CALIFORNIA COASTAL COMMISSION
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Hearing Date:	September 11, 2003
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-03-280

APPLICANTS: The Urban Wildlife Group, Attn: Travis Longcore; Los Angeles Conservation Corps, Attn: Dan Knapp; Los Angeles County Department of Beaches and Harbors, Attn: Joseph Chesler

PROJECT LOCATION: Esplanade between Miramar Park and Avenue I, Redondo Beach (Los Angeles County)

PROJECT DESCRIPTION: Pilot restoration project on a 2-acre, approximately 35-45 foot high beach fronting bluff. Project consists of removing two acres of iceplant on the bluff face and replacing it with coastal scrub and native dune plants. 2,420 cubic yards of grading is proposed using hand and small power tools to prepare the planting bed and to distribute the existing soil evenly across the project site. Installation of a 3-foot high split rail fence along the top of the bluff and approximately eight 3-foot high by 2-foot wide recycled plastic educational signs explaining the restoration.

SUMMARY OF STAFF RECOMMENDATION:

Staff is recommending that the Commission grant a coastal development permit for the proposed development with special conditions relating to erosion control, landscape monitoring and maintenance, and public access.

SUBSTANTIVE FILE DOCUMENTS:

1. City of Redondo Beach Land Use Plan
2. The Coastal Commission April 8, 2003 staff report approving the City of Redondo Beach Implementation Plan for Coastal Zone Area One.
3. Redondo Beach Bluff Restoration Pilot Project Coastal Development Permit application and Landscape Plan, The Urban Wildlands Group, Los Angeles Conservation Corps and L.A. County Department of Beaches and Harbors, July 2, 2003.

4. Redondo Beach Bluff Restoration Pilot Project Preliminary Monitoring Plan, The Urban Wildlands Group, Los Angeles Conservation Corps and L.A. County Department of Beaches and Harbors, July 18, 2003.
5. Coastal Development Permits: A-5-PDR-01-442, 5-00-199.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution to **APPROVE** the coastal development permit application with special conditions:

MOTION: ***I move that the Commission approve Coastal Development Permit No. 5-03-280 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby **APPROVES** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. 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 permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. 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 or interpretation of any condition will be resolved by the Executive Director or the Commission.

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

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

III. SPECIAL CONDITIONS:

1. Final Plans

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and approval of the Executive Director:

1. Final plans for landscaping that substantially conform with the permit application and plans submitted to the Commission, titled Redondo Beach Bluff Restoration Pilot Project dated July 2, 2003.
2. Final plans for monitoring that substantially conform with the preliminary monitoring plan submitted to the Commission, titled Preliminary Monitoring Plan for Redondo Beach Pilot Project, dated August 18, 2003.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

2. Erosion and Runoff Control Plans

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit, for review and approval of the Executive Director, a plan for runoff and erosion control.

1. EROSION CONTROL PLAN

(a) The erosion control plan shall demonstrate that:

(1) During construction, erosion on the site shall be controlled to avoid adverse impacts on the beach and the public bike path.
(2) The following temporary erosion control measures shall be used during installation of the plants: biodegradable fiber rolls, geo-fabric blankets and wind barriers, jute (not plastic) sandbags.
(3) The applicant shall employ no hay or straw bales or other weed sources.
(4) Following installation of the plants, the site shall be stabilized immediately with jute matting or other BMPs to minimize erosion during the rainy season (November 1 to March 31).
(5) During establishment of the plants, the applicant shall inspect the area each fall in order to determine if there is erosion. If there is erosion, the applicant shall replace sandbags and matting and other temporary erosion control measures as necessary.
(6) No permanent irrigation system shall be allowed. Temporary above ground irrigation to allow the establishment of the plantings is allowed. If a temporary above ground irrigation system is used, then, once all plantings have been established, the temporary irrigation system shall be removed.

(b) The plan shall include, at a minimum, the following components:

(1) A narrative report describing all temporary erosion control measures to be used during construction.
(2) A site plan showing the location of all temporary erosion control measures.
(3) A schedule for installation and removal of the temporary erosion control measures.

2. RUN-OFF CONTROL PLAN

(a) The run-off control plan shall demonstrate that:

(1) Run-off from the project shall not increase sedimentation to the beach and offshore waters.
(2) Fencing or barrier plants shall be employed to prevent pioneered trails and to keep visitors on established ramps.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

3. **Landscaping installation and Monitoring**

A. Installation and ongoing monitoring. The applicant shall undertake plant installation and ongoing monitoring and maintenance as outlined in its proposals: "Redondo Beach Bluff Restoration Pilot Project Coastal Development Permit application and Landscape Plan" by The Urban Wildlands Group, Los Angeles Conservation Corps and L.A. County Department of Beaches and Harbors, July 2, 2003, and its "Redondo Beach Bluff Restoration Pilot Project Preliminary Monitoring Plan", of August 18, 2003, consistent with the methods and goals outlined therein, for the five year term described in those documents.

B. Five years from the date of issuance of Coastal Development Permit No. 5-03-280, the applicant shall submit for the review and approval of the Executive Director, a monitoring report, prepared by a licensed biologist, landscape architect or qualified resource specialist that assesses whether the on-site restoration is in conformance with the restoration plan dated July 2, 2003 and provides no less than 70 percent coastal bluff scrub (CBS) and dune plant cover with 20 percent bare sand and no more than 10 percent exotic plant cover. The monitoring report shall include photographic documentation of plant species, plant coverage and an evaluation of the conformance of the resultant landscaping with the requirements of this special condition.

