

**CALIFORNIA COASTAL COMMISSION**

SOUTH CENTRAL COAST AREA  
89 SOUTH CALIFORNIA ST., SUITE 200  
VENTURA, CA 93001  
(805) 641 - 0142

Filed: 11/9/05  
49<sup>th</sup> Day: 12/28/05  
180<sup>th</sup> Day: 5/8/06  
270<sup>th</sup> Day: 8/6/06  
Staff: Melissa Hetrick *MH*  
Staff Report: 3/29/06  
Hearing Date: 7/13/05



# Th 13a

## STAFF REPORT: AMENDMENT

**APPLICATION NO:** 4-03-109-A1

**APPLICANT:** City of Santa Barbara Airport

**PROJECT LOCATION:** Goleta Slough, City of Santa Barbara, Santa Barbara County.

**DESCRIPTION OF PROJECT PREVIOUSLY APPROVED:** Implementation of the Goleta Slough Tidal Restoration Experiment component of the Airfield Safety Projects including excavation of two small tidal basins from larger non-tidal basins and installation of culvert connections to tidal channels in the Goleta Slough south of the Airport. Each experimental basin will be located near a non-tidal "control basin" to allow a comparison of environmental changes, including bird activity, due to tidal circulation.

**DESCRIPTION OF AMENDMENT:** Revise the scope of the Goleta Slough Tidal Restoration Experiment so that both a full tidal and partial tidal regime are constructed in a single basin area (Basins E/F) and the previous proposal to construct a second basin area (Basins L/M) is deleted.

**LOCAL APPROVALS RECEIVED:** Determination of Substantial Conformance for Modified Tidal Circulation Demonstration Project at Santa Barbara Airport (CDP 2003-0021) and Recommendation to Commission from City of Santa Barbara Community Development Department, July 27, 2005.

### SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval of the amendment, as proposed, to revise the scope of the previously approved Goleta Slough Tidal Restoration Experiment so that both a full tidal and partial tidal regime are constructed in a single basin area (Basins E/F) and delete previous proposal to construct a second basin area (Basins L/M). In this case, the proposed changes to the originally approved experimental restoration project will not lessen intent or effectiveness of the wetland restoration study. The standard of review for the proposed amendment application is the Chapter Three policies of the Coastal Act. As conditioned, the proposed project as amended is consistent with all applicable Chapter Three policies of the Coastal Act.

**PROCEDURAL NOTE:** The Commission's regulations provide for referral of permit amendment requests to the Commission if:

- 1) *The Executive Director determines that the proposed amendment is a material change,*
- 2) *Objection is made to the Executive Director's determination of immateriality, or*
- 3) *The proposed amendment affects conditions required for the purpose of protecting a coastal resource or coastal access.*

In this case, the proposed amendment is a material change to the original permit. If the applicant or objector so requests, the Commission shall make an independent determination as to whether the proposed amendment is material (§13166 of the California Code of Regulations).

## **I. STAFF RECOMMENDATION:**

**MOTION:**            *I move that the Commission approve the proposed amendment to Coastal Development Permit No. 4-03-109 pursuant to the staff recommendation.*

## **STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a **YES** vote. Passage of this motion will result in approval of the amendment 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 A PERMIT AMENDMENT:**

The Commission hereby approves the coastal development permit amendment on the ground that the development as amended and subject to conditions, 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 amendment 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 amended development on the environment, or 2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the amended development on the environment.

## **II. SPECIAL CONDITIONS**

**NOTE:** All standard and special conditions attached to the previously approved permit 4-03-109 remain in effect.

### **III. FINDINGS**

#### **A. PROPOSED AMENDMENT**

Revise the scope of the "Goleta Slough Tidal Restoration Experiment" so that both a full tidal and partial tidal regime are constructed in a single basin area (Basins E/F) and the previous proposal to construct a second basin area (Basins L/M) is deleted (**Exhibits 2, 3, and 4**). The Airport is not proposing any other changes to the experimental design are proposed by the Airport, including any changes to biological or water quality monitoring or reporting proposed in the original experiment. The changes in the experimental design have been approved by the FAA, California Department of Fish and Game, and the City of Santa Barbara Community Development Department as shown in **Exhibit 7**.

