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Staff:	Kanani Brown
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Hearing Date:	4/12/12

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-11-043

APPLICANT: City of Santa Barbara Parks and Recreation Department

AGENT: Kathy Frye

PROJECT LOCATION: Andree Clark Bird Refuge, 1400-1700 East Cabrillo Boulevard, Santa Barbara, Santa Barbara County

APN: 017-382-001

PROJECT DESCRIPTION: Implementation of an annual desilting and vegetation management and enhancement program for portions of the Andree Clark Bird Refuge for a period of five years for the purpose of flood control, mosquito abatement, and habitat enhancement, including one-time removal of 0.89 acres of marsh vegetation; annual maintenance of vegetation removal; 0.89 acres of marsh and upland habitat enhancement; and removal of approximately 330 cu. yds. of sediment from within a concrete-lined channel.

MOTION & RESOLUTION: Page 4

SUMMARY OF STAFF RECOMMENDATION: Staff recommends **approval** of the proposed development with **seven (7) special conditions** regarding (1) permit term, (2) timing, operations and maintenance responsibilities, (3) assumption of risk, (4) required agency permits and approvals, (5) sensitive species surveys and construction monitoring, (6) removal of excess excavated material, and (7) final habitat restoration/revegetation and monitoring program.

The City of Santa Barbara Parks and Recreation Department is proposing to implement an annual desilting and vegetation management and enhancement program for portions of the Andree Clark Bird Refuge for a period of five years for the purpose of flood control, mosquito abatement, and habitat enhancement. Project activities would include one-time removal of 0.89 acres of marsh vegetation; annual maintenance of the aforementioned vegetation removal; 0.89 acres of marsh/upland habitat enhancement; and removal of 330 cu. yds. of sediment from within a concrete-lined channel.

The project site is located at the Andree Clark Bird Refuge, a 42-acre open space park containing a 29-acre lake, with three islands, that is an artificially modified estuary supporting brackish wetlands. The Bird Refuge provides passive recreation opportunities to bird watchers, hikers, and bikers through onsite trails, viewing platforms, and 15 parking spaces.

The applicant submitted the subject CDP application on August 11, 2011; however, the file was not deemed complete until February 15, 2012. The Commission approved an emergency permit in December 2011 for one-time vegetation and silt removal to facilitate mosquito abatement and, thereby, protect public safety. Per the conditions of approval, the City was given 90 days to submit the items necessary to complete the subject CDP application. This CDP application constitutes the follow-up permit action for the emergency permit which approved the one-time removal of 0.89 acres of marsh vegetation within the lake and removal of 330 cu. yds. of sediment/vegetation from a concrete-lined channel. Thus, the one-time removal of vegetation/silt proposed in this application has already been implemented pursuant to the emergency permit.

The City has indicated that the large man-made lake/wetland within the Bird Refuge is an identified breeding ground for mosquitoes carrying West Nile virus and other diseases, and presents a public health and safety risk. The abatement of the mosquito population at the refuge is managed by Santa Barbara County Vector Control (Vector Control). Due to the dense marsh vegetation, Vector Control has limited access to portions of the Bird Refuge. The City believes that without the proposed vegetation clearance, Vector Control will be unable to adequately abate the mosquito population. The proposed removal of vegetation will allow increased access for mosquito fish to enter areas harboring mosquito larvae, reduced locations known to harbor larvae, such as floating vegetation, and increased boat access for Vector Control to apply mosquito larvacide.

The larvacides proposed for use at the Bird Refuge are highly specific to mosquito larvae and are not expected to result in any adverse impacts to flora, fauna, or water quality. The applicant has submitted studies prepared by the EPA which indicate that the proposed larvacides are not considered pesticides or insecticides, but instead modify the growth stage and prevent mosquitoes from maturing past the larval stage, thus preventing breeding. The only potential impact that larvacides may have on an ecosystem is the removal of mosquito larvae as a source of food for predators. In this case, the larvacides are necessary to abate the mosquito population at the refuge and will not have any adverse impacts to non-target species, including fish, frogs, turtles, birds, or other insects and invertebrates.

The refuge constitutes wetlands and provides habitat for sensitive species, including tidewater goby, southwestern pond turtle, and nesting birds. Native marsh vegetation at the refuge includes plants in the bulrush series, cattail series, and bulrush-cattail series. The proposed vegetation/silt removal activities have the potential to impact these sensitive species. However, in order to avoid and minimize these potential impacts, vegetation removal activities are proposed to only occur during the wet season from December 1 through February 14, after the prime spawning season for tidewater goby and prior to the bird nesting season. Additionally, a habitat enhancement element includes enhancement/restoration of 0.89 acres of disturbed wetland habitat. The final Habitat Restoration and Revegetation Program shall focus habitat enhancement activities on the removal of non-native and invasive plant species within existing disturbed wetland areas and revegetation of those areas with new wetland/riparian plantings to

maximize the benefit to wetland habitat areas on site while minimizing the potential to further exacerbate flooding and mosquito problems at the Bird Refuge.

The proposed project is located in an area where the Commission has retained coastal development permit jurisdiction, even though the City of Santa Barbara has a certified Local Coastal Program (LCP). The standard of review for the proposed project is the Chapter Three policies of the Coastal Act. In addition, the policies of the certified City of Santa Barbara Land Use Plan (LUP) serve as guidance. As conditioned, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

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APPENDICES

EXHIBITS

LOCAL APPROVALS RECEIVED: U.S. Army Corps of Engineers, Permit No. SPL-2011-00849-CLH, dated 12/20/11; California Department of Fish and Game, Lake or Streambed Alteration Agreement, Notification No. 1600-2011-0268-R5, dated 1/3/12; California Regional Water Quality Control Board, Water Quality Certification No. 34211WQ10 for the Andree Clark Bird Refuge, dated 11/14/11;

I. STAFF RECOMMENDATION

The staff recommends that the Commission adopt the following resolution:

MOTION: ***I move that the Commission approve Coastal Development Permit No 4-11-043 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. SPECIAL CONDITIONS

1. Permit Term

A. This coastal development permit authorizes development on a temporary basis only. The development is authorized for a period of five (5) years, commencing upon the date of Commission approval of Coastal Development Permit No. 4-11-043, after which time the authorization for continuation and/or retention of any development approved as part of this permit shall cease. After the authorization for the development expires, any vegetation or sediment removal within the project area will require the issuance of a new coastal development permit or an amendment to this coastal development permit.

B. If the applicant does not obtain a coastal development permit or amendment from the California Coastal Commission to continue the annual desilting and vegetation management program at the Andree Clark Bird Refuge prior to the date that authorization for the development expires, the City shall cease all vegetation and sediment removal activities.

C. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions. Any deviation from the approved project plans must be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is required.

2. Timing, Operations and Maintenance Responsibilities

It shall be the applicant's responsibility to ensure that the following occurs during all project operations:

(1) No water-based vegetation removal or excavation within the channel shall occur during the period from February 15 through November 29, unless authorized by the Executive Director for good cause.

(2) No land-based vegetation removal shall occur during the period from February 15 through August 30, unless authorized by the Executive Director for good cause.

(3) Removal of dislodged floating vegetation and revegetation activities shall be allowed year round.

(4) Permanent stockpiling of material shall not be allowed. Stockpile sites must be cleared and returned to their pre-construction condition with no remaining equipment, debris, waste, or construction equipment remaining onsite within one week of the end of vegetation and/or silt removal.

(5) Construction materials, debris, or waste shall be located as far from the lake on the designated site as feasible and in no event shall materials be stockpiled less than 30 feet in distance from the top edge of lake, or where it may be subject to erosion and dispersion.

(6) Temporary erosion control measures and BMPs shall be implemented for all stockpiled material. These temporary erosion control measures shall be required at the site prior to or concurrent with vegetation/silt removal operations and shall be monitored and maintained until all stockpiled fill has been removed from the project site. Successful implementation of erosion control measures will ensure that the material is completely stabilized and held on site.

(7) No equipment shall be stored in the project area, including designated staging and/or stockpile areas, except during active project operations.

(8) Construction equipment shall not be cleaned adjacent to the lake or in the parking lots.

3. Assumption of Risk, Waiver of Liability and Indemnity

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from flooding and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

Prior to issuance of the Coastal Development Permit, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

4. Required Agency Permits and Approvals

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, all necessary State and/or Federal permits that may be necessary for all aspects of the proposed project (including U.S. Army Corps of Engineers, California Regional Water Quality Control Board, California Department of Fish and Game, and U.S. Fish and Wildlife Service) or evidence that no such approvals are required.

5. Sensitive Species Surveys and Construction Monitoring

For any construction activities, the applicant shall retain the services of a qualified biologist or environmental resources specialist (hereinafter, "environmental resources specialist") to conduct sensitive species surveys (including tidewater goby, southwestern pond turtle, and any other sensitive species) and monitor project operations associated with all vegetation removal activities. At least 30 calendar days prior to commencement of any vegetation or sediment removal activities, the applicant shall submit the name and qualifications of the environmental resources specialist, for the review and approval of the Executive Director. The applicant shall have the environmental resources specialist ensure that all project construction and operations are carried out consistent with the following:

A. Should the Executive Director authorize any construction activities during bird nesting season (February 15 – August 30), the environmental resources specialist shall conduct nesting bird surveys 7 calendar days prior to the listed activities to detect any active sensitive species, reproductive behavior, and active nests within and near the project site. Follow-up surveys must be conducted on a weekly basis throughout the nesting season or until the project is completed, whichever comes first.

B. The environmental resources specialist shall conduct tidewater goby, southwestern pond turtle, and any other sensitive species surveys no more than 7 calendar days prior to the listed activities to detect any active sensitive species, reproductive behavior, and active nests within and near the project site.

