

Revised 2015

**COAL OIL POINT RESERVE
MANAGEMENT PLAN**

UNIVERSITY OF CALIFORNIA
SANTA BARBARA, CALIFORNIA

*Coal Oil Point Reserve
UCSB Natural Reserve System
A division of the UC Natural Reserve System*

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Executive Summary

The Coal Oil Point Reserve (COPR, the Reserve) is one of the few Reserves in the University of California Natural Reserve System (UCNRS) with a dune system and seasonally tidal estuary. Its proximity to the University of California, Santa Barbara (UCSB) campus provides excellent opportunities for use by campus researchers and classes. The purpose of the COPR Management Plan (COPR MP) is to guide the Reserve in managing its sensitive resources in the public trust and to aid COPR in enhancing its value as a research and educational facility. The COPR MP should describe previous and future management actions in sufficient detail to create a record of what has been accomplished and what will be done in the future.

The COPR MP contains “**Programs**” grouped into five areas: Users, Conservation, Stewardship, and Administration, and Infrastructure and Facilities. Additional detailed plans have been developed to describe larger projects that are maintained by the Reserve (see Appendices). These include the Access Plan, the Snowy Plover Management Plan, the Restoration Plan, and the Infrastructure Plan. The Access Plan and the Snowy Plover Management Plan have been fully implemented. The Restoration Plan is ongoing, and the Infrastructure Plan is a new plan.

The first COPR MP was written in 2004. In the last 10 years, most actions proposed in the 2004 plan have been implemented. These are described in the **Status** section of each program. The **Policies and actions** section describes policies that affect particular programs such as local ordinances, NRS User Guidelines, and policies in the 2010 UCSB Long Range Development Plan and actions proposed in the future.

The goal of this revision of the COPR MP is to update the status and policies of the Reserve programs described in 2004 and to identify new plans for the future. For example, since 2004, the Reserve received two new full-time staff and a building to support the Reserve’s programs. These changes create new opportunities for the future which are described in the 2015 plan.

This plan has been reviewed by the UCSB NRS, the UCSB administration (Office of Research), and the UC NRS System-wide Office. The COPR MP requires an amendment to the 2010 UCSB

LRDP and is subject to the California Environmental Quality Act (CEQA) and to California Coastal Commission review and approval.

Summary of Programs

A- Reserve Users and Visitors

Each year the Reserve supports about 20 research projects, 20 college level classes, and several thousand visitors who attend public tours or participate in volunteer activities. Visitors use the Reserve for their own planned activities or they join an activity provided by the Reserve staff such as guided tours, K-12 field trips, restoration work days for volunteers, and a docent program. There is an Access Plan that guides the approaches and policies for Reserve access (Appendix 1).

B- Habitat Conservation

To preserve its natural resources, the Reserve maintains active Restoration and Endangered Species Programs. Routine activities include (1) mapping natural resources, (2) managing access to protect sensitive habitats, (3) controlling and eradicating exotic weeds, (4) restoring degraded habitats, and (5) managing endangered species and public access.

The COPR Snowy Plover Management Plan (Appendix 2) was proposed in 2001 and it has been fully implemented. The Plan aims to reduce disturbance by beach users by increasing public awareness of snowy plover issues, and keeping foot traffic away from core roost and nesting areas. This program has been hugely successful and has resulted in the recovery of the breeding population of the threatened Pacific coast population of the Western Snowy Plover (WSP) at the Reserve. The Snowy Plover management program has received prestigious awards and increased the Reserve's profile with the community and outside agencies. This program is planned to continue in its present form for the foreseeable future.

Occasionally, priorities for conservation and restoration goals are in conflict, making it difficult to determine what is more important. This COPR MP includes the following new guidelines to help resolve these conflicts: 1) threatened and endangered species have priority over non-listed species,

2) native habitats and species have priority over exotic habitats and species, and 3) historical native habitats are restored to a condition prior to European disturbance to the extent possible (as in the official definition of “Restoration Ecology”). These guidelines give general directions for management. Exceptions may be justified for biological, cultural, or historical reasons.

The Reserve has a Restoration Plan (Appendix 3) that guides the restoration activities. The most invasive weed species, including *Acacia*, pampas grass, and *Myoporum*, have been eradicated from the Reserve over the past 10 years. The area covered by iceplant has been greatly reduced and the remaining iceplant will be eradicated in the near future.

The Reserve plans to replace senescing exotic trees such as *Eucalyptus* and *Cypress* with native oak trees and shrubs. Tree canopies of *Eucalyptus* and *Cypress* are used by birds as perching and nesting sites. When the trees die off, native oaks will replace this bird habitat. The planting of 350 sapling Coast Live Oaks was initiated in 2014 and will be completed by the end of 2016. These trees will serve as a “bank” for future exotic tree removals.

The Reserve staff maps and monitors natural resources to track changes over time. Maps of vegetation, geology, topography, history, restored habitats, and research projects are available in the Reserve’s website. Surveys of water quality, birds, fish, insects, and plants have been conducted and species lists are also available. These surveys have been periodically repeated when a potential change or impact is predicted. The Reserve will seek funds to repeat these surveys at regular intervals as these data can be valuable for evaluating the impact of climate change in the Reserve. The Reserve plans to improve the vegetation maps by creating maps on a smaller spatial scale than they are currently available.

C- Stewardship

The University of California holds its lands in the public trust and manages the NRS lands in a manner that preserves their natural resources for future generations. Balancing the protection of native habitats with the need to provide coastal access to the public for recreation has been a central focus of stewardship at COPR. The Reserve has implemented the Access Plan (Appendix 1) and

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no changes are planned for the future. Portions of the beach, perimeter trails and an internal pedestrian nature trail (the Dune Pond trail) are open to the public for nature study and passive recreation (such as walking and jogging), and these visits do not require a formal application. The Reserve manages these trails to maintain effective boundaries, ensure safety, and preserve the natural resources and their educational value. The Reserve has provided two vehicle turnouts for bird watchers along Slough Road. The public can access Sands Beach from 3 points: (1) adjacent to the eastern boundary of the Reserve near the Cliff House, (2) through the Dune Pond trail from Venoco Road, and (3) at the western boundary of the Reserve adjacent to the Ellwood Bluffs. Sands Beach is also accessible by walking along the beach from the east or west. With guidance from the UCSB Police Department, the Reserve has posted no trespassing signs along the perimeter of the Reserve, and signs at the beach access points and on the Reserve's public trails with notices of the Santa Barbara County ordinance requiring dogs be kept on a leash.

To ensure that the Reserve is managed within the larger context of its watershed, the Reserve Director and the UCSB NRS Associate Director attend a quarterly meeting with representatives from the City of Goleta, the County of Santa Barbara, and the UCSB campus, and consult with local agencies such as the Environmental Defense Center, Urban Creeks Council, Santa Barbara Channel Keeper, and the Santa Barbara Audubon Society. The Reserve Director is a member of the UCSB North Campus Open Space Committee which will discuss the future plans for the restoration of the North Campus Open Space (NCOS). Participation by the Reserve Director as such ensures that the NRS is represented as potential impacts of this large scale restoration project adjacent to the Reserve are considered. The main objective in NRS representation is to ensure that impacts of the NCOS restoration on the Reserve are minimized and that any impacts that cannot be avoided are appropriately mitigated. In addition, the Reserve can provide valuable information about the Devereux ecosystem for this important project.

The continued growth of the surrounding urban areas in the City of Goleta and development on the UCSB campus will potentially cause additional impacts to the natural resources of the Reserve. The Reserve and the UCSB NRS will work with the University and the entities that develop and approve new projects in the area to ensure that the potential impacts to COPR are mitigated appropriately. The COPR Reserve Director and the UCSB NRS administration will consult with

the University to ensure that potential impacts are considered and appropriate mitigation measures are in place. In the case of University development projects, the University will bear the cost of the evaluation of the impacts and implementation of required mitigation measures which may include dedicated enforcement, Reserve staff support, habitat protection and/or restoration. When development is by non-University stakeholders, COPR and the UCSB NRS will consult with the University to engage the stakeholders on behalf of the Reserve to evaluate impacts and implement mitigation measures as needed.

Several aspects of the development and restoration of the adjacent North Campus Open Space (NCOS) may affect the Reserve. Ideally the NCOS will be designed in ways to improve or buffer the Reserve. The Reserve Director will work with the chair of the NCOS Science Advisory Committee to consider potential impacts and mitigation measures.

The COPR Reserve Director will work with the University to create a West Campus Natural Areas Committee comprised of the COPR Reserve Director and the managers of the various open spaces and grounds overseen by University groups. The ecosystem and habitats of the West and North Campus areas are more or less connected and must be jointly protected. Activities that occur in one area of West and North Campus can impact biological, cultural, and archeological resources the other nearby areas. This committee will provide the opportunity to coordinate projects and activities to ensure an effective overall management strategy. The committee will meet twice a year or more often if needed to share updates and coordinate planning.

The Reserve Director will work with the University to develop an enforcement program. A dedicated UCSB enforcement officer on the beach may be necessary to enforce Santa Barbara County ordinances, UC Property Use policy, and the California Education Code governing conduct on UC property at the Reserve and the adjacent UCSB open space. Drones are becoming an issue at Reserves because they disturb people and wildlife. The UC Office of the President is working with FDA to create rules about drone use in Reserves.