The proposed amendment is considered material as it changes the design of an experiment that was a condition of approval for the Commission approval of LCP Amendment for the Airfield Safety Projects (ASP). While the exact parameters of the experiment were never detailed in the approved Policy C-10, this policy requires that the experiment be carried out according to the experimental design proposed by URS in the *Santa Barbara Airport Tide Restoration Field Experiment, Goleta Slough* document (2003) that was the basis of CDP 4-03-109. The following analysis, therefore, focuses on the potential implications that revisions to the experimental design may have on the ultimate success in meeting the original purpose and need stated for the experiment and the intent of City of Santa Barbara LCP (Airport and Goleta Slough) Policy C-10.

#### **B. BACKGROUND AND PREVIOUS COMMISSION ACTION**

##### Goleta Slough and the Development of the Tidal Experiment

Goleta Slough is located within Component 9: Airport and Goleta Slough of the City of Santa Barbara's certified Local Coastal Program (LCP). The LCP describes Goleta Slough as an area of approximately 400 acres, of which 189 acres are classified as tidal marsh subject to tidal inundation through natural channels or culverts. Goleta Slough is designated "Recreational Open Space" in the LCP. The wetland communities within the slough include open water, coastal salt marsh, salt flats, seasonal wetland meadows, riparian woodland, shrub-scrub thicket and transitional wetlands. The slough provides habitat to support a large resident bird population and serves as a resting and feeding site for migrating birds using the Pacific Coast flyway. Upland areas include 25 acres south of the main slough channel adjacent to the University of California Santa Barbara (UCSB) campus. The Slough is partially within the retained permit jurisdiction of the Commission and partially located in the Appeals jurisdiction of the City of Santa Barbara LCP.

The City of Santa Barbara Airport was constructed within the historic boundaries of Goleta Slough. Only a small portion of the original Goleta Slough wetlands and tidal channels remain. Significant portions of Goleta Slough have become non-tidal due to

historic diking and filling. For over 15 years, the Airport and other agencies and environmental organizations have sought to restore wetlands in Goleta Slough by increasing the extent of tidal circulation. However, the Federal Aviation Administration (FAA) has expressed concerns that restoring tidal circulation to portions of Goleta Slough could modify bird activity in and near the airfield and possibly increase aviation bird strike hazards.

In order to address these concerns, the Airport completed a tidal restoration feasibility study in 2003 (URS, 2003). The study evaluated the feasibility of implementing a short-term field experiment in Goleta Slough to increase tidal circulation for monitoring and research purposes. The feasibility report was developed in close coordination with the Goleta Slough Management Committee and biologists from the University of California. A draft study was circulated for review in 2002 and a final report was produced in 2003. The FAA reviewed the findings of the study and stated that they had no objections to the experiment. Following in September 2003, the Airport finalized the project description for the Santa Barbara Airport Tidal Restoration Field Experiment in Goleta Slough. The stated objective of the tidal restoration experiment is to create partial tidal and full tidal environments in basins in the Goleta Slough and compare them to non-tidal "control" areas in order to determine the feasibility of a long-term tidal restoration program at Goleta Slough and assess the effects of habitat changes on aviation bird strike hazards. The FAA, in 2003 approved implementation of this experiment with the caveat that if increased bird strikes did occur, the experiment should be halted immediately and the slough restored to pre-project conditions.

#### Permit History and Background

In April 2002, the Commission voted to concur with Federal Consistency Certification CC-058-01 for the Aviation Facilities Plan for the City of Santa Barbara Airport. This plan is a comprehensive plan intended to address development of airport facilities through the year 2015. The plan included necessary runway safety projects for the airport called the Airfield Safety Projects (ASP).

In December 2002, the Commission certified City of Santa Barbara LCP Amendment No. 1-02 that included changes in the LCP text and zoning/land use maps to include the Airfield Safety Projects and to provide policies to protect wetlands and water quality when implementing the ASP. The ASP includes construction of two 1,000-foot long runway safety areas, the realignment of an existing runway to accommodate new runway safety areas, a new taxiway, and lengthening of runway protection zones. In addition, the ASP includes relocation of Tecolotito Creek approximately 1,800 feet west and movement of the confluence of Carneros and Tecolotito Creeks west. At the time, it was estimated that the project would result in approximately 13.30 acres of permanent wetland fill and 1.77 acres of temporary wetland fill.