C. In the event that any sensitive species are present in the project area but do not exhibit reproductive behavior and are not within the estimated breeding/reproductive cycle of the subject species, the environmental resources specialist shall either: (1) initiate a salvage and relocation program prior to any construction activities to move sensitive species by hand to safe locations elsewhere along the project reach or (2) as appropriate, implement a resource avoidance program with sufficient buffer areas to ensure adverse impacts to such resources are avoided. The applicant shall also immediately notify the Executive Director of the presence of such species and which of the above actions is being taken. If the presence of any such sensitive species requires review by the United States Fish and Wildlife Service and/or the California Department of Fish and Game, then no

development activities shall be allowed or continued until any such review and authorizations to proceed are received, subject to the approval of the Executive Director.

D. If an active nest of a federally or state-listed threatened or endangered species, bird species of special concern, or any species of raptor or wading bird (herons and egrets) is found, the applicant shall notify the appropriate State and Federal agencies within 24 hours, and shall develop an appropriate action specific to each incident. The applicant shall notify the California Coastal Commission in writing by facsimile or e-mail within 24 hours and consult with the Commission regarding determinations of State and Federal agencies.

E. The environmental resources specialist shall be present during all construction activities including desilting and vegetation eradication and removal activities within the project area. The environmental resources specialist shall require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise. If significant impacts or damage occurs to sensitive habitats or to wildlife species, the applicant shall be required to submit a revised or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be submitted to the Executive Director, for review and approval.

6. Removal of Excess Excavated Material

A. Permanent stockpiling of material on site shall not be allowed. Sediment shall be retained at the designated temporary stockpile area, up to approximately three months, until removed to an appropriate approved disposal location either outside the coastal zone or to a site within the coastal zone permitted to receive such fill.

B. ***Prior to the issuance of the Coastal Development Permit***, the applicant shall provide evidence to the Executive Director of the location of the disposal site for all excess excavated material from the site. If the disposal site is located in the Coastal Zone, the disposal site must have a valid coastal development permit for the disposal of fill material. If the disposal site does not have a coastal permit, such a permit will be required prior to the disposal of material.

7. Final Habitat Restoration and Revegetation and Monitoring Program

A. ***Prior to the issuance of the Coastal Development Permit***, the applicant shall revise the draft Habitat Restoration and Revegetation Program Plan and submit, for the review and approval of the Executive Director, a final Habitat Restoration and Revegetation Program Plan for the management and monitoring of habitat enhancement of the Andre Clark Bird Refuge. This plan shall be prepared by a qualified biologist or environmental resources specialist. The final plan shall identify the species, extent, and location of all plant materials to be removed or planted and shall include, but not be limited to, the following criteria:

1. Enhancement/restoration of disturbed wetland habitat areas on site shall occur at a ratio of 1:1 for all areas of wetland habitat that will be impacted by the proposed project (approximately 0.89 acres).

2. Onsite wetland habitat enhancement shall include a combination of activities including: 1) the removal of invasive and non-native plant species; 2) revegetation with appropriate native wetland species of local genetic stock in existing vegetated areas where invasive and non-native plants have been removed; and 3) planting of emergent marsh species in new areas.
3. The draft enhancement/restoration plan shall be revised to maximize planting of new non-emergent wetland/riparian native species while minimizing the use of new emergent marsh plantings. The restoration activities shall consist primarily of the removal of invasive and non-native plant species, to the greatest extent feasible; and revegetation with appropriate native species of local genetic stock in existing vegetated areas where invasive and non-native plants have been removed.
4. Indication as to the location, type, and height of any temporary fencing that will be used for restoration. The plans shall also indicate when this fencing is to be removed.
5. Non-native or invasive species shall be removed by hand where feasible and any herbicide use shall be minimized. If the applicant's environmental specialist or habitat restoration consultant determines that herbicide use is necessary to ensure successful re-establishment of native plant species on site, then herbicide use shall be restricted to the use of Glyphosate Aquamaster (previously Rodeo) herbicide for the elimination of invasive and non-native vegetation only.
6. Indication on plans that rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.
7. A baseline assessment, including photographs, of the current physical and ecological condition of the proposed restoration site, including, a biological survey, a description and map showing the area and distribution of existing vegetation types, and a map showing the distribution and abundance of any sensitive species.
8. A description of the goals of the restoration plan, including, as appropriate, topography, hydrology, vegetation types, sensitive species, and wildlife usage.
9. Documentation of performance standards, which provide a mechanism for making adjustments to the mitigation site when it is determined, through monitoring, or other means that the restoration techniques are not working.
10. Documentation of the necessary management and maintenance requirements, and provisions for timely remediation should the need arise.
11. A planting palette (seed mix and container plants), planting design, source of plant material, and plant installation. The planting palette shall be made up exclusively of native plants that are appropriate to the habitat and region and that are grown from seeds or vegetative materials obtained from local natural habitats so as to protect the genetic makeup of natural populations. Horticultural varieties shall not be used. Plantings shall be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the revegetation requirements. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Exotic Pest Plant Council, or by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a 'noxious weed' by the

State of California or the U.S. Federal Government shall be utilized or maintained within the property.

12. Sufficient technical detail on the restoration design including, at a minimum, a planting program including a description of planned site preparation, method and location of exotic species removal, timing of planting, plant locations and elevations on the baseline map, and maintenance timing and techniques.
13. A plan for documenting and reporting the physical and biological "as built" condition of the site within 30 days of completion of the initial restoration activities. The report shall describe the field implementation of the approved restoration program in narrative and photographs, and report any problems in the implementation and their resolution.
14. Documentation that the project will continue to function as viable native habitats, as applicable, over the long term.

B. Monitoring Program. Said monitoring program shall set forth the guidelines, criteria and performance standards by which the success of the enhancement and restoration shall be determined. The monitoring program shall include but not be limited to the following:

1. Interim and Final Success Criteria. Interim and final success criteria shall include, as appropriate: species diversity, total ground cover of vegetation, vegetative cover of dominant species and definition of dominants, wildlife usage, hydrology, and presence and abundance of sensitive species or other individual "target" species.
2. Interim Monitoring Reports. The City shall submit, for the review and approval of the Executive Director, on an annual basis, for a period of five (5) years, a written monitoring report, prepared by a monitoring resource specialist indicating the progress and relative success or failure of the enhancement on the site. This report shall also include further recommendations and requirements for additional enhancement/restoration activities in order for the project to meet the criteria and performance standards. This report shall also include photographs taken from pre-designated sites (annotated to a copy of the site plans) indicating the progress of recovery at each of the sites. Each report shall be cumulative and shall summarize all previous results. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the enhancement/restoration project in relation to the interim performance standards and final success criteria.
3. Final Report. At the end of the five-year period, a final detailed report on the restoration shall be submitted for the review and approval of the Executive Director. If this report indicates that the enhancement/restoration project has, in part, or in whole, been unsuccessful, based on the performance standards specified in the restoration plan, the applicant(s) shall submit within 90 days a revised or supplemental restoration program to compensate for those portions of the original program which did not meet the approved success criteria. The revised or supplemental program shall be submitted to the Executive Director, for review and approval.

C. Monitoring Period and Mid-Course Corrections. During the five-year monitoring period, all artificial inputs (e.g., irrigation, soil amendments, plantings) shall be removed except for the purposes of providing mid-course corrections or maintenance to insure the survival of the enhancement/restoration site. If these inputs are required beyond the first two years, then the monitoring program shall be extended for every additional year that such inputs are required, so that the success and sustainability of the enhancement/restoration is insured. The enhancement/restoration site shall not be considered successful until it is able to survive without artificial inputs.

D. The applicant shall undertake development in accordance with the final approved 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 Coastal Commission approved amendment to this coastal development permit or a new coastal development permit, unless the Executive Director determines that no new amendment or permit is legally required.

III. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION

The City of Santa Barbara Parks and Recreation Department proposes implementation of an annual desilting and vegetation management and enhancement program for portions of the Andree Clark Bird Refuge for a period of five years for the purpose of flood control, mosquito abatement, improving water circulation and water quality, and habitat enhancement/restoration, including one-time removal of 0.89 acres of marsh vegetation; annual maintenance of the initial vegetation removal; 0.89 acres of habitat enhancement; and removal of vegetation and approximately 330 cu. yds. of sediment from within a concrete-lined channel entering into the Bird Refuge.

The applicant submitted the subject coastal development permit application on August 11, 2011; however, the file was not deemed complete until February 15, 2012. Due to the timing constraints limiting vegetation removal to winter months (January 1 through February 14), the Commission approved an emergency permit in December 2011 for one-time vegetation and silt removal to facilitate mosquito abatement and, thereby, protect public safety. Per the conditions of approval for the emergency permit, the City was given 90 days of the date of the permit to submit the items necessary to complete the subject CDP application. This CDP constitutes the follow-up permit action for Emergency Permit No. 4-11-066-G which approved the one-time removal of 0.89 acres of marsh vegetation within the lake and removal of 330 cu. yds. of sediment/vegetation from a concrete-lined channel that drains into the refuge. Thus, the one-time removal of vegetation/silt proposed in this permit has already been implemented pursuant to the emergency permit.

As depicted in Exhibit 3, the project will be limited to the following areas of the Bird Refuge:

A. Viewing Platforms A1, A2, and A3: Removal of 0.03 acres of marsh vegetation around three public viewing platforms to reduce mosquito production by providing circulation of water, access for vector control boats to apply mosquito larvacide, increased access for mosquito fish (*Gambusia* sp) to enter areas harboring mosquito larvae, and reduced locations known to harbor larvae, such as floating vegetation. Vegetation clearance around Area A1 in association with Area C will also assist in preventing sediment from being trapped at the concrete channel B2.