D- Administration

The administration of COPR and the other six reserves managed by UCSB is the responsibility of the UCSB NRS campus administration office with some assistance from the Marine Science Institute. The UCSB NRS Director heads the campus NRS administrative office and reports to the UCSB Vice Chancellor of Research. The UCSB NRS Advisory Committee, which is appointed by and reports to the UCSB Vice Chancellor for Research, advises the UCSB NRS Director on goals, policies and operations for the seven UCSB Reserves. The COPR Faculty Advisor and the COPR Faculty Representative are members of the Advisory Committee who work with the COPR Reserve Director to advocate for the Reserve and provide advice about management and operational issues at the Reserve. The COPR Reserve Director lives at the COPR field station and is responsible for the day-to-day Reserve operations and programs. The Reserve Director oversees the use of the Reserve by all researchers, classes, volunteers and public visitors. The Reserve Director supervises staff at COPR, and reviews and approves applications for use of the Reserve through the UC NRS Reserve Application Management System (RAMS). The Reserve has modest annual recurring budget. Extramural grants and donations provide additional funds for restoration, internships, and infrastructure.

A release form signed by Reserve users protects the University from various liabilities and serves as a means to inform users of potential hazards. Recent safety improvements that have been implemented include a serviced porta-potty adjacent to the beach entrance and split rail fencing along cliff edges. COPR works with the UCSB campus to improve safety for visitors and users and seeks help from the UCSB campus to enforce regulations and manage recreation on the beach. The Reserve follows UCSB campus guidelines with respect to rapid-response protocols for potential catastrophic natural events.

E- Infrastructure and Facilities Program

The Reserve has eight small buildings and greenhouses clustered at the Field Station on Coal Oil Point near the entrance to Sands beach, and is in the process of renovating a building on the Devereux Campus adjacent to the Reserve to serve as a new headquarters facility and Nature

Center (herein the Center). The proximity of the Center to the Reserve will provide much-needed support for Reserve users without building new infrastructure at the field station on Coal Oil Point. When the building is renovated to fit the Reserve's needs, it will include a small laboratory, offices for staff and researchers, classrooms, a meeting room, a library, and public restrooms. The Center will be used by staff, docents and volunteers as a base of operations, researchers working on projects, University and K-12 students attending lectures, classes and field trips, and visitors seeking information about the natural resources of the area (Appendix 4).

Introduction to the Reserve and its importance

The University of California (UC) Natural Reserve System (NRS) manages 39 sites representing nearly all the State's major natural ecosystems. The NRS protects California's natural heritage for the public trust and provides protected natural areas for research and teaching to contribute to the understanding and wise management of the Earth and its natural systems. The ecosystems and facilities offered by the 39 Reserves are available to faculty, students, and the public from institutions throughout the world. UC Santa Barbara (UCSB) manages seven of the 39 NRS reserves under the Office of Research. The administration of the seven reserves is the responsibility of the UCSB NRS campus administration office, which is associated with the Marine Science Institute.

The COPR consists of 170 acres of protected coastal habitats along the south coast of Santa Barbara County in the lower drainage area of the Devereux Creek Watershed, adjacent to the UCSB West Campus and UCSB North Campus Open Space (Figures 1 and 2). The diversity of habitats and wildlife at the Reserve is striking and some of these are now rare along the coast. For example, the COPR beach is breeding habitat for the threatened Pacific coastal population of the Western Snowy Plover. The Belding savanna Sparrow breeds on the pickleweed habitat at Devereux Slough. Rare invertebrates such as the Globose Dune Beetle, the Dune Spider, and the Sand Tiger Beetle share the beach and dunes with the snowy plovers. The Reserve has one of the most pristine remnants of dunes and Coastal Dune Scrub in Santa Barbara County, and contains a number of rare plant species. Several types of wetlands such as vernal pool, dune swale, salt flat

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and salt marsh are part of the 5% remaining coastal wetland in California. In a short walk, visitors can observe all these habitats and learn why it is important to preserve them. Perhaps the most unique aspect of this coastal reserve is that its natural resources and ecology are well known, thanks to the various research and college class activities in the Reserve, and owing to the secondary school students who visit with their teachers in class field trips.

Though small, COPR receives many users. Because of its proximity to UCSB, undergraduate classes from the campus use the Reserve regularly. Students from other institutions, community schools, and educational groups visit frequently as well. It is also a site for graduate student and faculty research projects ranging from field tests of ecological theory to investigations into the management of endangered species.

Figure 1. General location map of the Coal Oil Point Reserve (not to scale)

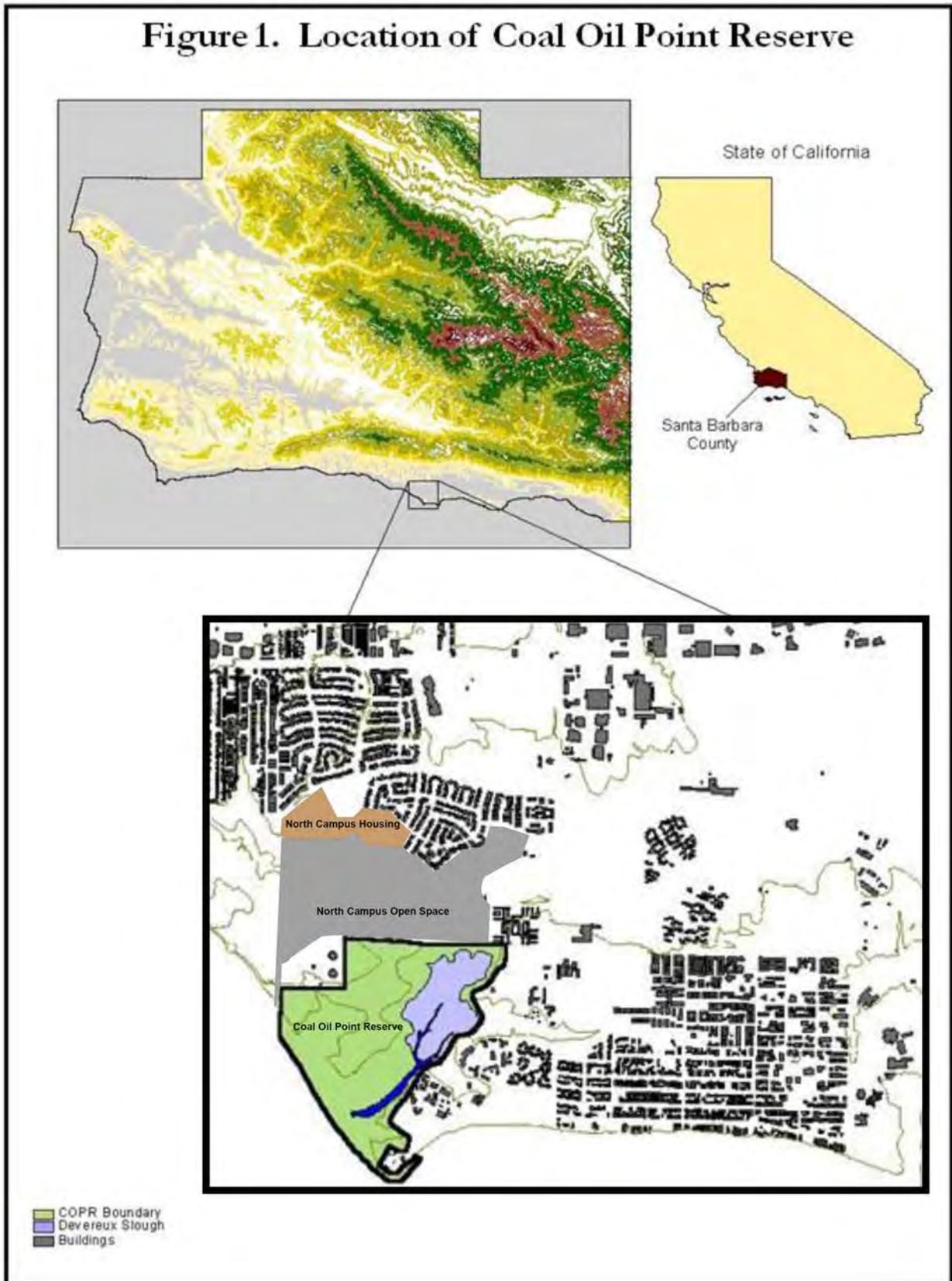
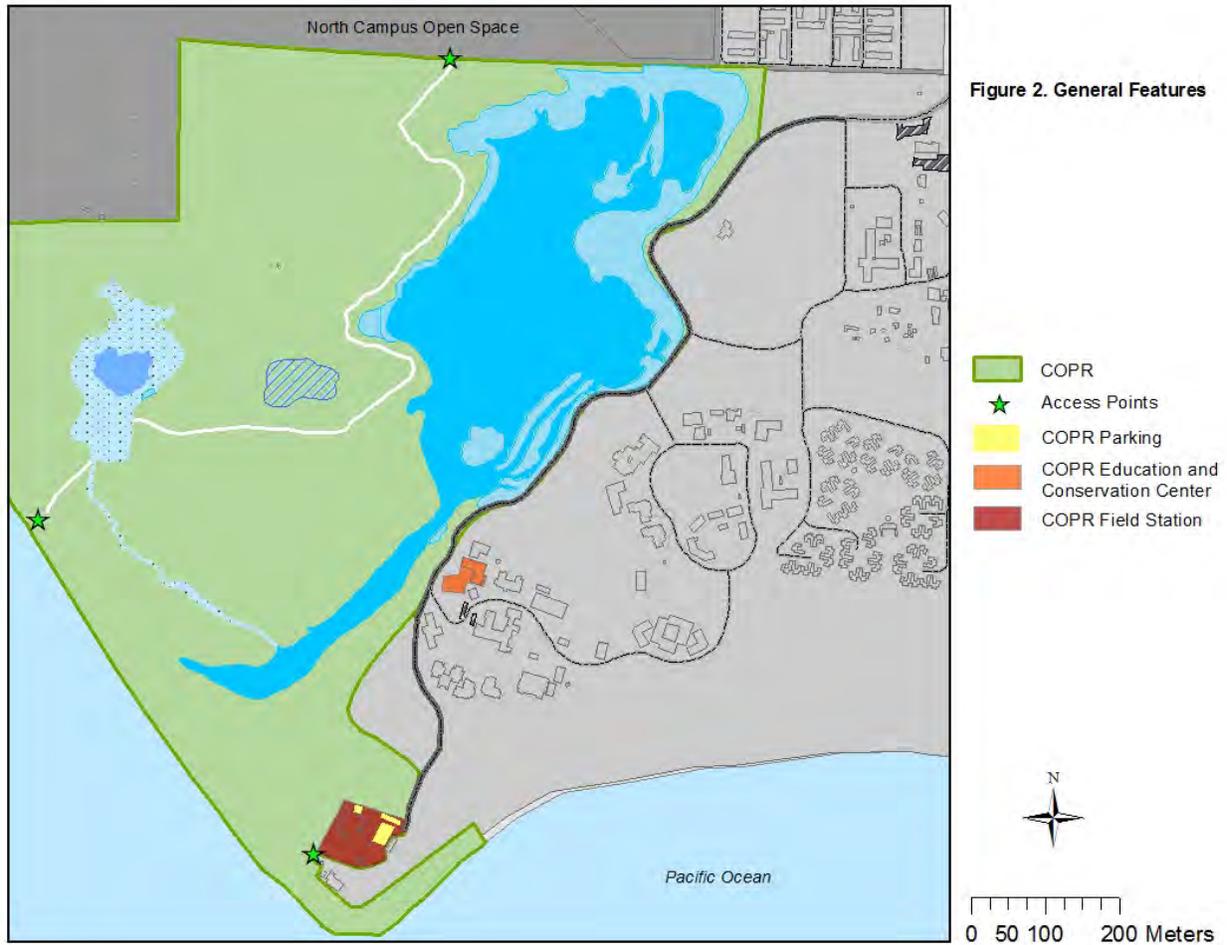


