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STAFF REPORT: REGULAR CALENDAR

Application No.: **4-19-0291**

Applicant: **University of California, Santa Barbara**

Project Location: University of California, Santa Barbara, West Campus – Coal Oil Point Reserve and Sands Beach

Project Description: Implement a program to protect the western snowy plover, a federally-listed threatened species. The proposed project includes: (1) installation of year-round post-and-rope fencing along the eastern and western limits of the main roosting area to create a 400 meter long (1,312 foot long restricted roosting area near the mouth of Devereux Slough; (2) installation of an additional 400 meters (1,312 feet of post and rope fencing during the plover breeding season (March 15 – September 15), extending from the western portion of the roosting area fence to the western boundary of the Coal Oil Point Reserve; and (3) installation of “no trespassing”, educational, and regulatory signs along the fencing of the roosting and breeding areas and at adjacent access points.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The proposed project involves the implementation of the Coal Oil Point Reserve (COPR) Beach Access and Snowy Plover Management Plan to protect the population of federally-listed threatened western snowy plovers at Devereux Slough. The closure of roosting and breeding areas would provide for greater protection of the environmentally sensitive habitat while allowing continued access for appropriate uses. The proposed project includes: (1) installation of year-round post-and-rope fencing along the eastern and western limits of the main roosting area to create a 400 meter long (1,312 foot long) restricted roosting area near the mouth of Devereux Slough; (2) installation of an additional 400 meters (1,312 feet) of post-and-rope fencing during the plover breeding season (March 15 – September 15), extending from the western portion of the roosting area fence to the western boundary of the Coal Oil Point Reserve; and (3) installation of "no trespassing", educational, and regulatory signs along the fencing of the roosting and breeding areas and at adjacent access points. The plan also includes prohibiting the use of the Sands Beach adjacent to plover roosting and breeding habitat by horses and dogs (in accordance with UCSB LRDP Policy LU-33), continuing the protection program to limit predators, and maintaining the docent and enforcement program to further protect the plovers.

Access within the specific fenced areas would be restricted; however, pedestrian access would be facilitated around the protected areas, by passing along the wet sand parallel to the protected area. Additionally, there are three public access points in or adjacent to the snowy plover protection areas: Ellwood Beach entrance, Dune Pond Trail, and Sand's Beach entrance, and the project has been designed to ensure unrestricted pedestrian access to the beach at each of these access points.

The standard of review for the proposed permit application is the Chapter Three policies of the Coastal Act, with the policies and provisions of the certified Long Range Development Plan (LRDP) serving as guidance. As conditioned below, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

The Commission staff recommends **Special Conditions One (1) through Three (3)**, to ensure that the project is carried out consistent with the coastal access, marine resource, and land resource protection policies of the Coastal Act. **Special Condition One (1)** would require inspection of the fencing and signage on the beach throughout the life of the project. In addition, **Special Condition Two (2)** would require a project monitoring plan be submitted for the review and approval of the Executive Director, containing detailed monitoring methodology, to be submitted annually by a qualified biologist. **Special Condition Three (3**) would limit the permit to a ten-year period, after which point the fences shall be removed, unless authorization under the Coastal Act has been granted for the fences to remain onsite.

Commission staff recommends that the Commission **APPROVE** coastal development permit application 4-19-0291, as conditioned. The motion is on page 4.

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EXHIBITS

I. MOTION AND RESOLUTION

Motion:

I move that the Commission approve Coastal Development Permit 4-19-0291 subject to conditions set forth in the staff recommendation specified below.

Staff Recommendation of Approval:

Staff recommends a **YES** vote on the foregoing motion. 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 Commissioners present.

Resolution to Approve the Permit:

The Commission hereby approves the Coastal Development Permit for the proposed project and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

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

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

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

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

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

III. SPECIAL CONDITIONS

1. Project Inspection and Responsibilities.

a. The applicant shall conduct an inspection of the fencing and signage on the beach throughout the life of the project. The applicant shall inspect all project fencing and signage to ensure that the equipment is intact, set at the correct height, and properly placed with no potential for any part of the project to be washed to the ocean. Inspections shall occur at least one day before any anticipated tidal conditions that include high tides combined with significant storms and large waves. Based on observable wet-sand conditions and local tide charts, the applicant shall align the lowermost fence posts and accompanying beach signage for the roosting and breeding areas above the daily higher high tide.

b. Prior to installation of fencing or signage, the applicant shall submit a list of person(s), for review and approval by the Executive Director, who are designated as responsible parties for conducting project inspections and adjusting the equipment. The list shall include the full name of the responsible party, an up-to-date phone number, and responsibilities as assigned. The applicant shall submit an updated inspector list on January 1st of each year of the project and as responsible parties are assigned or deleted.

2. Sands Beach Monitoring Program.

a. Prior to the issuance of the Coastal Development Permit, the applicant shall submit a project monitoring plan for the review and approval of the Executive Director. The plan shall be prepared by a qualified biologist and shall at a minimum include, but not be limited to, the following components: 1) collection of data on plover abundance and use of the designated plover recovery study areas; 2) documentation of all known incidents of plover disturbance including dates, times, and source of disturbance (pedestrians, dogs on or off-leash, equestrians, predation, or vandalism of unknown origin); 3) establishment and measurement of plover protection goals and outcomes; 4) collection of data on public access and recreation activities adjacent to the designated plover recovery areas, including pedestrian, pedestrian and dog, and equestrian use of the area. This plan shall contain detailed monitoring methodology including, but not limited to, a description of plover survey techniques, timing and frequency of monitoring, and criteria for determining the cause of plover disturbance.

b. Upon approval by the Executive Director, the plan shall be implemented and the qualified biologist shall annually thereafter submit a monitoring report detailing

the information gathered pursuant to each of the four categories set forth above for the previous year.