B. Concrete Channel B2: Removal of 330 cu. yds. of vegetation/sediment from concrete-lined channel B2 that extends into the northern Bird Refuge, to restore the stormwater conveyance of B2 and, thereby, reduce flooding.

C. Between Western Island and Northern Shore: Removal of 0.72 acres of vegetation at Area C to reduce flooding by removing the impediments that trap sediment from channel B2. Removal of vegetation will also discourage mosquito breeding by providing circulation of water, access for vector control boats to apply mosquito larvacide, increased access for mosquito fish (*Gambusia* sp) to enter areas harboring mosquito larvae, and reduced locations known to harbor larvae, such as floating vegetation. Additionally, increased conveyance will increase water quality and reduce the potential for eutrophication of the lake.

D. Southeast Corner: Three stormwater outfalls exist adjacent to the easternmost portion of the Bird Refuge. Removal of 0.12 acres of vegetation in this area will help to restore water flow and conveyance in the lake and will also discourage mosquito breeding by providing circulation of water, access for vector control boats to apply mosquito larvacide, increased access for mosquito fish (*Gambusia* sp) to enter areas harboring mosquito larvae, and reduced locations known to harbor larvae, such as floating vegetation.

E. Scattered Along Perimeter: Removal of 0.02 acres of vegetation to maintain a sandy area south of the parking lot that is used by City staff and Santa Barbara County Vector Control (Vector Control) to launch boats and floating construction equipment.

The objective of the proposed project is to restore water flow and conveyance in the lake and existing concrete-lined channel for the purpose of reducing flooding, reducing mosquito production, and enhancing habitat at the Bird Refuge. Historic aerial photos show that the open concrete channel (Area B2), area between the western island and northern shore (Area C), and east discharge area (Area D) have been severely impacted by sedimentation and excessive vegetative growth which has resulted in flooding upstream (Exhibit 8). The Municipal tennis courts and Old Coast Highway have both been subject to flooding due to backwater effects at the Bird Refuge. Also, the weir at the outlet of the Bird Refuge is subject to partial blockage due to floating vegetation during storm events and has led to the flooding of Cabrillo Boulevard. Removal of sediment/vegetation within Area B2, Area C, and Area D will help improve flood capacity of the channel and storm drains that discharge into the Bird Refuge, as well as reduce the amount of floating vegetation that has the capacity to block the weir.

Sediment has settled in the lake and within the concrete-lined channel creating a high density of marsh vegetation, known as a breeding ground for mosquitoes carrying West Nile virus and

other diseases. The tule mosquito (*Culex erythrothorax*) and other mosquito species are known to flourish within the Bird Refuge. The large mosquito population at the Bird Refuge presents a public health and safety risk, and abatement of the mosquito population is managed by Vector Control. Due to the dense vegetation, Vector Control staff has had limited access to Areas A, C, and D. Without vegetation clearance in these areas, Vector Control is unable to adequately abate the mosquito population at the Bird Refuge. Removal of vegetation in Areas A, C, and D will allow Vector Control increased boat access for the application of mosquito larvacide, increased access for mosquito fish (*Gambusia* sp) to enter areas harboring mosquito larvae, and reduced locations known to harbor larvae, such as floating vegetation.

The larvacides (VectoBac G and VectoLex CG) proposed for application at the Bird Refuge are highly specific to mosquito larvae and are not expected to result in any adverse impacts to flora, fauna, or water quality. The larvacides are derived from bacterial parasites of larval mosquitoes' digestive system and control mosquitoes during the immature larval state. The applicant has submitted studies prepared by the EPA which indicate that the proposed larvacides are not considered pesticides or insecticides, but instead modify the growth stage and prevent mosquitoes from maturing past the larval stage, thus preventing breeding. Some species of Chironomid Midge larvae and Black Fly larvae are the only other species that may be directly affected by the larvacides; however, neither fly species is known to occur within the refuge. The only potential impact that larvacides may have on an ecosystem is the removal of mosquito larvae as food for predators. In this case, the larvacides are necessary to abate the mosquito population at the refuge and will not have any adverse impacts to non-target species, including fish, frogs, turtles, birds, or other insects and invertebrates.

The proposed project includes a habitat enhancement element that includes enhancement/restoration of disturbed wetland habitat at a ratio of 1:1 (approximately 0.89 acres of wetland habitat). At the request of the Commission's Staff Ecologist, Dr. Jonna Engel, the applicant has agreed to revise its originally proposed Habitat Restoration and Revegetation Program to maximize: 1) the removal of invasive and non-native plant species and, 2) revegetation with appropriate native species within existing vegetated areas, to achieve the 0.89 acres of restoration. Accordingly, the applicant has agreed to revise the originally proposed program to reduce the amount of emergent marsh plantings proposed in areas where adequate marsh vegetation habitat already exists. The purpose of focusing habitat enhancement activities on the removal of non-native and invasive plant species within existing disturbed wetland areas and revegetation of those areas with new wetland/riparian plantings is to maximize the benefit to wetland habitat areas on site while minimizing the potential to further exacerbate the flooding and mosquito problems at the Bird Refuge.

The sequencing of vegetation removal and restoration activities at the Bird Refuge would be implemented as follows: 1) initial actions in the first year would include removal of approximately 0.89 acres of excessive emergent marsh vegetation from the lake in order to increase water circulation and allow access for vector control operations. In addition, vegetation and approximately 330 cu. yds. of sediment will be removed from a concrete-lined channel that drains into the reserve lake; 2) maintain the areas of vegetation/sediment removal, as needed, during years two through five; 3) remove floating emergent vegetation as it dislodges from rooted locations on an as-needed basis during years one through five; and 4) perform 0.89 acres of wetland habitat enhancement/restoration, or equivalent (1:1) acreage, based on project impacts to wetland vegetation (except in the concrete-lined channel), during years two through five.

Moreover, as proposed, vegetation removal in the lake and silt removal in the stream channel would occur only during winter months; between January 1 through February 14, after winter rains have increased the depth of the wetland/lake within Bird Refuge to allow for aquatic construction equipment and prior to bird nesting season (February 15 – August 30). The applicant submitted the subject coastal development permit application (CDP No. 4-11-043) on August 11, 2011; however, the file was not deemed complete until February 15, 2012. Due to the timing constraints limiting vegetation removal to winter months, in December 2011 the Commission approved an emergency permit (4-11-066-G) for the one-time removal of vegetation and silt to facilitate mosquito abatement and protect public safety. Therefore, the one-time removal of vegetation and silt proposed in this project application has already been performed by the applicant from January 1, 2012 to February 14, 2012.

B. PROJECT AREA AND BACKGROUND

The project site is located at the Andree Clark Bird Refuge (Bird Refuge) between the 1400-1700 blocks of East Cabrillo Boulevard in the City of Santa Barbara. The Bird Refuge is a 42-acre open space park containing a 29-acre lake, with three islands, that is an artificially modified estuary supporting brackish wetlands. The Bird Refuge was created in the 1920s, prior to the effective date of the Coastal Act, and provides passive recreation opportunities to bird watchers, hikers, and bikers through onsite trails, viewing platforms, and 15 parking spaces. It is bounded on the north by the Southern Pacific Railroad; on the west by the Santa Barbara Zoo; on the south by East Cabrillo Boulevard and the Clark Estate; and on the northeast by Los Patos Way and commercial development. Access to the Bird Refuge is from East Cabrillo Boulevard and Los Patos Way.

Historically, the Bird Refuge was a salt marsh that received fresh water from Sycamore Creek. However, construction of the railroad north of the subject site in the 1880s resulted in the rerouting of Sycamore Creek and isolation of the salt marsh. The lake, created by later damming the reservoir in 1920, now functions as an artificially modified estuary that supports palustrine wetlands. The lake is considered a brackish marsh because salinity is above 0.5 parts per thousand (ppt), most likely due to leaching of salts from the former salt marsh sediments and evaporation.

The Bird Refuge was once part of the larger Sycamore Creek Watershed (prior to the reroute of Sycamore Creek), at an elevation of approximately eight feet above sea level; however, now it receives stormwater from an 844-acre watershed comprised of predominantly urban development, but also contains a golf course, tennis courts, a portion of the Santa Barbara Zoo, and a cemetery. Runoff from the watershed, including from U.S. Highway 101, enters the lake via several open channels and storm drains to the north and east. An existing concrete-lined channel extends into the Bird Refuge approximately 130 feet south of the trestle (Exhibit 4) and provides an important input of fresh water to the lake. The channel measures 15 ft. wide by 70 ft. in length from the trestle to the footbridge and measures 10 ft. wide by 60 ft. in length from the bridge to the terminus of the channel. The lake is connected to the Pacific Ocean through a tide-gate system located adjacent to and passing under Cabrillo Boulevard. A closed weir gate in the outflow channel separates the lake from a coastal lagoon at the Pacific Ocean. The tide-gate has been kept open at times in the past, but is currently kept closed by City staff.

The Andree Clark Bird Refuge, including the 29-acre lake and its associated upland habitat areas, contains wetlands and provides habitat for sensitive species, including tidewater goby, southwestern pond turtle, and nesting birds. Native marsh vegetation at the Bird Refuge includes plants in the bulrush series (*Scirpus californiculs*; tules), cattail series (*Typha domingensis*) and bulrush-cattail series. Five acres of these aquatic vegetation types occur around the wetland perimeter of the Bird Refuge. The Bird Refuge is also comprised of native riparian and upland habitats, non-native habitat, bare areas (roads, paths) and open water (Exhibit 3). Vegetation/silt removal activities of the proposed project have the potential to impact these sensitive species. However, in order to minimize these potential impacts, vegetation removal activities are proposed to only occur during the wet season from December 1 through February 14, which is after the prime spawning season for tidewater goby and prior to the nesting bird season.

