CALIFORNIA COASTAL COMMISSION

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Melissa B. Kraemer

Staff Report:

Hearing Date:

September 16, 2010

Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 1-10-017

APPLICANT: City of Eureka & Bureau of Land

Management (BLM)

PROJECT LOCATION: Along the south end of the Samoa Peninsula,

on the foredune area of City of Eurekaowned property adjacent to New Navy Base Road, Humboldt County (APNs 401-141-04,

-05, -03, -07).

PROJECT DESCRIPTION: The continued use and maintenance of a

designated 75-acre off-highway vehicle (OHV) riding area previously authorized for a two-year period under CDP No. 1-98-067 and for two five-year periods under CDP

Nos. 1-00-047 and 1-05-028.

GENERAL PLAN DESIGNATION: Public Recreation (PR)

ZONING DESIGNATION: Public Recreation (PR)

LOCAL APPROVALS RECEIVED: None Required

OTHER APPROVALS REQUIRED: None

SUBSTANTIVE FILE DOCUMENTS: (1) Humboldt County LCP; (2) Staff Report,

Humboldt County LCP Amendment No. 1-93 dated Dec. 15, 1993; (3) Staff Report,

CDP No. 1-98-067 dated Sept. 25, 1998; (4) Staff Report, CDP No. 1-00-047 dated Dec. 22, 2000; and (5) Staff Report, CDP No. 1-05-028 dated Sept. 23, 2005.

SUMMARY OF STAFF RECOMMENDATION

Staff recommends <u>approval</u> with conditions of the proposed continued use and maintenance of a designated 75-acre off-highway vehicle (OHV) riding area previously authorized for a two-year period under Coastal Development Permit (CDP) No. 1-98-067 and for two five-year periods under CDP Nos. 1-00-047 and 1-05-028.

The project site is located along the south end of the Samoa Peninsula (also known as the north spit) in Humboldt County on approximately 75 acres of foredunes on the City of Eureka Municipal Airport property commonly known as the Eureka Dunes Riding Area. Off-highway vehicle use has been occurring in a specified manner on the subject site since 1998 following the Commission's approval of CDP No. 1-98-067, which authorized the specified use for a period of two years. The Commission subsequently approved CDP Nos. 1-00-047 and 1-05-028, each of which authorized the continued use of OHV riding in the area for an additional five years. The project site is located directly adjacent to the Samoa Dunes OHV riding area managed by the Bureau of Land Management (BLM). (See Exhibit Nos. 1-3.)

The site is known to contain populations of Beach layia (Layia carnosa) and Humboldt Bay wallflower (Erysimum menziesii spp. eurekense), two federally listed endangered plant species. In addition, the site is known to contain populations of dark-eyed gilia (Gilia millefoliata), Lyngbye's sedge (Carex lyngbyei), and shortleaf dwarf cudweed (Hesperevax sparsiflora var. brevifolia) – all of which are considered sensitive species. Furthermore, some of the dune area contains native dune grass (Leymus mollis), which is a rare natural community listed in the Department of Fish and Game's Natural Diversity Database. However, most of the foredune area is covered by European beach grass (Ammophila arenaria), yellow bush lupine (Lupinus arboreus), iceplant (Carpobrotus spp.), and other invasive exotic plant species that outcompete and displace native dune species. The site contains no nesting/breeding threatened or endangered animal species, though the BLM does monitor the site for, among other species, California brown pelican (Pelecanus occidentalis ssp. californicus), white-tailed kite (Elanus leucurus), northern harrier (Circus cyaneus), and Cooper's hawk (Accipiter cooperi) - all of which are known to forage within and around the subject property (see Exhibit Nos. 5-8 for details on the BLM's monitoring program for the subject site).

Unregulated and indiscriminate riding of OHVs over endangered and sensitive native plants has historically posed a threat to these coastal resources. In an effort to address

these conflicts, years of intensive study, planning, environmental review, public involvement and numerous hearings over the period from 1990 to 1994 resulted in the Humboldt County Beach and Dunes Management Plan (Plan). Although the Coastal Act rather than the Plan is the standard of review for the proposed project, as the project site is located within the Commission's area of retained jurisdiction, the Plan provides a framework for managing the beach and dune areas of the north and south spits, including the subject site. The plan discussing this original jurisdiction area is also referenced in Humboldt County's certified LCP (see LCP Amendment No. 1-93, certified by the Coastal Commission with modifications in 1994.)

One of the important purposes and outcomes of this Plan was to determine and specifically define areas where OHVs could or could not be ridden. The Plan concluded that the only areas where OHV use would be allowed or proposed are the existing Samoa Dunes Recreation Area (managed by BLM), the adjacent City of Eureka Foredunes (the subject site) and along the wave slope for limited purposes. The remaining areas along the Samoa Peninsula were identified to be closed to vehicle use.

The 75-acre portion of the City of Eureka foredune property, all of which is located in the Commission's area of retained jurisdiction, where the City and the BLM now propose to reauthorize and continue the OHV riding area, was locally rezoned from Natural Resources to Public Recreation and later referenced in the Beach and Dunes Management Plan LCP Amendment (No. 1-93). The purpose of the local zoning change was to allow for the creation of a well defined but limited area for additional authorized OHV use while closing the balance of the north and south spits to vehicles.

In 1998, the BLM and the City of Eureka applied for, and the Commission approved, CDP No. 1-98-067 to provide for regulated OHV use of the subject site, install fencing and signage to protect sensitive vegetation, and to create a management and enforcement presence in the area. The subject site had been significantly disturbed over many years prior to the Commission's approval of CDP No. 1-98-067 by unauthorized and indiscriminate OHV use and other human activities.

The original permit was approved with three special conditions including (1) OHV use standards, (2) submittal of annual monitoring reports, and (3) a two-year time period for authorization of development. Special Condition No. 3 required that OHV use authorized by CDP No. 1-98-067 cease on December 31, 2000 and that a new coastal development permit be obtained to authorize continued use of the area for OHV riding after that date.

Pursuant to Special Condition No. 3 of CDP No. 1-98-067, the applicants applied for reauthorization of the permit in 2000. The Commission approved CDP No. 1-00-047 authorizing the continued OHV use of the area for a period of five years with similar conditions regarding management standards, maintenance, and annual monitoring. Special Condition No. 5 of CDP No. 1-00-047 required that the use cease on December 31, 2005 and that a new coastal development permit be obtained to continue the use. On

October 14, 2005 the Commission approved CDP No. 1-05-028 with special conditions virtually identical to those attached to CDP No. 1-00-047. CDP No. 1-05-028 authorized the continued use of the foredune area on the subject property for OHV riding through December 31, 2010.

Consistent with the requirements of Special Condition No. 5 of CDP No. 1-05-028, the applicants are now seeking new project authorization to continue to use the foredune area for OHV riding as well as continuing to protect and maintain populations of rare and endangered plant species and native dune grass by maintaining post and cable fence enclosures around these areas and by continuing annual monitoring efforts. The applicants are requesting permit approval authorizing the OHV use for a period of 10 years.

In its approval of CDP Nos. 1-98-067, 1-00-047, and 1-05-028, the Commission found that allowing riding in this previously disturbed area covered with invasive, exotic vegetation is beneficial for the overall protection of dune habitat (ESHA) throughout the north spit. The proposed OHV riding area concentrates vehicle use to the southern-most portion of the north spit foredunes and establishes a management and enforcement presence that in turn minimizes illegal and indiscriminate riding in other dune areas. Thus, vehicle use is kept restricted to the area previously authorized for OHV use while minimizing the incidence of OHV trespass and habitat disruption in other dune areas. Confining regulated OHV use to the subject site provides for protection of not only the ESHA that is enclosed and excluded from vehicles on the site, but also provides for increased protection of the overall dune system of the area. The overall protection of the dune habitat throughout the north spit is essential to the viability of the rare and endangered species and native dune plants within the dynamic dune system.

According to the annual monitoring reports submitted over the past 12 years (pursuant to Special Condition No. 2 of CDP Nos. 1-98-067, 1-00-047, and 1-05-028), the project has been successful in protecting the ESHA at the site and limiting OHV riding to the designated trails. The 2010 monitoring report (Exhibit No. 5) indicates that the endangered beach layia remains one of the most abundant plants in the enclosures, invasive exotic species including iceplant, yellow bush lupine, and European beachgrass have been pulled from both enclosures, and native plants are beginning to become more dominant in enclosure areas. The applicants note that there is no evidence of any trespass by OHV riders into the ESHA enclosures and that the users have abided by all the guidelines established by the BLM thus far. The report concludes that overall, the quality of the native plant communities within the enclosures appears stable, and the post and cable barriers are being respected by OHV users.

Allowing for continued OHV use at the site is consistent with the Beach and Dunes Management Plan that provides for a cooperative solution to both OHV recreation and resource protection in this specific area. This solution was carefully crafted years ago with the development of the Plan, and the results of the past 12 years of riding at the

Eureka/BLM site have been encouraging, demonstrating that the north spit dune system is being protected from illegal, destructive riding by the OHV riding agreement referred to in the certified LCP and authorized by the three aforementioned CDPs.

The proposed project, as conditioned, will avoid significant disruption to and provide for the continuance of the rare and endangered plant species and native dune grass adjacent to the riding area. In a larger sense, authorization of OHV use in this well-defined but limited area will continue to relieve the pressure caused by indiscriminate riding on sensitive habitat areas throughout the balance of the nearly 3,500 acres of open dunes, which are set aside for habitat protection under the County's LCP.

To ensure that the proposed project is conducted in a manner that will fully protect against any significant disruption of habitat values, be sited and designed to prevent impacts which would significantly degrade such areas, and be compatible with the continuance of such habitat areas, staff recommends that the Commission attach several special conditions. The recommended conditions are similar to the conditions imposed in CDP Nos. 1-98-067, 1-00-047, and 1-05-028.

Special Condition No. 1 sets forth OHV management standards that require: (1) all fences and signage be continually maintained in a manner adequate to protect all rare and endangered plant species and native dune grass within the area; (2) management activities be carried out to effectively prohibit OHV use of all unauthorized areas (the areas fenced off and enclosed to protect rare and endangered plant species and native dune grass); (3) annual monitoring of the rare and endangered plant species and native dune grass at the site be conducted to determine the effects of the allowed OHV use on these resources; and (4) the applicants remove exotic invasive vegetation, including but not limited to, European beachgrass, yellow bush lupine, and iceplant from the fenced enclosure on a regular and on-going basis and briefly close the OHV area if necessary to allow for eradication projects by responsible parties to be performed at the site.

Special Condition No. 2 requires the applicants to provide an annual report to the Executive Director by November 1 of each year beginning in 2011 that discusses compliance with Special Condition No. 1 above. Special Condition No. 3 requires the applicant, if the protective fence enclosure becomes damaged by storm surge or other natural processes, to immediately apply for an amendment to CDP No. 1-10-017 to establish a new fenced enclosure within the project site that will, to the maximum extent feasible, provide for the protection and continuance of at least the same size and type of area of rare and endangered plant species and native dune grass previously protected by the fenced enclosure. Special Condition No. 4 also requires that any trail maintenance that involves cutting new trails or relocating existing trails shall require an amendment to CDP No. 1-10-017. Finally, Special Condition No. 5 requires OHV use authorized by this permit to cease on December 31, 2015 and requires a new coastal development permit or an amendment to this permit for continued use of the area for OHV riding after that date. The applicants are requesting permit approval for a period of 10 years. However, to

ensure that the Commission continues to have the opportunity to address the use at the site in the future and ensure the effectiveness of the management objectives in protecting the rare and endangered plant species and native dune grass on the site, taking into account any changed circumstances in the future, staff recommends limiting the authorization to five years.

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

STAFF NOTES

1. Standard of Review

The proposed project is located in the County of Humboldt. The County has a certified local coastal program (LCP), but the 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. The certified LCP policies, including those in the Beach and Dunes Management Plan LCP Amendment No. 1-93, are advisory.

I. MOTION, STAFF RECOMMENDATION & RESOLUTION

The staff recommends that the Commission adopt the following resolution:

MOTION:

I move that the Commission approve Coastal Development Permit No. 1-10-017 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 Appendix A.

III. SPECIAL CONDITIONS:

1. OHV Management Requirements:

Use of the area as an off highway vehicle (OHV) riding area shall be subject to the following conditions:

- (a) All fences and signage shall be continually maintained in a manner adequate to protect all rare and endangered plant species and native dune grass within the area;
- (b) Management activities shall be carried out to effectively prohibit OHV use of all unauthorized areas (the areas fenced off and enclosed to protect rare and endangered plant species and native dune grass);
- (c) Annual monitoring of the rare and endangered plant species and native dune grass at the site shall be conducted to determine the effects of the allowed OHV use on these resources; and
- (d) The applicants shall remove exotic invasive vegetation, including but not limited to, European beachgrass, yellow bush lupine, and iceplant from the fenced enclosures on a regular and on-going basis and shall briefly close the OHV area if necessary to allow for eradication projects by responsible parties to be performed at the site.

2. Annual Report

The applicants shall provide an annual report to the Executive Director of the Coastal Commission by November 1 of each year beginning in 2011. The report shall discuss compliance with Special Condition No. 1 above, and to that end may incorporate annual monitoring reports prepared pursuant to the June 1998 Memorandum of Understanding between the Bureau of Land Management and the City of Eureka. In particular, the report shall describe:

- (a) the location and duration of any breaches in the fencing permitted by this permit, and the effect of such breaches on the protected habitat;
- (b) the management activities and programs carried out to eliminate trespass into the fenced off areas, including user-education activities, person-hours of patrols and enforcement activities;
- (c) data demonstrating any changes in the frequency, cover or census of endangered and/or native plants; and
- (d) conservation and restoration activities undertaken, including efforts to remove exotic plants.

3. Maintenance of Fences and ESHA Protection

If any portion of the fenced enclosure is damaged by storm surge or other natural processes, the permittee shall immediately apply for an amendment to Coastal Development Permit No. 1-10-017 to establish a new fenced enclosure within the project site that will, to the maximum extent feasible, provide for the protection and continuance of at least the same size and type of area of rare and endangered plant species and native dune grass previously protected by the fenced enclosure.

4. Trail Maintenance

Trail maintenance that involves cutting new trails or relocating existing trails shall require an amendment to coastal development permit No. 1-10-017.

5. <u>Permit Expiration</u>

The OHV use authorized by this permit shall cease on December 31, 2015. Continued use of the area for OHV riding after that date shall require a new coastal development permit or an amendment to this permit.