3. **Project Term.** Ten years after installation of the fencing authorized herein, the fences shall be removed, unless authorization under the Coastal Act has been granted for the fences to remain onsite. The Executive Director may give permission for the fences authorized in CDP 4-19-0291 to remain onsite for up to one additional year, for good cause.

IV. FINDINGS AND DECLARATIONS

A. Project Description and Background

The proposed project involves the implementation of the Coal Oil Point Reserve (COPR) Beach Access and Snowy Plover Management Plan to protect the western snowy plover, a federally-listed threatened species. The proposed project includes: (1) installation of year-round post-and-rope fencing along the eastern and western limits of the main roosting area to create a 1,312 foot long restricted roosting area near the mouth of Devereux Slough; (2) installation of an additional 1,312 feet of post-and-rope fencing during the plover breeding season (March 15 – September 15), extending from the western portion of the roosting area fence to the western boundary of the COPR; and (3) installation of "no trespassing", educational, and regulatory signs along the fencing of the roosting and breeding areas and at adjacent access points. The plan also includes prohibiting the use of the Sands Beach adjacent to plover roosting and breeding habitat by horses and dogs (in accordance with UCSB LRDP Policies LU-33 and ESH-50).

The project site is located on the West Campus of the University of California, Santa Barbara, in the southern portion of COPR along Sands Beach, at the mouth of Devereux Slough (Exhibits 1 and 2). COPR is one of University of California's (UC) reserves administered by the Natural Reserve System (NRS). The NRS is responsible for managing research, education, and stewardship of the Reserve. The purpose of the Reserve System is to protect and manage specific University-owned natural areas containing environmentally sensitive resources for the purpose of teaching and research. A majority of the Reserve lies within the jurisdiction of the approved Long Range Development Plan (LRDP) for UCSB. However, Devereux Slough, the slough mouth, and Sands Beach all lie within the retained jurisdiction of the Coastal Commission. Protection of the roosting and breeding areas would occur at the slough mouth and west of the slough mouth along Sands Beach; therefore, the proposed snowy plover management plan requires a Coastal Development Permit from the Commission.

Access to the Reserve is provided via a public road from the north entrance of the West Campus at the intersection of Storke and El Colegio Roads. The Reserve is approximately 157 acres and is located west of the Cliff House seminar facilities, Devereux School, and UCSB faculty housing. The area in direct proximity to the site is

undeveloped with the exception of the Main Entrance gate and other facilities on the blufftop.

Approximately half of COPR, including Sands Beach, is open to the public. Sands Beach is the area of the Reserve that is most used by the public for recreation. People access Sands Beach from adjacent beaches to the east and west, and through and around the Reserve in several locations (Exhibit 2). To the east of the Reserve, there are a number of pedestrian access points from the blufftop to the beach along the approximately 3½ miles of coastline contiguous with the Campus and community of Isla Vista. To the west, the public has accessed the beach by utilizing the Reserve trail directly west of the slough (Dune Pond Trail), skirting around the perimeter of the 40-acre parcel of University property (West Perimeter Path), near the Venoco Oil Tanks, and further to the west via a number of volunteer trails around Ellwood Shores. Public beach parking is available on West Campus, at the end of Slough Road.

The proposed project involves the continuation and enhancement of the Snowy Plover Management Program (SPMP) on Sands Beach that was implemented in 2001 through Coastal Development Permit CDP 4-01-139, and continued and updated through CDP 4-08-007 in 2008. The program was initiated to protect the western snowy plover population at Coal Oil Point Reserve. The western snowy plover (*Charadrius alexandrinus nivosus*) is a U.S. Fish and Wildlife Service (USFWS) federally-listed threatened species.

Throughout the years, COPR Reserve staff have continued to improve the snowy plover program, and it is now a model for snowy plover protection at various beaches throughout Los Angeles and Monterey counties. Monitoring data and observations collected by Reserve staff and affiliated scientists allow for intimate knowledge of snowy plover population dynamics and the ability to manage populations based on collected information. The number of breeding pairs has increased since 2001 from one breeding pair to now include approximately 35 breeding adults. The number of fledged chicks increased from zero before implementation of the SPMP to 35 chicks on average in subsequent years. The number of fledged chicks is the main measurement of nesting success used by monitors throughout the US pacific coast and at the reserve. The fledging rate of the population at Sands Beach (number of chicks per male) is high when compared to other beaches along the Pacific coast of the United States, suggesting that the SPMP has been successful in protecting the plover population.

Under this Coastal Development Permit application, the applicant proposes to continue the measures implemented in the 2001 and 2008 SPMP's. The applicant proposes to extend the post and rope fence during breeding season (March 15 – September 15) along the beach to the western boundary of the Reserve to protect plovers that are nesting outside the main wintering roost. Other measures that will continue as part of the COPR Beach Access and Snowy Plover Management Plan include: (1) maintaining the Dune Pond trail; (2) removing individual crows that persistently threaten plover eggs or chicks; (3) expanding the docent program to include all daylight hours during breeding season; (4) monitoring plover nests and chicks to evaluate population growth and impacts to breeding associated with public access and recreational activities; and

(5) increasing the enforcement of dog and equestrian access. The goals of the COPR Beach Access and Snowy Plover Management Plan are to maintain an undisturbed wintering population of snowy plovers and to provide protected habitat for breeding plovers in the summer while continuing to allow compatible public access on Sands Beach.