Figure 2. General Features of COPR and its facilities.



In addition to providing research and educational opportunities, COPR is unusual among the 39 NRS reserves in that a trail and portions of the beach are open to the public. This access to the Reserve's great natural beauty provides a visual and aesthetic amenity for the campus and community. For example, amateur naturalists often visit the Reserve's Devereux Slough because it is among the top ten birding areas in the Western United States. Such forms of access provide a valued public service and offer opportunities for the Reserve to foster public education.

Mission of the University of California Natural Reserve System

In 1965, the UC Board of Regents established the NRS to provide protected environments representing California's natural habitats for research, education and public service. In the 50 years since its formation, the NRS has grown from seven to 39 Reserves that encompass over 750,000 acres. The Reserves also serve as a gateway to more than a million acres of public lands. The NRS is a UC-wide program that serves the overall UC Academic Affairs. Each Reserve is assigned to one of nine UC campuses for administration. The office of the UCSB NRS manages the COPR and six other UC Natural Reserves.

The mission of the Natural Reserve System is to contribute to the understanding and wise management of the Earth and its natural systems by supporting university-level teaching, research and public service at protected natural areas throughout California.

A. USER PROGRAMS

For over forty years, the COPR has attracted a number of users who engage in research, field studies for university-level classes, and field trips for K-12 and adult environmental education. The following three user programs provide direction for supporting COPR’s and UCSB’s missions. Present uses are listed in Table 1 below.

Table 1. Use of COPR in the 2013-2014 UCSB academic year.

	# visitors	# visitor days
Research	136	843
College Class	647	1,192
K-12, tours, Volunteers	1,361	4,873
Total	2,144	6,908

All users must fill out an application and receive notice of approval before commencing any activity on the Reserve. Online applications are available at <http://coaloilpoint.ucnrs.org>. The Reserve Director reviews user applications for consistency with the UC NRS User Guidelines.

The Reserve is also used by the public for recreation in specific areas (Appendix 1, Access Plan). Reserve staff and volunteers have been “enforcing” ordinances, regulations and policies governing use of the Reserve that protect the Reserve’s natural resources. When staff and volunteers contact the public about non-compliance with ordinances, regulation and policies, they are put at risk of confrontation and are distracted from other important duties. Enforcement of the Santa Barbara County leash ordinance for dogs, the UC Property Use policy, and the California Education Code governing conduct on UC property must improve, and is the responsibility of UCSB administration and police department. The Reserve would benefit from more frequent UCSB patrols.

1. Research Program

Status. The COPR is an important research facility for faculty and graduate and undergraduate students, with an average of 20 projects being conducted each year. The history of research in

this area predates the Reserve. One example is the research done by Frederic E. Clements, botanist and ecologist, on vegetation and plant communities in the Coal Oil Point area in the 1920's and 1930's. Areas of research conducted at COPR have included climate, food webs, parasitology, anthropology, mineral resources, geology, oceanography, various natural history surveys, and art. Several reports, theses, and scientific publications document the research activities conducted at COPR and together provide a database of knowledge about the Reserve. These documents are available at the Reserve and are referenced in the Reserve's online bibliographic data base <http://coaloilpoint.ucnrs.org>. The Reserve staff routinely maps all research projects and stores the maps in a GIS database to ensure that research and class projects do not interfere with one another, and to provide a history of land use for Reserve users.

Policies and Actions. Research is a mandated activity of the UC NRS. Therefore, supporting researchers is a high priority for the Reserve. The NRS manages its lands in the public trust and thus seeks to conserve its natural resources. Therefore, the Reserve Director evaluates each research application to determine if it complies with the UC NRS guidelines and with applicable government regulations such as, for example, the Endangered Species Act and California Coastal Act. Examples of the criteria that are used to evaluate each project are:

- a) The percent of the habitat or local population of a species that will be destroyed or impacted by the project. For example, observation and collections are allowed in most areas but the amount of sampling allowed will depend on the size of the population, the rarity and official status of the species, and the general sensitivity of the habitat. Only a very small percent of a population can be collected each year.
- b) The duration of project impacts and the time it will take for the affected habitat and species to revert to pre-experimental conditions. Manipulative research that permanently impacts natural areas is not allowed. However, if the experiment is to be conducted in an area that is already heavily degraded, then it may be allowed in conjunction with some restoration.
- c) The impact of the project on other ongoing research. Ongoing research projects have priority over new projects. Projects that require exclusive use of a habitat will be evaluated for their interference with future projects.
- d) Only very limited manipulations will be allowed in the Western Snowy Plover (WSP) protected area, and no manipulations will be allowed during the breeding season. During

the breeding season, research is restricted to management, observation and monitoring of the WSP.

- e) Researchers must remove all of their equipment, cages, flags, and similar research supplies at the end of an experiment.
- f) Introduction of exotic genotypes to the Reserve (e.g. for transplantation experiments) is not allowed.

To support research activity at COPR, the Reserve will continue to update resource inventories and monitoring databases, which are available to Reserve users on the website.

2. Class use (University/College-level)

Status. The COPR Education Program includes many levels of educational opportunities and experiences. Several UCSB courses (e.g. Walking Biology, Natural History of COPR, Ecology, Environmental Studies, Ichthyology, Vertebrate and Invertebrate Zoology) and classes from other universities and colleges regularly use the Reserve as an outdoor laboratory. The Reserve provides an excellent opportunity for students to study field research methods and learn about the local fauna and flora. Students from UCSB can bike to the Reserve from campus, which makes regular visits for class projects easier. The Reserve Director and staff mentor undergraduate interns from various departments through internships.

Policies and Actions: Educational support for University level classes is a mandated responsibility for the Reserve. Activities that are likely to interfere with ongoing class programs are not allowed. Class use that damages natural resources is not permitted. Class use of the Reserve is allowed on the perimeter of the Reserve and Dune Pond trail, the beach outside the plover roost area, and in some fenced areas if approved by the Reserve Director. Restricted areas include the Snowy Plover fenced area, the dunes, and the back dunes east of the Dune Pond trail. Class participants must remove all experimental structures, markers, etc., after sampling activities or experiments have ended. A faculty member, instructor, or teaching assistant (TA) must accompany

the students. If a student wants to conduct an independent project, he/she must request approval from the Reserve Director and fill out a separate research application as required of all researchers.