IV. FINDINGS & DECLARATIONS

The Commission hereby finds and declares:

A. <u>SITE DESCRIPTION</u>

The project site is located along the south end of the Samoa Peninsula (also known as the north spit) in Humboldt County (Exhibit Nos. 1-3). The specific location is on the foredunes of the City of Eureka Municipal Airport property on approximately 75 acres commonly known as the "Eureka Dunes Riding Area," the "Skypark Foredunes," or the "Eureka Foredunes." Uses on the adjacent portions of the property include an active airstrip, a bed and breakfast, an area previously used as a dredge spoil site, and other commercial uses. The project site does not include the wave slope (that area below mean high tide line), which is owned by the state of California and is currently open to limited OHV use (i.e. for commercial fishing and disabled access). The site is adjacent to (immediately north of) the 330-acre Samoa Dunes Recreation Area that is owned and managed by the Bureau of Land Management (BLM). The Eureka Dunes Riding Area is cooperatively managed by BLM and the City of Eureka pursuant to a memorandum of understanding made and entered into by the two parties in 1998 (Exhibit No. 4). According to the BLM, the Samoa Dunes Recreation Area receives approximately 25,000 visits by OHV riders annually, with approximately 3,500 visits to the adjacent City of Eureka riding area (the subject site).

The property consists mostly of accreted land, formed as a by-product of jetty construction in the early 1900's. The approximately 150-acre foredune area, of which 75 acres is proposed for continued OHV riding use, is heavily vegetated, primarily with non-sensitive, introduced exotic European beachgrass (*Ammophila arenaria*) and yellow bush

lupine (*Lupinus arboreus*), but also with pockets of sensitive species. Both of these areas have been impacted by historic unrestricted OHV riding.

The property as a whole contains areas of native dune mat, native beachgrass, herbaceous and woody dune hollows, and dune areas of moderate to extensive exotic plant coverage. There are several distinct areas within both the City's property and the BLM property. The defined areas on the City's property include (1) a 40-acre rare plant protection area, which is closed to vehicles and provides and protects habitat for two endangered plant species: Humboldt Bay wallflower (*Erysimum menziesii* spp. *eurekense*) and Beach layia (*Layia carnosa*). These endangered plant species require semi-stabilized native dune mat and more open, bare sand areas, respectively; (2) a 110-acre Natural Resource area, which contains about 30 acres of dune mat habitat and where no uses other than vegetation rehabilitation or pedestrian uses are allowed; and (3) a 75-acre open riding area along a portion of the foredunes (i.e., the subject site). In addition, an 80-acre portion of the City of Eureka property referred to as the "Mitigation Bank" was set aside and fenced off for resource protection in 1990 for future mitigation should industrial development be proposed in the adjacent area zoned for that use.

The various defined areas within the adjacent BLM Samoa Dunes Recreation Area include the following: (1) 120-acre wetland protection area, which is fenced and protected from vehicle use and contains several native habitats such as herbaceous hollows, dune mat, brackish marshes and woody hollows; (2) OHV staging area; (3) 200+ acres for open OHV riding, composed of degraded dune habitat consisting of nonnative species such as European beach grass, yellow bush lupine, and iceplant (*Carpobrotus* spp.). These invasive plants are a detriment to native plant communities, and a large amount of labor has been expended in nearby areas to eradicate these weeds and restore conditions needed for native plants and wildlife; and (4) Cypress Grove picnic area.

B. BACKGROUND & PROJECT DESCRIPTION

There are approximately 3,460 acres of dunes within the County's coastal area. The north and south spits along Humboldt Bay contain the longest continuous stretch of dunes (approximately 26 miles) and more than one-third of the 85 miles of sand dunes found in northern California. Unauthorized OHV use has occurred on the foredunes and interior dunes for many years. Unregulated riding of OHVs over endangered and sensitive native plants has posed a threat to these coastal resources. The County of Humboldt has been seeking to address these conflicts since the early 1980's. In 1990, the Board of Supervisors obtained funding from the State Coastal Conservancy to conduct a detailed study of natural and cultural resources, sensitive habitat, enhancement and restoration opportunities, passive recreational uses, as well as active recreation such as OHV riding as a basis for a balanced and comprehensive management plan.

After years of intensive study, planning, environmental review, public involvement, and numerous hearings over the period from 1990 to 1994, the County adopted the Humboldt County *Beach and Dunes Management Plan* (Plan) to provide a framework for managing the beach and dune areas of the north and south spits. The Plan is acknowledged in Humboldt County's certified LCP (see LCP Amendment No. 1-93, certified by the Coastal Commission with modifications in 1994).

One of the important purposes and outcomes of the Plan was to determine and specifically define areas where OHVs could or could not be ridden. The intent was to set forth a plan that would accommodate the high public demand for OHV use while protecting sensitive dune vegetation and other passive forms of recreation. The Plan concluded that the only areas where OHV use would be allowed or proposed are the existing Samoa Dunes Recreation Area (owned and managed by BLM), the adjacent Eureka Foredunes (the proposed site), and along the wave slope for limited purposes (i.e., disable access and commercial fishing). The portions of the dune system along the Samoa Peninsula (north spit) were identified to be closed to vehicle use. The 75-acre portion of the City of Eureka property, which is located within the area of the Commission's retained jurisdiction, where the City and the BLM are seeking reauthorization of the OHV riding area, was locally rezoned from Natural Resources to Public Recreation and later referenced in the Beach and Dunes Management Plan LCP Amendment (LCP Amendment No. HUM-MAJ-1-93). The purpose of the local zoning change was to allow for the creation of a well-defined but limited area for additional authorized OHV use while closing the north and south spits to vehicles.

Although the subject property is within the Commission's retained jurisdiction and any LCP policies concerning the area are only advisory in nature, the 1994 LCP amendment that incorporated the Beach and Dunes Management Plan into the LCP provides useful guidance for planning at the site. In particular, the Commission suggested a modification, subsequently adopted by the County, specifically outlining how to resolve the issues between OHV use and resource protection on the subject property. This Modification "A" stated as follows:

A. To (1) eliminate a potential conflict between redesignating a portion of the foredune of the City of Eureka Airport property to Public Recreation to allow for development of an expanded OHV riding area in a degraded dune area and the policies of the Humboldt Bay Area Plan that protect all vegetated dunes as environmentally sensitive habitat areas and preclude such development, and (2) ensure that any OHV riding area developed at this site will adequately protect all portions of the dunes vegetated with native beach grass or rare and endangered plant species, add the following to subsection 11, "Beach and Dune Areas," of Section 3.30 of the Plan, "Natural Resources Protection Policies and Standards:

11. Beach and Dune Areas

c. The area designated "Public Recreation" along the foredune zone of the City of Eureka Airport property north of the BLM/Samoa Dunes Recreation Area contains dune habitat that has been severely degraded over time due to extensive previous use for recreation OHV riding and other human disturbance.

- (1)Although the dune vegetation in this area includes some native dune grass and populations of the endangered plant species Menzies (Humboldt Bay) wallflower and Beach layia, most of the vegetation consists largely of non-native invasive species such as European beach grass and bush lupine. Section 3.30B(1)(a)(2) of this plan and 3.30B(1)(a)(4) of this plan states that all vegetated dunes along the North Spit to the Mad River and along the South Spit are environmentally sensitive habitats. Because of the high percentage of invasive plant species and the degraded nature of this particular area, only those portions of the vegetated dunes in this area actually containing either rare and endangered plant species or native dune grass are considered to be environmentally sensitive vegetated dune habitat. Pursuant to Sections 3.30B(1)(a)(1) and 3.30(1)(a)(4) of this plan, any wetlands or critical habitats for rare and endangered animal species that might exist in the area are also considered to be environmentally sensitive habitat areas.
- (2) The area is proposed for development as an off highway vehicle riding area under the County's Beach and Dunes Management Plan. To protect the environmentally sensitive vegetated dune habitat within the area, any such development shall be required to do the following:
 - (a) Fence and prohibit use of all portions of the affected dunes containing rare and endangered plant species or native beach grass.
 - (b) Conduct annual monitoring for rare plant species to determine the effects of activities on the relative viability of the population in any given year and perform necessary remediation measures.

The above-referenced language recognizes the disturbed state of the dune habitat and defines environmentally sensitive habitat areas (ESHA) as being those portions of the vegetated dunes in the area that contain either rare and endangered plant species or native dune grass, in addition to any wetlands or critical habitats for rare and endangered animal species. The Commission approved the LCP Amendment in 1994 with the above referenced language and allowed the property to be rezoned from Natural Resources to Public Recreation to provide for a well-defined, concentrated OHV riding area.

The Coastal Commission also approved creation of the BLM Samoa Dunes Recreation Area on 330 acres of federal land at the south end of the Samoa Peninsula in 1983 through its concurrence with Consistency Determination CD-27-82. The BLM subsequently developed an OHV recreation area at the site including trail systems, a staging area adjacent to the trails, signing and fencing of sensitive habitat areas and other non-OHV areas. With the adoption of the Beach and Dunes Management Plan and subsequent OHV closures elsewhere, the Samoa Dunes Recreation Area experienced a substantial increase in the number of OHVs using the area. The increased use at the BLM

property resulted in an increased incidence of trespass onto the adjacent City of Eureka property by OHV riders coming from the BLM riding area. This increased OHV use and trespassing resulted in off-site impacts to the Eureka property. Vehicles were observed riding throughout the foredunes as well as the interior dune mat habitat where sensitive plant species occur. Because these OHVs originated from the Samoa Dunes riding area, the BLM felt some degree of responsibility and need for action to keep off-site impacts to a minimum. Consequently, the City of Eureka and the BLM entered into a Memorandum of Understanding (MOU) in June 1998 as a means of implementing the objectives stated in the Plan, and particularly, as stated in the MOU (Exhibit No. 4), the following:

...for the purpose of cooperatively managing approximately 80 acres of what is commonly known as the Eureka Foredunes, located adjacent to the Samoa Dunes Recreation Area at the north jetty area of the Samoa Peninsula. More specifically, this agreement provides a framework for managing the aforementioned area so that safe and orderly off-highway vehicle (OHV) recreation use can occur while protecting endangered and native plant species, and their habitats. This MOU outlines cooperative activities and clarifies the range of shared tasks, which includes, but may not be limited to: (1) constructing and maintaining protective fencing, (2) maintaining OHV trails, (3) maintaining the property, (4) installing and maintaining signs, (5) resource monitoring, (6) patrols, (7) writing environmental documents and (8) obtaining permits.

In an effort to ease congestion at the BLM riding area and to prevent unrestricted resource degradation on the adjacent dune area, the BLM and the City entered into a cooperative management effort to expand the OHV riding area outside of the BLM riding area and to provide for monitoring and enforcement measures. In 1998, the City and the BLM applied for and received a coastal development permit from the Commission (CDP No. 1-98-067) to provide for regulated OHV use on 75 acres owned by the City of Eureka (the subject property) to expand and connect with the BLM riding area. The permit also authorized installation of signs and fencing to delineate the riding area boundaries and to protect areas of sensitive vegetation (ESHA).

The original permit (1-98-067) was approved with three special conditions, including (1) OHV use standards, (2) submittal of annual monitoring reports, and (3) a two-year time period for authorization of development. Special Condition No. 3 required that OHV use authorized by CDP No. 1-98-067 cease on December 31, 2000 and that a new coastal development permit be obtained to authorize continued use of the area for OHV riding after that date.

Pursuant to Special Condition No. 3 of CDP No. 1-98-067, the applicants applied for reauthorization of the permit in 2000. The Commission approved CDP No. 1-00-047 authorizing the continued OHV use of the area. CDP No. 1-00-047 was approved with five special conditions, including (1) OHV management requirements, (2) submittal of annual monitoring reports, (3) maintenance of fences and ESHA protection, (4) trail maintenance requirements, and (5) a five-year time period for authorization of development. Special Condition Nos. 1 and 2 reiterate and incorporate into the permit

management guidelines set forth by the BLM and the City in the MOU. More specifically, the special permit conditions required the following:

- Special Condition No. 1 of CDP No. 1-00-047 required that the OHV riding area be subject to particular management standards, including (a) all fences and signage be continually maintained in a manner adequate to protect the environmentally sensitive vegetated dune habitat within the area; (b) management activities be carried out to effectively prohibit OHV use of all unauthorized areas such as the fenced off and enclosed areas containing rare and endangered plant species or native beach grass; (c) a requirement for annual monitoring of the environmentally sensitive vegetated dune habitat to determine the effects of the allowed OHV use on these resources; and (d) encouraged removal of exotic invasive vegetation from the site and the requirement to briefly close the OHV area if necessary to allow for eradication projects by responsible parties to be performed at the site.
- Special Condition No. 2 of CDP No. 1-00-047 required the applicant to submit an annual monitoring report to the Executive Director that would discuss (1) how the standards of Special Condition No. 1 are being met; (2) the location and duration of any breaches in the fencing and the effect of such breaches on the protected habitat; (3) the management activities and programs carried out to eliminate trespass into the fenced-off areas including user-education activities, person-hours of patrols and enforcement activities; (4) data demonstrating any changes in the frequency, cover, or census of endangered and/or native plants; and (5) conservation and restoration activities undertaken including efforts to remove exotic plants.
- Special Condition No. 3 of CDP No. 1-00-047 required the applicant to apply for a new permit or permit amendment in the event that the fenced enclosures are damaged by storm surge or other natural processes to ensure the continued protection of at least the same size and type of area of rare and endangered plant species and native dune grass.
- Special Condition No. 4 of CDP No. 1-00-047 required that any trail maintenance involving cutting new trails or relocating existing trails would require a permit amendment.
- Special Condition No. 5 required that OHV use authorized by CDP No. 1-00-047 cease on December 31, 2005 and required a new coastal development permit or an amendment to the original permit to authorize continued use of the area for OHV riding after the expiration date.

Consistent with the requirements of Special Condition No. 5 of CDP No. 1-00-047, the applicants sought new project authorization in 2005 to continue to use the foredune area for OHV riding as well as to continue to protect and maintain populations of rare and endangered plant species and native dune grass by maintaining post and cable fence

enclosures around these areas and by continuing annual monitoring efforts. On October 14, 2005 the Commission approved CDP No. 1-05-028 with five special conditions virtually identical to those attached to CDP No. 1-00-047 (described above). CDP No. 1-05-028 authorized the continued use of the foredune area on the subject property for OHV riding through December 31, 2010. Thus, pursuant to Special Condition No. 5 of CDP No. 1-05-028, the applicants again are seeking reauthorization of the continued use and maintenance, for a 10-year period, of the designated 75-acre off-highway vehicle (OHV) riding area previously authorized for a two-year period under CDP No. 1-98-067 and for two five-year periods under CDP Nos. 1-00-047 and 1-05-028. The applicants also propose to periodically maintain and rehabilitate trails, as was authorized under CDP No. 1-05-028.

C. ENVIRONMENTALLY SENSITIVE HABITAT AREAS

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 such areas, and shall be compatible with the continuance of such habitat areas.