The COPR Beach Access and Snowy Plover Management Plan would involve delineating the main roost and the breeding areas with vertical rope fencing that spans from the upper beach at the base of the foredunes to a location above the higher high tideline. Delineation of the plover breeding area would involve extending the boundary of the fence that protects that winter roosting area to the west to the beach entrance of the Dune Pond trail. A second fence would be installed on the western side of the Dune Pond trail and would extend westward to the Reserve boundary. Beach access to and along Dune Pond trail would remain accessible at all times during the breeding season.

The fences would be constructed with plastic posts and rope and would delineate the areas where pedestrians and domestic animals should not enter. An anchor post would be placed at the highest end of each rope to allow retrieval of the posts and rope in the event that an unexpected, very high tide removes the lower end. The remaining posts would be pounded in the ground manually with a post driver. The installation method would ensure that the posts would not be dislodged by wave energy while allowing the posts to be easily relocated or adjusted based on the extent of the tides to provide for maximum public access opportunities along the beach.

As part of the 2001 and 2008 SPMP's, the applicant proposed to manually shift the location of the fencing, as necessary, to align it above the higher high tideline. By aligning the fencing in this manner, public access would be maintained at all times, along the wet sand area. To ensure that public access along the beach adjacent to the main roosting area remains available, Reserve staff will continue to inspect the fencing at least one day before any anticipated tidal conditions that include high tides combined with significant storms and large waves to ensure that the wet sand corridor is maintained and that the fencing is intact and not likely to wash to the ocean. Relocation and/or adjustment of the temporary breeding fence would not be necessary at any time during the year, as this section of fencing delineates a narrower area of beach and would be located far above the highest high tide line.

In addition to the placement of fencing, the proposed project would include the installation of no trespassing, educational, and regulatory signage. No trespassing signs and signs that state "Do Not Enter: Disturbance may cause loss of eggs and young or loss of migrating adults" would be placed along the fence ropes delineating both the roosting and breeding habitat areas. Additionally, educational signage informing the public of the presence of snowy plovers would be posted at several access points adjacent to the roosting and breeding areas (Exhibit 3). These signs would be placed at the end of Dune Pond Trail where it connects with Sands Beach, at the western edge of the COPR boundary on the beach (western edge of breeding area), at the eastern edge of the roosting area, and at the parking area for COPR, east of Slough Road. The height of all signage and fencing would vary depending upon the

natural deposition or erosion of sand at the base; however, the signage and fencing would be adjusted to approximately 2½ feet above ground level (AGL), with a maximum of 3 feet AGL. The installation of no trespassing signs would allow the police department to enforce the restricted area and issue citations when necessary.

As part of the 2001 SPMP, the Reserve implemented an extensive public education program to raise awareness in the local community of the importance of the preservation of the snowy plovers and their habitat. In order to alert the public to the presence and significance of the snowy plover at Devereux Slough, two interpretive signs were placed in existing kiosks at the Reserve in Fall 2000. The educational program depends, in large part, upon volunteers to act as docents and communicate the importance of the program to the public. The Reserve has prepared a Snowy Plover Docent Manual and requires prospective docents to undergo a five-hour orientation and training session. Docents are located at the Main Entrance or walk the beach area to inform (not enforce) the public about the management program and the potential for recreational activities to impact the plover population. As part of the COPR Beach Access and Snowy Plover Management Plan, the Reserve would continue to work to expand the docent program and would provide tours, presentations, and information for the public. Docents would be present on the beach for all daylight hours during plover breeding season.

In addition to fulfilling the mission of the NRS and complying with the policies of the Coastal Act, management measures at the Reserve are further constrained by overriding resource protection laws, such as the Endangered Species Act which makes it unlawful to accidentally or intentionally “take” a federally-listed species, such as the snowy plover, without a permit. Concerns over the potential “take” of species under Section 9 of the ESA (see Section C(1) for details on the Regulatory Background) has led the applicant to develop a management strategy to protect the existing snowy plover from human-related disturbances to the main roost and breeding areas. Research conducted at Sands Beach at COPR indicates that a majority of disturbances to plovers originate from beach recreation and pets, with additional disturbance attributed to predators such as crows. Generally, these disturbances do not result in the mortality of wintering birds, however, disturbances do interfere with the birds’ overall ability to rest and feed which ultimately effects their ability to build up fat reserves for reproduction. The physical measures proposed under this project will be supplemented by ongoing efforts that include public education, beach cleanups, and weed removal. In addition, the Reserve is working with the UCSB police to enforce the prohibition of dogs and other regulations.

B. Environmentally Sensitive Habitat Area

Section 30230 of the Coastal Act states:

> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will

> maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

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

Section 30240 states:

> (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.

Sections 30230 and 30231 of the Coastal Act require that the biological productivity and the quality of coastal waters and streams be maintained and, where feasible, restored through among other means, minimizing adverse effects of waste water discharge and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flows, maintaining natural buffer areas that protect riparian habitats, and minimizing alteration of natural streams. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas must be protected against disruption of habitat values.

The existing habitats in the project vicinity include dune swale habitat, foredune habitat, slough margin, vernal pool, salt flat, salt marsh, active slough, and sandy beach. The diversity of habitats and wildlife at the reserve is high, and some species and ecosystem types found within the reserve are now rare along the coast. The reserve's beach provides breeding habitat for pacific coast populations of the threatened western snowy plover and the endangered california least tern, and the belding savannah sparrow breeds on the pickleweed habitat located within the reserve at Devereux Slough. Rare invertebrates such as the globose dune beetle, the dune spider, and the sand tiger beetle also live on the beach and dunes of the reserve. Additionally, the reserve has pristine remnants of coastal dune scrub and,the area provides habitat for the western snowy plover. In this case, the snowy plover roosting and breeding areas have been identified as critical habitat and require special management consideration and

protection. Therefore, the project area is considered an environmentally sensitive habitat area (ESHA).