3. Public Service Program

Status. Several organizations such as the Santa Barbara Audubon Society and the Santa Barbara Museum of Natural History lead trips to COPR as part of their educational programs. Local K-12 classes also visit the Reserve for field trips in a variety of capacities. For example, the "Kids In Nature" program brings students to the Reserve for educational activities. In 2012, the Reserve implemented its own elementary school education program that engages UCSB student interns to teach 4th-6th graders about ecology and nature appreciation. Many of the field trips and classes are self-guided, but the Reserve also offers docent-led tours monthly, and by appointment. Docent-led tours are open to the public and often requested by community and campus groups. Docents are members of the local community or UCSB students who learn about the Reserve's resources and are trained to interact with the public. The Snowy Plover Docent Program has increased the opportunities for public guided tours of the plover area. The Reserve created a self-guided tour available along the official public Dune Pond trail through the Reserve by installing interpretive signs with an accompanying educational pod-cast accessible on the web with a mobile phone app.

Policies and Actions. Where appropriate, the Reserve supports educational activities by K-12 classes, community groups, and qualified non-profit organizations. Educational and outreach activities that damage natural resources are not permitted. Field trips are permitted on approved trails and the beach outside of the Snowy Plover fenced area. K-12 groups visiting the nesting area during the Snowy Plover breeding season (March 15 to September 15) must be guided by a Reserve staff member to avoid disturbance to breeding snowy plovers.

The upper size limit for a class visiting the Reserve is 30 individuals including the students and teachers. The minimum student/adult ratio for K-3rd grades is one adult for each 5 students; the ratio for 4th-12th grades is 1 adult for each 10 students. Larger, well-organized, groups may be allowed in consultation with the Reserve Director. Field trips are for educational opportunities;

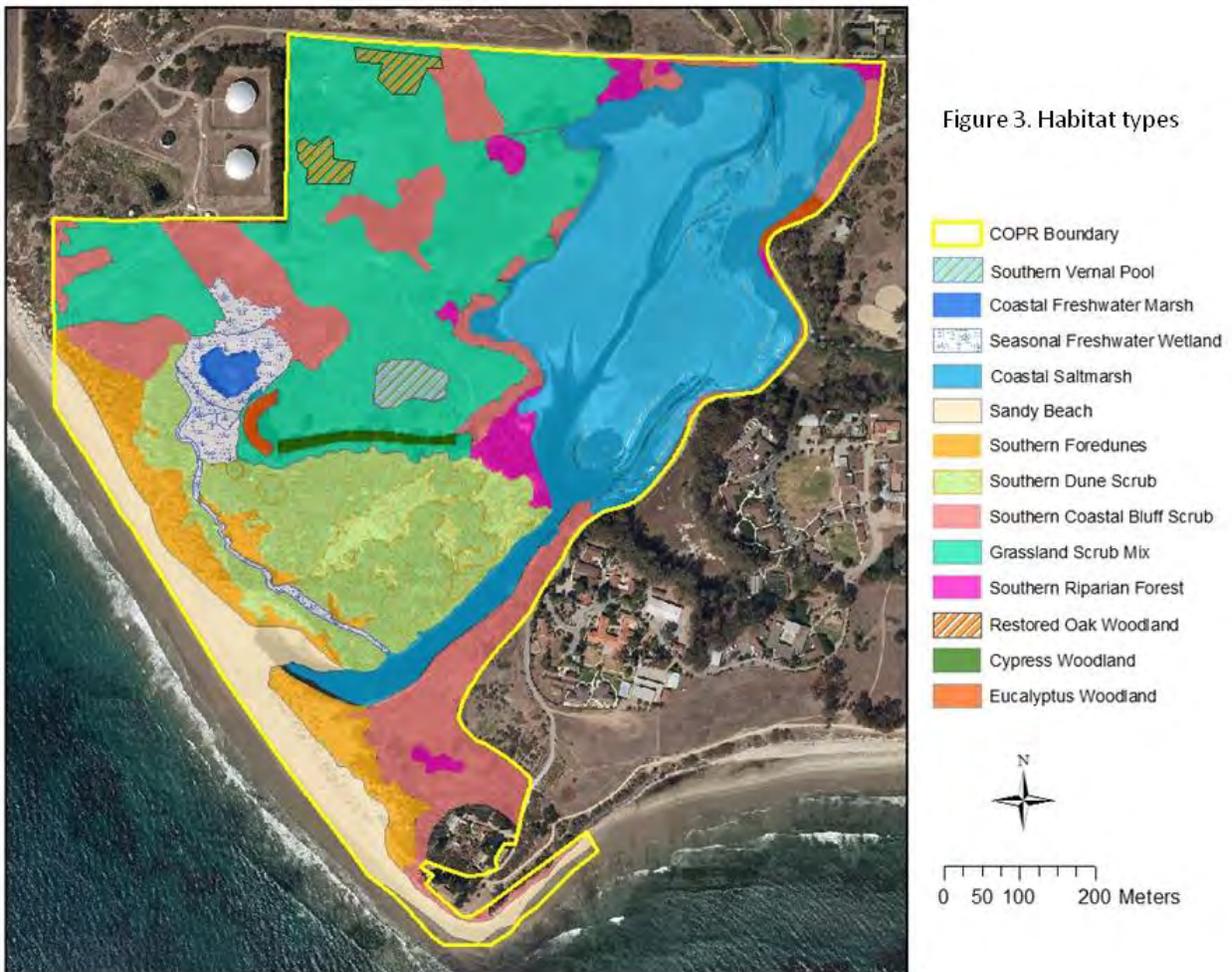
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recreation by participants is not permitted on the Reserve, including the beach area. Individuals doing a self-guided tour on the Dune Pond trail or around the perimeter of the Reserve are not required to fill out an application. Groups of individuals are required to submit an application.

B. CONSERVATION PROGRAMS

The Reserve has a number of habitat types within a relatively small area (Figure 3). The Reserve actively enhances natural habitats through weed control, restoration, re-introduction of extirpated species, control of nuisance predators attracted to the Reserve by public activities, trash removal, and management of public access and pets.

Figure 3. Habitat types at COPR.



1. Restoration Program

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Status. Federal and State legislation and University of California policies aim to protect sensitive habitats and rare and endangered species. The Reserve has made significant progress in the last 10 years in reducing impacts to natural areas with restoration, education, fences, and signs.

The Reserve has a Restoration Plan (Appendix 3) that was approved by the California Coastal Commission (CCC) (NOID 4-07) in 2007, and the Reserve staff routinely implements its proposed actions as grants are secured to fund the projects. For example, over the past 10 years, a number of exotic and invasive species have been eradicated or controlled as proposed in the previous COPR MP. The Reserve staff also restored seven vernal pools on the UCSB West Campus (external to the Reserve) with approval from the CCC in 2000 (NOID 2-00). All plants used in the restoration projects are grown in the Reserve's greenhouse and shade huts.

There are many trees that are non-native species around the field station site on Coal Oil Point and in some areas of the Reserve. The trees can provide important habitat for birds, but exotic species can also remove ground water (which dries out wetlands), shade the understory preventing the growth of native plants, and promote soil toxicity which inhibits native plant growth (e.g. allelopathy by Eucalyptus). Monterey Cypress trees that were planted in the field station area about a century ago are now senescing. Trees that are in danger of falling on trails or structures and present a public safety hazard will be removed. Some exotic trees such as the eucalyptus at the northern turnout and the one on the western margin of the slough that had a Great Blue Heron nest in 2915 have aesthetic and habitat value and will not be removed.

In 2014, Goleta Valley Beautiful and COPR staff planted 150, 5-7 foot native oak trees in the northern section of the Reserve. As these trees grow, they will replace the ecological functions of exotic trees that will die naturally or will be removed as a result of restoration activities. An additional 200 oak tree seedlings will be planted in an adjacent area in 2015 and 2016. The oak trees will eventually form a dense canopy that will provide a refuge and corridor for wildlife moving between the Slough and the pond near the Ellwood Marine Terminal.

It is anticipated that the Ellwood Marine Terminal will soon be removed and the area restored, which will provide additional wildlife habitat. In the last 10 years, a mountain lion, a bear, coyotes

and bobcats have been sighted on the Reserve. Attracting these large top predators to the Reserve will help reestablish the web of interactions among the flora and fauna that is characteristic of natural areas that have not been heavily impacted by human development. Currently there are too few top predators and too many meso-predators (raccoons and skunks) on the Reserve, which has resulted in negative impacts on populations of small mammals and birds such as the Western Snowy Plover.

COPR does not manage the marine intertidal habitats adjacent to the Reserve; this area is under the authority of the California State Lands Commission. In 2014, the California Department of Fish and Wildlife (CDFW) declared the ocean in front of the Reserve as a Marine Protected Area (MPA), which prohibits take of marine organisms, except for authorized uses that require a CDFW permit. COPR staff and docents assist the CDFW by reporting illegal activities in the MPA.

Policies and Actions. The Reserve will restore habitats that have been degraded by past human activity following the guidelines in the Restoration Plan approved by the CCC in 2007. The guidelines for deciding restoration priorities are: 1) endangered species have priority over non listed species, 2) native habitats have priority over exotic habitats, and 3) disturbed habitats should be restored to a condition similar to undisturbed similar habitats. As per these guidelines, exotic trees will be replaced with native trees at a 1:1 ratio to replace the tree canopy habitat lost when exotic trees are removed. Exotic trees will be removed gradually and removals will be timed to limit disturbance to nesting birds (in accordance with LRDP policies). To protect the integrity of the Reserve's genetic stocks, the Reserve will use, and advocate neighboring restoration projects, to use only local sources of native plants, and will avoid replanting in areas where natural reseeded is sufficient to restore the habitat after weed removal. To avoid impacts to research projects, the Reserve provides maps of restored sites to researchers.