In its approval of the LCP Amendment for the ASP, the Commission required the inclusion of Policy C-10 in the LCP, which provides for specific mitigation requirements for the Airfield Safety Projects, including a 4:1 mitigation replacement ratio for impacts

to seasonal wetlands, a 2:1 replacement ratio for impacts to creeks and open channels, and a 1:1 replacement ratio for impacts to upland habitat. Policy C-10 further requires the Airport to develop and implement a Wetlands Restoration Plan to meet the above requirements of Policy C-10. The restoration to seasonal wetlands included in the Wetlands Restoration Plan would not include introduction of tidal regimes to Goleta Slough.

In addition to the Wetlands Restoration Plan, Policy C-10 requires the Airport to undertake the Goleta Slough Tidal Restoration Experiment to determine whether at least  $\frac{1}{4}$  of the new wetland areas that would be constructed to provide for the 4:1 mitigation ratio for seasonal wetlands could include introduction of tidal influence to Goleta Slough. The policy required the Airport to present all documentation, findings and conclusions relative to tidal restoration to the Commission within five years of issuance of the CDP for the Airfield Safety Projects. If the evidence demonstrates that tidal restoration of wetlands adjacent to the airport's runways will not significantly or adversely increase the potential for aircraft bird strikes, the Airport is required to implement wetland creation of  $\frac{1}{4}$  of the entire 4:1 mitigation ratio in the form of a long-term tidal restoration project in Goleta Slough. Under this scenario, therefore, the Wetland Restoration Plan and Tidal Restoration Plan would provide for  $\frac{3}{4}$  (creation of non-tidally influenced wetlands) and  $\frac{1}{4}$  (creation of tidally influenced wetlands) respectively of the required total 4:1 wetland mitigation replacement ratio required for the Airfield Safety Projects. However, if the experiment determines that tidal restoration is infeasible, the Airport is required to provide for the additional in-kind seasonal wetland habitat mitigation within Goleta Slough without introduction of tidal influence to meet the 4:1 mitigation ratio requirement for seasonal wetland impacts. If this is the case, then the Airport must revise its Wetland Restoration Plan to construct new non-tidally influenced wetlands for the entire 4:1 mitigation ratio.

In 2003, the City of Santa Barbara approved and issued Coastal Development Permit MSTT2003-00344 for the Airfield Safety Projects. The project is located within the City of Santa Barbara's permit jurisdiction and the Coastal Commission's appeal jurisdiction. The Airport's approval of the CDP was appealed to the Commission. The Commission, at its September 2003 hearing, determined that the project, as approved by the City, was consistent with all applicable policies of the City's certified Local Coastal Program and that the appeal raised No Substantial Issue (A-4-SBC-03-077). Construction of the first phase of the Airfield Safety Project began in August 2005.

In December 2003, the Commission approved CDP 4-03-082 for the Wetland Restoration Plan developed in accordance with the requirement of LCP (Airport and Goleta Slough) Policy C-10 as described above. In its approval, the Commission noted that the Wetlands Restoration Plan was a required condition of approval to the City of Santa Barbara Coastal Development Permit MSTT2003-00344 for the Airfield Safety Projects and required additional implementation of the tidal restoration experiment as a special condition of approval. The approved Wetland Mitigation Plan included wetland restoration along the relocated creek channels and creation and enhancement of seasonal wetland in Goleta Slough on berms adjacent to Tecolotito Creek and tidal salt

marshes. The proposed amendment will only affect the scope of the originally proposed wetland restoration experiment, it will not affect the required amount of actual wetland restoration that must occur as mitigation for the related, but separate, ASP project.