The reserve is a known overwintering site for the western snowy plover, allowing the birds to rest and feed to build up the fat reserves needed for reproduction and survivorship. Data from the COPR surveys indicates that plovers spend ten to eleven months out of the year at COPR, moving out only to breed during the summer. Snowy plovers were known to breed historically at COPR but had presumably stopped breeding successfully, or had limited and irregular success, in the area since 1965 until the implementation of the subject COPR Beach Access and Snowy Plover Management Plan.

As described above, the proposed project includes a coordinated set of measures that will serve to protect the western snowy plover population at Coal Oil Point Reserve. Specifically, the proposed project includes the installation of fencing to protect roosting and breeding areas on Sands Beach and the installation of no trespassing, educational, and regulatory signage to inform the public of the use of the beach by plovers and to direct them to the wet sand portion of the beach when passing through this area. The measures proposed to be implemented pursuant to this coastal development permit are part of a larger undertaking to protect the western snowy plover population utilizing the Reserve. The proposed project will be supplemented by ongoing Reserve efforts regarding public education, beach cleanups, and weed removal at COPR. In addition, the Reserve is working with the UCSB police to enforce the prohibition of dogs, equestrian uses, and other regulations. The Reserve has initiated this program of action over the concern that activities at the Reserve could violate Section 9 of the Endangered Species Act which prohibits the “take” of federally-listed species.

Regulatory Background

The U.S. Fish and Wildlife Service listed the Pacific Coast population of the western snowy plover as “threatened” in March 1993 under the Endangered Species Act (ESA) of 1973, as amended. The ESA makes it unlawful, among other activities, to “take” a species listed pursuant to the ESA. “Take” as defined under Section 3 of the Endangered Species Act, means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect this species, or to attempt to engage in any such conduct.” Under the ESA, “species” includes snowy plover eggs as well as adults and chicks.

In December 1999, the USFWS published its final rule designating critical habitat for the western snowy plover. Critical habitat is a specific designation that identifies areas that are essential to conservation of an endangered species. “Critical habitat” is defined under Section 3 of the ESA, as “(i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management consideration or protection and; (ii) specific areas outside the geographic area occupied by a species at the time it is

listed, upon determination that such areas are essential for the conservation of the species."

The designation of critical habitat requires that all *federal* agencies review their proposed actions and consult with the Service to ensure that any activity they fund, authorize, or carry out does not adversely modify or destroy critical habitat. Activities that are carried out solely by a state or local agency, or a private entity or private party including the University are not directly affected by the designation. However, the designation alerts the public that the area is important for the conservation of the species.

Twenty-eight areas along the coast of California, Oregon, and Washington have been identified by the USFWS as critical habitat for the western snowy plover (Federal Register, Vol. 64, No. 234). Three of these areas are within Santa Barbara County. The three critical habitat areas in Santa Barbara County have been further categorized into six units, including the Devereux Beach unit which includes all of the coastline along Coal Oil Point Reserve.

The USFWS released a Draft Recovery Plan for the Pacific Coast Population of Western Snowy Plover (May 2001). The primary recovery objective was to "remove the Pacific coast western snowy plover population from the *List of Endangered and Threatened Wildlife and Plants* by: (1) achieving well-distributed increases in numbers and productivity of breeding adult birds, and (2) providing for long-term protection of breeding and wintering plovers and their habitat." The recovery plan is intended to serve as a guidance document for interested parties including federal, state, and local agencies, private landowners, and the general public. The Recovery Plan identifies Devereux Beach (including Sands Beach) as one of twelve breeding and/or wintering sites located in Santa Barbara County targeted for management.

Western Snowy Plover

The Pacific Coast population of western snowy plover is a small shorebird that uses sandy beaches for nesting and roosting from southern Washington to Baja California. At most, approximately 2,000 snowy plovers may breed along the U.S. Pacific Coast with a similar number breeding along the Baja California coast (USFWS 2001 citing Page et. al. 1995a).

Research has indicated that there has been a general decline in the West Coast population of snowy plover. Among the factors linked to the regional decline in snowy plovers includes predation, beach erosion, encroachment of exotic vegetation and disturbance from recreation (Lafferty 2000 citing Page et al. 1995). Exhibits 4 and 5 illustrate the main habitats used, or potentially used, by snowy plovers at Sands Beach. Plovers roost in the dry sand (upper beach) area and feed in the kelp rack zone between the dry sand and the wet sand and in the wet sand around the mouth of the slough. The snowy plovers breed in foredune habitat above the high tide line, which

includes the upper beach and bare dune areas. Breeding activities have been observed on both the east and west sides of the mouth of Devereux Slough.

Due to the dynamic nature of the coastline, the character of the snowy plover habitat at Sands Beach is subject to significant alteration over the course of the year. Roosting snowy plovers may be displaced away from the slough mouth during winter as changes occur to the width of available beach and when the delta at the slough mouth is breached, typically during a couple of storm events each year.

At Devereux Slough, snowy plovers were historically known to breed but had presumably stopped breeding successfully, or had limited and irregular success, in the area since 1965. On June 20, 2001, the Reserve Manager observed a female exhibiting nesting behavior (nervous agitation) near the dunes by the rope fence and on June 27, 2001 a female snowy plover and two chicks were observed near the edge of the slough. The number of breeding pairs and fledged chicks has increased each year since 2001 from one breeding pair to now include approximately 35 breeding adults. Additionally, the fledgling rate has increased since 2001, suggesting that previous SPMP's have been successful in protecting the plover population.