Exotic and non-local native species of trees will be eradicated or controlled except when: (a) they provide desired visual screening or landscaping for buildings, (b) they have been used as active nest sites for birds of prey in the prior 2 years, and (c) they have scenic value as long as they do not conflict with the primary function of the preservation or restoration of native species. Native trees such as oaks or other shrubs that replace exotic trees will be planted in areas that can better

support arboreal habitat such as the northern part of the Reserve. To enhance the Reserve's grassland, the Reserve will evaluate methods, such as controlled fire, and mowing as tools to reduce the cover of exotic annual grasses and promote the growth of native bunch grasses. Revegetation with native species will be used to restore degraded habitats.

2. Endangered and Threatened Species Program

Status. The Endangered Species Act requires the development and implementation of recovery plans for listed species. For the purposes of the COPR Management Plan, the Endangered and Threatened Species Program includes various sensitive plant and animal species within the Reserve that have federal or state protection as endangered, threatened, or special-status species. It also includes those that are listed as endangered or possessing special status by the California Natural Diversity Database, the California Native Plant Society, and/or the Audubon Society. COPR maintains a list of, species found on the Reserve that require special protection, including plants, vertebrates, and invertebrates. Maps of the locations at COPR of these species are also available (Figure 4). UCSB has mapped the open space that surrounds the Reserve including ESHA (Environmentally Sensitive Habitat) (Figure F. 2 2010 LRDP).

The listed species at COPR that receives the most attention is the Pacific coast population of the Western Snowy Plover. Plover nesting and overwintering habitats occur on the foredune and upper beach areas of Sands Beach on the Reserve and, as a result, plovers are easily disturbed when the beach is used for recreation. COPR has been designated a critical habitat for this species by the US Fish and Wildlife Service (USFWS). The Reserve prepared and implemented a Snowy Plover Management Plan that has been approved by the CCC (Appendix 2) and requires approval every five years (CDP 4-08-007). The Plan provides for the protection of the plover habitat from disturbance by beach users. Other species of special status have benefitted from the protections instituted for plover populations. California Least Terns nested at Sands beach before 1970 but

were absent from the area until plover protection measures were in place. Least Terns are now intermittently breeding within the protected area.

The Reserve is also actively involved in research to promote the recovery of the Ventura Salt-Marsh Milkvetch, a plant that has only a few individuals left in the wild. There is no record that shows this species is native to the Reserve. Its known distribution is south of the mouth of the Ventura River where it occurs on the edges of coastal wetlands. The Reserve was chosen as a research site because it has suitable habitat for this species to survive.

Policies and Actions. Activities that may harm, harass, pursue, hunt, shoot, wound, kill, trap, capture or collect endangered or threatened species are prohibited as per the Endangered Species Act. The Reserve will actively seek funds to contribute to the recovery of rare and endangered species.

Figure 4. The locations of sensitive species occurring at COPR in 2014. Note: the Salt Marsh Milkvetch was introduced to assist its recovery and the Santa Barbara Honeysuckle was planted in various locations from its original population (at the back dune scrub, see arrow).



3. Animal Damage Control Program

Status. Ground-nesting birds in estuaries, beaches and dunes are vulnerable to predation because of the openness of the habitat. Natural predation is part of a functioning ecosystem, but in many urban areas the natural ecosystem has been altered by changes in the types and number of predators. For example, coyotes can maintain a rich bird community by preying on mid-level predators that prey on birds, but coyotes are vulnerable to urban development and habitat fragmentation. Pets (dogs, domestic and feral cats), native urban predators (raccoons, skunks,

crows) and exotic animals (opossums and red foxes) can increase predation, causing the decline of native animals. The UCSB 2010 LRDP does not permit unleashed dogs in the Reserve but enforcement is generally only available when the docents call campus police to deal with a noncompliant dog owner. Santa Barbara (SB) County has an ordinance that requires dogs be kept on a leash at all times in all public places. Dogs are not permitted on the Reserve including on the Pond Trail which provides public access through the Reserve to the beach. Signs have been posted at the entrances of the Pond Trail, but the signs are not effective in excluding dogs from the trail. This is an ongoing problem for the Reserve that can cause major negative impacts to wildlife, particularly birds. For example, in 2013, an unleashed dog that was on the Pond Trail was observed killing a Black Necked Stilt chick from a nest at the edge of the Slough. This was the only active nest of this species ever observed on the Reserve.

Policies and Actions. Dogs must be on leash on Sands beach and other trails surrounding the Reserve (SB County ordinance). Dogs are not allowed on the Pond Trail. Horses are not allowed on Sands Beach or on the Pond Trail. The campus will collect trash from the beach, which should help reduce the presence of predatory species attracted to refuse, especially crows. To reduce the population of urban, exotic and domestic predators, the Reserve will implement methods to discourage their presence in sensitive habitats. To reduce disturbance from dogs, the Reserve has posted the Santa Barbara County leash ordinance and the UC regulation governing dogs on University property, and continue to engage the UCSB Police Department and the UCSB campus administration to improve enforcement of the ordinance and regulation. In the future, as growth in the area continues, mitigation of development impacts may require support from developers for a dedicated enforcement officer for the area adjacent to the Reserve, including the NCOS. The Reserve Director and the NRS campus administration will consult with UCSB administration to ensure projects include an evaluation of the potential impacts on the Reserve and implementation of mitigation measures as needed (see section D.5 Cooperative Management Program).

C. STEWARDSHIP PROGRAMS

1. Public Access Program

Status. The Reserve has implemented an Access Plan (Appendix 1) to provide public access and protect research and natural resources. The Access Plan was approved by the CCC in 2010 (NOID 1-10). Sands Beach is open to the public, except for the fenced Snowy Plover area. The Dune Pond Trail is also open to visitors. Access points to the Reserve include: (1) from the UCSB West Campus Beach east of the Reserve, (2) from the bluff at the Sands Beach entrance near the Cliff House, (3) from the south terminus of the Dune Pond Trail, (4) from the bluff between the Reserve and Ellwood Bluffs, and (5) from Ellwood Beach, west of the Reserve. Other trails or access points are not officially recognized and are in the process of being closed and eliminated. The University provides metered parking at nearby lots on the UCSB West Campus (Devereux) property. The Reserve provides parking for approved users and volunteers in a parking lot at the COPR field station. The Reserve will post a sign at the gate with information for handicapped users who wish to park inside of the gate.

The interpretive Dune Pond trail bisects the Reserve from Venoco Road at the northern Reserve boundary to Sands Beach at the southern boundary. The COPR trails and property needs to be strictly regulated to ensure their use is consistent with the NRS Mission of supporting university-level teaching, research, and public service. A number of improvements were made to the Dune Pond trail in 2012-2014 that increase the protection of native habitats while providing public coastal access through the Reserve, and also provide educational experiences for Dune Pond trail users. These improvements include rerouting sections of the Dune Pond trail to divert traffic around sensitive areas and at the same time taking advantage of the Reserve's diverse habitats, and installing a small boardwalk over the wetland and dune swale areas near the Dune Pond.

To clearly delineate the boundaries of the Reserve, the north and portions of the western boundaries were fenced. To encourage visitors to stay on the trails, a 3-5 meter buffer zone along the northern and western perimeter fences is being restored with native vegetation. The resulting dense band of shrubs acts as a living barrier. No Trespass signs are posted and maintained along the entire perimeter of the Reserve.

Policies and Actions. The Reserve manages internal trails and access within its boundaries. Passive recreation that does not harm natural resources or affect research and teaching is allowed on Sands Beach and the Dune Pond trail. Access to Sands Beach from adjoining beaches and via a passage near the Cliff House will remain open for pedestrians and appropriate recreational uses, except when there is a need for the protection of fragile coastal resources from uncontrolled public events (e.g. Floatopia, or Fiesta bikers).

As growth in the area continues, trespass on the Reserve may become a larger problem. If this occurs, the Reserve will consult with UCSB campus administration and the UCSB Police Department to improve enforcement of subsection (k) of section 602 of the California Penal Code which deals with trespass on “posted lands”, and UC regulations and policies that govern passage of non-University affiliates on University property,

2. Inventory and Monitoring Program

Status: The Reserve has an impressive list of over 1,000 species cataloged. Half of those are insects. Since the creation of the Reserve, researchers have intermittently monitored water quality and the occurrence of animal species, particularly birds, and intertidal invertebrates. Species lists are available at the COPR website (<http://coaloilpoint.ucnrs.org>). There is also a complete botanical species list with preserved reference specimens that are available to researchers and classes. A survey of insects was conducted by the Santa Barbara Museum of Natural History and the vouchers are available in the museum. All species collected were photographed and used to create a field guide for the insects in the Reserve. The Reserve Director collects natural history notes from casual observers. Reserve staff regularly monitors the Western Snowy Plover population.

Policies and Actions. The Reserve staff maintains a database of information on the natural resources of the Reserve, including species lists, abundance surveys, WSP breeding success,

vegetation maps, etc. The Reserve will collaborate with organizations and researchers to maintain data loggers and make the data available to researchers via the website.