Existing Conditions

The subject site had been significantly disturbed and degraded over many years prior to the Commission's approval of the first coastal development permit authorizing OHV use on the site (CDP No. 1-98-067 in 1998) by unauthorized and indiscriminate OHV use and other human activities. The site is known to contain populations of Beach layia and Humboldt Bay wallflower, two federally listed endangered plant species. In addition, the site is known to contain populations of dark-eyed gilia (*Gilia millefoliata*), Lyngbye's sedge (*Carex lyngbyei*), and shortleaf dwarf cudweed (*Hesperevax sparsiflora* var. brevifolia) – all of which are listed as rare, threatened, or endangered species on state lists¹ (CNPS List 1B.2, 2.2, and 1B.2 respectively²). In addition, some of the foredune

¹ California Native Plant Society (CNPS). 2010. *Inventory of Rare and Endangered Plants* (online edition, v7-10c). CNPS. Sacramento, CA. Accessed on Tue, Aug. 31, 2010 from http://www.cnps.org/inventory; and California Department of Fish & Game (CDFG). 2003. *RareFind* Version 3.1.1. Gov't version dated May 1, 2010. Natural Diversity Database (NDDB), Biogeographic Data Branch. Sacramento, CA.

area contains native dune grass (*Leymus mollis*), which is a rare natural community listed in the Department of Fish and Game's Natural Diversity Database¹. However, most of the foredune area is covered by invasive exotic European beach grass, yellow bush lupine, iceplant, and other weedy species that outcompete and completely displace native dune vegetation.

The site contains no nesting/breeding threatened or endangered animal species, though the BLM does monitor the site for, among other species, California brown pelican (Pelecanus occidentalis ssp. californicus), white-tailed kite (Elanus leucurus), northern harrier (Circus cyaneus), and Cooper's hawk (Accipiter cooperi) – all of which are known to forage within and around the subject property (see Exhibit Nos. 5-8 for details on the BLM's monitoring program for the subject site). The BLM also monitors the subject property for western snowy plover (Charadrius alexandrinus ssp. nivosus), a federally threatened species that historically was documented in the area, but has not been documented nesting on the north spit since 1978 (NDDB 2010). The snowy plover is a small shorebird that resides and breeds on open beaches and gravel bars. The BLM has conducted surveys for breeding plovers on the Samoa peninsula on a monthly basis during spring and summer since 1998. These surveys follow the U.S. Fish and Wildlife Service protocol and involve a trained surveyor walking the beach and all suitable habitat looking and scanning for plovers with binoculars. Suitable plover habitat at the subject site is limited by the extensive dune stabilization caused primarily by the introduction of European beachgrass.

Protection of Environmentally Sensitive Habitat Areas (ESHA)

In many recent decisions, the Commission has considered certain dune areas to be ESHA largely because of the dynamic nature of a dune system. While the entirety of coastal dunes in other areas statewide have been considered ESHA, at this particular site, the Commission has previously and repeatedly determined that the rare and endangered plant species and native dune grass at this location are ESHA, but not the portion of the dunes vegetated with invasive, exotic species.

In its action on Humboldt County LCP Amendment No. 1-93 (the Beach and Dunes Management Plan), the Commission acknowledged that those portions of the site with endangered plant species and native dune vegetation fall under the section 30107.5 definition of "environmentally sensitive habitat area." The Commission further found that developing the site in a manner that would preclude entry into these areas through the use of fencing and signing would be in conformance with Coastal Act Section 30240. Specifically, the Commission found that:

Not every sand dune or sand dune area necessarily meets the definition of an ESHA set forth in Coastal Act Section 30107.5...[T]he Commission finds that in this portion of the

² CNPS List 1B = Plants rare, threatened, or endangered in California and elsewhere; CNPS List 2 = Plants rare, threatened, or endangered in CA, but more common elsewhere. 0.1 = "Seriously endangered" in CA; 0.2 = "Fairly endangered" in CA.

Humboldt beach and dunes area, dunes vegetated with invasive species such as European beach grass and bush lupine do not meet the definition of an environmentally sensitive species because these plant species are not rare or especially valuable in this area. In fact, these species are damaging to native species in that they outcompete and displace the native species. Many dune restoration projects in the Humboldt County area have included the removal of these exotic species.

Based on botanical surveys conducted as of the planning process for the Beach and Dunes Management Plan, the vast majority of the 150-acre foredune area proposed for ... OHV park use is not vegetated with the environmentally sensitive plant species. Thus, there would appear to be sufficient acreage within the site to develop the intended use without necessarily intruding on the ESHA areas...[D]eveloping the site in a manner that would preclude entry to the ESHA areas throughout the use of fencing and signing...would then be in conformance with Coastal Act Section 30240. (Adopted Findings, Humboldt County LCP Amendment 1-93, Beach and Dunes Management Plan, April 11, 1994.)

The nonnative, invasive species that cover the majority of the foredunes at the site are a threat to native plants in that they outcompete and displace the native species. Many dune restoration projects in the beach and dune areas of Humboldt County have included the removal of these exotic species, because these plants are neither rare nor especially valuable in their role in the dune system. It is clear however that as defined by Coastal Act Section 30107.5, the rare plants and native dune grass are all considered to be environmentally sensitive since: (1) the plants are either rare or play an especially valuable role in an ecosystem, and (2) they are easily disturbed or degraded by human activities and developments such as OHV riding. The project proposes to avoid and protect these areas consistent with Section 30240, which requires development to protect ESHA from significant disruption of habitat values and allows only uses dependent on such resources within these areas.

According to the annual monitoring reports required by Special Condition No. 2 of CDP Nos. 1-98-067, 1-00-047, and 1-05-028, the regulated OHV use in the area has been successful in protecting the rare and endangered plant species and native dune grass on and off-site over the past 12 years. The annual reports were required to monitor the impacts of OHV use on the site over the course of the Commission's authorization of the use of the foredune as a riding area. The original permit authorized installation of 1,400 linear feet of post and cable fencing to delineate areas open for riding and to fence off approximately four acres of endangered and sensitive vegetation. CDP No. 1-00-047 authorized an additional one-acre of fenced area, which was established by the applicants in 2002. This permit also authorized installation of signs to display safety information and to indicate areas open and closed to vehicle use. As required by conditions of the previous permits, all fences and signage at the site have been continually maintained. The applicant indicates that, aside from one small breach caused by sand inundation in the past year, which has since been repaired, there has been no evidence of any breaches

in the enclosures or the easterly perimeter fence, suggesting that the fencing and the signage have been effective in keeping OHVs in the designated areas (Exhibit No. 6).

According to annual reports submitted by the applicants over the past nine years pursuant to the requirements of Special Condition No. 2 of CDP Nos. 1-00-047 and 1-05-028, the management and use of the Eureka Dunes Riding Area has continued successfully. Resource values continue to be protected, an active law enforcement presence exists and very few violations have occurred. The area continues to be patrolled by the BLM volunteer caretaker, BLM Outdoor Recreation Planner, BLM Law Enforcement Ranger, deputies of the Humboldt County Sheriff's Department, and volunteers of the Lost Coast 4x4 Club. According to the 2009 annual report (Exhibit No. 6), total person-hours are estimated at 300 hours and law enforcement patrols made up approximately 150 hours. Through the assistance agreement between BLM and Lost Coast 4x4 Club, riders continue to be educated (through personal communications) about which areas are open and closed, why certain areas are closed, and other rules and regulations with which they need to comply.

The BLM receives grant funding annually from the "Green Sticker" program administered by the California Department of Parks and Recreation Off-Highway Motor Vehicle Recreation Division. These annual grant funds, in addition to BLM appropriated funds, are used for the management of both the Samoa Dunes Recreation Area and the Eureka Dunes Riding Area. Approximately \$15,000 is spent annually at the project site to provide for safe and orderly OHV use, resource monitoring and protection, habitat restoration, facility and trail maintenance, and to provide for an active law enforcement presence. The applicants indicate that the annual grant funds have been reliable and are expected to be granted well into the future so long as opportunities for OHV recreation remain established.

With enforcement measures and funding in place, there is a mechanism by which illegal and indiscriminate OHV riding in unauthorized areas can be curbed. By providing for regulated OHV use in a consolidated, well-defined and enforceable area, riding throughout other areas of the dunes along the peninsula is reduced, thereby avoiding and minimizing adverse impacts to environmentally sensitive habitat areas within the larger dune system.

At this location, allowing riding in this previously authorized area covered with invasive, exotic vegetation is beneficial for the overall protection of dune habitat throughout the north spit. The overall protection of the dune habitat throughout the north spit is essential to the viability of the rare and endangered species and native vegetation communities within the dynamic dune system. Providing an authorized riding area keeps OHV riders off of other dune areas and provides enforcement funds to ensure that riding is restricted to the authorized area. This solution was carefully crafted years ago, and the results of the past 12 years of riding at the Eureka/BLM site have been encouraging in terms of demonstrating that the north spit dune system is being protected from illegal, destructive

riding by the OHV riding agreement called for in the certified LCP and authorized by the Commission in CDP Nos. 1-98-067, 1-00-047, and 1-05-028. Therefore, the Commission finds the proposed project as conditioned is consistent with the requirements of Section 30240, because the project will protect the overall dune system on the north spit against significant disruption of habitat values.

Special Conditions Required for the Protection of ESHA

To ensure that the proposed project is conducted in a manner that will fully protect against any significant disruption of habitat values, be sited and designed to prevent impacts which would significantly degrade such areas, and be compatible with the continuance of such habitat areas, the Commission attaches several special conditions as discussed below.

The installation of fences and signs approved under the original permit (1-98-067) and their on-going maintenance required per CDP Nos. 1-00-047 and 1-05-028 has proven to be successful in precluding OHV entry into the rare and endangered plant species and native dune grass enclosure areas. Maintenance of the fences and signs is essential to provide the level of protection necessary to ensure the continuance of the rare and endangered plant species and native dune grass adjacent to the riding area. For example, if the fences are not maintained, or if illegal use in the fenced-off areas is not controlled, these sensitive areas could be subject to significant disruption, inconsistent with Section 30240. Therefore, the Commission attaches **Special Condition No. 1**, similar to that attached to the previous permits, to incorporate into this permit, the management objectives set forth in the BLM/City of Eureka MOU. These conditions ensure that the proposed OHV use of the site does not intrude into the rare and endangered plant species and native dune grass on the site, and thereby remains a use consistent with Section 30240 of the Coastal Act.

Specifically, Special Condition No. 1 incorporates measures that the BLM commits itself to in the MOU (Exhibit No. 4). These include (a) requiring that all fences and signage be maintained to prevent vehicles from affecting rare and endangered plant species and native dune grass; (b) that management activities be carried out to effectively prohibit OHV use of these areas; and (c) that monitoring be conducted to determine the effects of the proposed use. Monitoring the effectiveness of the management measures set forth in the MOU and Special Condition No. 1 is essential to ensure protection of the habitat. Therefore, **Special Condition No. 2** requires an annual monitoring report (also called for in the applicants' MOU) be submitted to the Executive Director to demonstrate how the objectives of Special Condition No. 1 are being met.

The applicants are requesting permit approval for a period of 10 years based on the success of the project over the past 12 years. However, the Commission finds that because the nature of the dune habitat is dynamic and the continued approval of the use of the site for OHV riding may be affected by the results of the required on-going

maintenance and monitoring measures, it is necessary to limit the period of authorization to account for potential changes at the site and/or the use of the site in the future. For example, if the permit were to be authorized for a period of 10 years, it is possible that a sensitive plant or animal species, unknown at the present time, may be discovered to exist at the site. It is also possible that the monitoring reports could demonstrate in the future that the ESHA protection goals are not being met through the required measures alone due to changes in the use demands at the site and would require additional review and consideration of any changed circumstances. Therefore, to ensure that the Commission continues to have the opportunity to address the use at the site in the future and ensure the effectiveness of the management objectives in protecting the rare and endangered plant species and native dune grass on the site, taking into account any changed circumstances in the future, it is necessary to limit the use to five years. Therefore, the Commission attaches **Special Condition No. 5** to limit the duration of OHV use authorized by this permit and require the applicants to obtain a coastal development permit amendment to continue use of the area for OHV riding after five years.

The original permit authorized installation of fencing to delineate areas open for riding and to fence off approximately four acres of sensitive vegetation to prevent intrusion by OHVs. One additional acre was authorized pursuant to 1-00-047. Annual monitoring of the enclosed ESHA began on April 1, 1999. The purpose of the monitoring is to observe and measure the vegetation components found within the protective endangered plant enclosures as well as in the open riding area. Management objectives set forth by the BLM are to maintain or exceed the relative frequency of two endangered plant species, Humboldt Bay wallflower (*Erysimum menziesii ssp. Eurekense*) and Beach layia (*Layia carnosa*). Monitoring methods include the quadrant frequency method, which measures cover and presence/absence of all species that occur in the sample set. Observations were made of generalized changes as well as any plant community variations in the open riding area. Permanent photo points have also been established for both the enclosures and open riding area. This information provides photo-documentation of OHV impacts to any existing plant community.

According to 2010 annual monitoring results (Exhibit No. 5), beach layia remains one of the most abundant plants in the enclosures. The applicants note that in 2000, one of the plant enclosures suffered a large loss of beach layia as well as other native plants due to large inundations of sand caused by winter storms. Then, up until 2006, the beach layia and other key native plants made a sustained comeback, and the community was doing well. At that point, however, sand inundations from blowouts associated with the adjacent incipient foredune again altered the native plant populations. The monitoring report notes that frequent sand disturbance events seem to be a regular feature in the northern portion of enclosure #2. At the same time, however, monitoring results revealed that for the first time, Humboldt Bay wallflower was found growing in enclosure #2. The monitoring report interprets this as positive news, since the numbers of Humboldt Bay wallflower in enclosure #1 have remained relatively low. Invasive exotic species including iceplant, European beachgrass, and yellow bush lupine were pulled from

enclosures each year, and the quality of native plant communities in the enclosures are noted as "stable" with a recommendation for continued invasive weed management. Photo documentation taken at established photo points in the riding area since 2001 shows little change in the vegetation density or composition, since OHV use occurs principally on established, maintained trails.

The annual reports submitted by the applicants also demonstrate that OHV riders using the site have cooperated by staying on designated trails. The applicants note that there is no evidence of any trespass by OHV riders into the ESHA enclosures and that the users have abided by all the guidelines established by the BLM thus far. The report concludes that overall, the quality of the enclosures appears stable and the post and cable barriers are being respected by OHV users.

As noted above, the fences were not destroyed or invaded by OHV users and were successful in delineating the areas closed to vehicle riding. However, in the past, three of the five originally established enclosures nearest the ocean were destroyed by excessive storm surge and high tides, and sand inundation due to natural forces remains a factor in population volatility in enclosure #2.