C. If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed landscape architect or a qualified resource specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

D. The permittee shall undertake development in accordance with the approved final plan and schedule and other requirements. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

4. **Fence Plans**

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant will submit, for the review and written approval of the Executive Director, a fence plan showing the design and location of the bluff top fence. The fence shall not block views and shall be of an open design and designed to blend with the site to the fullest extent practical. The applicant shall maintain the fence as indicated on approved fence plans.

5. Manual for Maintenance

A. In addition to the elements noted above, the applicant shall prepare, as part of its detailed plans, a manual for maintenance methods and a plan prepared by a qualified restoration specialist or biologist for training maintenance employees (and contractors) in the needs of the plants on the plant palette and on the identification of native and invasive plants. Accordingly, the plan shall include:

(1) A list of chemicals the applicant proposes to employ and methods for their application. Said chemicals shall not be toxic to fish or wildlife or persistent in the environment. Herbicides, if used shall be applied by hand application or by other methods that will prevent leakage or percolation. Herbicides that are not persistent and that are non-toxic to animals (including invertebrates and insects) may be used if approved in advance by the Executive Director as meeting these criteria.
(2) Watering and pruning needs.
(3) Identification of both invasive and native pants.
(4) Methods of weed control, including the weeds and invasive plants targeted for removal.

B. Compliance. The permittee and any contractors shall undertake development and maintenance of the site (including monitoring, maintenance, and training) in accordance with the final approved plan and with this condition. Any proposed changes to the approved final plans or maintenance methods shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

6. No Beach Access or parking closure

The public beach, public parking or the coastal access ways within or adjacent to the project site shall not be closed during construction as a result of project activities or storage of materials from the project.

7. Construction Responsibilities and Debris Removal

The permittee shall comply with the following construction-related requirements:

(a) No heavy equipment shall be allowed at any time on the beach or public bike path for construction of the project.
(b) There shall be no stockpiling of graded or plant material on the beach or public bike path.

8. Coastal Development Permit Required For Removal Of Vegetation Installed as a Result of This Coastal Development Permit

After establishment of the plants, a coastal development permit from the City of Redondo Beach or a Coastal Commission amendment to this permit 5-03-280 will be required for removal of the coastal bluff scrub and dune plants installed as part of this project. This does not apply to the removal and replacement of dead or diseased plants identified in the monitoring program.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. Project Description and History

The project site is a two-acre bluff face area that is covered with close to 100 percent of an invasive exotic plant, iceplant *Carpobotus edulis*. The applicant proposes to restore the face of the bluff with native dune and coastal scrub plants. The site is a bluff face lot located between the first public road and the sea. The site is approximately 1200 – 1250 feet in length and approximately 75 feet in width from the bottom of the bluff to the top. The site is gently sloping from a flat bluff at the upper (inland edge), to the beach bike path at the bottom of the bluff. Soils are consolidated at the top of the bluff. More unconsolidated sand is found at the bottom of the bluff. The site is owned by the L.A. County Department of Beaches and Harbors and is located between Miramar Park and Avenue I, seaward and adjacent to the Esplanade at the top of the bluff and landward and adjacent to the public bike path at the bottom of the bluff within the City of Redondo Beach, Los Angeles County (Exhibit 1). The two-acre site is located on the inland side of the public bike path. The bike path is used by both residents and visitors for recreation activities (walking, jogging, biking, etc.) and access to the shoreline. It extends from Herondo Street (the border between Hermosa Beach and Redondo Beach) to the southern tip of Redondo Beach and continues a short distance into the City of Torrance on the beach. The project is located within a designated public park located approximately one-half mile south of the Redondo Beach Pier. There is an approximately 300-foot wide sandy beach between the site and the mean high tide line. Vertical public access to this beach is available to pedestrians via public access ramps at each end of the project and one lateral ramp in the middle of the project area that extends laterally across and down the bluff (Exhibit 2).

The applicants are proposing to remove approximately two acres of iceplant (*Carpobotus edulis*) that currently exists on the bluff face at the southern end of Redondo Beach. The applicants are then proposing to install a diverse community of native dune and coastal bluff plants. As described below in the Habitat section, the plants will represent a continuum between a southern foredune community at the base of the bluff (Sand-verbena beach bursage series), to a southern bluff scrub on the upper portion of the bluff. Approximately 2,420 cubic yards of grading using hand tools is proposed to prepare the

planting bed and distribute the existing soil material evenly across the project area. Stockpiling of the graded material and plant materials to be installed will occur on the site itself. A temporary irrigation system will be installed for the purpose of establishing the new plants. Seeds from container plants that have been propagated from local seed and/or cuttings will be used. The applicants propose to protect the site with a three-foot high split rail fence at the bluff top along the County of LA property line, and educational signage around the site indicating the sensitive nature of the revegetation and describing the natural communities that are being reestablished.[1] As part of the project, the applicants propose a landscape-monitoring plan to measure the effectiveness and success of the restoration project. The applicant does not propose any changes to the existing drainage patterns on the site.

Other existing development on the site is a public restroom at beach level at the northern end of the site and a fence that bisects the site approximately halfway down the bluff. The existing fence was installed to keep people from walking down the bluff instead of using the vertical access ways. No change is proposed to the existing development.