On April 15, 2004 the Commission approved Coastal Development Permit 4-03-109 for the Goleta Slough Tidal Restoration Experiment as described below in Section B (Exhibit 1). The findings adopted by the Coastal Commission in approving CDP 4-03-109 are incorporated by reference into this staff report. Coastal Development Permit 4-03-109 for the Tidal Restoration Experiment was issued by the Commission on June 2, 2005. In May 2005, the Airport issued a public bid request for construction of the Tidal Restoration Project. The Airport has stated that only one bid was received, which was about \$1.7 million. This was almost twice the Airport's estimated cost and budget for the project. The majority of the extra costs were related to construction in Basin LM, which involves a larger excavation area and is a logistically difficult construction area due to limited access and muddy conditions throughout the year. The City has informed staff that as a result of the unexpected increase in construction costs, the experiment, as originally designed is no longer feasible. Given the Airport's lack of finances at the Airport to fund these extra costs and a limited window of time available for the airport to commence the experiment in time to report back to the Commission as scheduled, the airport is requesting to reduce the scope of the project. In August 2005 the Airport proceeded with construction in Basins E/F alone and began monitoring at this basin without implementation of the full tidal experiment in Basins L/M.

In addition, in reaching the final design and construction stages for Basin E/F, the Airport discovered it had overestimated the true elevation of that portion of Tecolotito Creek that flows into Basin E/F. The new survey data indicated that the bottom elevation of Tecolotito Creek near Basin E/F is generally about 3.5 to 4.0 feet in elevation, not 2.0 feet in elevation as predicted in the previous experimental design. Construction of Basin E/F as proposed by CDP 4-03-109, therefore, provided for an experimental area that is subject to greater influences from Tecolotito Creek than previously predicted. According to simulations provided by the Airport's consultant (URS Corp., 2005) as a result of the actual elevations of Basins E/F, the elevation of Tecolotito Creek flowing into the Basin, stream flows, tide heights, and conditions at the mouth of Goleta Slough (open or closed), it is expected that Basin E/F will likely be fully inundated for most of Summer and Fall and inundated part of the time in Winter and Spring. As a result, the City further predicts that since the existing experimental plot in Basin E/F will experience deeper and more frequent inundation periods than the original experimental design had predicted for Basin E/F and less frequent inundation periods than the original experimental design for Basin L/M, which was to be inundated at all times.

#### Coastal Development Permit 4-03-109

This experiment involves excavation of two small tidal basins (Basins E/F and L/M) from larger non-tidal basins and installation of culvert connections to tidal channels in the Goleta Slough south of the Airport. Each experimental basin was to be located near a non-tidal "control basin" to allow for a comparison of environmental changes due to tidal circulation,

including changes in bird activity. The Commission imposed eleven special conditions on the project related to 1) Removal of excess grading material; 2) Other required agency permits; 3) Mitigation measures in the final environmental impact report; 4) Compliance with the City of Santa Barbara conditions of approval; 5) Tidal restoration; 6) Water quality management; 7) Construction phase erosion control and polluted runoff control plans; 8) Special status plant and wildlife protection measures; 9) Monitoring; 10) Maintenance of experimental basins; and 11) Termination of Experiment. Special conditions Five and Eleven are of particular note to the proposed amendment and are described below:

**Special Condition Five (5) Tidal Restoration**

*In accordance with LCP (Airport and Goleta Slough) policy C-10 relative to the Tidal Restoration Experiment the Airport shall comply with the following requirements:*

*(a) Within five (5) years of issuance of the Coastal Development Permit for the Airfield Safety Projects, the City shall present all documentation, findings and conclusions relative to the tidal restoration studies for review by the Commission. If the evidence demonstrates that tidal restoration is an infeasible means of satisfying the wetland mitigation requirements of the Airfield Safety Projects due to safety concerns, and/or the tidal restoration experiment or project is terminated at any point subsequent to implementation of an approved tidal restoration plan, the City shall immediately implement additional wetland mitigation measures to supplement mitigation efforts in full compliance with the 4:1 wetland mitigation requirements.*