In the permit application for CDP No. 1-00-047, the applicants proposed to connect the two remaining enclosures and expand the enclosed area to include an additional acre of sensitive vegetation to replace the area lost to natural processes. The three damaged enclosures were in close proximity to the water's edge and were subject to wave erosion and storm surge at periods of high tide. The remaining enclosures and the proposed expansion were located such that they would not be as directly subject to erosion and wave action. The Commission found that one large enclosed area as opposed to five small enclosures would more effectively enhance the viability of sensitive and endangered plant species and native dune grass. The single, expanded enclosure area provides for the continuance of the ESHA adjacent to the riding area pursuant to Section 30240(b), provided that the invasive exotic species within the enclosure are removed to maximize the habitat area available for the colonization of sensitive and endangered species. Therefore, Special Condition No. 1(d) requires the applicant to continue the removal of all exotic species from the enclosure on a regular and on-going basis to protect the viability of the rare and endangered plant species and native dune vegetation. The Commission further notes that it is possible that like the previous enclosures, natural processes could destroy the remaining and expanded fenced enclosure. The dynamic nature of the dunes system would typically allow dune vegetation to reestablish itself following elimination by natural processes. However, if the enclosure is destroyed by natural means, OHV riding in the area would likely preclude the environmentally sensitive vegetation from reestablishing naturally. Therefore, to ensure the continuance of the ESHA adjacent to the riding area, Special Condition No. 3 requires the applicant to apply for a coastal development permit amendment to reestablish and relocate, to the maximum extent feasible, a fenced area of equivalent nature and size should the enclosure be damaged by storms or other natural events.

The applicants also request authorization for periodic maintenance of the designated OHV trails. The applicants indicate that over time and with extended use, the trails become uneven, difficult to maneuver, and potentially dangerous. Trail maintenance, grooming, and rehabilitation are required periodically to keep riders on the designated trails. Ungroomed and bumpy trails detour riders from the designated trails and often results in riders cutting trails or creating new trails. Trail maintenance is also required to ensure safety by creating clear intersections and direction to prevent collisions. The applicants indicate that active management of the area is essential to keep riders and other recreators safe and to keep riders on the authorized trails and out of potentially sensitive habitat areas. Periodic trail maintenance often involves using a rake, a box scraper, and sometimes a small tractor to smooth the trails.

The Commission finds that trail maintenance will not adversely affect the integrity of the dunes or enclosed ESHA at this location. Rather, as noted above, maintaining the trails discourages riders from venturing off the trail into potentially sensitive habitat areas. However, cutting new trails or relocating trails could have potential adverse impacts to ESHA if the trails were cut or located through an area of sensitive or endangered vegetation. Therefore, to avoid potential significant disruption to environmentally sensitive vegetation on the site, the Commission attaches **Special Condition No. 4**, which requires the applicant to apply for a coastal development permit amendment to cut new trails or relocate existing trails. The Commission will then have the opportunity to evaluate whether the proposed trail location would be sited such that it would avoid significant disruption to any environmentally sensitive habitat area.

Conclusion

The Commission finds that allowing continued regulated OHV use at the subject site provides for protection of not only the ESHA that is enclosed and excluded from vehicles on the site, but also provides for increased protection of the overall dune system of the area. The proposed OHV riding area concentrates vehicle use to the southern most portion of the north spit foredunes and establishes a management and enforcement presence that in turn minimizes illegal and indiscriminate riding in other dune areas. Thus, vehicle use is kept restricted to an area previously authorized for vehicle use while minimizing the incidence of OHV trespass and habitat disruption in other dune areas. Furthermore, allowing for continued OHV use at the site is consistent with the Beach and Dunes Management Plan that provides for a cooperative solution to both OHV recreation and resource protection in this specific area. According to information in the annual monitoring reports submitted by the applicants, the Eureka foredune riding area has been a positive solution to the on-going need for both OHV use and resource protection. In the 2009 annual monitoring report, the applicants state:

"Management and use of Eureka Dunes Riding Area was again successful this past year. All resource values continue to be fully protected, and OHV enthusiasts enjoy riding in the area. An active law enforcement presence exists, and very few violations have occurred."

The proposed project, as conditioned, will provide for the continuance of the ESHA adjacent to the riding area and the existing fenced enclosure will continue to avoid significant disruption to the rare and endangered plant species and native dune grass on the site. In a larger sense, authorization of OHV use in this well-defined but limited area will continue to relieve the pressure caused by indiscriminate riding on sensitive habitat areas throughout the balance of the nearly 3,500 acres of open dunes which are set aside for habitat protection under the County's LCP.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30240 of the Coastal Act, as the project will provide for the protection of the overall dune system and will avoid significant adverse impacts to environmentally sensitive habitat areas.

D. PUBLIC ACCESS

Section 30210 of the Coastal Act requires that maximum public access be provided consistent with public safety needs and the need to protect natural resource areas from overuse. 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 where adequate access exists nearby. Section 30211 of the Coastal Act requires that new development not interfere with the public's right to access gained by use or legislative authorization. Section 30214 of the Coastal Act provides that the public access policies of the Coastal Act be implemented in a manner that takes into account the capacity of the site and the fragility of natural resources in the area.

In applying Sections 30210, 30211, 30212, and 30214, the Commission is also limited by the need to show that any denial of a permit application based on these sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential access.

The proposed project is to reauthorize the use of 75 acres of foredune area for OHV riding in a manner that will protect and maintain populations of endangered native plant communities and native dune grass colonies by continuing to maintain post and cable fence enclosures around these sensitive vegetation areas.

A wide variety of recreation uses occur at the Samoa Dunes area. The most popular activities include surfing, OHV riding, fishing, picnicking, and beachcombing/sightseeing. According to the BLM, OHV use has not increased significantly at the site even though pressures to limit riding in inland areas and other coastal areas have increased. The BLM estimates that OHV riding has increased approximately 5 percent in the past five years, but that any increase has not been noticeable to the point of

necessitating increased enforcement or management measures. The BLM further notes that use of the site for other types of passive recreation (e.g., hiking, beach combing, etc.) is minimal, as there are many access points and parking areas along the Samoa Peninsula that are more convenient and more widely used for these activities.

To reduce potential user conflicts, non-OHV users are encouraged (through signing, maps, and brochures) to recreate in selected areas either closed to OHV use or far enough away from the OHVs to minimize negative impacts caused by noise and safety concerns. Pedestrian hiking trails exist to separate passive recreationists from OHV activity. The applicants indicate that designation and signing of a pedestrian trail to the wave slope within the open riding area has reduced the safety problem in this location considerably. Speed limits have been posted and enforced in several locations where other types of recreation use occur.

The proposed project would reauthorize an OHV riding area on 75 acres of foredunes but would prohibit OHV use in certain sensitive areas of the subject property that OHV users have used in the past. However, previous historic use of the site does not fall within the prescriptive rights protections of Coastal Act Section 30211 because the subject site is publicly owned (in this case by the City of Eureka), and prescriptive rights for public access cannot accrue on publicly owned lands.

Furthermore, the Commission must take into account the provisions of Sections 30210 and 30214 of the Coastal Act that require the Commission to consider the need to provide access opportunities with the needs to protect sensitive coastal resources. This project is being proposed precisely because of the damage the indiscriminate OHV use of the beach and dunes area has caused to the sensitive beach and dune ecosystem. The Commission concludes that restricting vehicle use from the sensitive parts of the dunes would assure protection for these coastal resources while at the same time providing opportunities for public access in the form of OHV use.

The Commission further finds that with regard to non-OHV public use, the proposed project is also consistent with the access policies of Coastal Act Section 30212. The project provides no specific new accessway for non-OHV use because potential conflicts with motorized traffic could be a hazard for the public attempting to access the coast through the property. However, the signage that was installed pursuant to the original permit includes signs advising pedestrians of OHV travel routes to minimize conflicts. More importantly in terms of Section 30212(b), significant public access opportunities for pedestrian use to the coast exist at virtually every point along the Samoa Peninsula, including the improved safe pedestrian access facilities at the BLM recreation area.

Therefore, the Commission finds that the proposed project does not have any significant adverse effect on public access, and the project as proposed without new public access is consistent with the requirements of Coastal Act Sections 30210, 30211, 30212, and 30214.

E. <u>CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)</u>

The City of Eureka served as the lead agency for the project for CEQA purposes. The City prepared and adopted a negative declaration for the project on July 27, 1998.

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

The Commission incorporates its findings on Coastal Act consistency 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 that will minimize or avoid all significant adverse environmental impact have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act and to conform to CEQA.

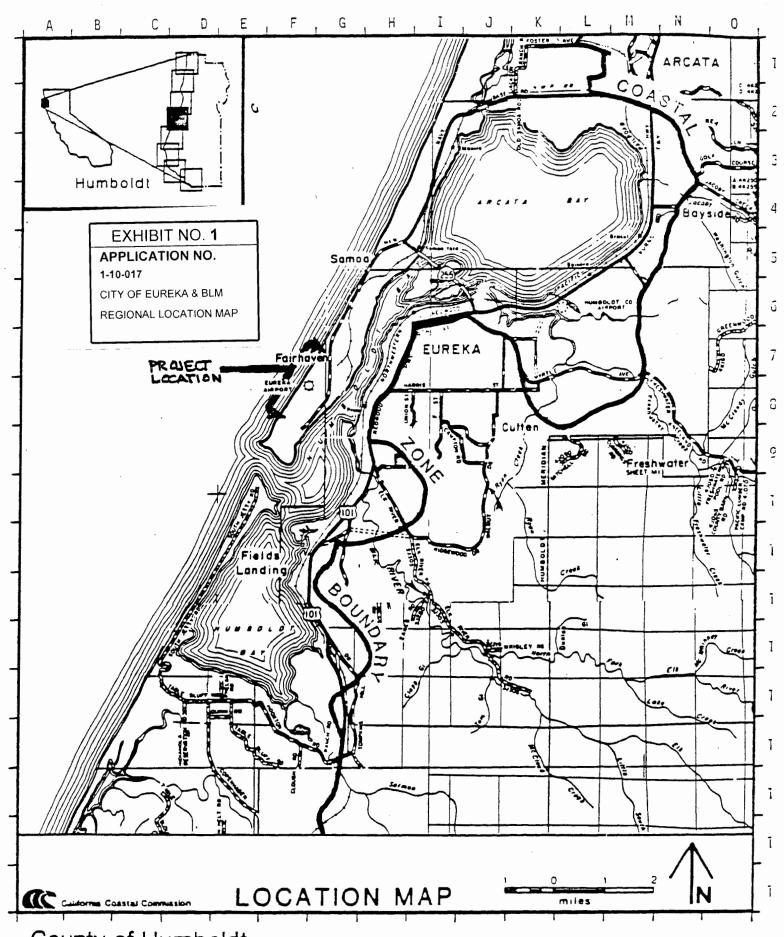
V. EXHIBITS

- 1. Regional Location
- 2. Vicinity Map
- 3. Area Aerial Photo
- 4. Memorandum of Understanding (BLM & City of Eureka)
- 5. 2010 Vegetation Monitoring Results
- 6. 2009 Annual Report
- 7. 2005-2009 Bird County Survey Results
- 8. Samoa/Eureka Dunes Monitoring Program Details

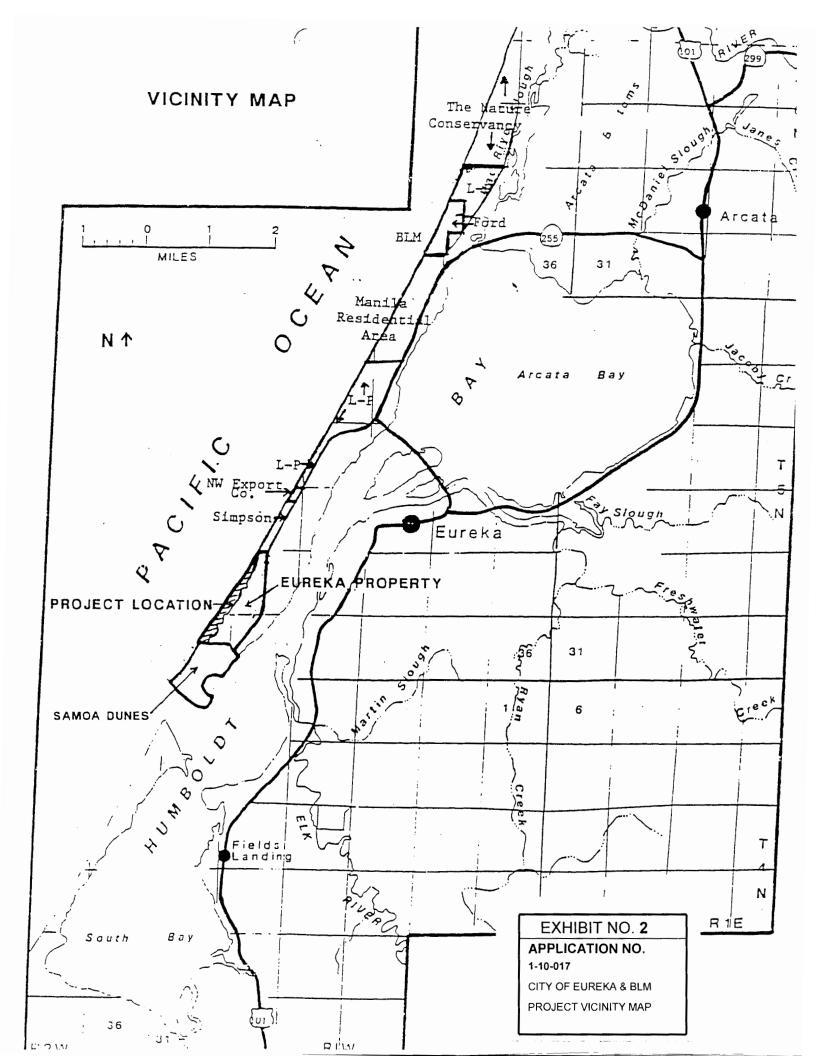
ATTACHMENT A

Standard Conditions:

- 1. <u>Notice of Receipt and Acknowledgment</u>. 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. <u>Expiration</u>. 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. <u>Interpretation</u>. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. <u>Assignment</u>. 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. <u>Terms and Conditions Run with the Land</u>. 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



Bunker Road

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MEMORANDUM OF UNDERSTANDING BETWEEN BUREAU OF LAND MANAGEMENT ARCATA FIELD OFFICE AND CITY OF EUREKA

EXHIBIT NO. 4
APPLICATION NO.

1-10-017

CITY OF EUREKA & BLM M. O. U. (1 of 4)

I. PURPOSE

This MEMORANDUM OF UNDERSTANDING (MOU) is made and entered into by the Department of the Interior, Bureau of Land Management (BLM), Arcata Field Office, and the City of Eureka, CA for the purpose of cooperatively managing approximately 80 acres of what is commonly known as the Eureka Foredunes, located adjacent to the Samoa Dunes Recreation Area at the north jetty area of the Samoa Peninsula. More specifically, this agreement provides a framework for managing the aforementioned area so that safe and orderly off-highway vehicle (OHV) recreation use can occur while protecting endangered and native plant species, and their habitats. This MOU outlines cooperative activities and clarifies the range of shared tasks, which includes, but may not be limited to: (I) constructing and maintaining protective fencing, (2) maintaining OHV trails, (3) maintaining the property, (4) installing and maintaining signs, (5) resource monitoring, (6) patrols, (7) writing environmental documents and (8) obtaining permits.