B. Habitat

Section 30240(a) of the Coastal Act states:

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

The project site is a two-acre bluff face area that is covered with close to 100 percent of an invasive exotic plant, iceplant *Carpobotus edulis*. Prior to urbanization, bluff faces in the South Bay supported coastal bluff scrub that supported numerous species, including the El Segundo blue butterfly (*Euphilotes bernardino allyni*), which is currently endangered. According to the application, the County's consultant Dr. Travis Longcore of the Urban Wildlands Group has assessed the site for current suitability for El Segundo blue butterfly and found no food plants (*Eriogonum parvifolium*) and therefore concludes that there is no probability of occupation by the butterfly. The applicant proposes to remove the iceplant by hand and prepare the site by using hand tools to smooth out the dirt evenly across the site. Temporary irrigation will be installed that consists of: a line of sprinklers (Hunter sprinkler heads) running parallel along the bluff above the existing fence, and a line below the fence. The system will be connected to a battery-operated timer but irrigation will occur on an as needed basis. Existing conditions will be monitored and considered when deciding whether or not to activate the irrigation system.

The applicant proposes to replace the iceplant with a diverse community of native dune and bluff plants that will reduce erosion and provide potential habitat for native animals, including the federally endangered El Segundo blue butterfly (Exhibit 3).

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[1] Application for Coastal Development Permit 5-03-280, Exhibit one of submittal – Project Description, dated July 2, 2003 (Exhibit 3).

According to the application and landscape plan dated July 2, 2003, all container plants will be propagated from local seeds and/or cuttings. Local sources include the Palos Verdes peninsula, the El Segundo dunes, and Malibu if necessary to obtain rare species. Container plants will be grown from seed in greenhouse conditions. Seeds will be hand collected and cleaned and refrigerated until application. A native plant nursery has been established at the S.E.A. Laboratory in Redondo Beach, jointly operated by the L.A. Conservation Corps and The Urban Wildlands Group. The Irrigation plan includes temporary irrigation to saturate the soil prior to planting and to establish the plants once installed. No irrigation will be used during the spring and summer months, except where plant re-establishment is required.

The landscape plan includes a planting scheme consisting of a list of potential plants to be installed identified by both their common and scientific names and the location of where each plant will be installed. According to the plan, all plant species will be established simultaneously. The plan states in part:

> *Under normal conditions, dune vegetation changes over time following a disturbance. Some plants are good at colonizing bare soil, and others are established later on. Rather than move through these gradual changes – called "successions" – we will establish all species simultaneously. Therefore the plantings will emulate the density and proportion of shrub and subshrub species that are intended to comprise the mature bluff and dune scrub. The plantings are designed to represent a continuum between a southern foredune community at the base of the bluff in the more unconsolidated dune conditions (Sand-verbena beach bursage series), to a southern bluff scrub on the upper, more consolidated sections of the site.*[2]

The site is divided into two zones: Zone A – base of bluff in very sandy soils and Zone B – on bluff in more developed soils (Exhibits 2 & 3). The proposed density is 1,000 – 1,500 plants per acre. The applicant states that because some shrubs will be established from seed, the final shrub density should exceed 1,000 plants per acre. See Exhibit 3 for the plant list for each zone.

The applicant is proposing to install a 3-foot high split rail fence at the top of the bluff to keep visitors off of the newly restored area so that plantings are not destroyed. The applicant proposes eight 3 by 2 foot signs to be located along the top and bottom of the bluff to educate the public on the restoration and the importance of the native coastal habitats.

The applicant proposes to control weeds by weeding the site throughout the winter and spring following plant installation on a biweekly basis. Weeding will be repeated following the winter rains of the second growing season following installation. One year following

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[2] Application for Coastal Development Permit 5-03-280, Landscape Plan for Redondo Beach Bluff Restoration Pilot Project, dated July 2, 2003.

plant installation, container plants that did not survive will be replaced following the same protocol as the initial installation.

Commission staff biologist Dr. John Dixon reviewed the proposed project plans and concurs that the submitted plans are appropriate for the type of restoration being proposed. Dr. Dixon's only concern, however, was that monitoring did not appear to be incorporated into the plan. When staff contacted the applicant on the issue, Dr. Travis Longcore agreed that monitoring is needed and is in fact a part of their project but that it just had not been included in the application submittal. On August 18, 2003, staff received the proposed preliminary monitoring plan from the applicant and Dr. Dixon is in agreement with the proposed plan.

The proposed monitoring plan includes: 1) plant assessments – plant coverage will be quantified annually (during month of March each year) using stratified sampling. The target for native plant covering is 70 percent with 20 percent bare sand and no more than 10 percent exotic plant cover. The revegetation also has a target of 25 percent cover by coast buckwheat (*Eriogonum parvifolium*); 2) Photopoints – Progress of revegetation shall be tracked using fixed photopoints (each March); 3) Bird Counts – As part of education portion of the project, bird counts will be completed (quarterly) at the revegetation site and nearby sites dominated by iceplant; and 4) butterfly survey – surveys of butterfly species will be conducted. The project site is within 1,200 feet of occupied El Segundo blue butterfly habitat. According to the applicant, monitoring will occur for five years, at which point there shall be a self-sustaining project. See Exhibit 4 for the preliminary monitoring plan.

The applicant also states that under Coastal Development Permit #5-00-199 (Torrance Beach Improvements), the County of LA is implementing a revegetation project at Torrance Beach nearby. As a part of the contract between the County and Urban Wildlands Group, UWG is providing County maintenance staff with training in the identification and care of native plants. The applicant contends that this Redondo Beach project will provide a further opportunity for continued education of LA County Beaches and Harbors staff.[3] The Commission is requiring that a maintenance manual also be prepared that will assist in the education of those maintaining the site on native plants and invasive plants.

Monitoring is necessary to assure that any restoration project succeeds. Conditions, including public interference, vary with each site. Monitoring can assure that the type of plants is appropriate to that site; that the density of cover is established, and that erosion control weeding and replacement of failing plants occurs. Moreover, there are relatively few coastal bluffs suitable for restoration projects and accessible for such efforts. Restoration is necessary to support the reestablishment of the rare and endangered species that once flourished on these bluffs. While no habitat is displaced in the process,

[3] Electronic message received from Lauri Ames, planner for LA County Department of Beaches and Harbors, dated August 18, 2003.

the project represents an opportunity that may not be repeated. Monitoring will provide the applicant and the Commission with useful information for designing future projects.