Disturbance

The population of snowy plovers at Sands Beach is subject to an array of disturbances from humans, dogs, horses, crows, and other birds. Disturbances pose a threat to nests and chicks and interfere with the birds' overall ability to forage or rest. Disturbance, as used in this report, refers to any activity that causes a bird to move or fly.

Lafferty's research (2001b) indicated that each wintering plover is disturbed an average of once every 27 minutes on the weekend and every 43 minutes on weekdays at Sands Beach. The research suggests that once a person walks within 15-20 meters of a wintering plover, plovers are disturbed. Plovers may become alert, begin to walk away and displace each other from the depressions where they sit. They may elevate their wings or bob as a sign of distress and, if approached closely, run or take flight. If put into flight, flocks wheel back and forth for several minutes in tight, low altitude formations (Page et al. 1995). After landing, they remain nervous and will take wing with little prompting (Page et al. 1995).

Nesting snowy plovers are also sensitive to disturbance. Activities that may cause disturbance to nesting birds include walking, jogging, and unleashed dogs. Recreational users of Sands Beach have the potential to inadvertently step on eggs and chicks, destroying them. Additionally, adult plovers may avoid their nests when people are in close proximity. Separation of plover adults from their eggs or chicks may result in increasing mortality due to overheating in the sun, cold, blowing sand, or predators such as gulls, crows, or ravens. Trash left on a beach also may attract predators. Recreational activity may cause broods of snowy plovers to flee or avoid preferred feeding areas.

For the 2001 SPMP, the optimum location and area of the protected plover habitat was determined using beach survey and plover data collected at Sands Beach. Specifically, Lafferty (2001a) evaluated the plover distribution and abundance, distance of a given activity and the probability of that activity causing a disturbance to plovers. During Lafferty's studies, few disturbances of any type occurred at greater than 30 meters. Lafferty (2001a) suggests that providing a 30-meter buffer zone around the roost and removing dogs as a disturbance factor could greatly reduce disturbance to the population of snowy plovers at the Reserve. Lafferty (2001a) developed a management model which found that "increasing the lateral length of beach that was hypothetically closed to human activity sharply increased the proportion of dates on which the plover roost was protected up until a distance of 400 meters, at which over 90% of the roosts and 96% of the plovers gained protection…". Lafferty (2001a) further concluded that "protecting as little as half of the habitat where plovers are observed could protect plovers 90% of the time." Consistent with Lafferty's management model, the applicant proposes to continue to delineate a 400-meter restricted roosting area on Sands Beach where pedestrians and their pets are prohibited with an additional 400 meters of fencing during breeding season.

For the proposed COPR Beach Access and Snowy Plover Management Plan, the extent of the additional protected plover habitat was determined based on the above-described management model and the monitoring data collected at Sands Beach between 2001 and 2019.The delineated plover area extends 400 meters west of the existing protected roosting area, resulting in an 800-meter-long area that is protective of both breeding and roosting plovers.

As mentioned above, dogs can serve as a significant source of disturbance to snowy plovers. Dogs may disturb snowy plovers by their proximity, which Lafferty (2001b) found to have a higher probability of disturbing plovers than humans, at any particular distance. In addition, some dogs may directly disturb plovers by actively chasing them. Additionally, the presence of horses adjacent to the protected areas could cause disturbance, particularly during breeding season. Young chicks that forage outside the fenced area have the potential to be trampled or trapped in the depressions created by horse hooves and adults may avoid or abandon nests if horses come in close proximity to the breeding area (USFWS 2001).

Protection Measures

As part of the COPR Beach Access and Snowy Plover Management Plan, measures implemented under the 2001 and 2008 SPMP's would be continued. All of these measures would help to continue the protection of the western snowy plovers at Sands Beach while allowing for public access and recreational uses of the beach to continue.

The COPR Beach Access and Snowy Plover Management Plan is intended to further enhance habitat for the federally-threatened western snowy plover by reducing human-related disturbance on roosting and breeding areas at Sands Beach. The primary means of protecting the snowy plover population at the Reserve is through delineation

of the main roost and the breeding areas with vertical rope fencing that spans from the upper beach at the base of the foredunes to a location above the higher high tide line. Delineation of the plover breeding area would involve extending the boundary of the fence that protects that winter roosting area to the west to the beach entrance of the Dune Pond trail. A second fence would be installed on the western side of the Dune Pond trail and would extend westward to the Reserve boundary.

The fences would be constructed with plastic posts and rope and would delineate the areas where pedestrians and domestic animals should not enter. An anchor post would be placed at the highest end of each rope to allow retrieval of the posts and rope in the event that an unexpected, very high tide removes the lower end. The remaining posts would be pounded in the ground manually with a post driver. The installation method would ensure that the posts would not be dislodged by wave energy while allowing the posts to be easily relocated or adjusted based on the extent of the tides to provide for maximum public access opportunities along the beach.

Due to the relative predictability of the summer beach profile, the Reserve anticipates placing the fencing above the highest high tide line so that a wet sand access corridor is maintained without having to relocate the lower portion of the fence at any time during the summer season. However, during other times of the year, particularly in winter when the beach profile can change significantly, the Reserve anticipates moving the fence up a day before a very high tide, between three to four times each year. Reserve staff would inspect the fencing at least one day before any anticipated tidal conditions that include high tides combined with significant storms and large waves to ensure that the fencing and signage is intact and not likely to wash to the ocean.