II. AUTHORITY

This MOU falls under the authority of Section 307 of the Federal Land Policy and Management Act of 1976 (P.L. 94-579).

III. BACKGROUND

In 1994, the Humboldt County Board of Supervisors adopted the Beach and Dunes Management Plan, One of the important outcomes of this plan was a determination as to where off-highway vehicles (OHV's) could or could not be ridden. The only two areas where OHV's would be allowed are the Samoa Dunes Recreation Area (BLM managed) and the adjacent City of Eureka foredunes. The remaining portions of the sand dunes along the Samoa Peninsula (both North and South Spits) were identified to be closed to vehicle use. With the adoption of this plan, BLM's Samoa Dunes Recreation Area experienced a substantial increase in the number of OHV's using the area. This increased OHV use has resulted in off-site impacts onto the Eureka property. Vehicles have been observed riding throughout the foredunes as well as the interior dune mat habitat where more sensitive vegetative species occur. Because these OHV's originate from Samoa Dunes, the BLM felt some degree of responsibility and need for action in order to keep off-site impacts to a minimum.

Resulting from a request from several local OHV user groups, and coordination with the City of Eureka, the BLM has now secured a total of \$53,000 in grant funds from the California Dept. of Parks & Recreation, Off-Highway Motor Vehicle Division ("Green Sticker" Fund) to construct protective fences and provide resource monitoring on the Eureka Foredunes. The BLM has succeeded in obtaining grant funds from the aforementioned agency for the last 10 years to operate and maintain the Samoa Dunes Recreation Area, and funding has been increased by \$17,000 for each of the next two years (in addition to the one time \$53,000 grant) to manage the Eureka Foredunes once the facilities are in place. A very strong likelihood exists that grant funds will be available each succeeding year to operate and maintain both areas as long as adequate OHV riding opportunities are provided.

IV. PARTIES TO THE AGREEMENT AND THEIR ROLES

A. The BLM agrees to:

- 1. Use approved grant funds (\$32,000) from the California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division to construct post and cable enclosures totalling approximately 5,000 feet around dune mat habitat containing endangered plants within the Eureka Foredunes. These enclosures and appropriate signage will be maintained as required to prevent vehicles from entering these areas.
- 2. Use approved grant funds (\$21,000) from the California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division to construct a post and cable perimeter fence totalling approximately 8,000 feet on the easterly edge of the Eureka Foredunes. This fence and appropriate signage will be maintained as required to prevent unauthorized vehicle use.
- 3. Apply for grant funds in each subsequent year for the duration of this MOU which will be used for operations and maintenance of the Eureka Foredunes.
- 4. Provide financial support for permits required to implement the projects listed under A.1 and A.2 above.
- 5. Provide on-the-ground supervision of work conducted under A.1 and A.2 above.
- 6. Coordinate with Ca. Dept. of Fish & Game and U.S. Fish & Wildlife Service to provide monitoring for the presence of the Western snowy plover.
- 7. Install, maintain and replace information and regulatory signs as necessary.
- 8. Develop a monitoring plan for the endangered plant habitat areas, and provide monitoring reports on an annual basis.
- 9. Assist the City of Eureka in developing a strategy for providing law enforcement patrols and on-the-ground OHV management. This will involve the expenditure of approximately \$10,000 each year from the aforementioned OHV "Green Sticker" grant fund.
- 10. Provide technical support for the preparation of studies required to secure permits for tasks A.1 and A.2.
- 11. Continue to open and close the entrance gate at Samoa Dunes Recreation Area as specified in BLM's Resource Management Plan Amendment (opened one hour before sunrise and closed one hour after sunset). This gate will continue to be maintained and operable, with signs posted regarding the night-time vehicle closure.

B. The City of Eureka agrees to:

- 1. Provide personnel to write environmental reports required to implement items A.1 and A.2 above.
- 2. Provide personnel to secure the permits necessary to implement items A.1 and A.2 above.

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- 3. Coordinate with BLM to develop a strategy for providing law enforcement patrols. This will involve the expenditure of approximately \$10,000 each year from the aforementioned OHV "Green Sticker" grant fund.
- 4. Allow OHV use within the 80 acre Eureka Foredunes zoned "Public Recreation", upon completion of items A.1, A.2, B.1 and B.2 above.

C. The City of Eureka and BLM Mutually Agree:

- 1. To meet on a periodic basis to discuss ongoing management of the Eureka Foredunes.
- 2. It is beneficial to provide the maximum assistance and coordination possible, within the availability of funds and established regulations and policies governing the respective agencies.
- 3. All improvements/facilities placed on the Eureka Foredune property that are purchased by Federal or State grant monies will be under the control and care of the BLM, and will remain the property of the BLM.
- 4. Nothing in this agreement shall be construed as obligating the BLM or the City of Eureka to expend money, or as involving the BLM or City of Eureka in any obligation for the present or future payment of money in excess of appropriations authorized by law and administratively allocated for work undertaken pursuant to this MOU.
- 5. The Federal Government's liability will be governed by the provisions of the Federal Tort Claims Act.
- 6. During the performance of work undertaken pursuant to this MOU, both parties will not discriminate on the grounds of race, color, creed, gender, age, physical handicap or national origin.
- 7. No fees will be charged for access to the Eureka Foredunes.
- 8. The City of Eureka has the right to inspect and report in writing to the BLM actions necessary to correct potential or existing hazardous conditions.

V. TERM OF MOU

This MOU shall become effective on the date of both signatures. It may be revised by a written amendment, signed and dated by both parties. Either party may terminate this MOU by providing 60 days written notice.

V. <u>SIGNATURES</u>

Date

BUREAU OF LAND MANAGEMENT ARCATA FIELD OFFICE	CITY OF EURERA		
Della Cuill, Alchy Lynda J. Roush Area Manager	Harvey M. Rose City Manager		
1,-15-98	6/23/9%		

Date

2010 Vegetation Monitoring Results

EXHIBIT NO. 5

APPLICATION NO.
1-10-017

CITY OF EUREKA & BLM
2010 VEGETATION
MONITORING RESULTS (1 of 7)

EUREKA DUNES MONITORING SUMMARY Spring 2010

Examiner(s): Clara Sander/Jennifer Wheeler (1999-2008), James Sowerwine (2009),

Zach Marine (2010)

Study dates: March 9th, 10th, and 15th, 2010

Species: <u>Erysimum menziesii</u> ssp. <u>eurekense</u> (Humboldt Bay wallflower) and <u>Layia carnosa</u> (beach layia)

Location: Humboldt County: Samoa Peninsula, North Spit, Eureka Dunes, City of Eureka cooperatively managed by BLM. Eureka Quad: T.5N., R.1W., parts of Sections 30, 29.

The purpose of this monitoring is to annually observe and measure the vegetation components found within the environmentally sensitive habitat enclosures as well as in the open riding area at the Eureka Dunes Riding Area managed by the Bureau of Land Management (BLM). The protective enclosures include approximately three acres of native plant habitat. Qualitative observations have been made and for the most part, Layia carnosa is the most abundant endangered plant found within the enclosures. These enclosures include some dune mat habitat with varying levels of degraded dune mat habitat as well. These enclosures need to be maintained for dune mat habitat and treated for invasive weeds on an annual, ongoing basis. Some portions of the enclosures include bare areas as well, that are expected to colonize with Layia carnosa. Relatively few wallflowers are located in the enclosures.

The BLM Samoa Dunes Recreation Area receives approximately 25,000 visits by OHV riders annually with approximately 3,500 visits to the adjacent City of Eureka riding area.

Management Objectives

The objectives are to maintain or exceed the relative frequency of *Erysimum menziesii* ssp. *eurekense* and *Layia carnosa* currently found in the Eureka Dunes Riding Area enclosures. If the frequency decreases by 20% between any two years, the BLM will implement greater restorative action. The BLM will also observe any generalized changes as well as any plant community variations in the open riding area. This information will provide photodocumentation of OHV impacts to an existing plant community.

Monitoring Objectives

Data from relative frequencies of *Erysimum menziesii* ssp. *eurekense* and *Layia carnosa* in the Eureka Dunes Riding Area enclosures should permit BLM biologists to be 90% sure of detecting a 20% decrease in trend, while willing to accept a false change error (\forall =.10). Observing any plant community changes occurring in the open riding area will provide monitoring data that is generally lacking across the state and will meet the requirements established by the California Coastal Commission.

Methods

Enclosures - The BLM conducts quantitative monitoring in two selected enclosures using the quadrat frequency method. This method measures cover and presence/absence of all species that occur in the sample set. The two enclosures vary in that enclosure #1 is on the inland perimeter edge, outside, and immediately adjacent to the riding area, and enclosure #2 is within the riding area but closer to the ocean and primary foredune, and subject to greater change by winter storm activity.

Photos were taken as well and any interesting qualitative notes which may be applicable to the year's monitoring.

Open Riding Area - The BLM conducts similar monitoring in the open riding area and also takes qualitative photos indicative of overall landscape character from selected permanent points of view in the spring of each year.

Statistical test used

A chi-squared test was used to compare the frequencies between the study years to determine whether or not there were significant differences. The software used is a program named Blossom that runs via Lotus. (2008 forward: the current chi squared test is obtained online from chi-squared online calculators and varies as free applications are available or go off-line).

**Number of plots varies from year to year due to restrictions imposed by a habitat change. Only dune mat is sampled. If a transect runs out of dune mat after only three of the ten plots, only three get recorded. The statistical test takes into to account relative proportions and is not affected by changes in "n" (number of plots).

SUMMARY OF RESULTS

Frequency Study

Data from two permanent belt transects each with 20 random foot marks reselected each year with the associated ten independent plots at each foot mark were relocated and read. The results are shown in the tables below:

Table 1 - Frequency of *Erysimum menziesii* ssp. *eurekense* in enclosures between 1999 and 2010.

Erysimum menziesii ssp. eurekense					
	Enclosure #1	Enclosure #2			
1999-2001	0 %	0 %			
2002	2.5 %	0 %			
2003	.6 %	0 %			
2004	0 %	0 %			
2005	0 %	0 %			
2006	0 %	0 %			
2007	3.4 %	0 %			
2008	1 %	0 %			
2009	6 %	0 %			
2010	4.8 %	0.5 %			

Table 2 - Frequency of Layia carnosa, in enclosures, between years 1999 and 2010

Layia carnosa				
	Enclosure #1	Enclosure #2		
1999	63%	74%		
2000	51%	15%		
2001	78%	36%		
2002	81%	33%		
2003	69%	40%		
2004	61%	45%		
2005	65%	57%		
2006	50%	41%		
2007	62 %	15 %		
2008	47 %	27 %		
2009	67 %	23 %		
2010	72 %	23 %		
Statistical	Not significant,	Not significant,		
significance between	increase	no change.		
2009 and 2010	P = .3544	P = 1.0000		

Table 3 – Frequency of Layia carnosa, in open riding area, between years 2001 and 2010.

Layia carnosa				
2001	0%			
2002	0%			
2003	0%			
2004	1%			
2005	0%			
2006	0.7%			
2007	3.1 %			
2008	6%			
2009	9.5 %			
2010	4.5 %			
Statistical	No significant			
significance between	decrease			
2009 and 2010	P = .0522			

Table 4 - Frequency of Keystone Native Dune Mat Species: baseline year and current year shown

Species	Enclosure #1 1999	Enclosure #1 2010	Enclosure #2 1999	Enclosure #2 2010	Open Riding Area 2001	Open Riding Area 2010
coast buckwheat Erigonum latifolium	39 %	52.9 %	1 %	20 %	60 %	5.5 %
coast sagewort Artemisia pycnocephala	54 %	41.7 %	97 %	25 %	66 %	2.5 %
beach evening primrose Camissonia cheiranthifolia	12 %	64.7 %	20 %	13 %	16 %	5.5 %
black knotweed Polygonum paronychia	11%	21.4 %	1 %	7 %	30 %	0 %
dune goldenrod Solidago spathulata	2 %	2.7 %	5 %	0 %	0 %	0 %

Table 5 - Cover Frequency for enclosures compared to vegetated, non-native open riding area for baseline year and current year shown.

Cover	Enclosure #1 1999	Enclosure #1 2010	Enclosure #2 1999	Enclosure #2 2010	Open Riding Area 2001	Open Riding Area 2010
Bare Ground	69 %	34.5 %	74 %	70.8 %	6 %	8.1 %
Litter	1 %	27.0 %	11 %	7.3 %	2 %	0.8 %
Vegetative Cover (basal)	28 %	38.5 %	15 %	21.9 %	42 %	48.7 %
Vegetative Cover (canopy)	0 %	0 %	0 %	0 %	50 %	42.4 %

Table 6 - Frequency of weedy species encountered among enclosures and open riding area for baseline year and current year shown.

Weedy Species	Enclosure #1 1999	Enclosure #1 2010	Enclosure #2 1999	Enclosure #2 2010	Open Riding Area 2001	Open Riding Area 2010
yellow bush lupine Lupinus arboreus	0 %	0 %	0 %	0 %	76 %	24 %
annual grasses	3 %	17.6 %	0 %	0.5 %	98 %	89 %
European beachgrass Ammophila arenaria	12 %	4.8 %	10 %	13.5 %	0 %	0 %
iceplant Carpobrotus edulis	1 %	0 %	4 %	0.5 %	0 %	7 %
rumex (sheep sorrel) Rumex acetosella	0 %	2.7 %	0 %	8 %	42 %	27.5 %

DISCUSSION

Results reveal that beach layia remains one of the most abundant plants in the enclosures. In 2000, enclosure #2 suffered a large loss of beach layia as well as other key native plants, due to large inundations of sand caused by winter storms. After 2000, beach layia and coast sagewort made a sustained comeback for about six years, but again, sand inundations from blowouts associated with the adjacent incipient foredune altered populations once again. Frequent sand disturbance events seem to be a regular feature in this northern portion of enclosure #2. That said, Humboldt Bay wallflower made its first appearance (2010) in enclosure #2, and was also included in the quantitative sampling protocol. This is good news.

The number of Humboldt Bay wallflowers in enclosure #1 remains relatively infrequent, but at least, more dependably detected by the sampling protocol.

Iceplant, European beachgrass, and yellow bush lupine were pulled each year (2005-2009) from enclosure #2, but follow up treatment is warranted for complete eradication. European beachgrass was pulled in enclosure #1 in 2007 and 2010. Also in 2010, beachgrass was pulled from a relatively large population of native dune grass outside but adjacent to the riding area.

