to identify and avoid sensitive plant species, and construction equipment restrictions to avoid potential tidewater goby habitat and to avoid collisions with plovers. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act and to conform to CEQA.

EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Site Plan
4. Existing Trail Locations
5. Pink Sandverbena Location Map
6. US Fish & Wildlife Service Letter

APPENDIX A

STANDARD CONDITIONS

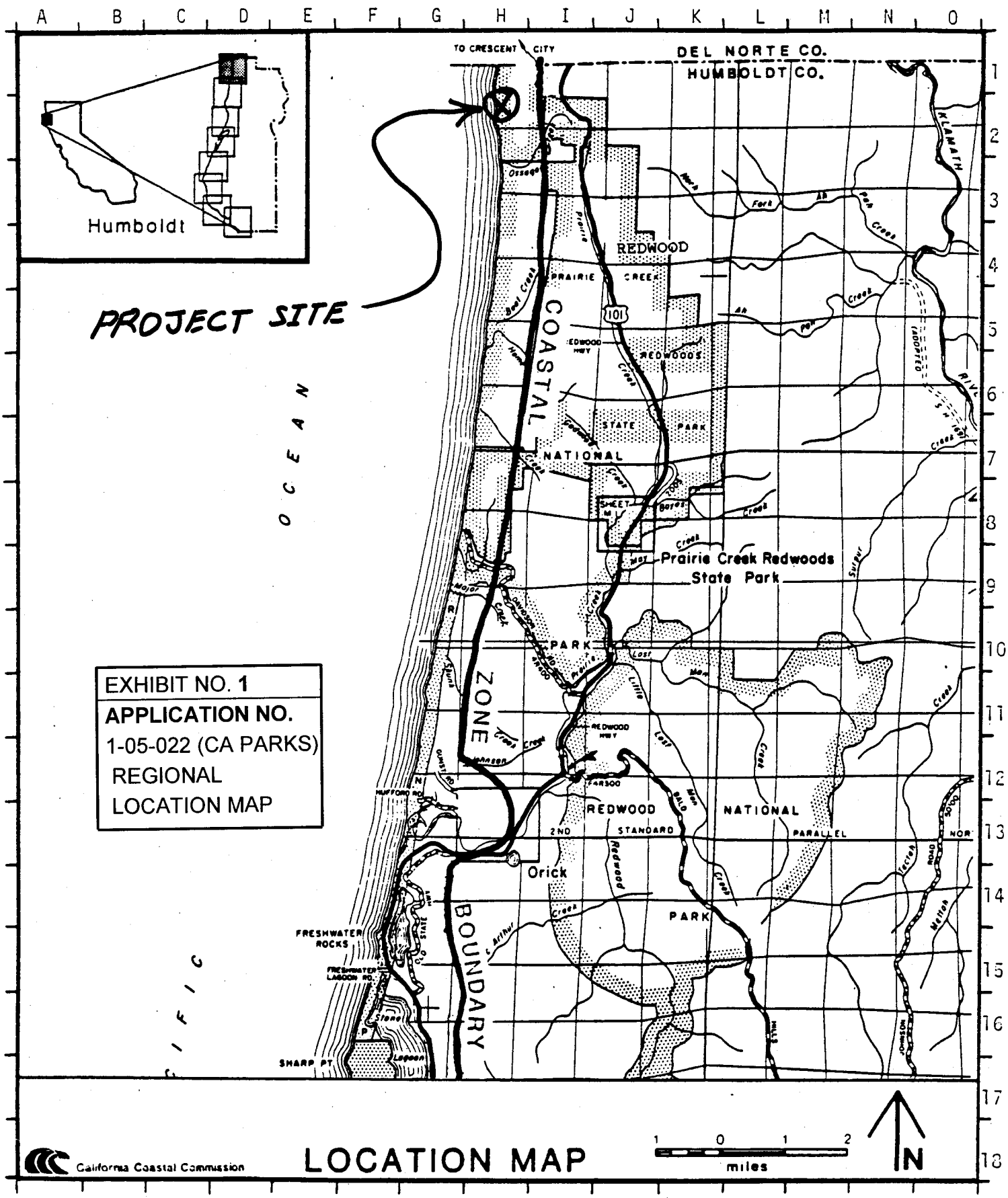
1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