C. PAST COMMISSION ACTION

In July 2006, the Commission approved Emergency Permit No. 4-06-084-G for the one-time removal of vegetation to facilitate mosquito abatement. In December 2008, the City applied for another emergency permit (4-08-094-G) to remove vegetation from a culvert north of the Bird Refuge; however, the application was withdrawn upon determination that the culvert was within the City's jurisdiction. On August 8, 2011, the City applied for the subject permit; however, the file was not deemed complete until February 15, 2012. In December 2011, the Commission approved Emergency Permit No. 4-11-066-G for the one-time removal of vegetation and silt to facilitate mosquito abatement. Per the conditions of approval for the emergency permit, the City was given 90 days of the date of the permit to submit the items necessary to complete the subject CDP application. Thus, the subject CDP constitutes the follow-up permit action for Emergency Permit No. 4-11-066-G.

D. ENVIRONMENTALLY SENSITIVE HABITAT, WETLANDS AND STREAM ALTERATION

Section **30230** of the Coastal Act states:

> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section **30231** of the Coastal Act states that:

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges- and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial

interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section **30236** of the Coastal Act states:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section **30233** of the Coastal Act states:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(6) Restoration purposes.

(7) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing

facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where the improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.

(d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Coastal Act Section **30240** affords protection of environmentally sensitive habitat areas as follows:

(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.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Section **30107.5** of the Coastal Act, defines an environmentally sensitive area as:

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Section 30231 requires that the biological productivity and quality of coastal waters be maintained. Section 30230 requires that uses of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters for long-term commercial, recreational, scientific, and educational purposes. Section 30236 allows for alterations to streambeds when required for flood control projects where no other less damaging alternative is feasible and when necessary to protect public safety or existing development. Section 30233 of the Coastal Act states that diking, filling, and dredging of coastal waters and wetlands may be permitted for restoration purposes. Section 30233 also mandates that dredging and disposal operations shall be carried-out to avoid disruption of marine and wildlife habitats. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas shall be protected and that development within or adjacent to such areas must be designed to prevent impacts which could degrade those resources.

The proposed vegetation removal and habitat enhancement activities will occur within the Andree Clark Bird Refuge, a 42-acre open space park containing a 29-acre lake, with three islands, that is an artificially modified estuary supporting brackish wetland. The Bird Refuge lake is an environmentally sensitive habitat area and consists of riparian and wetland habitat. Furthermore, the Bird Refuge provides habitat for endangered and rare species include tidewater goby, a federally endangered and a California Species of Concern; southwestern pond turtle, a California Species of Concern; and several bird species protected by the Migratory Bird Treaty Act.

Historically, the Bird Refuge was a salt marsh that received fresh water from Sycamore Creek. However, construction of the railroad north of the subject site in the 1880s resulted in the reroute of Sycamore Creek and isolation of the salt marsh. In 1920, the area was dammed to create a permanent reservoir. The lake is now an artificially modified estuary that supports palustrine wetlands. The lake is considered a brackish marsh because salinity is above 0.5 parts per thousand (ppt), most likely due to leaching of salts from the former salt marsh sediments and evaporation.

According to Cardno Entrix's Biological Evaluation conducted in July 2011, the physical conditions and health of the Bird Refuge may be characterized by the following:

> Aquatic habitat within the Bird Refuge lake is characterized by shallow open water with a bottom substrate almost uniformly composed of silty, anoxic, mud. Normal depth of the lake was measured at 3 to 4 feet and evaporation rate was reported at 3 feet per year (Penfield & Smith 1985). Salinity varies from 0.8 to 8.0 parts per thousand (ppt) according to recent 2008 to 2011 monitoring and sampling by the City (City of Santa Barbara, Creek Division 2011). Historically salinity varied from 3.5 to 7.5 ppt and is considered brackish water because freshwater is less than 0.5 ppt (Penfield & Smith 1985). The temperature of the lake can vary from 10 to 28 degrees Celsius. The top sediment layer (2 to 5 feet) is organic silt and clay. The middle sediment layer (2 to 8 feet) is elastic clay with interbeds of sand, and the bottom layer (to 14 feet) is silty sand to poorly graded gravel (Penfield & Smith 1985).
>
> The lake is hypertrophic due to excess organic material (nutrients). High levels of anaerobic bacteria produce hydrogen sulfide. Methane gas is also produced. Problems include floating algal mats, flies, mosquitoes, and dead fish. Salt water intrudes into the lake at times during high tides. Nutrients of concern are ammonia and phosphates (Penfield & Smith 1985).

The Bird Refuge was previously located within the larger Sycamore Creek Watershed, at an elevation of approximately eight feet above sea level; however, since the reroute of Sycamore Creek in the 1880s it has received stormwater from a separate 844-acre watershed comprised of predominantly urban development. Runoff from the watershed, including from U.S. Highway 101, enters the lake via several open channels and storm drains to the north and east. The lake is connected to the Pacific Ocean through a tidegate system located adjacent to and passing under Cabrillo Boulevard. A closed weir gate in the outflow channel separates the lake from a coastal lagoon at the Pacific Ocean. The tidegate has been kept open at times in the past, but is currently kept closed by City staff.

The Andree Clark Bird Refuge constitutes wetlands and provides habitat for sensitive species, including tidewater goby, southwestern pond turtle, and nesting birds. Dense stands (or five acres) of California bulrush (*Scirpus californicus*) and cattails (*Typha* sp.) are present along the majority of the shoreline. Three islands are present within the lake and are heavily overgrown with non-native *Myoporum* sp. with a border of cattails and bulrushes. The western island has dense emergent vegetation between it and the northern shore. Of the vegetation present along the shoreline and on the islands in 2010, approximately 28% was cattails and bulrushes, 12% was native upland brush, 15% was *Myoporum*, 23% was other non-native species, 5% was other native species, and 9% was bare ground.

The proposed project is for the implementation of an annual desilting and vegetation management and enhancement program for portions of the Andree Clark Bird Refuge for a period of five years for the purpose of flood control, mosquito abatement, and habitat restoration. The program will involve the one-time initial removal of vegetation and 330 cu. yds. of sediment from a concrete channel that extends into the Bird Refuge; initial removal of 0.89 acres of marsh vegetation; annual maintenance of initial vegetation/sediment removal; 0.89 acres of wetland habitat enhancement involving removal of non-native and invasive vegetation and planting native wetland plant species; and ongoing removal of floating vegetation that has become dislodged from its root system. The applicant has already completed the initial work in February 2012, including the one-time removal of 330 cu. yds. of sediment and vegetation from the channel and the one-time removal of 0.89 acres of marsh vegetation, authorized by Emergency Permit No. 4-11-066-G in order to allow for critical flood control and mosquito abatement.

Only one element of the project, dredging/desilting of the concrete-lined channel that drains into the northern portion of the Bird Refuge, constitutes stream alteration. According to the Flood Control Analysis submitted by the City, nearly two feet of capacity in the channel has been lost due to sedimentation. The City has submitted an engineering analysis from the Santa Barbara County Flood Control Department which states that the proposed desilting is necessary in order to restore the flow capacity of the concrete channel and prevent flooding of the adjacent Union Pacific Railroad tracks, nearby residential development north of the of the highway, and U.S. Highway 101 itself. The Commission finds that alteration of streambeds is consistent with Section 30236 of the Coastal Act when required for flood control projects and when necessary to protect public safety or existing development. In this case, desilting within the subject concrete channelized stream channel is necessary for flood control purposes and is consistent with Section 30236 of the Coastal Act.

Although excavation of accumulated sediment will occur within the concrete-lined channel, no excavation or desiliting is proposed within the lake itself. Thus, the alteration of streambeds, as proposed, is consistent with Section 30236 of the Coastal Act when required for flood control projects and when necessary to protect public safety or existing development. However, the Commission further notes that Section 30236 also requires that such projects shall incorporate the best mitigation measures feasible. In addition, Section 30240 of the Coastal Act requires that all development within environmentally sensitive habitat areas be carried out in a manner designed to minimize or prevent potential adverse affects to those resources. As such, the Commission notes that flood control activities on the subject site should be carried out in the least environmentally damaging manner.

In addition to the proposed desilting operation in the concrete-lined inlet channel, the proposed project also includes annual maintenance activities including periodic removal of emergent marsh vegetation within the 0.89 acres of the lake, primarily located at the outlet of the concrete-lined channel and adjacent to several of the public viewing platforms. The proposed vegetation removal activities are necessary in order to maintain adequate water circulation within the lake, prevent excessive sedimentation from occurring at the outlet concrete channel due to vegetation blockage, and allow for critical mosquito abatement operations for the purpose of public health and safety. However, the removal of emergent marsh vegetation in these areas has the potential to result in adverse effects to sensitive species, including tidewater goby, southwestern pond turtle, and nesting birds, due to disturbance to existing riparian habitat and wetland areas on site. The proposed vegetation removal within the lake, which will occur each winter on an as-needed basis, consists of the operation of an aquatic reed cutter, aquatic harvester, backhoe and/or track hoe, and haul trucks (Exhibit 6). The aquatic reed cutter requires at least 20-30 inches of water depth in order to operate. Blades on the front of the aquatic reed cutter cut and shred vegetation in sections above and below the water, including the roots and rhizomes. As vegetation is removed by the aquatic reed cutter, a channel is created for equipment access and the aquatic plant harvester collects the vegetation debris and transports it to shore. The project would disturb 21% of the marsh vegetation and approximately 4% of the open water.