Overall, the quality of the native plant communities in the enclosures appears stable with continuing invasive weed management. Sand inundation is a factor in population volatility in enclosure #2, but is a result of natural forces. With climate change, less predictable storms and the potential for sea level rise, these trends are likely to continue. The post and cable barriers are being respected by off-highway vehicle (OHV) users. There is no evidence of any trespass from OHV riders into the enclosures.

In 2001, baseline data for the representative selected open riding area transect was collected showing high frequencies of vegetative cover consisting mostly of annual grasses, yellow bush lupine, and sheep sorrel. Photos of the area have been taken annually since establishment. The types of cover and frequencies have changed little over ten years of sampling as OHV use occurs primarily on maintained trails. Changes in vegetation will continue to be documented annually as there remains an opportunity to show great plant community change as a result of OHV impacts should vehicles choose to stray from maintained trails. Potentially, incidental vehicle use in this intact, weedy area could actually sway habitat characteristics toward native plant establishment as a result of invasive plant mortality and open sand as artifacts of incidental vehicle use. Thus far, there has been little sand exposure on the periphery of this sampling area as a result of regular riding use. Vegetative monitoring data, observations, and photos support riders using the provided trails.

Photo documentation of Eureka Dunes Riding Area

Photos have been taken of the Eureka Dunes riding area from 1999 through 2010. Photos through 2010 show little change in the vegetation density or composition. Off-highway vehicle enthusiasts have not trespassed into the enclosures and have abided by all the guidelines established by the BLM thus far.

Photos and/or slides are available for every year of sampling for all three transects.

Jennifer Wheeler

Botanist, Arcata Field Office

6/10/2010

Date:

Beachgrass removal by CCC in native dune grass area just east and adjacent to the project



Beachgrass removal by CCC in Enclosure #1



Enclosure #2



2009 Annual Report



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Arcata Field Office 1695 Heindon Road Arcata, CA 95521 www.ca.blm.gov/arcata



December 11, 2009

In Reply To: 8000 CA330(P)

Bob Merrill California Coastal Commission North Coast District Office 710 E Street Eureka, CA 95501-1865

EXHIBIT NO. 6 APPLICATION NO.

1-10-017

CITY OF EUREKA & BLM 2009 ANNUAL REPORT (1 of 2)

Dear Mr. Merrill:

This annual report is in response to the requirements established pursuant to Coastal Development Permit No.1-05-028. The permit authorizes regulated, off-highway vehicle (OHV) use and maintenance of 80 acres of foredune area known as the "Eureka Dunes Riding Area". Management requirements include maintenance of all fences and signs, ensuring that OHV use does not occur in any unauthorized area (the areas fenced off and enclosed to protect rare and endangered plant species and native dune grass), annual monitoring of the rare and endangered plant species and native dune grass, and removal of exotic invasive vegetation from the fenced enclosures.

Under the "SPECIAL CONDITIONS" section of the permit, it is stated that the BLM shall provide an annual report which discusses compliance with Condition No. 1 and in particular:

- (a) the location and duration of any breaches in the fencing permitted by this permit, and the effect of such breaches on the protected habitat;
- (b) the management activities and programs carried out to eliminate trespass into the fenced off areas, including user-education activities, person-hours of patrols and enforcement activities;
- (c) data demonstrating any changes in the frequency, cover or census of endangered and/or native plants; and
- (d) conservation and restoration activities undertaken, including efforts to remove exotic plants.

Management and use of Eureka Dunes Riding Area was again successful this past year. All resource values continue to be fully protected, and OHV enthusiasts enjoy riding in the area. An active law enforcement presence exists, and very few violations have occurred.

Location and Duration of Breaches

There was one breach of the foredune portion of the post and cable barrier that protects one of the sensitive plant areas. The sand had covered a small portion of the barrier, and a motorcycle entered a small portion of un-vegetated sand. No adverse impacts occurred to any sensitive plants or sensitive plant habitat. The barrier was repaired and additional signs posted so riders are fully aware of this closed area. Tracks were observed on several occasions along the waveslope to the north of the closed area signs at the northern boundary of the riding area. No vehicles were observed, so it was impossible to determine whether or not the use was illegal, as some OHV riders have obtained a county permit to ride on the

waveslope (elderly, commercial fishermen, disabled). The northern-most "No Vehicles Beyond This Point" sign on the waveslope was vandalized (removed) once and replaced. No other signs were vandalized, removed, or destroyed.

Management Activities and Programs to Eliminate Trespass

The area continues to be patrolled by the BLM Outdoor Recreation Planner, two BLM Law Enforcement Rangers, and deputies of the Humboldt County Sheriff's Office. Total person-hours are estimated at 300 hours. Law enforcement patrols made up approximately 150 hours. Riders continue to be educated (through personal contact) about which areas are open and closed, why certain areas are closed, and other rules and regulations they need to comply with, particularly the use of safety flags, no double riding, and the need to wear helmets. There were no citations issued within the Eureka Dunes Riding Area. Signs and fencing continue to be properly maintained to inform OHV users of the location of open and closed areas.

Fence Maintenance

The western-most portion of the post and cable barrier surrounding the large enclosure was partially covered by windswept sand. Numerous posts were pulled up several inches to make them more visible. Storm surge or other natural or human-caused processes did not affect the protective fences.

Trail Maintenance

Existing trails were groomed on four occasions this year, using a tractor and box scraper. No trails had to be relocated or rehabilitated.

Monitoring

Vegetative and wildlife monitoring was completed again this year. The data indicates that endangered plant populations have not been adversely impacted from OHV activities.

Restoration

The California Conservation Corps spent 4 days removing European beach grass, ice plant and yellow bush lupine from the sensitive habitat areas.

This concludes this year's annual report. The 5-year permit is once again due to expire in 2010 so we will be contacting you regarding a permit renewal. If you need additional information or have any questions, please contact Bruce R. Cann, Outdoor Recreation Planner at (707) 825-2322.

Sincerely,

for Lynda J. Roush

Arcata Field Manager

2005-2009 Bird Count Survey Results

X= OBSERVED DURING POINT COUNT

O= OBSERVED, BUT NOT DURIN

EXHIBIT NO. 7

APPLICATION NO.

1-10-017

CITY OF EUREKA & BLM

2005-2009 BIRD COUNT SURVEY RESULTS (1 of 3)

					727 N200210 (
	Samoa/	Samoa/	Samoa/	Samoa/	Samoa/
Bird Species	Eureka 09	Eureka 08	Eureka 07	Eureka 06	Eureka 05
common loon			Х	X	
pacific loon					
yellow-billed loon				Х	
western grebe		Х	Х		
Clark's grebe			Х		<u></u>
brown pelican	Х	Х	Х	Х	Х
cormorant sp.		Х			
Brant's cormorant			Х	Х	Х
double-crested cormorant	Х	х	Х	Х	Х
pelagic cormorant	X	×	Х	X	Х
great blue heron	X		Х	X	Х
great egret	X	Х	Х	X	Х
black-crowned night heron	0		0	1.1.	
canada goose				0	
brant					
mallard					······································
surf scoter			X		
turkey vulture	×	Х	X	Х	Х
bald eagle				0	
osprey	Х	Х	Х	Х	Х
northern harrier	X	Х	X	Х	X
white-tailed kite	X	X	X	Х	X
red-tailed hawk				Ô	<u> </u>
merlin				0	
California Quail				0	Х
semi-palmated plover	X			0	
western snowy plover				0	
killdeer	0		X	0	
black-bellied plover				0	
black oystercatcher				ō	
whimbrel	X		Х	0	X
ong-billed curlew		-			X
willet				Х	
marbled godwit			Х	X	X
surfbird				X	X
olack turnstone			Х	- ,	X
sandpiper sp.				Х	
western sandpiper			Х		Х
east sandpiper				Х	X
sanderling	0			0	
dunlin				0	
				_	

Bairds sandpiper	T	Т	1	Το	
short-billed dowitcher				1 0	
	+		 	 	
red-necked phalarope					
California Gull			ļ		X
glaucus gull				-	
glaucus-winged gull		ļ		<u> </u>	
herring gull					
mew gull				X	Х
ring-billed gull					Х
western gull	X	X	X	X	
Heerman's gull	X				
caspian tern	X	X	X	X	X
common tern					Х
elegant tern					0
Forster's tern		1		0	
common murre	X	Х	X	X	Х
pigeon guillemot			X		
dove sp.				1	Х
mourning dove	†				
band-tailed pigeon			 		
hummingbird sp.			X	X	Х
rufus hummingbird	 		 		
northern flicker	 	 	 	0	X
cedar waxwing	 	 	 	<u> </u>	
pacific-slope flycatcher					X
black phoebe	0		 	0	×
hooded oriole	0	ļ	 		^
		 		 	
lazuli bunting		 	-	<u> </u>	
Steller's jay	 	ļ	ļ	X	
American crow	X		X		
common raven	X	X	X	X	X
barn swallow	X	X	X	X	X
cliff swallow	X	X	X	Х	X
northern rough-winged swallow					X
tree swallow			X		
violer-green swallow				X	
black-capped chickadee					X
chestnut-backed chickadee					X
Bewick's wren					
house wren					
varied thrush					Х
American Robin			X		Х
Swainson's thrush					Х
hermit thrush					Х
American pipit			İ		X
European starling	X	X		X	X
western tanager					
		<u></u>	1		

black-headed grosbeak					
sparrow sp.					
white-crowned sparrow	X	X	Х	X	X
savannah sparrow			Х		Х
song sparrow	X	Х	Х	X	X
house finch			Х		X
Brewer's black bird			Х	X	X
brown-headed cowbird		Х		0	X
American goldfinch	Х	Х	Х		Х
lesser goldfinch				0	

Samoa/Eureka Dunes Monitoring Program

Species	Listing Status	Habitat	Potential for Occurrence ²	Does BLM Survey / Monitor this Species ₃
Ascomycete Lichens				
<i>Niebla cephalota</i> Ramalinaceae	BLM SS	coastal coniferous late- mature/old-growth forests	This species occurs in the non-native Monterey cypress trees in the picnic area at Samoa Dunes.	BLM does not monitor this species as the chance of disturbance by OHV recreation is unlikely.
<i>Ramalina pollinaria</i> Ramalinaceae	BLM SS	coastal coniferous late- mature/old-growth forests	This species occurs in the non-native Monterey cypress trees in the picnic area at Samoa Dunes.	BLM does not monitor this species as the chance of disturbance by OHV recreation is unlikely.
Dicotyledoneae Plants				
beach layia <i>Layia carnosa</i> Asteraceae	SE	bare to semi-stabilized sand dunes within the sparsely vegetated foredunes or dune mat community, quickly invading newly created bare sand areas and forming colonies, 0 to 60 m elevation	This species occurs almost exclusively outside the OHV use area and within areas designated closed and fenced to vehicle use.	Yes. BLM surveys and monitors this species. CNPS states that coastal development, vehicles, and nonnative plants threaten this species.
Humboldt bay wallflower E <i>rysimum menziesii</i> ssp. <i>eurekense</i> Brassicaceae	SE SE	dynamic sand dunes, sparsely vegetated, semi-stabilized, nutrient poor sites where competition with other plant species is low, 0 to 10 m elevation	This species occurs outside the OHV use area and within areas designated closed and fenced to vehicle use.	Yes. BLM surveys and monitors this species. CNPS states that coastal development, vehicles, and nonnative plants threaten this species.

EXHIBIT NO. 8

APPLICATION NO.

1-10-017

CITY OF EUREKA & BLM SAMOA/EUREKA DUNES MONITORING PROGRAM DETAILS (1 of 20)

Table I.		Table 1. Table of All Special Status Species and Ally Other Species of Local Collicent		Dogs BI M Surger
Species	Listing Status	Habitat	Potential for Occurrence ²	Monitor this Species ₃
dark-eyed gilia Gilia millefoliata Polemoniaceae	CNPS 1B	Semi-stabilized sand dunes, 2 to 20 m elevation	This species occurs outside the OHV use area and within areas designated closed and fenced to vehicle use.	Yes. BLM surveys and monitors this species. CNPS states that development, vehicles, foot traffic, grazing, and nonnative plants threaten this species.
Lyngbye's sedge <i>Carex lyngbyei</i> Cyperaceae	CNPS 2	Wetlands; coastal, salt marsh	This species occurs outside the OHV use area and within areas designated closed and fenced to vehicle use.	BLM does not monitor this species as the chance of disturbance by OHV recreation is unlikely.
Shortleaf dwarf cudweed <i>Hesperevax</i> <i>sparsiflora var.</i> <i>brevifolia</i>	CNPS 1B.2	Semi-stabilized sand dunes, 2 to 20 m elevation	This species occurs outside the OHV use area and within areas designated closed and fenced to vehicle use.	Yes. BLM surveys and monitors this species. CNPS states that development, vehicles, foot traffic, grazing, and nonnative plants threaten this species.
Class Aves – Birds				
California brown pelican <i>Pelecanus occidentalis</i> ssp. <i>californicus</i> Pelecaniidae	38	Occurs in waters surrounding the spit, where they feed on bait fish	This species occurs in waters surrounding the OHV use area and are habituated to considerable and varied human activities.	Yes. BLM surveys and monitors this species. Disturbance has not been observed.
white-tailed kite Elanus leucurus Accipitridae	CFPS	Foraging occurs principally in wetlands; nesting in the area is not likely because suitable nest trees are few in the area	This species forages throughout the area where suitable cover and perch trees are present.	Yes. BLM surveys and monitors this species, however, the chance of disturbance by OHV recreation is unlikely.

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Table 1. Table of All Special-Status Species and Anv Other Species of Local Concer	

				Does BLM Survey /
Species	Listing	Habitat	Potential for	Monitor this
•	Status		Occurrence ⁻	Species
northern harrier <i>Circus cyaneus</i> Accipitridae	CSSC2 (nesting)	Foraging occurs throughout the area; nesting only in wetland areas which are closed to vehicles	This species occurs in and outside the OHV use area while foraging.	Yes. BLM surveys and monitors this species. Disturbance of nesting sites is unlikely, however.
Cooper's hawk <i>Accipiter cooperi</i> Accipitridae	CSSC3	Foraging occurs widely; nesting in the area is not likely because suitable nest trees are few in the area	This species forages throughout the area where suitable cover and perch trees are present.	Yes. BLM surveys and monitors this species, however, the chance of disturbance by OHV recreation is unlikely.
western snowy plover Charadrius alexandrinus ssp. nivosus Charadriidae	FT SE	Nests in open sandy areas on spits, dune backed beaches, beaches at creek and river mouths, and gravel bars	This species is not present in the OHV use area as constituent elements of plover habitat are naturally absent.	Yes. BLM surveys and monitors this species. Disturbance of nesting sites is unlikely, however, because nesting does not occur in these OHV dune areas.
Listing Status Key: FE Federally Endangered FT Federally Threatened FC Federal Candidate BLMSS BLM Sensitive Species SE State Endangered ST State Threatened	ered nned e e becies d	CSSC California Species of Special Concern SP State Fully Protected CNPS 1B Plants rare, threatened, or endangered CNPS 2 Plants rare, threatened, or endangered	California Species of Special Concern State Fully Protected Plants rare, threatened, or endangered in California and elsewhere. Plants rare, threatened, or endangered in California, but more common elsewhere.	lsewhere. nore common elsewhere.