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

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

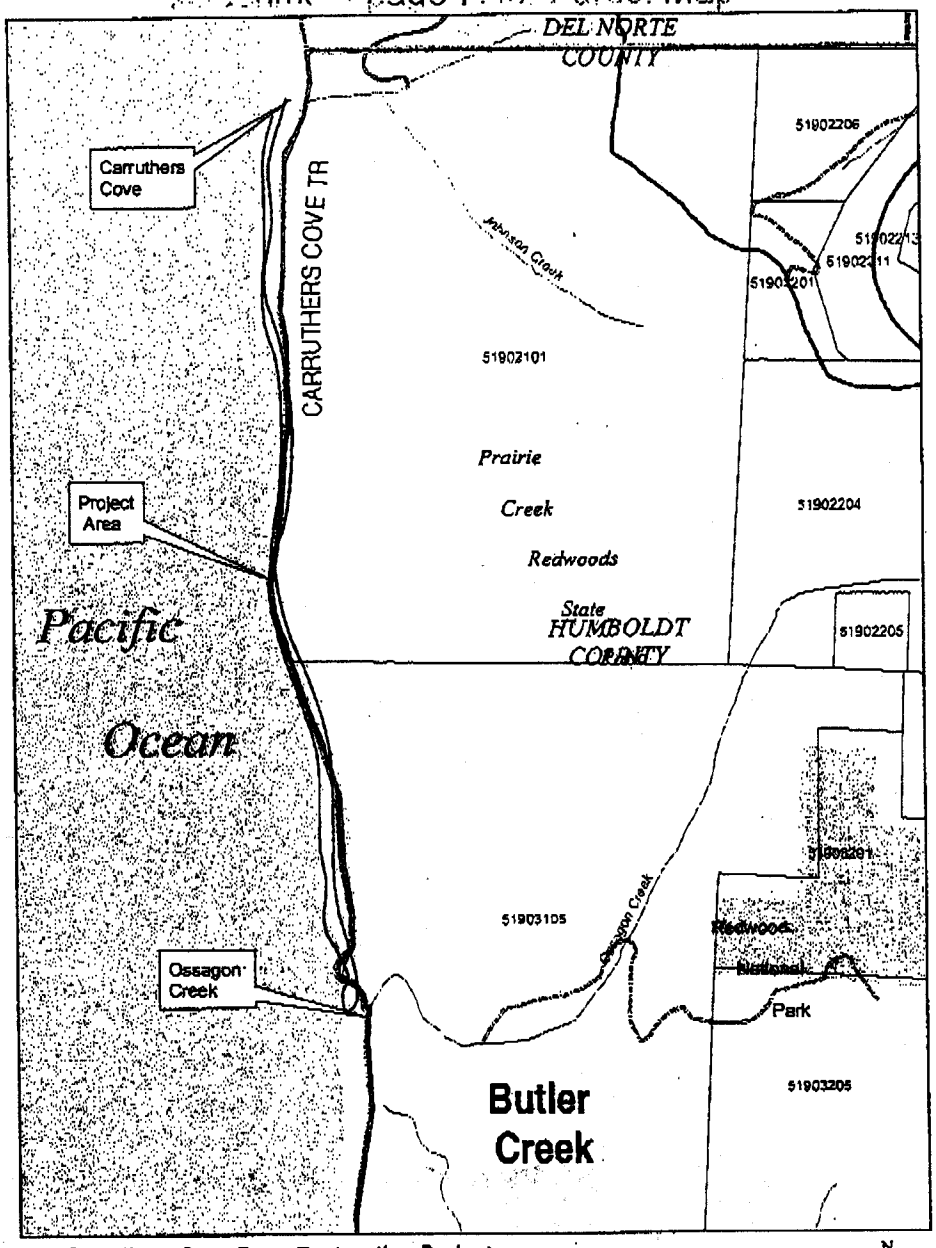
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

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



County of Humboldt

Sheet 1 of 8



Carruthers Cove Dune Restoration Project
Gold Bluffs Beach,
Prairie Creek Redwoods State Park
Humboldt County, California