Surveys performed by Cardno Entrix in April 2011 identified a variety of wildlife that is present within the Bird Refuge. Herpetological surveys conducted in April 2011 observed numerous red-eared sliders (*Trachemys scrpta elegans*), a non-native turtle, as well as a few southwestern pond turtles (*Emys marmorata pallida*). The turtles use the limits of the lake and islands, including mats of tules with the stems parallel to the water surface. The non-native shelled turtle (*Apalone* sp.) and snapping turtle (*Chelydra serpentina*) are also present. Other wildlife observed at the Bird Refuge include raccoon (*Procyon lotor*), brush rabbit (*Sylvilagus bachmani*), deer mice (*Peromyscus maniculatus*), treefrog (*Pseudacris regilla*), western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and bullfrog (*Rana catesbeiana*).

According to Cardno Entrix's Biological Evaluation, habitat for southwestern pond turtles in the Bird Refuge appears to be adequate to at least support foraging and basking. The species could use open water habitat as well as emergent vegetation habitat. Although southwestern pond turtles use emergent vegetation, they are not likely to use the aquatic vegetation proposed for removal, as it is too dense to maneuver, and therefore, the likelihood of turtles being present within the vegetation is minimal. Furthermore, turtles will move out of the area if disturbance occurs in close proximity. Moreover, the desilting operations within the concrete-lined channel that enters the Bird Refuge could also potentially impact southwestern pond turtles, if they are present. Therefore, in order to avoid any potential impacts to turtles, **Special Condition No. Five (5)** requires a preconstruction survey for southwestern pond turtles no more than seven (7) days prior to vegetation/sediment removal. If turtles are present, the qualified biologist or environmental resources specialist shall conduct a rescue and relocation in order to clear the maintenance areas. Implementation of this special condition would minimize the potential for effects on this species.

As indicated by Cardno Entrix's Biological Assessment, tidewater gobies are also present and were first reported in the Bird Refuge outflow lagoon on the beach side of Cabrillo Boulevard

(separated from the lake by a closed weir) in 1993 and 1995. A survey for tidewater goby was performed on April 5, 2011, which confirmed that tidewater gobies are present in the Bird Refuge lake:

> The survey consisted of six seine hauls covering approximately 500 sq. ft., resulting in the capture of a single, large adult tidewater goby on the sixth haul under Section 10(a)(1)(A) permit TE815144-7 for incidental take of the tidewater goby. These hauls were taken near the Bird Refuge parking area, on Los Patos Way, at the northeast end of the lake where a small beach and vegetation-free area existed. For the purpose of the USFWS Tidewater Goby Survey Protocol, the presence of one individual tidewater goby resulting from surveys constitutes evidence of an extant population. Thus, the survey was discontinued after the capture of a confirmed tidewater goby.

The population size and distribution of individual tidewater gobies in the lake is unknown, including whether the population persists over time or whether they only occur in the lake periodically, possibly entering from the lagoon during limited periods through the tidegate connection. According to the revised Cardno Entrix Biological Assessment, habitat for tidewater gobies in the Bird Refuge lake appears to be adequate enough to support foraging and possibly breeding, although the lake does not provide optimal breeding habitat. Adults and juveniles could use benthic open water habitat as well as emergent vegetation habitat.

Tidewater goby may use aquatic vegetation as refuge and could potentially be injured by vegetation cutting and removal, if present in the work locations. While vibrations and noise underwater plus turbidity from the aquatic construction equipment would tend to disperse fish, including tidewater gobies, out of the work area; the Commission imposes **Special Condition No. Two (2)** to avoid any adverse impacts to gobies associated with vegetation removal. Special Condition No. Two (2) requires that water-based vegetation removal activities, with the exception of removal of floating vegetation, be limited to February 15 through November 29, to avoid prime breeding season of tidewater goby. Water-based vegetation removal will occur during winter months when tidewater goby population in the lake is likely to be small. In addition, **Special Condition No. Five (5)** requires a preconstruction survey for tidewater gobies prior to the commencement of vegetation/sediment removal activities. If gobies are present, the qualified biologist or environmental resources specialist shall conduct a rescue and relocation in order to clear the maintenance areas. Implementation of this special condition would minimize the potential for effects on this species.

The City has submitted biological surveys of sensitive bird nesting, foraging, and habitat within the refuge performed by Cardno Entrix in 2008-2009 which found that 47 species of birds were observed within the refuge, of which 17 of these species exhibited some form of breeding behavior. The City has indicated that, in addition to flood control, a primary purpose of the proposed removal of the emergent marsh vegetation is to maintain the integrity of the northwestern most island within the lake, which provides important bird nesting habitat. In recent years, the excessive buildup of marsh vegetation between the northwest island and the lake's northern edge has resulted in a vegetative "bridge" that may be used by terrestrial predators to prey on birds nesting on the island. Thus, the removal of the excess emergent marsh vegetation in this area is necessary to prevent opportunistic predation of nesting birds from occurring.

However, although the vegetation removal activities are necessary, in part, to protect nesting habitat on the island, the removal operations and periodic maintenance may also result in unintentional adverse impacts to sensitive bird species if they are located within the vegetation removal area when such work occurs. The most likely species that might be found foraging in or near the emergent vegetation to be removed by maintenance activities include: pied-billed grebe, great blue heron, black-crowned night heron, green heron, mallard, ruddy duck, American coot, marsh wren, common yellowthroat, song sparrow, red-winged blackbird, and brown-headed cowbird. The potential start of nesting for these species varies from February 15 to April 30 and can extend through August. However, song sparrows, owls, and raptors nest later in the year. The latter two types of birds were not observed nesting at the Refuge during 2008-2009 surveys and are unlikely to be affected. In addition to the aforementioned bird species, several others may nest in upland vegetation adjacent to the emergent vegetation proposed to be removed.

Therefore, due to the fact that all areas of the site, including the emergent marsh area where vegetation will be removed, as well as the inlet channel where desilting is proposed, have the potential to provide habitat for sensitive bird species, it is necessary to ensure that nesting/foraging bird species are protected during construction activities. In this case, in order to minimize potential adverse impacts to bird species, the City is proposing to implement all vegetation removal and desilting operations between September 1st and February 14th each year in order to avoid bird nesting season. Furthermore, the City shall implement a bird nesting survey prior to the removal of any trees or vegetation on site during the nesting season (if authorized by the Executive Director for good cause) for sensitive birds. Therefore, in order to ensure that the applicant's proposal to restrict the timing of operations to the non-nesting season is adequately implemented to avoid impacts to avian species at the Bird Refuge, **Special Condition No. Two (2)** prohibits both water-based and land-based vegetation removal activities, as well as excavation within the concrete-channel, and with the exception of removal of floating vegetation, during the nesting season (February 15 through August 30).

In addition, to ensure that no breeding activity is present in the project vicinity, **Special Condition No. Five (5)**, Sensitive Species Surveys and Construction Monitoring, requires that a survey by a qualified environmental resources specialist be conducted for sensitive species prior to the commencement of any project activities and that a biological monitor or be present during all vegetation removal activities.

Additionally, the biological monitor or environmental resources specialist shall have the responsibility and authority to require the applicant to cease work should any breach in the scope of work occur, or if any unforeseen sensitive habitat issues arise. The environmental resources specialist shall immediately notify the Executive Director if activities outside of the scope of Coastal Development Permit No. 4-11-043 occur. If significant impacts or damage occur to sensitive habitats or to wildlife species, the applicant shall be required to submit a revised or supplemental program to adequately mitigate such impacts.

The primary purpose of the proposed removal of the emergent marsh vegetation in Area C is for habitat restoration to maintain the integrity of bird nesting habitat on the northwestern most bird island while also increasing water circulation within the lake in order to maintain and enhance biological productivity and habitat value within the refuge. Section 30240 of the Coastal Act provides that environmentally sensitive habitat areas (ESHA), such as the wetland areas on the subject site, shall be protected against any significant disruption of habitat values, and only uses

dependent on those resources shall be allowed within those areas. In this case, the proposed restoration activities, including vegetation removal and habitat enhancement and replanting, are considered resource dependent and, thus, consistent with the types of uses that may be allowed within ESHA.

Regardless, the removal of 0.89 acres of emergent marsh vegetation will still result in the unavoidable loss of wetland vegetation within the lake. As proposed, in order to mitigate this loss, the project includes a habitat enhancement element that includes restoration of wetland habitat at a ratio of 1:1 (approximately 0.89 acres of wetland habitat) for all wetland areas that will be disturbed as a result of this project. As originally proposed, the restoration plan involved the planting of additional emergent marsh vegetation primarily along the southern bank of the lake. However, Commission's Staff Biologist, Dr. Jonna Engel, has reviewed the proposed restoration plan and determined that the new emergent vegetation plantings would primarily occur in areas where adequate coverage of emergent marsh vegetation is already present. At the request of Commission staff, the applicant has agreed to revise its Habitat Restoration and Revegetation Program to maximize the removal of invasive and non-native plant species within existing disturbed wetland areas and revegetate with appropriate native wetland species to achieve the 0.89 acres of restoration. The purpose of focusing habitat enhancement activities on the removal of non-native and invasive plant species within existing disturbed wetland areas and revegetation of those areas with new wetland/riparian plantings is to maximize the benefit to wetland habitat areas on site, while minimizing the potential to further exacerbate the flooding and mosquito problems at the Bird Refuge. Accordingly, the applicant has agreed to revise the originally proposed program to reduce the amount of emergent marsh plantings proposed in areas where adequate marsh vegetation habitat already exists. Therefore, in order to ensure that the wetland habitat restoration and enhancement is successfully implemented on site, **Special Condition No. Seven (7)** requires the applicant to submit a final Habitat Restoration and Revegetation Program Plan, subject to the review and approval of the Executive Director, that incorporates increased removal of invasive and non-native plant species.