²Potential for occurrence could be based upon presence or absence of suitable habitat, incidental observations, and/or survey results. ³Examples of reasons to exclude species from survey and monitoring:

surveys have shown that the species' habitat does not occur in or near any OHV use area

· potential habitat exists, but surveys to protocol have not detected the species

• there is no overlap in time between OHV use and species occurrence (or sensitivity such as nesting)

risk factors—there are no known risk factors for the species that are related to OHV use (examples of risk factors for species include turbidity, sedimentation of spawning gravels for fish, increase in water temperature [for fish and amphibians], adequate numbers of snags

(for cavity nesters), hollow logs as denning sites (for fur bearers)) the species has not been seen on the Forest in a long time (e.g., since 1952)

	Table 2. Species ar	Table 2. Species and/or Sensitive Habitats Data (Including Baseline Data)	ata (Including Baseline D	ata)
Species or Habitat	Methodology	Known Information	Concerns, Risks, Uncertainties	How Monitoring/Study & Inventory Could Address Identified Uncertainty
<i>Niebla cephalota</i> Ramalinaceae	Intuitive-controlled sampling	Former Northwest Forest Plan Survey and Manage lichen that occurs in late seral forests; is growing in Monterrey cypress trees at the Samoa Dunes picnic area.	No OHV Risks	Not Applicable
Ramalina pollinaria Ramalinaceae	Intuitive-controlled sampling	Former Northwest Forest Plan Survey and Manage lichen that occurs in late seral forests; is growing in Monterrey cypress trees within Cypress grove in recreation area.	No OHV Risks	Not Applicable
beach layia Layia carnosa Asteraceae	Annual, relative frequency using quadrat frequency, photo documentation, and intuitive controlled methods; also density count/unit area completed in 2003 on the South Spit of Humboldt Bay.	Pioneering, annual from Humboldt to Santa Barbara Counties. Individual populations can number in the millions. For example, a recent study by BLM and USFWS found that the population on the South Spit of Humboldt bay contains about 3.5 million layia individuals. Humboldt County contains the most extensive populations.	Episodic OHV use can be favorable by creating habitat niches for future occupation where invasive weeds dominate. However, regular OHV use on the same trails will likely preempt pioneering colonization.	Annual quantitative and photo monitoring documents natural sand movement and OHV user patterns, and collects beach layia and other native plant community frequency data. Monitoring detects population trends and resilience to disturbance from natural and human impacts.
Humboldt bay wallflower Erysimum menziesii ssp. eurekense Brassicaceae	Annual, relative frequency using quadrat frequency, photo documentation, and intuitive controlled methods	Distribution limited to the north and south spits of Humboldt Bay. A USFWS study found the overall total meta-population estimate as of 1997 to be about 20,657 plants. The fenced 40-acre BLM Samoa Dunes Endangered Plant Protection Area; about 3,000+ plants.	Wallflowers occur in the enclosures that are fenced and closed to OHV use. Only risk would stem from fence vandalism, disrepair, and subsequent trespass into closed areas.	Monitoring would insure maintenance of protective fencing infrastructure.

	Table 2. Species an	d/or Sensitive Habitats D	and/or Sensitive Habitats Data (Including Baseline Data)	ata)
Species or Habitat	Methodology	Known Information	Concerns, Risks, Uncertainties	How Monitoring/Study & Inventory Could Address Identified Uncertainty
dark-eyed gilia <i>Gilia millefoliata</i> Polemoniaceae	Annual, relative frequency using quadrat frequency, photo documentation, and intuitive controlled methods	Distribution from Del Norte to Marin Co, and also Santa Barbara County. Habitat that of beach layia.	No gilia occurs in the open riding area. Only risk would stem from fence vandalism, disrepair, and subsequent trespass into closed areas.	Monitoring would insure maintenance of protective fencing infrastructure
Shortleaf dwarf cudweed Hesperevax sparsiflora var. brevifolia	Annual, relative frequency using quadrat frequency, photo documentation, and intuitive controlled methods	Distribution from Del Norte to Marin Co, and also Santa Barbara County. Habitat that of beach layia.	No cudweed occurs in the open riding area. Only risk would stem from fence vandalism, disrepair, and subsequent trespass into closed areas.	Monitoring would insure maintenance of protective fencing infrastructure
California brown pelican Pelecanus occidentalis ssp. californicus Pelecaniidae	Annual seasonal surveys to determine presence and usage of waters surrounding OHV area. Individuals were observed to determine age ratios and energy budgets. Supplemental study on pelican/gull interactions and feeding strategies completed by Humboldt State University student.	Hundreds of pelicans are observed each year near the north jetty area. Pelicans were observed loafing more than any other activity during survey periods.	There is the potential for human presence from increased recreational use to increase the risk of disturbance to birds roosting and loafing nearby.	Continued monitoring efforts can measure numbers of birds present and behaviors in response to human activity.
white-tailed kite Elanus leucurus Accipitridae	Field observation/ point counts throughout summer	White tailed kites have been observed during surveys in summer. Peak fledging occurs between May and June but no information regarding demographics has been collected in the area.	Increased use of the area could cause disturbance to birds nesting in the area directly or indirectly by increased number of avian predators such as crows and ravens.	Continued monitoring can determine presence/absence and possible reproductive status and nest locations. This information could address responses such as habituation or aversion to human activities.
northern harrier Circus cyaneus Accipitridae	Annual seasonal survey to determine presence/absence, age, sex, reproductive status, and energy budget within observation period.	From 0 to 5 harriers, depending on the year, have been observed in the area during the summer surveys. Juveniles spent the majority of their time perching and playing while the adults spent the majority of their time foraging.	Increased use of the area could cause disturbance to birds nesting in the area directly or indirectly by increased number of avian predators such as crows and ravens.	Continued monitoring can determine presence/absence, reproductive status and nest locations. This information could address responses such as habituation or aversion to human activities.

	Table 2. Species ar	and/or Sensitive Habitats Data (Including Baseline Data)	ata (Including Baseline D	ata)
Species or Habitat	Methodology	Known Information	Concerns, Risks, Uncertainties	How Monitoring/Study & Inventory Could Address Identified Uncertainty
Cooper's hawk Accipiter cooperi Accipitridae	Field observation/ seasonal point counts	Cooper's hawks were not observed during surveys from 2005-2009. Nesting or foraging is unlikely because dense stands of deciduous trees are not present in or around the OHV area. Cooper's hawks may use the area to forage near riparian or wetland areas. infrequently.	if Cooper's hawks began to use habitat near the OHV area, human activities may create a disturbance leading to decreased foraging and nest success.	Continued monitoring can determine presence/absence, reproductive status and nest locations. This information could address responses such as habituation or aversion to human activities.
western snowy plover <i>Charadrius</i> <i>alexandrinus</i> ssp. <i>nivosus</i> Charadriidae	Annual winter and nesting season and window surveys to determine presence, absence and reproductive status.	No western snowy plovers were observed during winter and breeding season surveys from 1998-2009.	If western snowy plovers were nesting in the area adults and nests or chicks could be at risk of disturbance or increased mortality due to OHV use and avian predators associated with human activity (i.e. crows, ravens, raccoons, feral cats, skunks, etc).	Continued surveys can determine presence/absence, reproductive status and nest locations. This data could inform adaptive management strategies to avoid harm or harassment of a federally threatened species.

	Table 3. Management I	Table 3. Management Program for Species and/or Sensitive Habitats	d/or Sensitive Habitats	
Species/Habitat	Concerns/Risk	Management Objective(s)	Management Action(s) (Including how these deal with uncertainty)	Success Criteria
Niebla cephalota Ramalinaceae	No OHV Risks	Persistence of older conifers; cypress grove.	None needed	Persistence of older conifers; cypress grove.
Ramalina pollinaria Ramalinaceae	No OHV Risks	Persistence of older conifers; cypress grove.	None needed	Persistence of older conifers, cypress grove.
beach layia Layia camosa Asteraceae	Episodic OHV use can be favorable by creating habitat niches for future occupation where invasive weeds dominate. However, regular OHV use along the same trails will likely preempt pioneering colonization.	Management objectives are to maintain or exceed the relative frequency of <i>Layia carnosa</i> currently found at Samoa Dunes Recreation Area and Eureka Dunes. If the frequency decreases by 20% between any two years, we will implement greater restorative action. The BLM will also observe any generalized changes as well as any plant community variations in the open riding area. This information will provide photo-documentation will	Examples of adaptive management tools that are or may be employed at any time include: eradication of invasive weeds that degrade native plant habitat, restoration and maintenance of post and cable barriers and other fences, maintenance of regulatory and interpretive signage, and nourishment of sand to native plant habitat.	Subsequent monitoring increase in target plant frequency and distribution Post and cable barriers and all fences intact Meeting or exceeding a 95% compliance rate with rules and regulations being met, & monitoring will continue at the same level
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	Table 3. Management F	jement Program for Species and/or Sensitive Habitats	d/or Sensitive Habitats	
Species/Habitat	Concerns/Risk	Management Objective(s)	Management Action(s) (Including how these deal with uncertainty)	Success Criteria
Humboldt bay wallflower E <i>rysimum menziesii</i> ssp. <i>eurekense</i> Brassicaceae	No wallflower occurs in the open riding area. Only risk would stem from fence vandalism, disrepair, and subsequent trespass into closed areas.	Management objectives are to maintain or exceed the relative frequency of <i>Erysimum menziesii ssp. eurekense</i> currently found at the Samoa Dunes Recreation Area and Eureka Dunes. If the frequency decreases by 20% between any two years, we will implement greater restorative action. The BLM will also observe any generalized changes as well as any plant community variations in the open riding area. This information will provide photo-documentation of natural and human-caused impacts.	Examples of adaptive management tools that are or may be employed at any time include: eradication of invasive weeds that degrade native plant habitat, restoration and maintenance of post and cable barriers and other fences, maintenance of regulatory and interpretive signage, nourishment of sand to native plant habitat	Subsequent monitoring increase in target plant frequency and distribution. Post and cable barriers and all fences intact. Meeting/ exceeding a 95% compliance rate with rules and regulations being met, & monitoring will continue at the same level
dark-eyed gilia <i>Gilia millefoliata</i> Polemoniaceae	No gilia occurs in the open riding area. Only risk would stem from fence vandalism, disrepair, and subsequent trespass into closed areas.	No formal management objectives have been established for this species; although frequency data has been collected for the past 10 years.	Restoration and maintenance of post and cable barriers to native plant closed areas.	Post and cable barriers and all fences remain intact. Meeting/ exceeding a 95% compliance rate with rules and regulations being met, & monitoring will continue at the same level
Shortleaf dwarf cudweed Hesperevax sparsiflora var. brevifolia	No cudweed occurs in the open riding area. Only risk would stem from fence vandalism, disrepair, and subsequent trespass into closed areas.	No formal management objectives have been established for this species; although frequency data has been collected for the past 10 years.	Restoration and maintenance of post and cable barriers to native plant closed areas.	Post and cable barriers and all fences remain intact. Meeting/ exceeding a 95% compliance rate with rules and regulations being met, & monitoring will continue at the same level

	Table 3. Management F	Table 3. Management Program for Species and/or Sensitive Habitats	d/or Sensitive Habitats	
Species/Habitat	Concerns/Risk	Management Objective(s)	Management Action(s) (Including how these deal with uncertainty)	Success Criteria
California brown pelican Pelecanus occidentalis ssp. californicus Pelecaniidae	There is the potential for human presence from increased recreational use to increase the risk of disturbance to birds roosting and loafing nearby.	No formal management objectives have been established for this species. General objectives and activities for OHV management are consistent with the needs of the species.	Restricting OHV activities to OHV use area, regular monitoring and law enforcement patrols will help promote protection of the species.	Continued use of the area at present or increasing levels will signify successful management practices.
white-tailed kite Elanus leucurus Accipitridae	Increased use of the area could cause disturbance to birds nesting in the area directly or indirectly by increased number of avian predators such as crows and ravens.	No formal management objectives have been established for this species. General objectives and activities for OHV management are consistent with the needs of the species.	Restricting OHV activities to OHV use area, regular monitoring and law enforcement patrols will help promote protection of the species.	Continued use of the area at present or increasing levels will signify successful management practices.
northern harrier Circus cyaneus Accipitridae	Increased use of the area could cause disturbance to birds nesting in the area directly or indirectly by increased number of avian predators such as crows and ravens.	No formal management objectives have been established for this species. General objectives and activities for OHV management are consistent with the needs of the species.	Restricting OHV activities to OHV use area, regular monitoring and law enforcement patrols will help promote protection of the species.	Continued use of the area at present or increasing levels will signify successful management practices.
Cooper's hawk <i>Accipiter cooperi</i> Accipitridae	If Cooper's hawks began to use habitat near the OHV area human activities may create a disturbance leading to decreased foraging and nest success.	No formal management objectives have been established for this species. General objectives and activities for OHV management are consistent with the needs of the species.	No suitable habitat for Cooper's hawks occurs in the OHV use area so nesting or foraging is not expected to occur as a result of any management action.	No loss of dense stands of deciduous trees (either oak or riparian) and no loss of significant stands of second growth conifers.
western snowy plover Charadrius alexandrinus ssp. nivosus Charadriidae	If western snowy plovers were nesting in the area, adults and nests or chicks could be at risk of disturbance or increased mortality due to OHV use and avian predators associated with human activity (i.e. crows, ravens, raccoons, feral cats, skunks).	No formal management objectives have been established for this species. General objectives and activities for OHV management are consistent with the needs of the species.	Restricting OHV activities to OHV use area, regular monitoring and law enforcement patrols will help promote protection of the species.	No loss of open, low elevation beaches or habitat loss due to encroachment from invasive non-native plants such as yellow bush lupine or European beachgrass.