*(b) If the results of the Goleta Slough Tidal Restoration/Bird Strike Experiment indicate that tidal restoration will not significantly and adversely increase the potential for aircraft bird strikes as determined by the FAA, the City shall provide 13.99 acres of the required wetland mitigation as part of a future, long-term project to restore tidal circulation to portions of Goleta Slough. In the event that tidal restoration mitigation is determined to be infeasible, the City shall provide 13.99 acres of in-kind mitigation for impacts to seasonal wetlands to complete the mitigation requirement. The additional 13.99 acres of wetland mitigation will fulfill the Airport's requirement for wetland mitigation for the Airfield Safety Projects. Priority shall be given to on-site mitigation for the additional 13.99 acres of wetland mitigation. Off-site mitigation measures shall only be approved should it not be feasible to fully mitigate impacts on-site. The City shall coordinate with the California Department of Fish and Game and the Goleta Slough Management Committee to identify potential off-site mitigation sites. Off-site mitigation measures shall be implemented in an area in close proximity to the project as is feasible, and shall not be located outside of Santa Barbara County.*

*(c) Once there is authorization from the FAA to proceed with tidal restoration, and concurrence with the California Department of Fish and Game and the Goleta Slough Management Committee on the nature, scope and schedule of the tidal restoration projects following completion of the tidal restoration experiment, the*

*City shall act as lead agency to develop and implement a Tidal Restoration Plan for at least 13.99 acres with participation from U.C. Santa Barbara, the California Department of Fish and Game, the Goleta Slough Management Committee and adjacent property owners. Should any participating agencies or property owners choose not to participate, or an agreement is not reached with all interested parties, the City shall continue to implement tidal restoration options to the maximum extent feasible unless the Commission or the FAA prohibit or deny tidal restoration. The Final Tidal Restoration Plan shall require a Coastal Development Permit.*

### **Special Condition Eleven: Termination of Experiment – Restoration**

*In the event that the results of the Tidal Restoration Experiment are not favorable or termination of the experiment is caused for any reason, the experimental tidal basins shall be restored to pre-project conditions. Within 120 days of termination of the experiment the City shall submit an application to the Commission for a Coastal Development Permit to restore the affected project tidal basins and to complete the required final component of wetland restoration elsewhere within the Goleta Slough.*

Below is a copy of the project description included in the finding from the April 2004 hearing at which the Commission approved CDP 4-03-109:

*The proposed development consists of implementation of the Goleta Slough Tidal Circulation (Restoration) Experiment, a short-term field experiment to assess the feasibility of a long-term tidal restoration program. The proposed project would create two small tidal basins by excavating portions of larger non-tidal basins, and installing culverts that connect to tide channels. Each experimental basin would be located adjacent to a "control basin" (i.e., an existing non-tidal basin) to allow a comparison of the hydrologic and ecological effects of tidal circulation against existing conditions. The design of the experiment would also allow a comparison of bird use in tidal and non-tidal areas to assess the effects on bird strike conditions at the Airport. Conditions in the experimental and control basins will be monitored on a continual basis for two years. Baseline data on the types of birds using the slough and the hazards associated with bird activity in the slough near the airfield were collected in a preliminary survey conducted from March 2001 to February 2002. Bird surveys will continue for the duration of the experiment. Field biologists will record bird activity in the experimental and control basins on a weekly basis. Temporary wooden observation structures will be placed near each experimental basin. The Airport will coordinate with the FAA and USDA Wildlife Services throughout the duration of the experiment.*

*The overall objective of the tidal restoration experiment is to provide empirical data to assist in determining the feasibility of a long-term tidal restoration program in Goleta Slough. The implementation of a small-scale project will provide an opportunity to observe the hydrologic and ecological effects of increasing tidal circulation to a non-tidal area of the slough. The experiment will be monitored to assess the success in establishing tidal habitat and the effects of habitat changes on*

*aviation bird strike hazards. The results of the experiment will also be used to refine the approach and design of a larger restoration project should it be carried out.*

*The experiment is designed to be temporary and small enough in scale to avoid any irreversible adverse changes in the environmental conditions of the slough. The experimental tidal basins can be restored to pre-project conditions if the results of the experiment are not favorable. The experiment contains a contingency plan to terminate the experiment if significant bird strike hazards arise as a result of the experiment.*