3. Vector Control Program

Status. Many species of mosquitoes are native to COPR and have an important function as food for a variety of other insects, birds, fish and amphibians. Because of public health concerns and nuisance issues, the Mosquito and Vector Management District of Santa Barbara County (MVMD) monitors Devereux Slough, Devereux Creek, and other bodies of water on the Reserve for mosquito larvae and treats various sites to reduce or eliminate mosquitoes as needed. MVMD personnel have agreed to treat the areas of standing water on the Reserve with a biological control agent, Vecto-Bac, (active ingredient is *Bacillus thuringiensis*). In general, vector control practices in wetlands are viewed as negative impacts on wetland resources. The Reserve staff members are working with the MVMD to use practices that reduce impacts to wetland resources.

Policies and Actions. The Reserve Director and UCSB Environmental Health and Safety will work with the MVMD to ensure that the mosquito control methods used on the Reserve have the least harmful effect upon non-target organisms. Wetlands shall not be drained for this purpose, nor shall non-native larval predators be introduced to control mosquitoes.

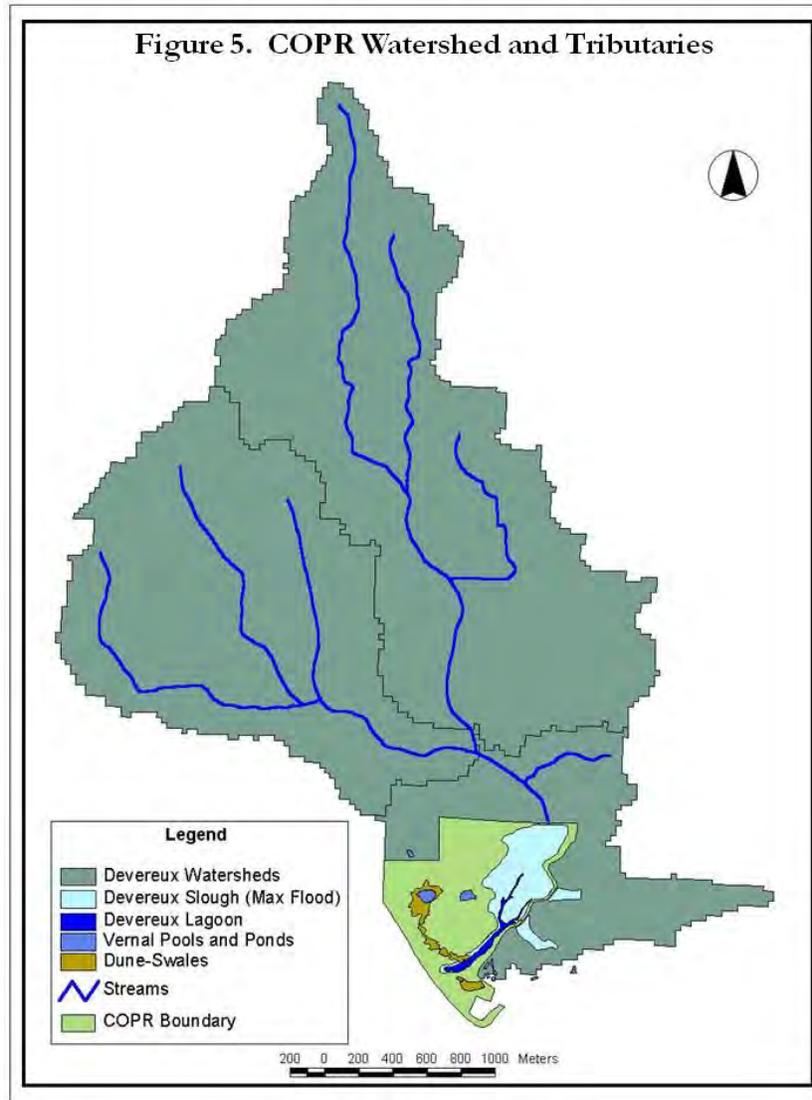
4. Watershed Management Program

Status. COPR is in the lower part of the Devereux Watershed (Figure 5) and activities that take place on adjacent properties and surrounding properties within the watershed can affect the Reserve ecosystem. In 2014, the Ocean Meadows Golf Course was purchased and transferred to UCSB for restoration and management as the NCOS. The Reserve Director is a member of the Project Committee and will work closely with the Science Advisory Committee to consider potential impacts to the Reserve and avoid or mitigate such impacts. More details about the

collaboration about the NCOS and the Reserve are described in the Cooperative Management Program.

Policies and Actions. The Reserve Director will coordinate with, and encourage action by, the County of Santa Barbara, City of Goleta, and the Regional Water Quality Control Board and the Cheadle Center for Biodiversity and Ecological Restoration (CCBER) to see that adjacent land use guidelines are established and implemented in a manner that will sustain biological productivity and diversity. The campus shall support the implementation of measures to protect and promote enhancement of the biological functions of the Devereux Slough as outlined in the 2010 LRDP. The Reserve Director, by participating as a member of the North Campus Open Space Committee, will set as a high priority assessing the need for and securing resources from UCSB and similar stakeholders to address (mitigate and/or prevent) any pressures of increased development and restoration that could negatively impact the Reserves.

Figure 5. Watershed that surrounds the COPR.



5. Flood Control Program

Status. Large areas of intensively developed lands above the Devereux Slough are subject to flooding, erosion, and the subsequent deposition of sediment and debris. Factors exacerbating flooding and sediment deposition in the slough and surrounding lands include large winter storm

events, erosion of land in the lower watershed (Figure 5), fire and development in the upper watershed, and reduced drainage capacities in the Slough. In addition, obstruction of the estuary inlet by sand temporarily prevents the drainage of sediment-laden floodwaters to the Pacific Ocean. In 2002 the Santa Barbara County Flood Control District (District) conducted the first flood control project at Devereux Creek to remove sedimentation in the Creek. The District conducts flood control annually. The area immediately north of the Reserve, NCOS (the former Ocean Meadows Golf Course), is now owned by UCSB and is designated as open space in the 2010 LRDP; it is managed by CCBER. This area will be restored in the near future.

Policies and Actions. The UCSB campus and COPR projects shall be designed to minimize soil erosion and, where possible, to direct surface runoff away from coastal waters and wetlands. Sediment removal will be implemented using best practices and methods that will minimize disturbance to wildlife and wetland habitats. To the degree that sediment buildup is amplified by activities occurring outside (e.g. upstream) of Reserve boundaries, the Reserve Director will work with UCSB and associated stakeholders to ensure that resources are provided by responsible parties to mitigate impacts and provide for sediment removal above current demands.

6. Climate Change Program

The Reserve has one mile of coastline which is home for threatened and endangered species such as the Pacific coast population of the Western Snowy Plovers and California least Terns. Climate Change will affect these species as the ocean level rises by reducing the amount of beach and dunes. The Reserve Director will work with other agencies and experts in the field of Climate Change to stay abreast of predicting these impacts, and look at solutions to the extent possible. The buildings at the Reserve are 30 ft above current sea level and should not be affected by sea level rise with the exception of possible increases in the rate of coastal erosion due to impacts of climate change on ocean currents, local changes in tidal flux, and the intensity of waves striking the shore.

D. ADMINISTRATIVE PROGRAMS

The Reserve operates within the mission and policies of the University of California and the UC Natural Reserve System. Coordination between the Reserve Director and the UCSB NRS office ensures that the Reserve is in agreement with general campus policies in relation to management of budgets and personnel, maintenance of infrastructure, and attention to health and safety issues. The system-wide NRS Office provides support and coordination of: (a) real estate, environmental, legal, and business matters as they affect any or all of UC NRS Reserves, (b) acquisition of new reserves, (c) periodic Reserve reviews; and (d) development of system-wide Reserve policies and practices.

1. Reserve Administration Program

Status. The UCSB NRS Director heads the campus NRS administrative office and oversees, with assistance of the UCSB NRS Associate Director, the six reserve directors who manage seven Reserve sites. The UCSB NRS reports to the UCSB Office of Research. The UCSB NRS campus administrative staff provides administrative support for the UCSB reserves with assistance from the Marine Science Institute. The UCSB NRS Advisory Committee, which is appointed by and reports to the UCSB Vice Chancellor for Research, advises the UCSB NRS Director on goals, policies and operations for the seven UCSB Reserves. The Advisory Committee includes two faculty members per Reserve. The COPR Faculty Advisor and the COPR Faculty Representative work with the COPR Reserve Director to advocate for the Reserve and provide advice about management and operational issues at the Reserve. The COPR Director, who lives on site, is in charge of day-to-day Reserve operations, and is responsible for approving users, overseeing the Reserve staff, creating programs, managing grants and budget, and seeking funds to implement Reserve programs. The Reserve presently has an annual budget to cover maintenance, operations, and the salaries and benefits for the Reserve Director and two full time staff. Extramural grants and donations have provided funds for restoration, internships, and the future Nature Center.

The Reserve Director informs, protects, and assists users and evaluates their applications. A release form signed by Reserve users protects the University from various liabilities and serves as a means to inform users of potential hazards. Recent safety improvements that have been implemented include a serviced porta-potty adjacent to the beach entrance and split rail fencing along cliff edges. COPR works with the UCSB campus to improve safety for visitors and users and seeks help from the UCSB campus to enforce regulations and manage recreation on the beach.

Policies and Actions. The Reserve Director has primary responsibility for approving applications, and will coordinate management and all other uses of the Reserve. In consultation with the UCSB NRS Director, the UCSB NRS Associate Director, the UCSB NRS Faculty Advisors, and the COPR Advisory Committee, the Reserve Director will address use conflicts and Reserve policy.