EXHIBIT NO. 2
APPLICATION NO.
1-05-022 (CA PARKS)
PROJECT
VICINITY MAP

Carruthers Cove Dune Restoration

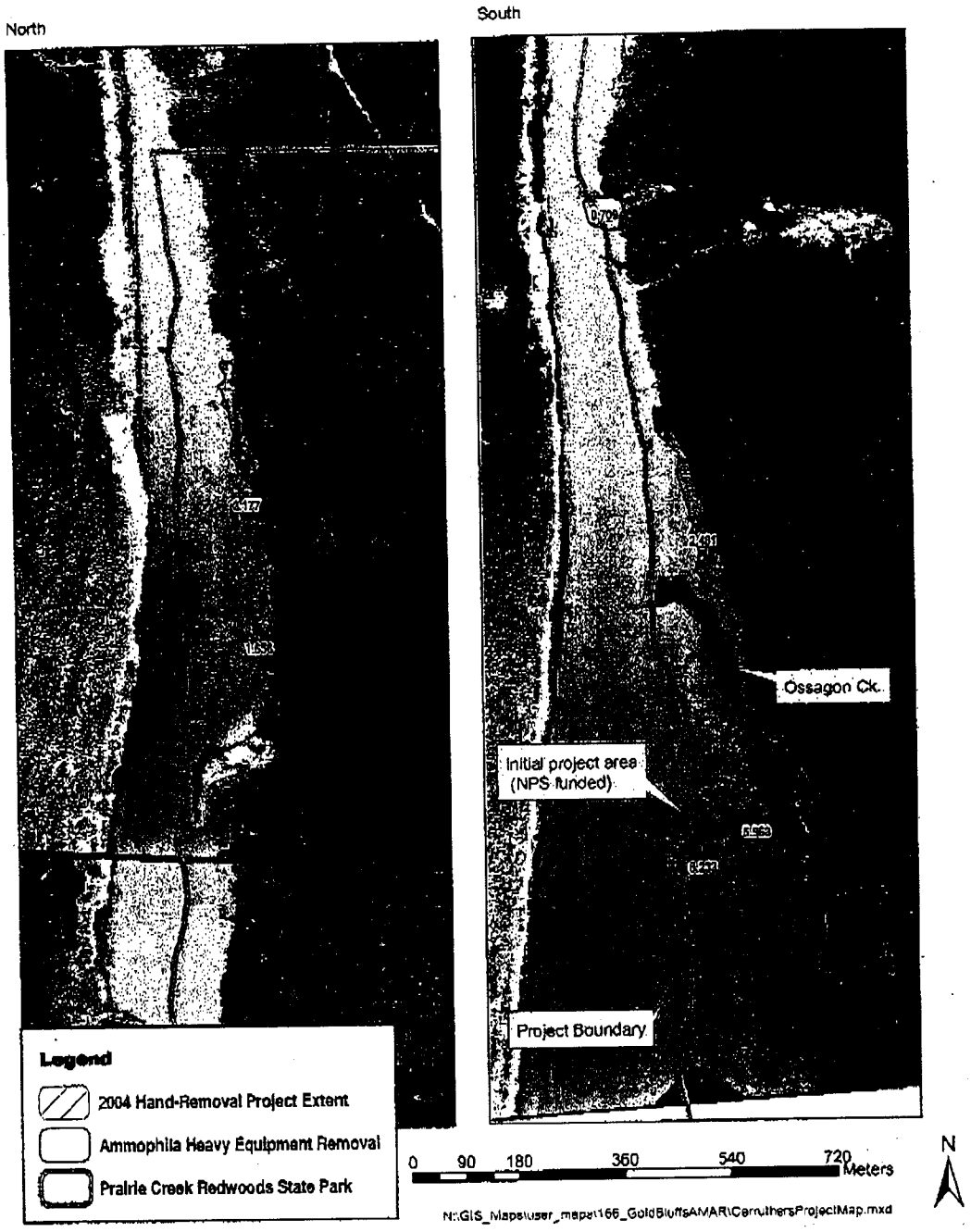
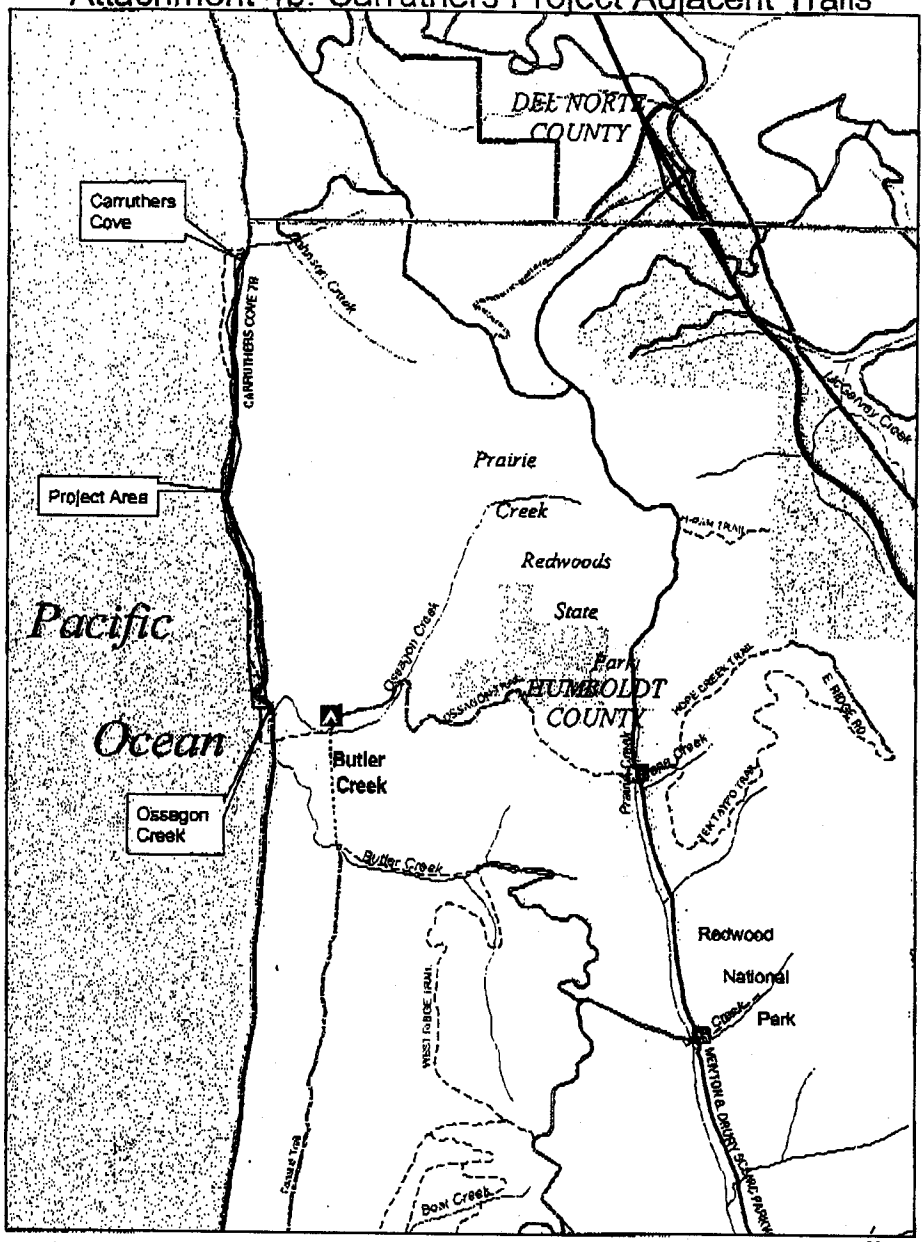