*Efforts to restore tidal circulation to portions of Goleta Slough have been proposed in the past, however, the Federal Aviation Administration (FAA) and the Airport have expressed concerns that restoring tidal circulation to Goleta Slough could increase bird activity near the airport and possibly increase aviation bird strike hazards. Therefore, no tidal restoration plan has been undertaken.*

*A preliminary draft feasibility study was completed by URS Corporation in February 2002. The study characterized baseline conditions by assessing existing bird activity in the area and analyzing the Airport's existing bird strike data. The study also provided an analysis of candidate tidal basins for the experiment, modeled potential changes in hydrology and habitat in these basins and selected two basins as the recommended alternative for the experiment. The draft study was subsequently submitted to the U.S. Department of Agriculture (USDA) Wildlife Services Division and the FAA for review and approval. In September 2002 the Airport received concurrence from both agencies allowing the design and implementation of the experiment. A final feasibility study for the field experiment was completed by URS in September 2003 and submitted with the subject permit application.*

*A key requirement of FAA approval of the experiment is if at any time the monitoring data indicates that the restored tidal circulation has caused an increase in bird strike hazard, the experiment will be immediately halted and the basin(s) will be restored to pre-project (non-tidal) conditions. The effects on bird strike hazard conditions at the Airport will be monitored during the field experiment to detect any adverse impacts. As proposed, the experiment includes a contingency plan to immediately terminate the experiment if significant bird strike hazards arise.*

*The proposed experimental tidal basins would be constructed during the period of August through November 2004. The experiment would end in November 2006, unless the experiment is either terminated earlier due to public safety concerns or continued for a longer period to collect additional data.*

*A Biological Resources Report dated September 2003 was prepared for the Tidal Restoration Experiment by URS Corporation, a consultant to the City Airport Department who also prepared the previous Wetland Mitigation Plan that was approved by the Commission in December 2003. The 2003 URS report provides a*

detailed description of the tidal restoration experiment and discusses potential impacts associated with the project.

The City's Planning Commission approved the proposed tidal circulation experiment with special conditions including mitigation monitoring by a qualified wetlands biologist prior to, during (weekly), and after implementation of the project, construction timing limited to July 15 through November 1, revegetation/restoration of disturbed areas, and water quality (SWPPP & WQMP) requirements. In addition, applications have been filed for an Army Corps of Engineers (ACOE) Section 404 permit, Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification, and California Department of Fish and Game (DFG) Section 1601 Streambed Alteration Agreement.

### **C. WETLANDS, WATER QUALITY, AND ENVIRONMENTALLY SENSITIVE HABITAT AREAS**

Section 30230 of the Coastal Act states:

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

Section 30231 of the Coastal Act states:

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

Section 30233 of the Coastal Act states:

***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:***

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial 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 wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
- (4) *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.*
- (5) *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.*
- (6) *Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (7) *Restoration purposes.*
- (8) *Nature study, aquaculture, or similar resource dependent activities.*

Section 30240 of the Coastal Act states:

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

Sections 30230 and 30231 of the Coastal Act mandate that marine resources and coastal water quality shall be maintained and where feasible restored, protection shall be given to areas and species of special significance, and that uses of the marine environment shall be carried out in a manner that will sustain biological productivity of coastal waters. 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 limited to uses dependent on those resources and shall be designed to prevent impacts which could degrade those resources.

Section 30233 of the Coastal Act states that diking, filling, and dredging of coastal waters may be permitted for coastal-dependent industries, and for maintaining or restoring previously dredged depths where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects. Section 30233 of the Coastal Act also mandates that dredging and disposal operations shall be carried-out to avoid disruption of marine and wildlife habitats, and that suitable dredge sediments shall be deposited for beach replenishment.