The Commission finds that there are potential adverse effects to water quality if the proposed fencing is not monitored in the manner that it is proposed. To ensure that the roosting and breeding fences and signage are maintained properly and do not wash into the ocean at any time, **Special Condition One (1)** requires inspection of the fencing and signage prior to anticipated high tide/high surf conditions on the beach for the life of the project. Special Condition One (1) requires the signage and fencing along the shoreline to be above the higher high tide. Additionally, Special Condition 1 requires the Reserve to maintain an updated list, subject to review and approval by the Executive Director, of all parties that are authorized to inspect and adjust the fencing and signage.

As stated above, the Reserve is proposing to continue its monitoring efforts to ensure the effectiveness of the ongoing protection measures. To ensure that this project is successful and adequately protects the target plover habitats, **Special Condition Two (2)** requires the applicant to submit a project monitoring plan prepared by a qualified biologist or resource specialist which provides specific goals, and performance standards to evaluate if the project efforts are effective. In addition, the monitoring program shall assess the recreational activities adjacent to the designated plover recovery areas. The monitoring plan shall specify the snowy plover survey methodology, which shall be designed to monitor plover abundance, activity and disturbance.

In addition, Special Condition Two (2) requires the applicant to submit an annual monitoring report, prepared by a qualified resource specialist, for the review and approval of the Executive Director, evaluating the snowy plover protection project. The monitoring plan shall incorporate the collection of data on access and recreation in the Sands Beach area, including but not limited to the types, intensity, and distribution of recreation.

The Commission finds that the proposed protection measures strive to balance the management of sensitive resources with continued public access to the coast. The program is intended to maximize protection of plover habitat while maintaining continued use of, and access to, the surrounding stretches of beach for recreation. Since implementation of the 2001 SPMP, plovers have started breeding successfully at the Reserve and the number of fledged chicks has increased from zero prior to management to an average of 35 chicks in subsequent years. These results clearly demonstrate that the protection measures included in the SPMP resulted in increased survival and reproduction of the plover population. Given the success of the 2001 and 2008 SPMP measures, the Commission has confidence that continued protection measures proposed as part of the COPR Beach Access and Snowy Plover Management Plan would effectively protect the plover population while allowing for continued beach access by the public. Despite the apparent success of the existing management plan, the potential for conflict between resource protection and public access still exists. As such, the Commission recognizes that an adaptive management approach continues to be appropriate under these circumstances. Therefore the Commission imposes **Special Condition Three (3)** which allows for a ten-year period of operation from the date of installation of the fencing.

Special Condition 3 allows for a extension of operations for up to one additional year if the Executive Director determines that no adverse effects have resulted from this program and that there is good cause to continue it before the approval of a new CDP. Furthermore, Special Condition 3 requires the applicant to remove the structure(s) after ten years of operation, or up to eleven years if allowed by the Executive Director, unless authorization under the Coastal Act has been granted to retain the structures onsite.

For the reasons cited above, the Commission finds that the proposed project as conditioned is consistent with Sections 30230, 30231, and 30240 of the Coastal Act.

C. Coastal Access and Recreation

Section 30210 of the Coastal Act states:

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

Section 30211 of the Coastal Act states:

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

Section 30214 elaborates on access management considerations, providing, in relevant part, that:

> (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:
> …
> (2) The capacity of the site to sustain use and at what level of intensity.
>
> (3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area….

Coastal Act Section 30210 and Coastal Act Section 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Section 30214 allows for limits to public access depending on the fragility of natural resources in the area.

In order to protect the western snowy plover population at COPR, the Reserve proposes to continue delineating the plover roosting and breeding areas with a post-and-rope fence that would span from the upper beach at the base of the foredunes to a location above the higher high tide line. The fence delineating the roosting area would remain year-round, would start 95 meters east of the entrance gate to Sands Beach on the bluff near the Cliff House, and would extend 400 meters (1,312 feet) west, just beyond the mouth of Devereux Slough. At either end of this 400 meter stretch, the fencing would be extended shoreward towards the dunes to meet the existing dune fencing. The fence delineating the breeding area would be installed during the plover breeding season from March 15 through September 15. The entire breeding area fence would stretch approximately one-half mile along Sands Beach. Delineation of the plover breeding area would involve the installation of an additional 400 meters of fencing extending from the boundary of the fence that protects that winter roosting area to the west to the beach entrance of the Dune Pond trail. A second fence would be installed on the western side of the Dune Pond trail and would extend westward to the Reserve boundary. Plovers have been observed breeding successfully on both sides of the Dune Pond trail, despite active use of this trail by the public. Given that plover breeding does not appear to be adversely impacted by use of this trail, beach access to and along Dune Pond trail would remain accessible at all times, including during breeding season. Delineation of the breeding and roosting areas would be supplemented by

ongoing efforts that include public education, beach cleanups, and enforcement of Santa Barbara County leash laws.

As stated previously, concerns over the potential "take" of species under Section 9 of the ESA (see Section C(1)) has led the Natural Reserve System to develop a management strategy to protect the existing snowy plovers from human-associated disturbances to the roosting and breeding areas on Sands Beach. Research conducted at Sands Beach at COPR indicates that a majority of disturbances to plovers originate from beach recreation and pets, with additional disturbance attributed to predators such as crows. Disturbances pose a threat to nests and chicks and interfere with the overall ability of plovers to forage or rest, thus impacting their overall reproduction and survivorship.