	Identify any Applicable Validation Monitoring (Focused Studies)	Not Applicable	Not Applicable	Monitoring has demonstrated the loss of a small colony of beach layia at Samoa Dunes (not Eureka city property) in a site specific area with intensive OHV use. Ongoing study is occurring in another more remote area of the open riding area on Eureka Dunes that shows beach layia persistence and resilience in light of episodic and irregular OHV use. Annual persistence of populations within enclosures affirms viability of species with absence of OHV disturbance.
l Program	Effectiveness Monitoring Methodology, including triggers	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff. Trigger: cypress trees cut down, or poached.	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff. Trigger: cypress trees cut down, or poached.	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff. Annual processing and interpretation of monitoring data previously discussed. Trigger: Greater than 20% beach layia decline in any one year.
Table 4. Summary of Monitoring Program	Change Detection Methodology	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff.	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff.	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for Endangered plant species.
Table 4.	Implementation Monitoring Methodology	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff.	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff.	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for Endangered plant species.
	Species or Habitat	Niebla cephalota Ramalinaceae	Ramalina pollinaria Ramalinaceae	beach Iayia <i>Layia carnosa</i> Asteraceae

	Table 4.	Summary of Monitoring Program	Program	
Species or Habitat	Implementation Monitoring Methodology	Change Detection Methodology	Effectiveness Monitoring Methodology, including triggers	Identify any Applicable Validation Monitoring (Focused Studies)
Humboldt bay wallflower E <i>rysimum menziesi</i> i ssp. <i>eurekense</i> Brassicaceae	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for Endangered plant species.	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for Endangered plant species.	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff. Annual processing and interpretation of monitoring data previously discussed. Trigger: Greater than 20% Humboldt Bay wallflower decline in any one year.	Annual persistence of populations within enclosures affirms viability of species with absence of OHV disturbance.
dark-eyed gilia <i>Gilia millefoliata</i> Polemoniaceae	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for Endangered plant species which is an indicator of which way the native habitat is trending.	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for Endangered plant species which is an indicator of which way the native habitat is trending.	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff. Annual processing and interpretation of monitoring data previously discussed Trigger: None. Gilia will benefit from any management taken to benefit layia or walliffower.	Annual persistence of populations within enclosures affirm viability of species with absence of OHV disturbance
Shortleaf dwarf cudweed Hesperevax sparsiflora var. brevifolia	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for endangered plant species which is an indicator of which way the native habitat is trending.	Annually, study sites are monitored qualitatively (photographs), and quantitatively by collecting frequency data of all plant species within permanent transects; data are then statistically analyzed to detect and significant change for endangered plant species which is an indicator of which way the native habitat is trending.	Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, rangers, and resource staff. Annual processing and interpretation of monitoring data previously discussed Trigger: None. Cudweed will benefit from any management taken to benefit layia or wallfifower.	Annual persistence of populations within enclosures affirm viability of species with absence of OHV disturbance

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	Table 4.	Table 4. Summary of Monitoring Program	Program	
Species or Habitat	Implementation Monitoring Methodology	Change Detection Methodology	Effectiveness Monitoring Methodology, including triggers	Identify any Applicable Validation Monitoring (Focused Studies)
California brown pelican Pelecanus occidentalis ssp. californicus Pelecaniidae	Post breeding season (summer) surveys will be conducted from established points for comparison to previous years.	Comparison of survey results to prior year's surveys will determine increases or decreases in populations and any shift in observed behaviors.	If sudden, unexplained declines occur in use of the area concurrent with violations in OHV use guidelines adaptive management will occur.	No focused studies for this species have been developed for application in the OHV use area.
white-tailed kite <i>Elanus leucurus</i> Accipitridae	Breeding season surveys will continue to provide an index for local demographics and use of habitat in and around the OHV area.	Comparison of survey results to limited results of prior year's surveys may determine increases or decreases in populations.	Due to limited previous detections, it is unlikely that trends will be easily or reliably derived from implementation monitoring methodology.	No focused studies for this species have been developed for application in the OHV use area.
northern harrier <i>Circus cyaneus</i> Accipitridae	Breeding season surveys will continue to provide an index for local demographics and use of habitat in and around the OHV area.	Comparison of survey results to prior year's surveys will determine increases or decreases in populations and any shift in observed behaviors.	If sudden, unexplained declines occur in use of the area concurrent with violations in OHV use guidelines adaptive management will occur.	No focused studies for this species have been developed for application in the OHV use area.
Cooper's hawk <i>Accipiter cooperi</i> Accipitridae	Breeding season surveys will continue to provide an index for local demographics and use of habitat in and around the OHV area.	Comparison of survey results to prior year's surveys will determine increases or decreases in populations and any shift in observed behaviors.	Not Applicable.	No focused studies for this species have been developed for application in the OHV use area.
western snowy plover Charadrius alexandrinus ssp. nivosus Charadriidae	Winter and breeding season surveys will continue to provide an index for local demographics and use of habitat in and around the OHV area.	Comparison of survey results to prior year's surveys will determine increases or decreases in populations and any shift in observed behaviors.	Not Applicable.	No focused studies for this species have been developed for application in the OHV use area.

	Table 5. Management I	Table 5. Management Review and Response; Adaptive Management	Adaptive Management	
Species or Habitat Monitoring Methodology	How Monitoring Information will Inform Management	How Data Will Be Analyzed	Management Response to Identified Triggers	Who Will Plan Management Response
Niebla cephalota Ramalinaceae Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, maintenance staff, ranger staff, and resource staff.	Any resource damage observed by BLM staff will be passed on to the Field Office Botanist and Recreation Planner, who will meet with the Resource Staff Supervisor to determine if remedial action is necessary.	Data will be analyzed though professional consultation between resource staff and management.	To be determined: Cypress trees were introduced and planted over 100 years ago. May replant with native Shore pine, or replace with young Cypress trees.	BLM Arcata Field Office Botanist
Ramalina pollinaria Ramalinaceae Regular patrol of recreation area infrastructure via BLM staff such as the Samoa caretaker, maintenance staff, ranger staff, and resource staff.	Any resource damage observed by BLM staff will be passed on to the Field Office Botanist and Recreation Planner, who will meet with the Resource Staff Supervisor to determine if remedial action is necessary.	Data will be analyzed though professional consultation between resource staff and management.	To be determined: Cypress trees were introduced and planted over 100 years ago. May replant with native Shore pine, or replace with young Cypress trees.	BLM Arcata Field Office Botanist
beach layia <i>Layia carnosa</i> Asteraceae	Annual monitoring report provided to Resource Staff Supervisor. Significant change that triggers a need for adaptive management will be identified and discussed.	Data is processed and interpreted among botany staff annually. Significant change is determined statistically through the use of Chi-squared analyses.	To be determined: Management action will depend upon the impact revealed through monitoring. Options include, but are not limited to: eradication of invasive weeds that degrade native plant habitat, restoration and maintenance of post and cable barriers and other fences, maintenance of directional and interpretive signage, nourishment of sand to native plant habitat	BLM Arcata Field Office Botanist, Outdoor Recreation Planner

		Table 5. Management l	Table 5. Management Review and Response; Adaptive Management	Adaptive Management	
	Species or Habitat Monitoring Methodology	How Monitoring Information will Inform Management	How Data Will Be Analyzed	Management Response to Identified Triggers	Who Will Plan Management Response
	Humboldt bay wallflower E <i>rysimum menziesii</i> ssp. <i>eurekense</i> Brassicaceae	Annual monitoring report provided to Resource Staff Supervisor. Significant change that triggers a need for adaptive management will be identified and discussed.	Data is processed and interpreted among botany staff annually. Significant change is determined statistically through the use of Chi-squared analyses	To be determined: Management action will depend upon the impact revealed through monitoring. Options include, but are not limited to: eradication of invasive weeds that degrade native plant habitat, restoration and maintenance of post and cable barriers and other fences, maintenance of directional and interpretive signage, nourishment of sand to native plant habitat	BLM Arcata Field Office Botanist, Outdoor Recreation Planner
, 1	dark-eyed gilia <i>Gilia millefoliata</i> Polemoniaceae	Annual monitoring report provided to Resource Staff Supervisor.	Data is processed and interpreted among botany staff annually.	To be determined: Management action will depend upon the impact revealed through monitoring. Options include, but are not limited to: eradication of invasive weeds that degrade native plant habitat, restoration and maintenance of post and cable barriers and other fences, maintenance of directional and interpretive signage, nourishment of sand to native plant habitat	BLM Arcata Field Office Botanist, Outdoor Recreation Planner

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Species or Habitat Monitoring Methodology	How Monitoring Information will Inform Management	How Data Will Be Analyzed	Management Response to Identified Triggers	Who Will Plan Management Response
Shortleaf dwarf cudweed Hesperevax sparsiflora var. brevifolia	Annual monitoring report provided to Resource Staff Supervisor.	Data is processed and interpreted among botany staff annually.	To be determined: Management action will depend upon the impact revealed through monitoring. Options include, but are not limited to: eradication of invasive weeds that degrade native plant habitat, restoration and maintenance of post and cable barriers and other fences, maintenance of directional and interpretive signage, nourishment of sand to native plant habitat	BLM Arcata Field Office Botanist, Outdoor Recreation Planner
California brown pelican Pelecanus occidentalis ssp. californicus Pelecaniidae	If annual survey results yield sudden, unexplained declines occur in use of the area concurrent with violations in OHV use guidelines, managers will evaluate law enforcement, regulations and monitoring efforts.	Data will be shared with other managers and researchers (i.e. FWS or Humboldt State University) to verify observed changes using statistical analysis and comparison of results with surveys from other locations.	Management response would be based on the nature of the information obtained through surveys and analysis. Possible examples of management responses include increased monitoring, additional law enforcement patrols, support for pelican managers elsewhere in their range, etc.	BLM Arcata Field Office Botanist, Outdoor Recreation Planner
white-tailed kite <i>Elanus leucurus</i> Accipitridae	Monitoring for species and an increase in potentially suitable habitat will provide managers with	Because few detections are expected and previous surveys will provide a similarly small sample for comparison it is unlikely that meaningful results will be derived from in-house data analysis.	Management response would be based on the nature of the information obtained through surveys and analysis.	BLM Arcata Field Office Botanist, Outdoor Recreation Planner

Table 6. Previo	Table 6. Previous Years' Monitoring Results
Monitoring Accomplishments	Results
City of Eureka enclosures monitoring for beach layia and wallflower 2005-2010	No Significant Difference between 2005 and 2010 populations.
Samoa Dunes Recreation Area and Eureka Dunes Open Riding Areas beach layia monitoring 2005-2010	No Significant Difference between 2005 and 2010 populations.
Small mammal population monitoring 2005-2009	No Significant Difference between 2005 and 2009 populations
All-bird species monitoring 2005-2009	No Significant Difference between 2005 and 2009 populations
Northern harrier monitoring 2005-2009	No Significant Difference between 2005 and 2009 populations
California pelican monitoring 2005-2009	No Significant Difference between 2005 and 2009 populations
Foraging defense: techniques used by California brown pelicans to avoid kleptoparasitism (food theft) by Heermann's gulls.	New information and results suggest that adult pelicans use defensive behaviors at different frequencies than less experienced juveniles. No implications for management of OHV use.

	Table 7. Previou	Table 7. Previous Years' (2005-2009) Monitoring and Management Review Process	09) Monitoring a	nd Management	Review Process	
Species/ Habitat	Data Analysis Process	Were Objectives & Success Criteria Achieved?	Changes Needed to Management Program	Should Monitoring Continue?	Response to Public Concerns	Recommended Further Study
Niebla cephalota Ramalinaceae	Field observation by Jennifer Wheeler, Field Office Botanist.	Yes.	None	Yes, at current level	No concerns at this time	Study whether this species would colonize younger conifers, if planted in the future
<i>Ramalina</i> pollinaria Ramalinaceae	Field observation by by Jennifer Wheeler, Field Office Botanist.	Yes.	None	Yes, at current level	No concerns at this time	Study whether this species would colonize younger conifers, if planted in the future
beach layia <i>Layia camosa</i> Asteraceae	Quadrat Frequency Analysis, Chi- Squared Statistical Analysis, and Photo Documentation By Jennifer Wheeler, BLM Arcata Field Office Botanist.	Yes.	None currently proposed	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time
Humboldt bay wallflower Erysimum menziesii ssp. eurekense Brassicaceae	Quadrat Frequency Analysis, Chi- Squared Statistical Analysis, and Photo Documentation By Jennifer Wheeler, BLM Arcata Field Office Botanist	Yes.	None currently proposed	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.
dark-eyed gilia <i>Gilia millefoliata</i> Polemoniaceae	Quadrat Frequency Analysis, Chi- Squared Statistical Analysis, and Photo Documentation By Jennifer Wheeler, BLM Arcata Field Office Botanist	Yes.	None currently proposed	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.

	Table 7. Previou	Table 7. Previous Years' (2005-2009) Monitoring and Management Review Process	309) Monitoring a	ind Management	Review Process	
Species/ Habitat	Data Analysis Process	Were Objectives & Success Criteria Achieved?	Changes Needed to Management Program	Should Monitoring Continue?	Response to Public Concerns	Recommended Further Study
Shortleaf dwarf cudweed <i>Hesperevax</i> <i>sparsiflora var.</i> <i>brevifolia</i>	Quadrat Frequency Analysis, Chi- Squared Statistical Analysis, and Photo Documentation By Jennifer Wheeler, BLM Arcata Field Office Botanist	Yes.	None currently proposed	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.
California brown pelican <i>Pelecanus</i> <i>occidentalis</i> ssp. <i>californicus</i> Pelecaniidae	Abundance assessments by repeat point count Field observation by BLM biological technicians under supervision of Jesse Irwin, Field Office Wildlife Biologist	Yes. Species abundance was consistent with use of similar habitat in and around Humboldt Bay	None required at this time.	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.
white-tailed kite Elanus leucurus Accipitridae	Inventory for species presence and absence/abundance assessment by repeat point count Field observation by BLM biological technicians. Incidental to all-bird species point counts under supervision of Jesse Irwin, Field Office Wildlife Biologist.	Yes. Species were detected during point counts	None required at this time.	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.

	Table 7. Previou	Table 7. Previous Years' (2005-2009) Monitoring and Management Review Process	09) Monitoring a	nd Management	Review Process	
Species/ Habitat	Data Analysis Process	Were Objectives & Success Criteria Achieved?	Changes Needed to Management Program	Should Monitoring Continue?	Response to Public Concerns	Recommended Further Study
northern harrier <i>Circus cyaneus</i> Accipitridae	Abundance assessments by repeat point count Field observation by BLM biological technicians under supervision of Jesse Irwin, Field Office Wildlife Biologist	Yes. Species were detected during point counts and several reproductive pairs have nested in wetlands near the OHV use area.	None required at this time.	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.
Cooper's hawk <i>Accipiter cooperi</i> Accipitridae	There were no detections of Cooper's hawk incidental to abundance assessments by point count for other avian species.	Not Applicable	None required at this time.	Yes, at current level	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.
western snowy plover <i>Charadrius</i> <i>alexandrinus</i> ssp. <i>nivosus</i> Charadriidae	Line transect surveys following the monitoring protocol for breeding western snowy plovers along Humboldt/Del Norte County beaches with modifications for winter window surveys performed by Jesse Irwin, Field Office Wildlife Biologist	YES Non-native invasive plant removal projects helped to prevent potential habitat degradation throughout the Recovery Unit	None required at this time.	Monitoring should continue at current levels.	No concerns have been raised by the public. OHV user compliance with closed areas and enclosures has been excellent.	None proposed at this time.