Figure 2: Site Map

EXHIBIT NO. 3
APPLICATION NO.
1-05-022 (CA PARKS)
PROJECT
SITE MAP

Attachment 4b. Carruthers Project Adjacent Trails



Carruthers Cove Dune Restoration Project
Gold Bluffs Beach, Trails and Roads
Prairie Creek Redwoods State Park
Humboldt County, California

EXHIBIT NO. 4
APPLICATION NO.
1-05-022 (CA PARKS)
EXISTING
TRAILS

Carruthers Cove Dune Restoration
Pink Sandverbena Locations

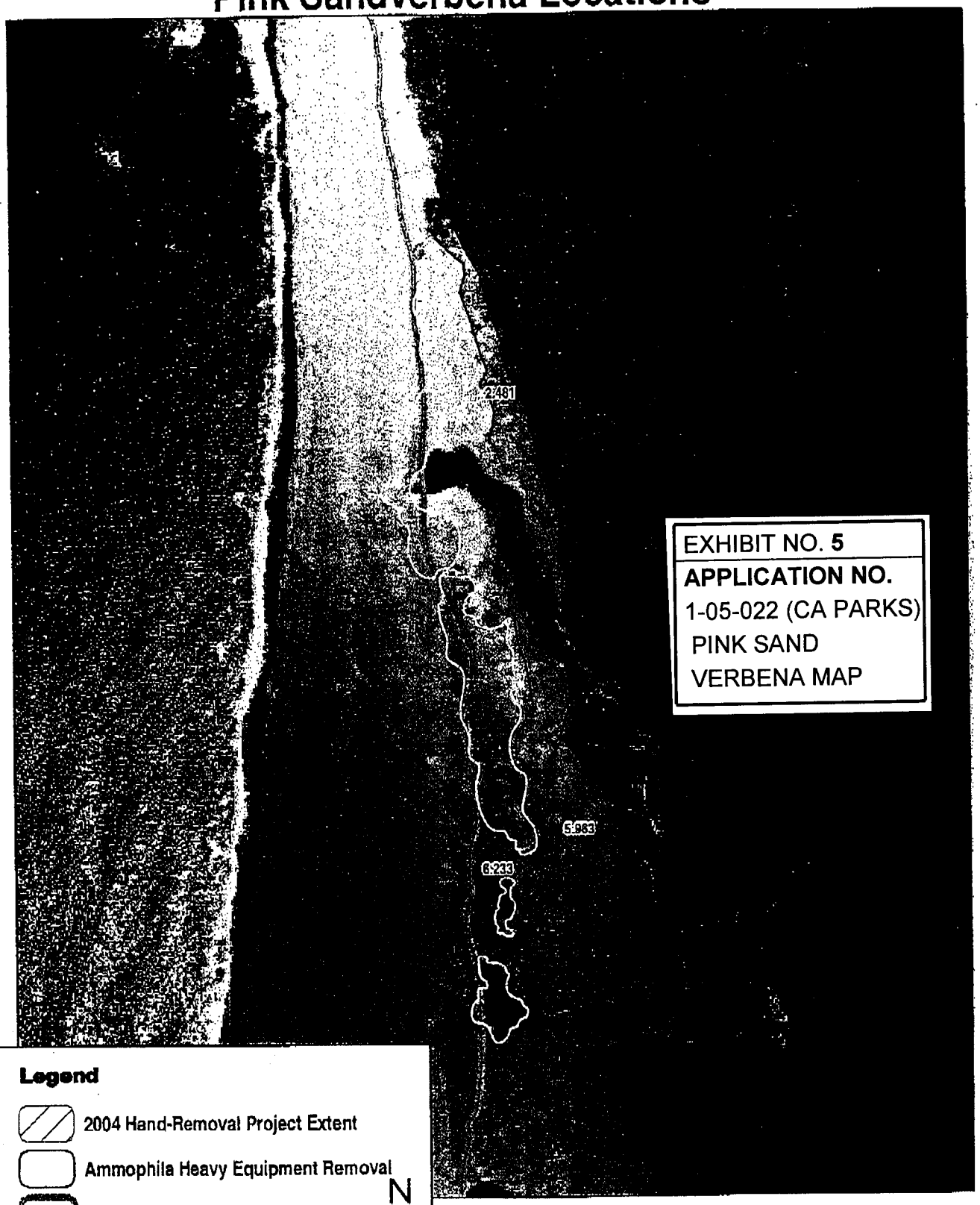


EXHIBIT NO. 5
APPLICATION NO.
1-05-022 (CA PARKS)
PINK SAND
VERBENA MAP

Legend

- 2004 Hand-Removal Project Extent
- Ammophila Heavy Equipment Removal
- Prairie Creek Redwoods State Park
- Pink Sand Verbena

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GIZINSKI

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arcata Fish and Wildlife Office
1655 Heindon Road
Arcata, CA 95521
(707) 822-7201
FAX (707) 822-8411

In Reply Refer To:
File Number 8-14-1999-077

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MAY 25 2005
CALIFORNIA
COASTAL COMMISSION

EXHIBIT NO. 6
APPLICATION NO.
1-05-022 (CA PARKS)
U.S.F.W.S. LETTER
(Page 1 of 4)

Memorandum

To: Park Superintendents, Redwood National and State Parks
Orick, California

From: /s/ Field Supervisor, Arcata Fish and Wildlife Office
Arcata, California

Subject: Informal Consultation on Exotic Plant Management in Redwood National and State Parks, Humboldt and Del Norte Counties, California

This memorandum responds to your April 14, 2005, letter requesting Fish and Wildlife Service's (Service) concurrence with your determination of effects for the proposed exotic plant management in Redwood National and State Parks (Parks), Humboldt and Del Norte Counties, California. You determined the project may affect but is not likely to adversely affect the following Federally listed species: the endangered tidewater goby (*Eucycolgobius newberryi*) and the threatened western snowy plover (*Charadrius alexandrinus nivosus*). You also determined that the project may affect, but is likely to beneficially affect the endangered beach layia (*Layia carnosa*). This response is prepared in accordance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act) and its implementing regulations (50 CFR § 402).