2. Fiscal Program

Status. UCSB funds a resident full-time Reserve Director, two staff positions, and a recurring annual budget for maintenance and to maintain the Snowy Plover Program. The recurring budget is augmented by extramural grants and donations acquired by the Reserve Director. The Restoration Plan and the proposed Nature Center are funded primarily by grants and donations. The improvements underpinning the Access Plan (Appendix 1) were funded by UCSB and by the California Coastal Conservancy. The Coastal Fund, an UCSB student organization, regularly funds internships for students who assist in various programs.

Existing Policies. The Reserves may establish an appropriate fee structure for use of the Reserve's facilities by users for research, instruction and public outreach (NRS Use Guidelines). COPR will establish a rate structure for use of the Nature Center facilities when the building is completed.

3. Health and Safety Program

Status. The release form signed by formally-authorized Reserve users protects UCSB from various liabilities and serves as a means to inform users of potential hazards. Slough Road is a narrow road heavily used by pedestrians. The risk of accidents in this road will be eliminated when Slough Road is closed to vehicle traffic as stipulated in the UCSB 2010 LRDP as a condition for development of the North Knoll of the UCSB West Campus Devereux property by UCSB. A portable public restroom was placed at the Coal Oil Point Reserve to improve sanitation.

Policies and Actions. Applications to use the Reserve will be evaluated for safety. Noise will be kept below 60 db. Fires and barbecues are not permitted on Sands Beach. To continue to provide appropriate health and safety procedures for COPR and maintain reasonable physical conditions of safety, the Reserve will: (a) make emergency kits available to users; (b) inform COPR staff of possible hazards associated with working at the Reserve and, when applicable, train them in safety procedures; (c) develop and post the COPR Reserve Emergency Operations Plan; (d) provide necessary safety equipment to workers and volunteers where needed; (e) support efforts to improve speed control along Slough Road until it is closed to vehicle traffic; (f) post fire policies at beach entrances; and (g) work with the campus police to improve compliance with the Santa Barbara County leash ordinance and UC regulations.

4. Catastrophic Event Response Program

Status. COPR is potentially subject to catastrophic events from flooding, tsunamis, oil spills and toxic gases associated with adjacent oil operations. The site is within an active tectonic zone, where a strong earthquake could cause damage to oil facilities nearby and generate a tsunami.

Policies and Actions. The Reserve will be consistent with the UCSB Campus Catastrophic Event Response Program. Permanent structures will not be placed on faults or bluffs. The Reserve will assist other agencies working to develop and implement response protocols in the area. The Reserve will develop a specific rapid-response protocol for potential catastrophic natural events that dovetails with UCSB campus guidelines.

5. Cooperative Management Program

Status. The Reserve is surrounded by developed urban areas and open spaces. Management and activities in these areas can impact the Reserve. The Reserve has worked with CCBER and UCSB Facilities Management to ensure that other University-owned properties adjacent to the Reserve are managed in a way that do not infringe on the Reserve practices, procedures and policies. The City of Goleta and the UCSB campus are growing and attracting more people who visit the Reserve. Private property under the Barbara County jurisdiction and adjacent to the Reserve may also be developed in the future. This creates additional impacts and burden on the management of the Reserve. New technologies such as drones and motorized bicycles, threaten unprecedented impacts. The Reserve needs new policies to deal with these impacts.

Policies and Actions. The Reserve will consider the campus requests for COPR to manage the north and south fingers of the Devereux Slough and to cooperate with management efforts in other sensitive areas adjacent to the Reserve. Restoration in surrounding UCSB open space shall use native genotypes from seeds collected in the Reserve.

Several aspects of the development and restoration of the adjacent North Campus Open Space (NCOS) may affect the Reserve. The restoration itself should be done in such a way as to enhance or expand the biological functions of the Devereux Slough, but not impact it through changes in hydrology or sedimentation, for example. The design of the NCOS should consider wildlife corridors through the open space that connect the Reserve with pathways to other nearby open space areas such as the Goleta Slough and Ellwood. The NCOS may also be designed to serve as a buffer of impacts from sea level rise by creating habitats that would replace future flooded habitats.

The Reserve Director is a member of the NCOS Project Committee which will work with the consultants to develop the detailed design for the restoration and access plan of the NCOS. The Reserve Director will also work with the chair of the NCOS Science Advisory Committee to consider potential impacts and mitigation measures. Participation by the Reserve Director as such ensures that the NRS is represented as potential impacts of this large scale restoration

Coal Oil Point Reserve

project adjacent to the Reserve are considered. The main objective in NRS representation is ensure that impacts of the NCOS restoration on the Reserve are minimized and that any impacts that cannot be avoided are appropriately mitigated. Overall, this project is expected to provide great benefits to the Reserve by increasing the size the wetlands in the slough and restoring adjacent habitat.

The COPR Director will work with the University to create a West Campus Natural Areas Committee comprised of the COPR Reserve Director and the managers of the various open spaces and grounds overseen by University groups. The ecosystem and habitats of the West and North Campus areas are more or less connected and must be jointly protected. Activities that occur in one area of West and North Campus can impact biological, cultural, and archeological resources the other nearby areas. This committee will provide the opportunity to coordinate projects and activities to ensure an effective overall management strategy. The committee will meet twice a year or more often if needed to share updates and coordinate planning.

E. INFRASTRUCTURE AND FACILITIES PROGRAM

Status. The COPR Infrastructure Plan (Appendix 4) describes the existing infrastructure in detail. Existing infrastructure at the Reserve includes buildings, greenhouses, utility lines, communications, culverts, fences, trails and roads, and research equipment. The buildings, greenhouses and utilities are located at the COPR field station on Coal Oil Point within the Reserve. The infrastructure provides crucial support for operations, maintenance and programs at the Reserve. In addition to these structures, the COPR Reserve Director lives at the field station, as a condition of employment. The Reserve Director's residence has an adjacent fenced yard with a garden, small green house and animal enclosure that are for the private use of the Reserve Director and the Reserve Director's family.

The Reserve will retain and maintain all existing infrastructure located at the Reserve, including all buildings, and does not propose to construct any new buildings within the Reserve boundary. The Reserve will renovate a building on UCSB's Devereux property to serve as the COPR Nature Center. This facility will not replace existing infrastructure at the Reserve field station, but will provide additional space that COPR has long-needed to support its current research, education and administrative programs, and to provide opportunities for enhanced programs in the future.

Policies and Actions. The management plan will identify the optimum allowable facilities for resident staff, researchers, classes, and public outreach programs (UC NRS Guidelines). In general, existing and new infrastructure will be minimal, consolidated, and adjacent to the Coal Oil Point Reserve. The existing infrastructure at the Reserve shall remain and be maintained. The confined animal enclosure will support animal keeping (LRDP Policy LU-34 (c)).

2010 LRDP Policies Applicable to the COPR

Policy LU-33 – Within two years of the effective date of certification of the 2010 LRDP, the University shall prepare and submit a **Coal Oil Point Reserve Coastal Management Plan** to the Coastal Commission as an amendment to the 2010 LRDP. No new structures shall be approved on the Reserve until the Plan is certified by the Coastal Commission.

The purpose of the Plan shall be to comprehensively identify existing and planned development, maintenance, and programs at the Reserve that are consistent with coastal resource protection under the Coastal Act and the certified LRDP. The COPR Coastal Management Plan shall specifically identify: a baseline of all existing development on the Reserve (including confined animal facilities); the development's date of installation; permitting history; existing Reserve programs (e.g., the snowy plover management, wetland restoration, native plant species cultivation); existing maintenance operations such as location, timing and methods of fuel modification; and status of habitat restoration activities.

The Plan shall provide a detailed description of all development, maintenance, and programs that are proposed to continue on the Reserve. The Plan shall augment the biological resource mapping (Figure F.2) effort on campus, both on and off the Reserve, based on current (within 1 year) and historic resource surveys for all areas within 300 feet of proposed Reserve development, maintenance, or management programs. The Plan shall evaluate the consistency of the proposed development and activities with the Coastal Act.

Policy LU-34 – At the **Coal Oil Point Reserve Field Station** site the following standards shall apply:

A. No new structures shall be approved within the Reserve Field Station until the Coal Oil Point Reserve Coastal Management Plan is certified by the Coastal Commission pursuant to Policy LU-33.

B. Vehicular access to the site shall be from West Campus Point Lane after vehicular restrictions are placed on Slough Road consistent with Policy TRANS-12.

C. (Proposed new policy) A Confined Animal Facility (CAF) and Animal keeping at the Reserve Director's residence shall require a Notice of Impending Development. The CAF shall house no more than 10 adult animals, up to 20 youth or newborn animals and not to exceed 30 total animals at any time. A manure waste management plan shall be required. Animal grazing is prohibited on the Reserve or in adjacent Open Space areas without a grazing plan approved by the Coastal Commission.

Policy ESH-07 – Construction noise levels shall not exceed state standards of 65dB(A) at property lines except at Coal Oil Point Reserve where the maximum allowable construction sound levels shall be more restrictive and shall not exceed 60 decibels on the A-weighted scale.

Policy ESH-10 – The University shall use mosquito control methods with the least effect upon non-target organisms and shall use environmentally sensitive pesticides (such as VectoBac®). Wetlands shall not be drained for this purpose, nor shall native wetland vegetation be removed, nor shall non-native larval predators be introduced.