As described in the previous sections, the Commission's approval of City of Santa Barbara LCP Amendment SBC-MAJ-1-02 and the City of Santa Barbara approval of Coastal Development Permit MSTT2003-00344 for the Airfield Safety Projects (ASP) included conditions (Policy C-10) requiring the implementation of the Tidal Restoration Experiment. Policy C-10 requires the Airport to undertake the Goleta Slough Tidal Restoration Experiment to determine whether at least  $\frac{1}{4}$  of the new wetland areas that would be constructed to provide for the 4:1 mitigation ratio for seasonal wetlands could include introduction of tidal influence to Goleta Slough. The conditions required the Airport to report back to the Commission within 5 years of issuance of the coastal development permit for the Airfield Safety Projects as to the results of the experiment. If the evidence demonstrates that tidal restoration of wetlands adjacent to the airport runways will not significantly or adversely increase the potential for aircraft bird strikes, the Airport is required to implement wetland creation of  $\frac{1}{4}$  of the entire 4:1 mitigation ratio in the form of a long-term tidal restoration project in Goleta Slough. Under this scenario, therefore, the Wetland Restoration Plan and Tidal Restoration Plan would provide for  $\frac{3}{4}$  (creation of non-tidally influenced wetlands) and  $\frac{1}{4}$  (creation of tidally influenced wetlands) respectively of the required total 4:1 wetland mitigation replacement ratio required for the Airfield Safety Projects. However, if the experiment determines that tidal restoration is infeasible, the Airport is required to provide for the additional in-kind seasonal wetland habitat mitigation within Goleta Slough without introduction of tidal influence to meet the 4:1 mitigation ratio requirement for seasonal wetland impacts. If this is the case, then the Airport must revise its Wetland Restoration Plan to construct new non-tidally influenced wetlands for the entire 4:1 mitigation ratio.

Originally in its design of the project, the Airport's consultant, URS Corporation, recommended construction of two small tidal basins (Basins E/F and Basin L/M) in Goleta Slough adjacent to the airfield. This design provided for experiments in two basins with different tidal regimes<sup>1</sup>. The differences in the tidal regimes experienced in each basin is due to the differences in their bottom elevations. The original intent was to conduct an experiment in Basin E/F in which only a limited tidal range would occur. According to URS, this was considered a modest incremental step toward full tidal restoration or a more cautious approach with regard to FAA concerns regarding analysis of bird strike hazard as partial tidal restoration would likely result in the introduction of less large birds than full tidal restoration<sup>2</sup>. In contrast, URS Corporation has stated that the original intent of the portion of the experiment in Basin L/M was to establish a full tidal range in the basin, representing the maximum restoration approach and the situation of most concern to the FAA for bird strike hazard at the airport.

As noted previously, following issuance of CDP 4-03-109, URS Corp determined that the proposed bottom elevation of Basin E/F would actually provide for full inundation of the basin for the majority Summer and Fall and partial inundation during Winter and

---

<sup>1</sup> URS Corporation. Santa Barbara Airport Tide Restoration Field Experiment Goleta Slough. Prepared for Santa Barbara Airport. September 2003.

<sup>2</sup> URS Corporation. Evaluation of Modified Tidal Restoration Demonstration Project. Santa Barbara Airport. Prepared for Santa Barbara Airport. July 2005.

Spring instead of partial inundation year round. This finding was based off new topographic survey data that showed that the basin bottom would be the same as adjacent tidal Tecolotito Creek, which dictates the tidal regime in the experimental plots in Basin E/F. Modeling data submitted by URS indicates that when the mouth of Goleta Slough is open (Winter and Spring), the basin will, on average, be inundated for most of the day with fluctuation in water levels and would be mostly dewatered each day for about 6 hours.<sup>2</sup> The range in depth in the basin would vary anywhere from 0.5 to as much as 7 feet during these times based on stream flows and the elevation of high and low tides. According to URS simulations, when the mouth of Goleta South is closed (Summer and Fall), the basin will be inundated for a longer period of time. The range in depth in the basin during this time will likely be 1-2 feet. The new design would provide long periods of fluctuating inundation that create a mixture of open water and mudflats, periods with high levels of inundation that create an impoundment; and periods with complete dewatering to expose all mudflats in the basin. Due to the fact that the constructed elevation of Basin E/F is lower than Tecolotito Creek (elevation 3 feet), the tidal range that has been created in Basin E/F represents a full range of tidal influence available for this location in Goleta Slough.