This consultation is based on information provided in your April 14, 2005, biological assessment amendment; December 18, 2001, biological assessment; our February 8, 2002, letter of concurrence; and other sources of information. The December 18, 2001, biological assessment and the April 14, 2005, amendment contain a complete description of the proposed action and its effects on the above species and are hereby incorporated by reference. The original consultation on exotic plant management completed in 2002, required the Parks to reinitiate consultation if western snowy plovers were detected on any park beach. The occurrence of snowy plovers on Gold Bluffs Beach in 2004, triggered this reinitiation and the biological assessment amendment. This consultation is valid through December 31, 2006. A complete administrative record for this consultation is on file in this office.

REC'D MAY 16 2005

Concurrence

Tidewater Goby

The Service concurs with your determination that the proposed project may affect but is not likely to adversely affect the tidewater goby, based on the following factors:

1. In 2004, surveys were conducted in the two creeks within the project area and no tidewater gobies were detected. The survey areas were Johnson Creek/Lagoon (Carruther's Cover) and Ossagon Creek. Both creeks are considered to be low quality habitat.

2. Heavy equipment will not be allowed to enter creeks and wet areas; therefore, no suitable tidewater goby habitat will be removed.

3. Digging will be allowed next to creeks or standing water; however, digging will cease if surface water enters the excavated area. Trenches for burying exotic beach grass will not be allowed within 9 meters (30 feet) of a creek or standing water. Digging adjacent to the creek may result in a slight change in hydrology. However, the potential for impacts to tidewater gobies are expected to be minimal. The likelihood that gobies are present in the project area is low, habitat quality is low, equipment will not be used in the creek, and digging will cease if surface water enters an excavation area.

Western Snowy Plover

The Service concurs with your determination that the proposed project may affect but is not likely to adversely affect the western snowy plover, based on the following factors:

1. Pre-project surveys will be conducted.

2. Injury or harm to snowy plovers is not anticipated because of the following project design standards:

   a) No heavy equipment or vehicles will be used from February 15 through August 21. Only hand crews may be used for exotic plant management during this period.

   b) From August 22 through September 15, heavy equipment and vehicles will only be used if no plover nests have been located in the project area or adjacent to the access route. If nest or chicks are present in late August, heavy equipment or vehicles will not be used until after September 30.

   c) Heavy equipment will be walked to and from the work site along the wave slope. Equipment will remain on site during the week.

   d) One to three trucks may be used to transport crews, equipment, and fuel to the work site. The vehicles will be restricted to the wave slope and limited to two daily passes. A trained observer will be present in the vehicles or walking in front

of the vehicles.

e) Workers involved in exotic plant management on the beaches will receive educational information about snowy plovers including most recent sighting information, habitat use, and identification.

3. Disturbance to snowy plovers is expected to be minimal because of the above project design standards and the following additional standards:

a) If wintering plovers are located within the project area from October 1 through February 14, a wildlife biologist will evaluate the circumstances (e.g., number of plovers, location relative to the work site) and determine if a protection buffer is necessary. If determined to be necessary, a 100 meter (325 feet) buffer will be established around the plovers.

b) No heavy equipment will be used in the buffer area. No burning will occur within the buffer area.

4. Trash and food will be contained in predator-proof containers and transported off of the site each day.

5. No suitable habitat will be removed or degraded. Restricting the size of burn piles should ensure that fires do not escape into surrounding driftwood. The removal of European beach grass (*Ammophila arenaria*) will have a beneficial impact on snowy plover habitat by allowing native vegetation to return and reducing dune stabilization.

Beach Layia

The Service concurs with your determination that the proposed project may affect but is likely to beneficially affect beach layia, based on the following factors:

1. No suitable beach layia habitat will be removed or degraded. European beach grass removal is anticipated to improve habitat conditions for beach layia within the Parks; therefore, is expected to have a beneficial impact.

2. Injury or harm to individual beach layia plants is not anticipated because of the following project design standards that will be implemented:

a) Pre-project surveys will be conducted.

b) If beach layia is detected, a minimum buffer of 15 meters (50 feet) will be established around the plants. No exotic plant removal will occur in the buffer area until layia has set seed. No heavy equipment or vehicles will be allowed in the buffer. No burning will occur in the buffer area.

This concludes informal consultation on the proposed exotic plant management. Unless new

information reveals that the proposed actions (1) may affect listed species in a manner or to an extent not considered in your correspondence, (2) the action is modified in a manner that causes an effect on the listed species or critical habitat not considered in your correspondence, or (3) a new species or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Act, is necessary. Contact staff biologist Ms. Robin Hamlin at (707) 822-7201 if you should have further questions regarding this consultation.

cc:
RNSP, Orick, CA (Attn: Kristin Schmidt)