Policy ESH-26 – Motor vehicles and dogs shall be prohibited in campus wetlands. Motor vehicles (except for service and emergency vehicles) and unleashed dogs shall be prohibited on campus beaches; Dogs shall be leashed and kept on designated trails where such trails are routed through open space or environmentally sensitive habitat areas. Swimming shall be prohibited in the Campus Lagoon and Devereux Slough. Signs restricting such access and activities shall be posted.

Policy ESH-28 –

A. The routine trimming and/or removal of trees on campus necessary to maintain campus landscaping or to address potential public safety concerns shall be exempt from the requirement to obtain a Notice of Impending Development (NOID), unless otherwise required pursuant to subparagraph B, below, and provided that the trimming and/or removal activities are carried out consistent with all provisions and protocols of the certified Campus Tree Trimming and Removal Program in Appendix 2, except that the following shall require a NOID:

1. Trimming and/or removal of trees located within ESHA or on lands designated Open Space as covered in Policy ESH-29,
2. The removal of any tree associated with new development, re-development, or renovation shall be evaluated separately through the NOID process as detailed in subparagraph C, below;
3. The removal of tree windrows, and
4. Trimming and/or removal of egret, heron, or cormorant roosting trees proximate to the Lagoon.

B. All tree trimming and tree removal activities, including trimming or removal that is exempt from the requirement to obtain a Notice of Impending Development, shall be prohibited during the breeding and nesting season (February 15 to September 1) unless the University, in consultation with a qualified arborist, determines that:

1. Immediate tree trimming or tree removal action by the University is required to protect life and property of the University from imminent danger, authorization is required where such activity would occur in ESHA or Open Space through an emergency permit,
2. Trimming or removal of trees located outside of ESHA or Open Space areas during June 15 to September 1, provided where a qualified biologist has found that there are no active raptor nests or colonial birds roosts within 500 feet of the trees to be trimmed or removed, or
3. Is part of a development or redevelopment approved pursuant to a Notice of Impending Development.

C. To preserve roosting habitat for bird species and monarch butterflies, tree(s) associated with new development, re-development, or renovation that are either native or have the potential to provide habitat for raptors or other sensitive species shall be preserved and protected to the greatest extent feasible. Where native, or otherwise biologically significant, trees are retained, new development shall be sited a minimum of five feet from the outer edge of that tree's canopy drip-line. The removal of such trees shall be evaluated pursuant to the Notice of Impending Development for the new development. Prior to the removal of any native and/or sensitive tree for development purposes, the University shall conduct biological studies to show whether the tree(s) provide nesting, roosting, or foraging habitat for raptors and sensitive bird species, aggregation or significant foraging sites for monarch butterflies, or habitat for other sensitive biological resources. The Commission may condition the subject Notice of Impending Development to secure the seasonal timing restrictions and mitigation requirements otherwise set forth in the Campus Tree Trimming and Removal Program in Appendix 2.

Policy ESH-29 – Trees located within ESHA or designated Open Space shall not be trimmed or removed unless determined by a certified arborist to pose a substantial hazard to life or property and authorized pursuant to an emergency permit, or where the proposed removal is part of a Commission-approved habitat restoration plan, and shall require a Commission-approved Notice of Impending Development. All tree trimming and removal activities shall be consistent with the seasonal timing restrictions and mitigation requirements set forth in the Campus Tree Trimming and Removal Program in Appendix 2. The following Open Space areas shall be subject to the requirements for routine campus tree trimming and removal practices and shall not be considered as “Open Space” for the purposes of this policy: Commencement Green, UCEN lawn, and Pearl Chase Garden.

Policy ESH-45 – The University shall provide, on an ongoing basis, for one full-time equivalent (FTE) steward for the South Parcel nature park area, and an FTE Coal Oil Point Reserve Snowy Plover Coordinator position.

Policy ESH-47 – The water quality of the Devereux Slough shall continue to be monitored by the Coal Oil Point Reserve, including salinity, nutrient loading and identification of upstream sources of sedimentation. Botanical, invertebrate, and vertebrate monitoring and data analysis shall be conducted periodically.

Policy ESH-50 – The University shall continue to implement the Commission-approved Beach Access and Snowy Plover Management Plan for the term authorized in the applicable Coastal Development Permit. An updated Plan shall be prepared by a qualified biologist or environmental resource specialist to renew authorization of the program through the coastal development permit process. Any changes to the Plan shall require Coastal Commission review and approval. The plan shall allow for continued public access at Sands, Ellwood, and West Campus Beaches while providing protection of snowy plovers and other sensitive bird species from human-associated disturbances.

A. Any developments or changes to the Beach Access and Snowy Plover Management Plan, including in use of parking, trails, accessways, or facilities in the vicinity of Coal Oil Point, and Sands, Ellwood, and West Campus beaches, shall consider and mitigate impacts on populations of snowy plover and other sensitive bird species in the area.

B. Horses shall not be allowed on beach and trail areas with active nesting or over wintering populations of Snowy Plover, including but not limited to Sands and Ellwood beaches, as well as spur trails leading from Coal Oil Point and the Coastal Trail to these beaches. Dogs shall be leashed in these areas. Future use of these areas by horses may be allowed pursuant to approval of the Beach Access and Sensitive Species Management Plan or other plan that ensures that such activities will not have an adverse impact on snowy plover or other sensitive species.

C. The University shall coordinate with Coal Oil Point Reserve Staff, docents, and campus police to continue to implement the Enforcement Program to ensure that the above-mentioned habitat protection measures and plan are enforced.

Policy FIL-2 – Where restoration of Devereux Slough includes dredging, then sediment removal and spoils disposal activities shall be planned.

Policy MAR-05 - Wetland and riparian vegetation enhancement shall be conducted, to the maximum extent feasible, along Devereux Creek and Devereux Slough, including the areas known as the North and South “Fingers” of the slough.

Policy TRANS-12 - In order to prevent adverse effects to the Coal Oil Point Natural Reserve, the following roadway and circulation measures shall apply on West Campus:

A. Vehicular access to West Campus shall be from the intersection of Storke and El Colegio Roads. The Campus shall coordinate and contribute to the installation of traffic control devices and other improvements at that intersection;

B. Slough Road shall be converted exclusively to use by pedestrians, bicyclists, and essential emergency vehicles and shall not be expanded beyond its existing footprint. All West Campus development shall utilize West Campus Point Lane for vehicular access. Vehicular access to Coal Oil Point Reserve (the Reserve) and the ADA coastal access parking spaces at Coal Oil Point shall utilize West Campus Point Lane, but shall be allowed to merge onto Slough Road through the Devereux South Knoll site in order to reach the applicable destination. The conversion of Slough Road shall be completed prior to occupancy of the first redevelopment project or other significant construction of 10,000 GSF or greater on West Campus at either the West Campus Mesa or North Knoll site.

C. The existing West Campus Point Lane crossing of the North Finger of Devereux Slough, from West Campus Mesa to North Knoll, shall be replaced with a bridge, or alternative crossing that retains a natural open connection, to maximize wetland connectivity and avoid fill of wetlands. The construction of the new bridge or crossing shall be completed no later than prior to occupancy of the new residential construction on the North Knoll of the Devereux property. However, the bridge, or crossing, shall be installed earlier if significant structural changes or roadway modifications are necessary to accommodate traffic in the area of the Slough crossing prior to North Knoll development

D. Emergency vehicle, bicycle and pedestrian access may be provided from the existing Isla Vista streets of Fortuna or Pasado Roads; and

E. Where deemed to be biologically beneficial, the University will replace the wetland crossings on Slough Road with crossings that are designed to restore the connection between the North and South Fingers to Devereux Slough and to avoid fill of existing and historic boundaries of the wetland to the maximum extent feasible. The replacement will occur as funding is available. The University will pursue potential University and non-University funding options to implement this project.

Policy TRANS-21 - Pedestrian access to the beach shall be maintained from North and West Campus. Vertical access to the beach shall at a minimum be provided at the following locations:

A. A new stairway along West Campus Bluffs midway between Camino Majorca and Coal Oil Point;

B. A boardwalk/stairway at the Sands Beach entrance from Coal Oil Point;

C. The Dune Pond Trail through Coal Oil Point Reserve; and

D. A trail from the coastal access parking lot at the west terminus of Phelps Road via a trail along the western boundary of North Campus that outlets to the beach. Trail access up-coast along the bluff top should be marked with appropriate directional information and cautions against intrusion down the steep bluff face.

Coal Oil Point Reserve

Policy TRANS-24 - Public access shall be allowed within and around the Coal Oil Point Reserve, consistent with the Coastal Access Program and Trails Maps (Figures E.3 and E.4). Fences, signs and information maps delineating the perimeter of the Reserve shall be provided and maintained to restrict unauthorized access by pedestrians, dogs, motor vehicles and off-road bicycles (except essential service and emergency vehicles) for the purpose of protecting the Reserve's sensitive resources by encouraging and directing the public to remain on the authorized trails. Restrictions placed on coastal access, such as limits on timing or location of access, require authorization pursuant to an LRDP Amendment, except for temporary closures for emergencies or to protect fragile coastal resources consistent with Policy PA-06.

Policy TRANS-26 - Any changes to the development and implementation of open spaces, public access and trails planning for North and West campuses, including the Coal Oil Point Reserve, shall be coordinated with the City of Goleta, the County of Santa Barbara, and the California Coastal Commission