Monitoring is necessary for a second reason. If disturbance of the existing soils is allowed to enable restoration, there is the possibility of erosion resulting from the activity itself. The reason the County installed iceplant was to (1) block pioneered trails and (2) stabilize the bluff face. Sloughing occurred due to rainfall and pioneered trails. The proposed plan provides for fencing, coverage dense enough to prevent rain induced erosion, and a fencing system to discourage pioneering new trails down the bluff. It is important to monitor and maintain the site to assure that these features can function as proposed and if corrections are needed to propose necessary changes.

The Commission is requiring as a special condition that final monitoring plans conform to the preliminary plans submitted to the Commission. If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping and monitoring plans approved pursuant to this permit, the applicant is required to submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The Commission finds that coastal bluff restoration that provides potential habitat for an endangered species is consistent with Section 30240 of the Coastal Act.

C. Geologic Stability/Erosion Control

Section 30253 of the Coastal Act states in part:

> *New development shall:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

The project site is located at the southern end of Redondo Beach and consists of a 2-acre bluff face area that is comprised of loose sand at the base of the bluff and more developed, consolidated soils at the top portion of the bluff. There is no geologic evidence that the bluff is unstable, however, the bluff is sand and loosely cemented sandy material and erosion will occur. The existing ice plant on the site was installed as an erosion control measure for the bluff. While eventually ice plant will itself slough off a bluff as a mat, in the mean time the ice plant reduces surface sloughing and discourages unauthorized trails and protects the bluff surface from run-off and wind erosion. The applicant proposes to remove the ice plant and install locally native plants from the coastal scrub and sand dune communities. The applicant expects that native dune and bluff face plants themselves will provide erosion control. According to the applicant, native

grass (Festuca) will be planted once the irrigation is started in the fall (along with native forbs and other seedstock). The Festuca will stabilize the soil while the other plants become established. The Festuca is not invasive, and will diminish in cover as the rest of the plants establish.[4] The Commission recognizes the benefit of restoring the bluff with native plants and suitable habitat for coastal animals and notes that such establishment of plants will prevent erosion. However, the Commission must also be prepared that if the proposed restoration is not successful for whatever reason, measures must be taken to ensure that the bluff will be protected from erosion and runoff. Therefore the Commission is requiring that the final landscape and monitoring plans conform to the proposed plans (70 percent coverage of native plants) and that if the proposed landscape fails, the applicant must submit a revised plan to install some types of vegetation on the bluff that will stabilize the bluff by protecting it from erosion and that revised plan must be submitted to the Executive Director for review and approval. Only as conditioned is the proposed project consistent with Section 30253 of the Coastal Act.

Erosion and Runoff Control

Sections 30230 and 30231 of the Coastal Act state:

Section 30230

> *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

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

As discussed above, the project site is currently covered with an exotic iceplant species that while very invasive, serves an erosion control purpose. The proposed project includes 2,420 cubic yards of grading that will be performed by using hand tools and small power tools to remove the iceplant and prepare the planting bed by distributing the soil material

[4] Electronic message received from Lauri Ames, planner for LA County Department of Beaches and Harbors, dated August 18, 2003.

evenly across the site. The graded material will be stockpiled on the bank itself and along the lower edge of the bank adjacent to the bike path. The applicant contends that no stockpiling will occur on the adjacent beach or public bike path. Because the proposed development will be occurring during the upcoming fall months and potential rainy season, the Commission is requiring that erosion control be implemented during construction. Erosion control measures may include using fiber rolls or geo-fabric blankets to cover exposed dirt when work is not being done such as during the nighttime. Wind barriers should also be used to prevent loose soils from blowing off of the site.

The Commission is requiring that any runoff at the top of the bluff be directed away from the bluff to reduce potential erosion impacts. The site must also be stabilized with jute matting or other BMPs to minimize erosion during the raining season if plantings have not been fully established. If the proposed restoration fails, the applicant must come back to the Executive Director with an alternative landscape plan in order to establish plants that will provide adequate permanent erosion control. Only as conditioned does the Commission find the project consistent with the marine resource protection policies of the Coastal Act.

D. Public Access

All projects requiring a coastal development permit must be reviewed for compliance with the public access provisions of Chapter 3 of the Coastal Act. Section 30210 states that maximum access and recreational opportunities shall be provided to protect public rights:

> *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.*

As described above, the proposed project is located between a public right of way and public parking at the top of the bluff (the Esplanade) and a public bike path that is just landward of the public beach at the bottom of the bluff. There is a coastal access ramp at each end of the site (north and south ends) and a coastal access ramp located at approximately the middle of the project site. There is a public parking lot adjacent to the south end of the site. The applicant proposes that there will be no staging of equipment or materials on the beach. The applicant does not propose any beach or bike path closures at any time and also proposes to leave existing ramps that connect the public parking to the beach below, open and available for public access. Those working on the project will need to park in the public parking at the top of the bluff and in the parking lot and will use the bike path intermittently for access to the lower bluff. However, because development will occur after the summer peak beach use season, impacts to parking will be minimal. The project does not adversely impact coastal access. The Commission reiterates in Special Condition 6 that the existing public access (access ramps, parking, bike path and beach) are not to be closed at any time during construction. A 3-foot high, split rail fence is to be located at the top of the bluff to provide habitat protection but will not prevent the

public from using the access ramps that run down to the beach. Only as proposed and conditioned is the project consistent with Section 30210 of the Coastal Act.