In addition, wetland and riparian habitats within the Bird Refuge may be subject to potential adverse impacts as a result of the implementation of project activities by unintentionally introducing sediment, debris, or chemicals with hazardous properties. Therefore, in order to ensure that construction material, debris, or other waste associated with project activities does not enter the water, **Special Condition No. Two (2)** prohibits permanent stockpiling of material. Additionally, construction materials, debris, or waste shall be located as far from the lake on the designated site as feasible and in no event shall materials be stockpiled less than 30 ft. in distance from the top edge of lake, or where it may be subject to erosion and/or dispersion. Moreover, **Special Condition No. Six (6)**, requires that the applicant provide evidence to the Executive Director of the location of the disposal site for all excess excavated material from the site. If the disposal site is located in the Coastal Zone, the disposal site must have a valid coastal development permit for the disposal of fill material.

The proposed project will require other regulatory approvals such as the U.S. Army Corps of Engineers, California Regional Water Quality Control Board, California Department of Fish and game, and the U.S. Fish and Wildlife Service. The applicant has applied for permits from these agencies. **Special Condition No. Four (4**) requires the applicant to provide all necessary state and federal permits and/or approvals for all aspects of the proposed project, or evidence that no authorization is required, for the review and approval of the Executive Director.

To ensure that the proposed desilting and vegetation management and enhancement program adequately protects sensitive species, it is necessary to limit the term of the permit to five (5) years and to monitor the effectiveness of the program, prior to the issuance of a new coastal development permit or amendment to the underlying permit. Therefore, **Special Condition No. (1)** provides that all authorizations granted pursuant to CDP 4-11-043 shall cease five years from the date of Commission action. Any dredging/desilting, vegetation removal, maintenance of vegetation removal, or other project activities after the expiration of this permit will require the issuance of a new coastal development permit or amendment to the underlying permit.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30230, 30231, 30236, 30233, and 30240 of the Coastal Act.

E. HAZARDS

Section **30253** of the Coastal Act states in part that 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.

Section 30253 of the Coastal Act mandates that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. The purpose of the proposed desilting program is to maintain the floodwater carrying capacity in the existing concrete-lined channel extending into the Andree Clark Bird Refuge to reduce the likelihood of flood damage to adjacent areas. In general, the lake within the Bird Refuge is extremely shallow (3-4 feet deep). In addition, the presence of dense stands of marsh vegetation and the relatively shallow depth of the lake both contribute to decreased water circulation and increased rates of sediment deposition. The proposed annual removal of vegetation and sediment in the channel by backhoe or bucket will prevent channel obstructions.

The proposed project includes desilting/dredging activities to be implemented on an as-necessary basis. The applicant has indicated that excavation/dredging is currently necessary with 330 cu. yds. of material to be removed. Desilting/dredging activities involve the use of a backhoe or bucket that is operated from the adjacent upland area. All dredged material will be stockpiled in designated areas temporarily. Stockpiles will be set back a minimum of 30 ft. from the top edge of the lake pursuant to **Special Condition No. Two (2)**.

The sediment will be hauled to a suitable disposal site as provided for by **Special Condition. No. Six (6)**. Staff notes that a suitable dump site is one that has all the necessary federal, state, and local approvals to receive such material. Therefore, Special Condition No. Six (6) requires that prior to disposal of excess excavated material, the applicant shall provide evidence to the

Executive Director of the location and method of disposal to an approved disposal location either outside the coastal zone or to a site within the coastal zone permitted to receive such fill.

As stated above, all dredged material will be temporarily stockpiled in designated areas, approximately 30 to 100 ft. in distance from the top of the lake. However, the Commission notes that excavated materials that are placed in stockpiles are subject to increased erosion and potential adverse effects to adjacent wetland areas from resedimentation and increased turbidity. The Commission also notes that additional landform alteration would result if the excavated material were to be retained on site. Therefore, in order to ensure that dredged material will not be permanently stockpiled on site and that erosion and resedimentation of the streams on site are minimized during any temporary stockpiling activities, Special Condition No. Two (2) also requires that any stockpiled materials shall be located as far from wetland areas on site as feasible and in no event shall materials be stockpiled less than 30 ft. in distance from the top edge of the lake. Temporary erosion control measures (such as sand bag barriers, silt fencing; swales, etc.) shall be implemented in the event that temporary stockpiling of material is required. These temporary erosion control measures shall be monitored and maintained until all stockpiled fill has been removed from the project site. Permanent stockpiling of material on site shall not be allowed.

In addition, the Commission notes, based on the information submitted by the applicant, that the proposed development is located in an area of the Coastal Zone which has been identified as subject to potential hazards from flooding and erosion. The applicant has indicated that the areas surrounding the Bird Refuge have previously been subject to damage as the result of seasonal flood events during the winter storm season. As such, the Commission notes that evidence exists that the project site is subject to potential risks due to erosion and flooding.

The Commission further notes that although the proposed development is intended as a flood control project and will serve to reduce the potential for flooding of the developed areas immediately upland of the project site, there remains some inherent risk to any flood control projects. The Coastal Act recognizes that certain types of development, such as the proposed project, may involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to determine who should assume the risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his/her property. As such, the Commission finds that due to the unforeseen possibility of erosion and flooding, the applicant shall assume these risks as a condition of approval. Therefore, **Special Condition No. Three (3)** requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's assumption of risk will show that the applicant is aware of and appreciates the nature of the hazards which exist on the site, and which may adversely affect the stability or safety of the proposed development.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30253.

F. PUBLIC ACCESS/RECREATION AND VISUAL RESOURCES

Coastal Act Section **30210** states that:

> 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.

Coastal Act Section **30211** states:

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

Coastal Act Section **30220** states:

> Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

In addition, Section **30251** of the Coastal Act states that:

> 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 subordinated to the character of its setting.

Coastal Act Section 30210 and Coastal Act Section 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Section 30220 of the Coastal Act protects coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas for such uses. In addition, Coastal Act Section 30251 requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored.

The proposed project will be located adjacent to and within public recreational areas including the Andree Clark Bird Refuge and East Beach. A public parking lot, viewing platforms, and a bicycle/pedestrian trail are located within the refuge and adjacent to the lake, where project activities will occur. The proposed project activities will result in temporary disruption of the public's ability to use the parking lot, viewing platforms, and bicycle/pedestrian trail on site. The Bird Refuge parking lot will be closed to the public during vegetation preparation and removal activities to ensure public safety; however alternative parking will be available along Los Patos Way and on East Cabrillo Boulevard, near the East Beach volleyball courts. The northern shore and associated bicycle/pedestrian trail will have limited access during construction. It is anticipated that the trail would be closed daily during construction, but would be available outside of posted construction hours. Access to approximately 1,900 linear feet of the northern shore and trail would be limited during construction; however, access to over 3,000

linear feet of the eastern and southern perimeter would remain open. Disruptions to public access would be minor and temporary in nature.

The Bird Refuge is a scenic resource with views to and from scenic highways, including Highway 101 and East Cabrillo Boulevard. However, the majority of proposed vegetation removal will occur between the western island and the northern shore (Area C) which would be blocked from public views from East Cabrillo Boulevard and East Beach by the western island. Furthermore, less than 1/3 of an acre would be removed from the remainder of the 29-acre Bird Refuge lake and culvert. The public view of the Bird Refuge from Highway 101 is brief and the change in view due to the proposed vegetation removal will be minimal. Additionally, pursuant to **Special Condition No. Seven (7)**, the applicant is required to submit a Final Habitat Restoration and Revegetation Program, for the review and approval of the Executive Director, that identifies the species, extent, and location of all plant materials to be planted. This habitat enhancement, including revegetation with appropriate native species in existing vegetated areas, will minimize adverse effects to the scenic Bird Refuge. Thus, there will be no significant impacts to visual resources

The Commission notes that excavated materials that are placed in stockpiles are subject to increased erosion and that additional landform alteration would result if the excavated material were to be permanently retained on site. The resulting landform alteration and increased erosion on site would adversely impact public views along the Andree Clark Bird Refuge. Therefore, in order to ensure that the adverse impacts to public views are minimized **Special Condition No. Two (2)**, Timing, Operations, and Maintenance Responsibilities, requires that stockpile sites be temporary. In addition, stockpiled materials shall be located as far from the lake or wetland areas on site as feasible and in no event shall materials be stockpiled less than 30 ft. in distance from the top edge of the lake. Temporary erosion control measures and BMPs shall be implemented in the event that temporary stockpiling of material is required. These temporary erosion control measures shall be monitored and maintained until all stockpiled material has been removed from the project site. Permanent stockpiling of material on site shall not be allowed. Pursuant to **Special Condition No. Six (6)**, the applicant shall provide evidence to the Executive Director of the location of the permanent disposal site for all excavated material prior to removal of the material from the project site. Should the dump site be located in the Coastal Zone, a coastal development permit shall be required.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30210, 30211, and 30251 of the Coastal Act.

G. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application 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 that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, the proposed project, as conditioned, is consistent with the policies of the Coastal Act. Feasible mitigation measures which will minimize all adverse environmental impacts have been required as special conditions. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX 1

Substantive File Documents

U.S. Fish and Wildlife Service, Biological Opinion, dated 12/15/11; City of Santa Barbara Planning Commission, Staff Report, dated 11/3/11; City of Santa Barbara Final Mitigated Negative Declaration No. MST2011-00315, dated 10/27/11; Notice of Intent to Adopt Draft Mitigated Negative Declaration No. MST2011-00315, dated 8/29/11; Biological Assessment, prepared by Cardno Entrix, dated July 2011; Biological Assessment, prepared by Cardno Entrix, revised October 2011; Biological Evaluation, prepared by Cardno Entrix, dated July 2011; *Bacillus thuringiensis* subspecies *israelensis* strain EG2215 Fact Sheet, prepared by the U.S. Environmental Protection Agency, dated October 1998; Fish and Wildlife Related Impacts of Pesticides Used for the Control of Mosquitoes and Blackflies, prepared by Eric A. Paul and Timothy J. Sinnot, dated 10/30/00; Andree Clark Bird Refuge Flood Control Analysis prepared by Brian D'Amour, dated 2/8/12

APPENDIX 2

Standard Conditions

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

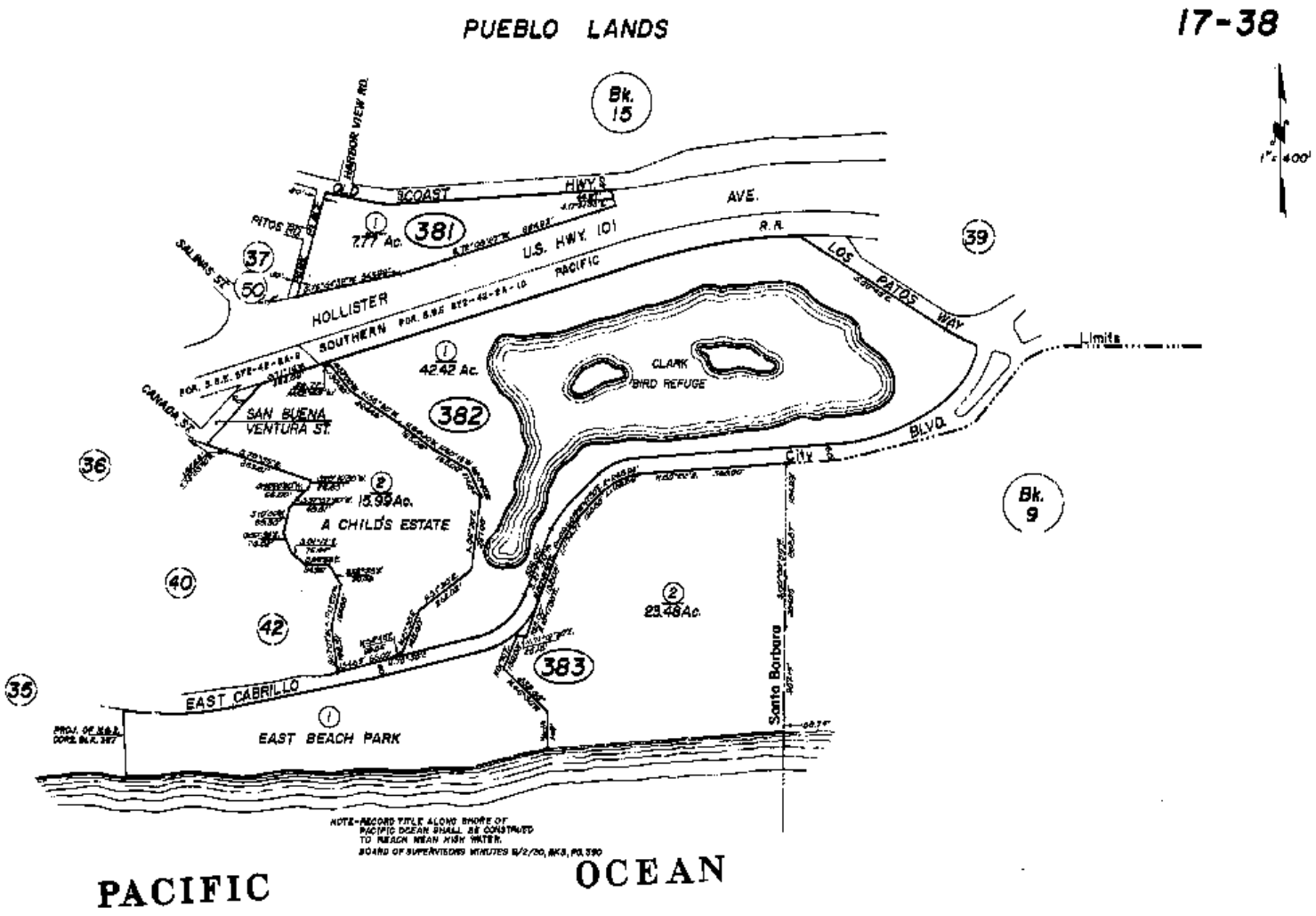
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior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

3. Interpretation. Any questions of intent 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.

EXHIBIT 1
CDP 4-11-043
Vicinity Map



Assessor's Map Bk.17 - Pg.38
County of Santa Barbara, Calif.