COPR is administered by the Natural Reserve System which manages research, education, and stewardship of the Reserve. The purpose of the Reserve System is to protect and manage specific University-owned natural areas containing environmentally sensitive resources for the purpose of teaching and research. Approximately ½ of COPR is closed to the general public, including roughly all of the areas from the eastern slough margin to the western property boundaries. However, in support of its teaching and research mission, the Reserve hosts visiting researchers, education activities by K-12 classes, community groups, and qualified non-profit organizations by special permission. Under the Natural Reserve System, recreational use is specifically prohibited to protect sensitive habitats, on-going research, and instructional programs. Permission to utilize the restricted portion of COPR must be obtained from the NRS staff and will be granted only if such proposed activities will not harm the natural values of the reserve or preclude the present or future long-term use of the natural area for research or instruction.

The access policies of the Coastal Act public access and recreational opportunities may be restricted in order to protect natural resource areas, such as habitat for threatened species. However, in order to understand the significance of the impact of the proposed restrictions, the Commission must analyze these access restrictions in the context of the existing access resources in the area.

As stated above, approximately half of the Reserve is open to the public, including Sands Beach. This is the area of the Reserve most used by the public for recreation. People access Sands Beach from adjacent beaches to the east and west, and through and around the Reserve in several locations **(Exhibits 2 and 3)**. To the east of the Reserve, there are a number of pedestrian access points from the blufftop to the beach along the approximately 3½ miles of coastline contiguous with the Campus and community of Isla Vista. To the west, the public has accessed the beach by utilizing the Reserve trail directly west of the slough (Dune Pond trail), skirting around the perimeter of the 40-acre parcel of University property (West Perimeter Path), near the Venoco Oil Tanks, and further to the west via a number of volunteer trails around Ellwood Shores. The closest parking area to access Sands Beach is on West Campus at the end of Slough Road. Upcoast, Sands Beach can be accessed via Ellwood Mesa trails.

Beaches upcoast may also be accessed through the dedicated accessway at the Bacara Resort in Goleta. None of these access points would be modified as a result of the proposed project. Therefore, the Commission finds that adequate access to the beach is maintained in the area.

Lafferty (2000) reported that a majority of visitors bike or walk along the bluffs from Isla Vista and use the Main Sands Beach entrance. The Reserve staff has estimated approximately 35,000 beach users per year, as projected from data obtained by an automatic counter placed at the Main Gate. A beach survey of 100 users showed that approximately 70% of visitors are students from UCSB and the remaining 30% are primarily members of the local community.

Studies conducted at Sands Beach identify several types of beach uses by visitors, including walking, jogging, sunbathing, surfing, birdwatching, watching the sunset, and cleaning up the beach. Active recreation, such as ball playing, Frisbee throwing, biking, commercial activities, surf contests, bonfires, camping, and horse riding is not allowed in the reserve including at Sands Beach. These restrictions are in place due to the accidental injury to Snowy Plover chicks or nests that are likely to occur when these activities take place. Dogs (leashed or unleashed) are not permitted at Coal Oil Point Reserve's beach and Pond Trail.

Dogs can serve as a significant source of disturbance to snowy plovers. Dogs may disturb snowy plovers by their proximity, which Lafferty (2001b) found to have a higher probability of disturbing plovers than humans, at any particular distance. In addition, some dogs may directly disturb plovers by actively chasing them. In 2003, and again in 2015, there have been documented cases of Western Snowy Plover chick mortality due to unleashed dogs (defined as "take" under the Endangered Species Act). Further, in 2015 an unleashed dog entered the Plover area at COPR and stepped on a nest, causing the egg to crack and fail. Beginning January 1, 2020, the docents will communicate with dog owners about the policy prohibiting dogs on Sands beach (LRDP policy LU-33). The COPR Director and Docent Coordinator would continue to work closely with the police department to determine the most appropriate schedule for police efforts.

Several patterns of use have been documented at Sands Beach. For instance, beach users tend to use the wet sand for their activities while plovers concentrate in the dry sand areas. Lafferty (2001a) noted that human activities were substantially higher on weekends, low tides, and warm days but visitor activities did not vary significantly among seasons. "Although one might expect summer beach crowds, winter months have as much activity, presumably due to surf, foggy summer weather and the fact that many students are away during summer break. Human activity is lowest in the mornings and increases throughout the day but may decline in the afternoon if the wind blows strong" (Lafferty 2001b).

Before implementation of the 2001 SPMP, Lafferty's research (2001b) indicated that public access on Sands Beach resulted in a 16-fold increase in the rate of disturbance

to snowy plovers compared to other currently protected beaches in California. Each plover at Sands Beach was disturbed an average of once every 30 minutes and 75% of these disturbances were caused by people and their pets. The research suggested that disturbance occurs once a person walks within 15-20 meters of a plover. Plovers may become alert, begin to walk away and displace each other from the depressions where they sit. They may elevate their wings or bob as a sign of distress and, if approached closely, run or take flight. If put into flight, flocks wheel back and forth for several minutes in tight, low altitude formations (Page et al. 1995). After landing, they remain nervous and will take wing with little prompting (Page et al. 1995).

Since implementation of the SPMP, total disturbance to plovers on Sands Beach decreased by 65% and disturbances that caused plovers to fly, which has the highest energetic cost, decreased by 90%. Observations also suggest that once the symbolic fencing was installed for the roosting area, snowy plovers shifted their use of the beach to within the fenced area. Plovers started breeding successfully at the Reserve after implementation of the SPMP and the number of fledged chicks increased from zero prior to management to an average of 30-50 chicks in subsequent years. These results clearly demonstrate that reducing beach recreation near nesting and roosting areas on Sands Beach can increase survival and reproduction of the plover population.