E. Visual Resources

Section 30251 of the Coastal Act states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

The proposed project consists of replacing iceplant with native coastal scrub and dune plants along the bluff face. The project also includes the installation of a 3-foot high split rail fence along the bluff top property line (approximately 1,200 feet long) and approximately eight (8) three-foot high by two-foot wide educational signs along the top and the bottom of the bluff (each sign approximately 400-feet apart – See Exhibit 2). The fence will provide habitat protection but at the same time not block public views from inland areas or the Esplanade, a City public right-of-way. Views from the bike path or beach looking inland will not be blocked. The signs will provide the public with educational information about the natural communities that are being re-established on the site. The Commission is requiring the applicant to provide a design plan for the fence to the Executive Director. The design of the fence shall be open and not adversely impact public views. The Commission finds that public views are protected and the project is consistent with the visual resource policies of the Coastal Act.

F. Local Coastal Program

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Development Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program, which conforms with Chapter 3 policies of the Coastal Act:

(a) Prior to certification of the Local Coastal Program, a Coastal Development Permit shall be issued if the issuing agency, or the Commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200). A denial of a Coastal Development Permit

on grounds it would prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for such conclusion.

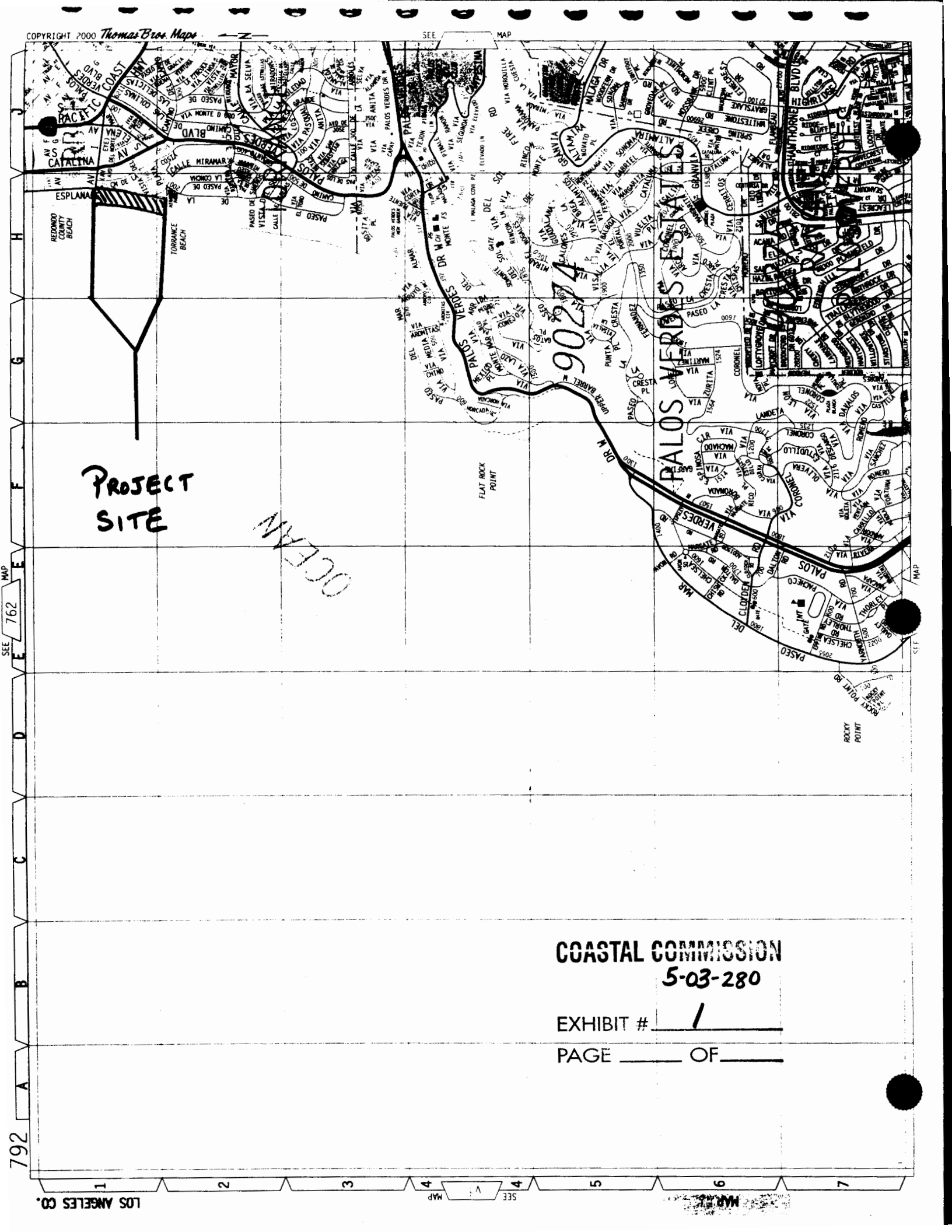
The City does not have a certified Implementation Program for the entire coastal zone. On April 8, 2003 the Commission approved the City's Implementation Plan for Coastal Zone Area One (area outside of the Harbor-Pier Area) with suggested modifications. On August 5, 2003 the Redondo Beach City Council formally adopted the Coastal Zone Implementation Plan as modified by the Commission. The Executive Director's review for effective certification is scheduled at the same hearing as this project and if approved by the Commission, the City will then take over coastal permit issuing authority for Coastal Zone Area One.