EXHIBIT 2
CDP 4-11-043
Parcel Map

EXHIBIT 3
CDP 4-11-043
Aerial Photo

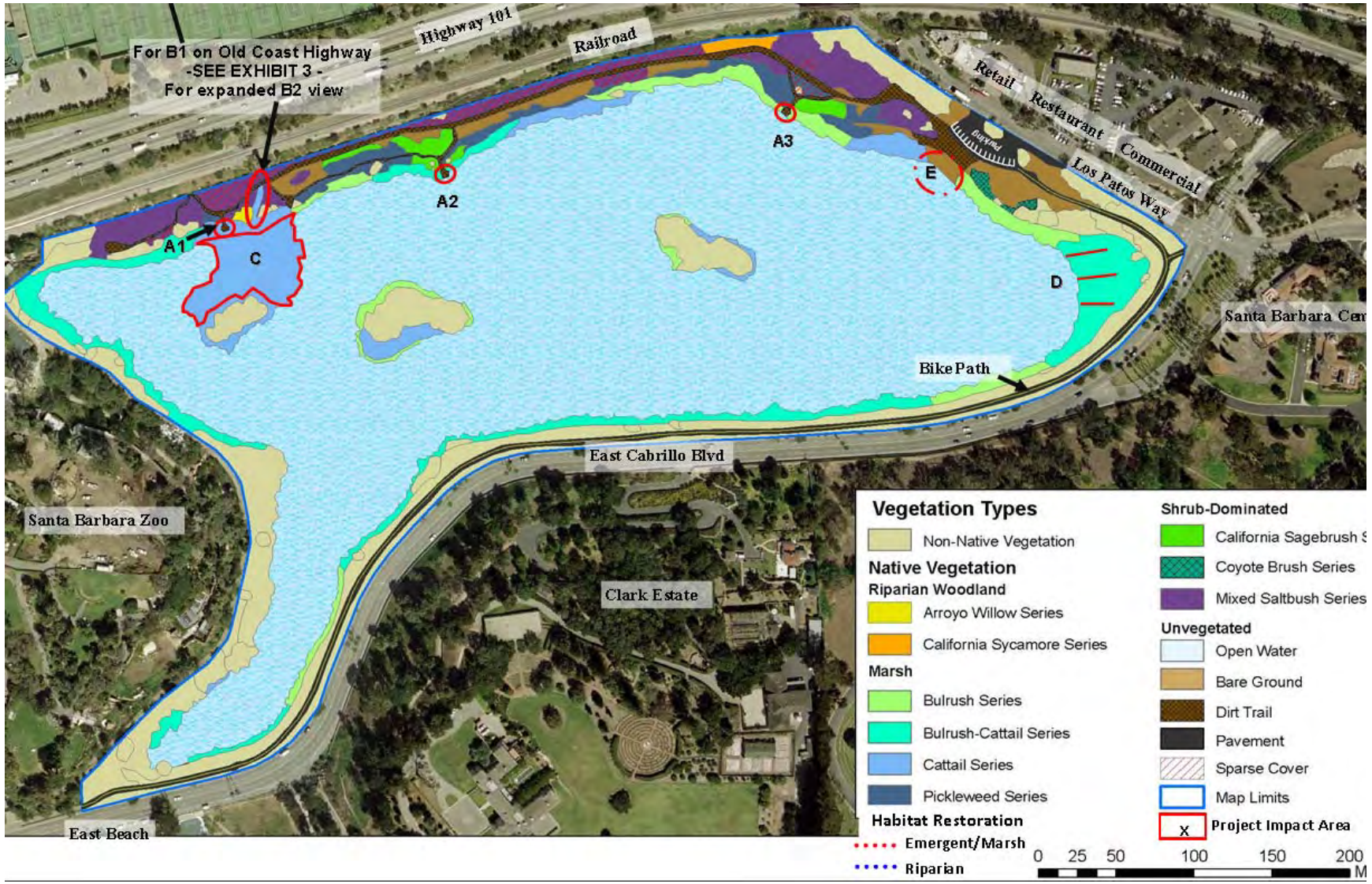


EXHIBIT 4
CDP 4-11-043
Aerial Site Plan

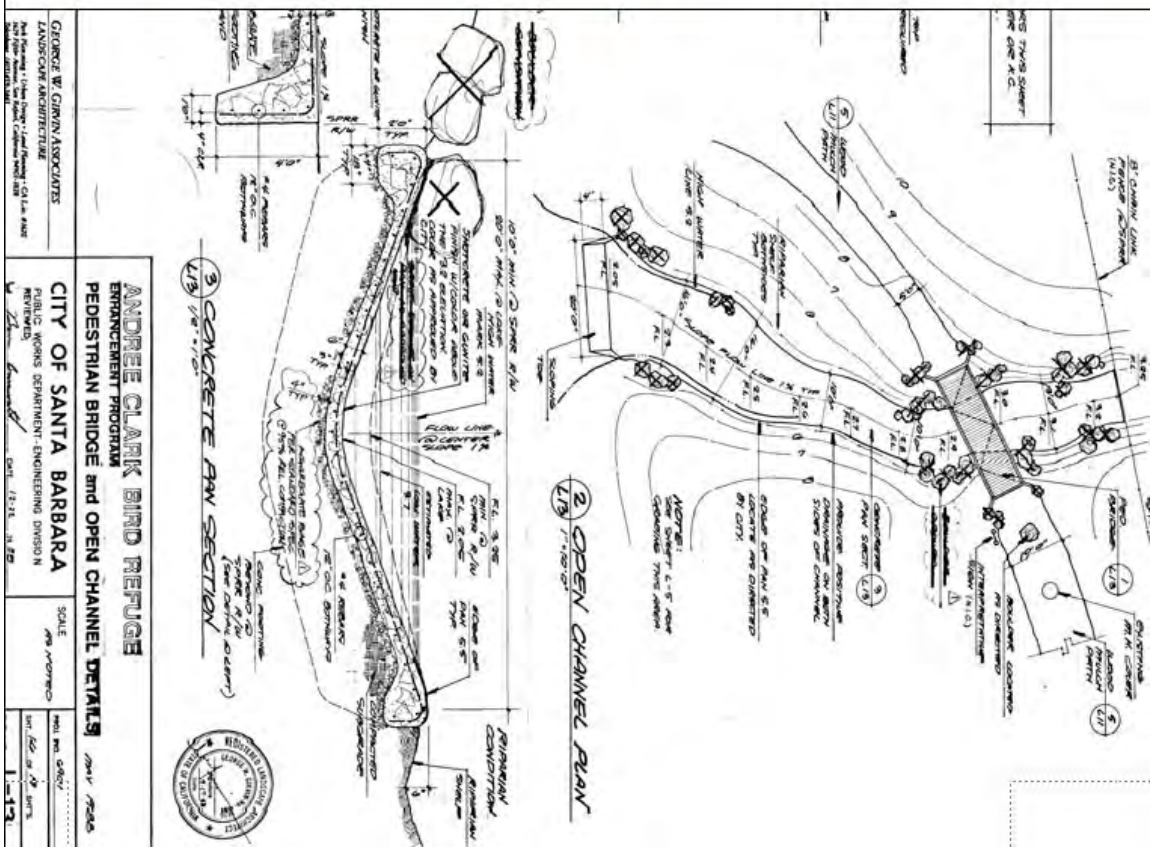
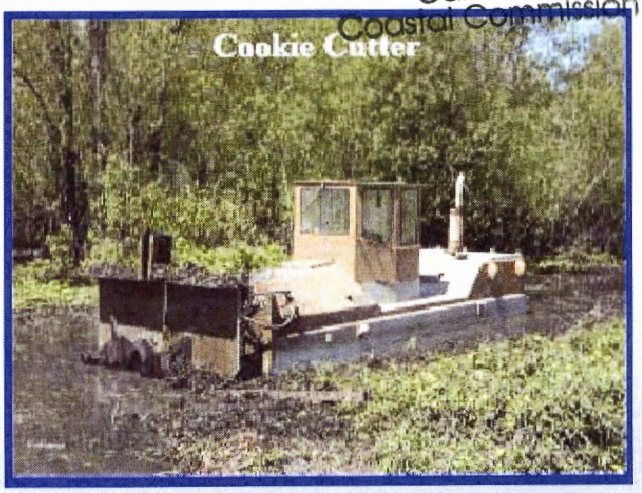


EXHIBIT 5
CDP 4-11-043
Concrete Channel

Clean Lakes, Inc. (CLI) has a complete line of mechanical equipment for emergent, submerged, and floating aquatic vegetation control to meet your wetland or marsh restoration objectives. The Cookie Cutter is designed to cut channels through dense vegetation to open areas for water flow, waterfowl access, for general restoration requirements, and to reduce floating biomass densities prior to removal or treatment.



The Aquatic Plant Harvesters are designed to harvest floating and submerged vegetation to a depth of five (5) foot below the waterline. CLI has a complete line of auxiliary equipment for transport and disposal of removed vegetation.

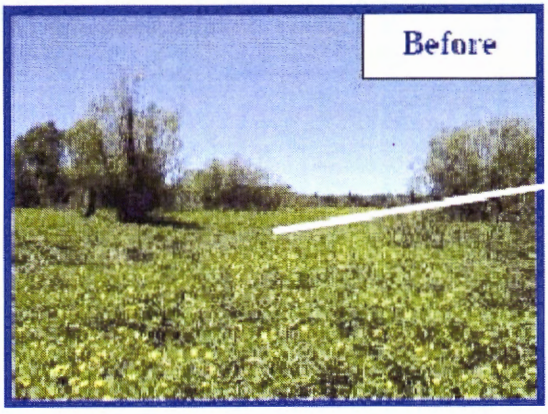


Exhibit 6. Photographs of Aquatic Construction Equipment

EXHIBIT 6
CDP 4-11-043
Aquatic Construction

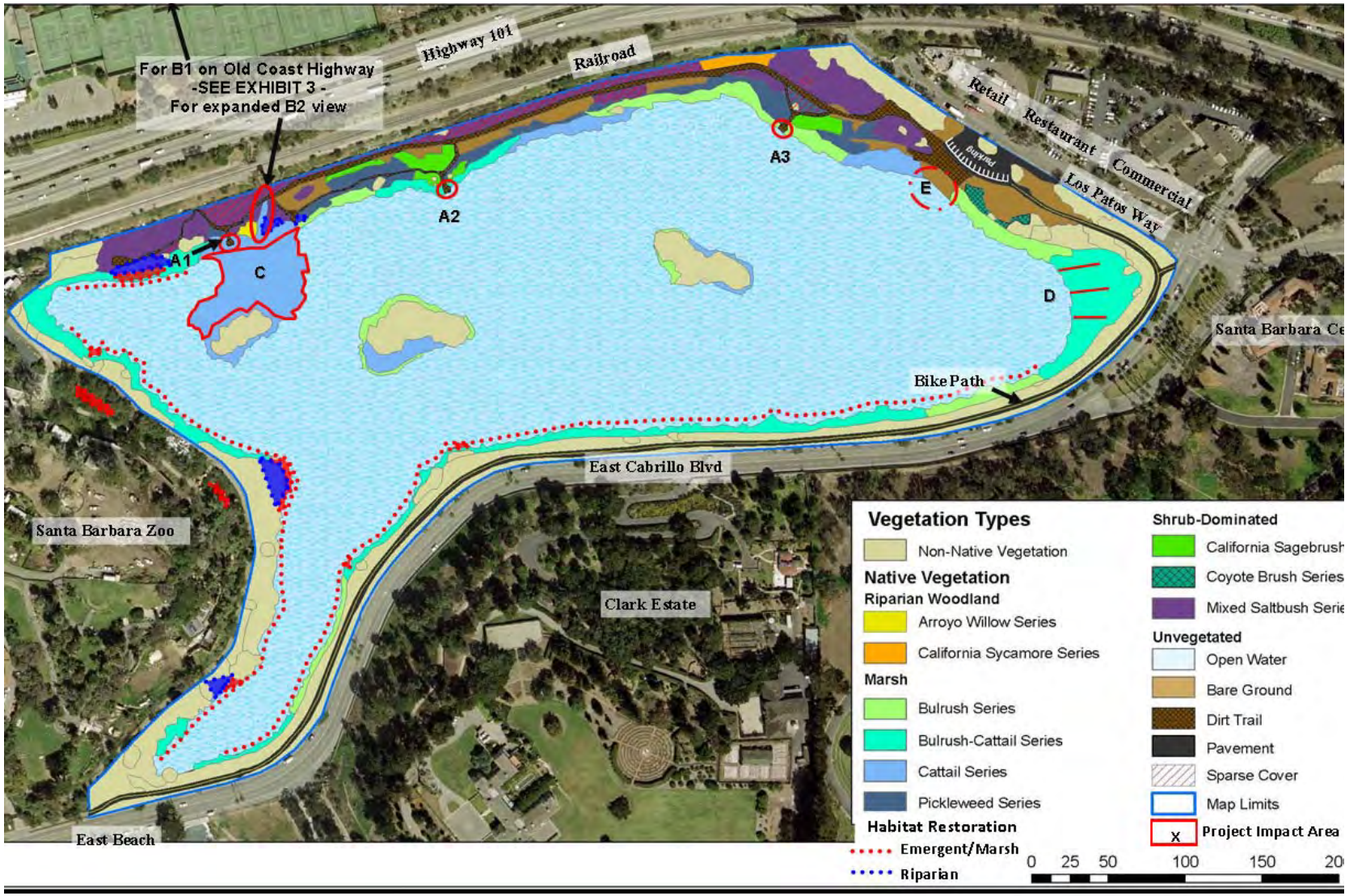


EXHIBIT 7
CDP 4-11-043
Draft Restoration

Concrete Open Channel (B2) and Discharge Point North of Island (Area C)
1999 Aerial Photograph

e: Channel is open and free of vegetation
Sedimentation has occurred in lake at discharge point, but there is some open water between island and north shore

EXHIBIT 8
CDP 4-11-043
Historic Aerial

Concrete Open Channel (B2) and Discharge Point North of Island (Area C)
2004 Aerial Photograph

te: Vegetation beginning to overtake channel
Sedimentation has connected island with the north shore
Faint channel can be observed within 'delta'

EXHIBIT 8
CDP 4-11-043
Historic Aerial

Concrete Open Channel (B2) and Discharge Point North of Island (Area C)
2008 Aerial Photograph

e: Channel and discharge area completely overtaken by vegetation
Barely discernable channel for stormwater

EXHIBIT 8
CDP 4-11-043
Historic Aerial