In an effort to continue minimizing disturbance to the plover population on Sands Beach, the applicant is proposing to delineate the roosting and nesting areas using a post and rope fence. Use of these specific areas would be restricted; however, pedestrian access would be facilitated around the protected areas, by passing along the wet sand parallel to the protected area. Since the tide line is dynamic by nature, the applicant proposes to manually shift the location of the roosting area fencing as necessary to align it above the higher high tide line. By aligning the fence in this manner, public access would be maintained at all times, along the wet sand area. Access would be naturally inhibited when the mouth of the slough is breached, typically during several storm events each year. To ensure that public access is available adjacent to the protected areas, the applicant would adjust the roosting area fencing to a location above the anticipated higher high tide. As a result, the length of roosting area fencing would vary over the course of the year, roughly corresponding to the available dry sand area. Though the variation in beach width is often a function of tidal height, beach width is also affected by seasonal variation in the distribution of sand, with a much narrower beach in the winter and early spring. Beach profile data compiled by the Reserve indicates that the average Sands Beach profile ranges from approximately 105 meters of dry sand in the summer to approximately 35 meters of dry sand in winter. Based on the implementation of the 2001 and 2008 SPMP's, the applicant anticipates that the main roosting area fencing would only need to be relocated three to four times each year. Relocation and/or adjustment of the temporary breeding fence should not be necessary at any time during the year, as this section of fencing delineates a narrower area of beach and would be located far above the highest high tide line.

In addition to the placement of fencing, the proposed project would include the installation of no trespassing, educational, and regulatory signage. No trespassing signs

and signs that state “Do Not Enter: Disturbance may cause loss of eggs and young or loss of migrating adults” would be placed along the fence ropes delineating both the roosting and breeding habitat areas and would allow the police department to enforce the restricted area and issue citations when necessary. Additionally, educational signage informing the public of the presence of snowy plovers would be posted at several access points adjacent to the roosting and breeding areas. The Commission finds that adequate noticing of the restricted areas is essential to protect environmentally sensitive resources and to inform the public of appropriate use and access. Such signs are typically beneficial in nature by providing adequate notification prior to implementing enforcement actions and by discouraging uses incompatible with the environmentally sensitive habitat areas.

Section 30210 and 30214 policies of the Coastal Act require maximum public use consistent with resource protection. In this case, the snowy plover roosting and breeding areas have been identified as critical habitat for the federally-threatened western snowy plover and require special management consideration and protection. Unpermitted use of the area has been determined to contribute a chronic stream of human-induced disturbance to the plovers which may ultimately impact reproduction and survivorship.

The public access policies of the Coastal Act allow for the manner of public access to be managed, as appropriate, in cases where fragile natural resources are impacted. Under the proposed project, a portion of the existing beach would be restricted from recreational uses. However, the proposed protection measures strive to balance the management of sensitive resources with continued public access to the coast. Though access and recreation would be prohibited in the protected stretch of beach, the protected area represents a small portion of the total available beach in the area available for recreational use. As proposed, the project would maintain access to the beach and linear access adjacent to the protected areas. Nearby stretches of beach would remain available for recreational use year around. Therefore, the Commission finds that access and use restrictions are appropriate given the natural resource and access constraints at the site.

Due to the relative predictability of the summer beach profile, the Reserve anticipates placing the fencing above the highest high tide line so that a wet sand access corridor is maintained without having to relocate the lower portion of the fence at any time during the summer season. However, during other times of the year, particularly in winter when the beach profile can change significantly, the Reserve anticipates moving the fence away from the tide a day before a very high tide, between three to four times each year. To ensure that public access along the beach adjacent to the main roosting area remains available, Reserve staff will continue to inspect the fencing at least one day before any anticipated tidal conditions that include high tides combined with significant storms and large waves to ensure that the wet sand corridor is maintained and that the fencing is intact and not likely to wash to the ocean.

The Commission finds that there are potential adverse effects to public access if the program is not carried out in the manner that it is proposed. To ensure that the roosting fence is maintained properly and does not impede public access along the wet sand at any time, **Special Condition One (1)** requires inspection of the fencing and signage prior to anticipated high tide/high surf conditions on the beach for the life of the project. Special Condition One (1) requires the signage and fencing along the shoreline to be above the higher high tide. Additionally, Special Condition One (1) requires the reserve to maintain an updated list, subject to review and approval by the Executive Director, of all parties that are authorized to inspect and adjust the fencing and signage.

As proposed, the Commission finds that the closure of the plover roosting and breeding areas on Sands Beach would provide for greater protection of the environmentally sensitive habitat while allowing continued access for appropriate uses. Therefore, the Commission finds that the proposed project as conditioned is consistent with the public access policies of the Coastal Act.

D. California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act ("CEQA"). Section 21080.5(d)(2)(A) of CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity 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 any public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, the proposed project, as conditioned, is consistent with the policies of the Coastal Act. Feasible mitigation measures which will minimize all adverse environmental impacts have been required as special conditions. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

Coastal Development Permit Application No. 4-08-007 and No. 4-01-139 and associated file documents.

2010 University of California Santa Barbara Long Range Development Plan.(UCSB, 2010)

Snowy Plover and California Least Tern Management Plan (2019)

Status, Trends and Conservation of the Western Snowy Plover with a Focus on the Devereux Slough Population at Coal Oil Point Reserve, Santa Barbara County (Lafferty, 2000);

Disturbance to Wintering Western Snowy Plovers (Lafferty 2001a);

Birds at Southern California Beach: Seasonality, Habitat Use and Disturbance by Human Activity (Lafferty 2001b);

Snowy Plover Docent Manual (COPR 2001);

Western Snowy Plover (*Charadrius alexandrinus nivosus*) Pacific Coast Population Draft Recover Plan (USFWS 2001);

Draft Coal Oil Point Reserve Management Plan (UCSB 2004).