This site is located in "Area One" and subject to the certified LCP. It is designated "Open Space, Public Park", which is consistent with the use proposed in this project. The project site is owned by the Los Angeles County Department of Beaches and Harbors. The proposed project, as conditioned, is consistent with the public access, recreation, marine resource and visual resource policies of the current certified LUP and conditionally certified IP. Therefore, approval of this project as conditioned would not prejudice the City's ability to prepare a Local Coastal Program consistent with the policies of Chapter 3 of the Coastal Act, as required by Section 30604(a).

G. California Environmental Quality Act

Section 13096 of the Commission's regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned 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 a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect, which the activity may have on the environment.

The Commission finds that the proposed project, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act. All adverse impacts have been minimized and there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project can be found consistent with the requirements of the Coastal Act to conform to CEQA.



COASTAL COMMISSION
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EXHIBIT # 1

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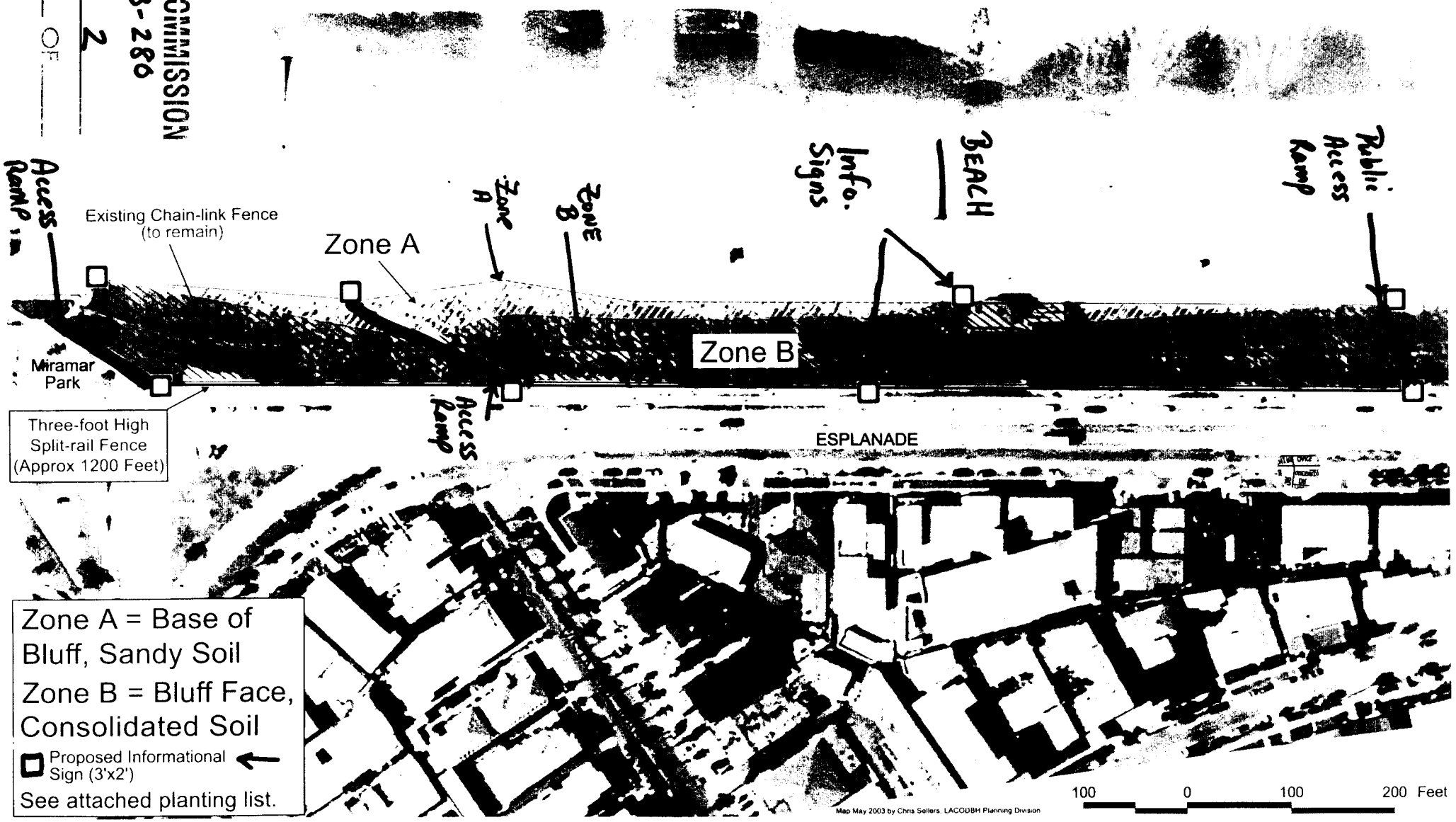
EXHIBIT 5

Redondo Beach Bluff Pilot Restoration
Landscaping Plan



Redondo Beach Bluff Restoration Pilot
Project Description

Introduction

The Urban Wildlands Group, the Los Angeles Conservation Corps, The Los Angeles County Department of Beaches and Harbors propose a revegetation and enhancement project for a 2-acre site at the southern end of Redondo Beach. The site is owned by the L.A. County Department of Beaches and Harbors, and is located between the Esplanade at the top of the bluff, owned by the City of Redondo Beach, and the South Bay Bicycle Trail at the bottom of the bluff. The purpose of the revegetation project is to remove the exotic vegetation currently on the site and replace it with a diverse community of native dune and bluff plants. The project is intended to beautify the landscape, reduce erosion, and provide potential habitat for native animals, including the federally endangered El Segundo blue butterfly.

Current Conditions

The vegetative cover of the project site is close to 100% cover of iceplant (*Carpobrotus edulis*). This is identified as the Iceplant series by Sawyer and Keeler-Wolf (1995), and has no wildlife resource value. Dr. Travis Longcore, The Urban Wildlands Group, has assessed the site for current suitability for El Segundo blue butterfly and found no foodplants (*Eriogonum parvifolium*) and therefore no probability of occupation by this species.

The site is gently sloping from a flat bluff at the upper (inland) edge, to the beach bike trail at the bottom of the bluff. Soils are consolidated at the top of the bluff, but more unconsolidated sand is found near the bottom of the bluff. A fence bisects the site approximately halfway down the bluff.

Revegetation Plan

Site Preparation

Exotic vegetation (primarily iceplant) within the revegetation area will be removed by hand and removed off-site. A temporary irrigation system made with 3/4" PVC pipe and Hunter sprinkler heads will be installed. One line of sprinklers will be run parallel along the bluff above the fence, and one below the fence. A battery-operated timer will be installed and secured on site. Smoothing of surface with hand tools may occur where needed.

Plant Propagation

All container plants will be propagated from local seed and/or cuttings. Local sources shall include the Palos Verdes peninsula the El Segundo dunes, and Malibu if necessary to obtain rare species. Container plants will be grown from seed in greenhouse conditions such that the plant fills the container size specified. Roots will reach the bottom of the container but not show signs of being root-bound. Seeds will be hand collected and cleaned and refrigerated until application. A native-plant nursery has been established at the S.E.A.

Laboratory in Redondo Beach, jointly operated by the L.A. Conservation Corps and The Urban Wildlands Group.

Irrigation

Prior to plant installation in fall 2003, the site will be watered for eight hours over two days to saturate the soil to a depth of 18 inches if sufficient rain has not fallen to already do so. After container plant installation, irrigation will be used to supplement natural rainfall as necessary. During the first three months after plant installation, irrigation will be used as necessary to keep the soil moist to a depth of 18 inches. Irrigation will be halted three months after plant installation, approximately February 2004, and no irrigation will be utilized during the spring and summer months, except where plant re-establishment is required. Depending on plant performance, supplemental irrigation may be introduced again in late fall and through the winter months of 2004–2005.

Planting Scheme

Under normal conditions, dune vegetation changes over time following a disturbance. Some plants are good at colonizing bare soil, and others are established later on. Rather than move through these gradual changes -- called "succession" -- we will establish all species simultaneously. Therefore the plantings will emulate the density and proportion of shrub and subshrub species that are intended to comprise the mature bluff and dune scrub. The plantings are designed to represent a continuum between a southern foredune community at the base of the bluff in the more unconsolidated dune conditions (Sand-verbena beach bursage series), to a southern bluff scrub on the upper, more consolidated sections of the site.

Zone A: base of bluff in very sandy soils. **Zone B**: On bluff in more developed soils. Density: 1,000 plants (shrubs and subshrubs) per acre.

Perennials	**NAME**		**Planting Zone**
Abronia maritima	SAND VERBENA	Container	A
Abronia umbellatum	SAND VERBENA	Container	A
Calystegia soldanella	MORNING GLORY	Seed	A
Distichlis spicata	SALTGRASS	Container	A
Ambrosia acanthicarpa	ANNUAL BURSAGE	Container	AB
Ambrosia chamissonis	BEACH-BUR	Container	AB
Croton californica	CALIFORNIA CROTON	Seed	AB
Cucurbita foetidissima	CALABAZILLA	Seed	AB
Datura wrightii	JIMSON WEED	Seed	AB
Eriogonum parvifolium	COAST BUCKWHEAT	Container	AB
Erysimum capitatum [=*E. suffrutescens*]	WESTERN WALLFLOWER	Container	AB
Eschscholtzia californica	CALIFORNIA POPPY	Container	AB
Galium angustifolium	BEDSTRAW	Container	AB
Gnaphalium bicolor	TWO-TONE EVERLASTING	Seed	AB
Lupinus chamissonis	DUNE LUPINE	Container	AB
Phacelia ramosissima		Container	AB
Artemisia californica	CALIFORNIA SAGEBRUSH	Container	B
Artemisia dracunculus	MUGWORT	Container	B
Calystegia macrostegia	MORNING GLORY	Container	B

Perennials	**NAME**		**Planting Zone**
Corethrogyne filaginifolia	CALIFORNIA-ASTER	Container	B
Dudleya lanceolata		Container	B
Encelia californica	CALIFORNIA SUNFLOWER	Container	B
Ericameria [=Haplopappus] ericoides	GOLDENBUSH	Container	B
Isomeris arboria	BLADDERPOD	Container	B
Lotus scoparius	DEERWEED	Container	B
Marah macrocarpus	WILD CUCUMBER	Container	B
Mirabilis laevis	FOUR O'CLOCK	Container	B
Opuntia littoralis	PRICKLY PEAR	Cuttings	B
Rhus integrifolia	LEMONADEBERRY	Container	B
Senecio douglasii	BUTTERWEED	Container	B
Annuals	**NAME**		**Planting Zone**
Calandrinia maritima	SEASIDE REDMAIDS	Seed	AB
Camissonia chieranthifolia	BEACH EVENING PRIMROSE	Seed	AB
Chaenactis glabriuscula		Seed	AB
Cryptantha clevelandii		Seed	AB
Descurainea pinnata		Seed	AB
Festuca megalura		Seed	AB
Heterotheca grandiflora		Seed	AB
Lepidium lasiocarpum		Seed	AB
Lupinus bicolor	TWO-TONE LUPINE	Seed	AB
Lupinus truncatus		Seed	AB
Plantago erecta	DWARF PLANTAIN	Seed	AB

Maintenance

Site Protection

Trampling presents a danger to the success of plantings. However, the visitor experience of the beach would be degraded by a large, imposing fence that would be necessary to restrict access to the site. Access will therefore be limited only by a 3-foot split rail fence at the bluff top along the County of Los Angeles/City of Redondo Beach property line (see Exhibit 5), which is designed to allow access to view points while protecting revegetated areas.

Signage will be installed around the site indicating the sensitive nature of the revegetation area and educating about the natural communities that are being reestablished. Up to eight (8) signs will be placed at the site, four (4) at the top of the bluff and four (4) at the bottom, approximately 400-feet apart (see attached site plan). The signs will contain acknowledgement of the agencies involved in funding and implementing the project and educational information. Each sign will measure 3 feet high by 2 feet wide and be made of weatherproof, recycled plastic. In addition, the signs will be installed at an angle for easy visibility by pedestrians.

Weed Control

The site will be weeded throughout the winter and spring following plant installation on a biweekly basis. Special attention shall be paid to potential establishment of iceplant. Weeding shall be repeated following the winter rains of the second growing season following installation.

Replacement Plantings

One year following plant installation, container plants that did not survive will be replaced. Planting shall follow the same protocol as initial installation.

Contingency Measures

Success for the project will be best ensured through a process of adaptive management, which is characterized by the capacity to evaluate conditions and make changes to address issues as they arise. Through consultation with Coastal Commission Staff the project should be flexible in its implementation in response to unforeseen changed circumstances.

Literature Cited

Sawyer, John O., and Todd Keeler-Wolf. 1995. *A manual of California vegetation.* California Native Plant Society, Sacramento, CA.

Redondo Beach Pilot Project - Preliminary Monitoring Plan

Introduction

This report outlines a monitoring plan for a 2-acre revegetation site at the southern end of Redondo Beach. The site is part of the County Beach, and is located between the Esplanade at the top of the bluff, and the bike path at the bottom of the bluff. The purpose of the revegetation project is to remove the exotic vegetation currently on the site and replace it with a diverse community of native dune and bluff plants. The project is intended to beautify the landscape, reduce erosion, and provide new habitat for native animals, including the federally endangered El Segundo blue butterfly.

Plant Assessments

Plant coverage will be quantified annually using stratified random sampling. This assessment will be conducted during the month of March each year following plant installation. Three 100 foot transects will be laid out parallel to the slope, and plant cover documented by recording the species (or bare ground) found at each foot mark (20 points for each transect). Results of the transects will be combined to produce percent native cover, exotic cover, and bare ground. The target for native plant cover is 70% with 20% bare sand and no more than 10% exotic plant cover (Barbour and Johnson 1988). Because the project intends to create potential habitat for El Segundo blue butterfly, the revegetation has a target of 25% cover by coast buckwheat (Eriogonum parvifolium).

In addition, the sampling methodology will allow calculation of plant species diversity using the Shannon index:

$H' = - \ldots p(i) \ln p(i)$

Where p(i) is the proportion of cover of the ith species (Magurran 1988). This measure (H') incorporates both species richness and species abundance. The goal is that the Shannon diversity index exceed 2.0 across the project site. This performance standard ensures that the revegetation supports many different plant species and that the vegetation is not dominated by a single species.

Photopoints

Progress of revegetation shall be tracked using fixed photopoints. Each March, color photographs of the project site will be taken with a 50 mm lens from established locations. The previous year's photos will be used to ensure that the same view is replicated each year. The timing is intended to capture the maximum plant growth period, including annual species that would not be visible during other times of the year. The first year, photodocumentation shall occur after irrigation is halted. If irrigation is necessary during year two, similar timing shall apply.

Bird Counts

The proposed revegetation project should provide additional foraging opportunities for native birds. As part of the education portion of the project, bird counts will be completed at the revegetation site and at nearby sites dominated by iceplant. Using three timed 4 minute transects, birds will be enumerated at the revegetation site (Degraaf et al.1991). These will be compared with transects non-restored bluffs. Counts will be conducted quarterly, and compared with the species list for the El Segundo dunes at LAX (Mattoni 1990).

Butterfly Surveys

The project site is within 1200 feet of occupied El Segundo blue butterfly habitat. To determine if this species has colonized the restored site, a qualified surveyor will search for this butterfly during three visits during the flight season each year. During these visits, a checklist survey of butterfly species will be conducted (Royer et al. 1998). Results can be compared to the number of species found during extensive surveys of the El Segundo dunes at LAX (Mattoni 1990).

Because the revegetation site is less than 1/100 the size of the dunes at LAX (2 vs 300 acres), the number of bird and butterfly species should be less than 1/4 of the number there (Brown and Lomolino 1998). A successful project will support more than 1/4 of the bird and butterfly species found at the dunes at LAX.

Literature Cited

Barbour MG, Johnson AF. 1988. Beach and dune. In: Barbour MG, Major J, editors. Terrestrial Vegetation of California. Sacramento, CA: California Native Plant Society. p 223-261.

Brown JH, Lomolino MV. 1998. Biogeography. Sunderland, MA: Sinauer Associates. 692 p.

Degraaf RM, Geis AD, Healy PA. 1991. Bird population and habitat surveys in urban areas. Landscape and Urban Planning 21 (3):181-188.

Magurran AE. 1988. Biological diversity and its measurement. Princeton, New Jersey: Princeton University Press. 179 p.

Mattoni RHT. 1990. Species diversity and habitat evaluation across the El Segundo sand dunes at LAX. Los Angeles: Los Angeles Department of Airports.

Royer RA, Austin JE, Newton WE. 1998. Checklist and "Pollard walk" butterfly survey methods on public lands. American Midland Naturalist 140(2):358371.