The previously approved experiment at Basin L/M, by contrast, would have resulted in inundation at all times with fluctuating water levels. The previously approved experiment at Basin E/F would have resulted in partial tidal influence at all times of year. The applicant is proposing continuation of experiments in Basin E/F as constructed, providing for partial and full tidal ranges, and removal of the full tidal experiments in Basin L/M from the scope of work for the Tidal Restoration Experiment (**Exhibit 5**).

The applicant has submitted a modified project evaluation for the amended experiment.<sup>2</sup> According to this evaluation, the majority of areas available for restoration in Goleta Slough are closer in elevation and dynamics to Basin E/F than Basin L/M (**Exhibit 6**). The report states that approximately 126 acres of non-tidal areas in Goleta Slough are similar in elevation to the Basin E/F, while approximately 33 acres of the slough are similar in elevation to Basins L/M. According to the applicant, Basin E/F provides a better representation of to the most common basin conditions in Goleta Slough and provides a range of experimental conditions, including full tidal and partial tidal conditions. Additionally, the applicant has noted that several basins are likely candidates for long-term restoration projects, including the approximately 9.74 acres (based on current impact estimates for the Airfield Safety Projects) of restoration required by LCP Policy C-10, based on the data acquired from experiments in Basin E/F as listed below:

- **Basin E/F** - If the experiment is successful, it would be cost effective to enlarge the experimental basin and possibly convert the entire 13 acre basin to tidal influence;
- **Basin G** – This 9-acre basin is adjacent to Basin E/F. IT is a prime candidate for a long-term project because access for construction is readily available and because it is located adjacent to Tecolotito Creek. The bottom elevations are identical to

Basin E/F and hence the results of the experiment in Basin e/VF would be directly applicable;

- Basins B/C/D – This 51 acre basin areas includes three sub-basins, of which sub-basins C and D are mostly non-tidal. These areas are prime candidates for a long-term project because access for construction is readily available and because they are located adjacent to Tecolotito Creek. The bottom elevations are identical to Basin E/F and, hence, the results of the experiment in Basin E/F would be directly applicable;
- Basins N-2 and R-2 – these basins (totaling 13 acres) are located on California Department of Fish and Game property adjacent to the Airport. CDFG is currently preparing a restoration plan for non-tidal wetlands at these sites, with the option of future modifications to allow tidal circulation. These sites are candidates for a long-term project as they are not located in the airfield and the bottom elevations are identical to Basin E/F.

As discussed previously, the intent of City of Santa Barbara (Airport and Goleta Slough Component) LCP Policy C-10, was to provide for an experiment in Goleta Slough to address the hydrologic and biologic feasibility of reintroduction of tidal influence to portions of the Goleta Slough currently shut off from tidal influence due to berms and fill placed in the Slough during construction of the airfield. The experiment also was proposed to assess the logistics (cost, methods etc) that would go into tidal restoration in the slough and to address FAA concerns that introduction of tidal influence in portions of Goleta Slough adjacent to the Airport would increase bird strike hazard. If the experiments are successful, or restoration of tidal areas in the Slough are deemed feasible and FAA approval is obtained, the Airport will be able to restore tidal influence to wetlands in Goleta Slough to not only meet wetland mitigation conditions for the Airfield Safety Projects, but also for future restoration projects in the slough.

Given the location of Basin E/F adjacent to the airfield, the range of full tidal and partial tidal conditions available at Basin E/F, the applicability of the conditions at Basin E/F to a large area of Goleta Slough available for tidal restoration, and the relative lack of basins similar in conditions to Basin L/M in Goleta Slough, the Commission finds that revising the scope of the Tidal Restoration Experiment to only Basin E/F will not lessen the intent of Policy C-10 required as a condition of approval for the Airfield Safety Project. Further, the Commission finds that the proposed changes to the experiment will not substantially limit the range of restoration projects available in Goleta Slough and will not result in additional impacts to water quality, wetlands, and environmentally sensitive habitat areas than the originally proposed project.

For all of the reasons set forth above, the Commission finds that the amendment, as proposed, is consistent with Coastal Act Section 30210, 30211, 30230, 30231, and 30240.

**D. Local Coastal Program**

The proposed project area lies within City of Santa Barbara, but falls within the Commission's area of retained original permit jurisdiction as shown on the LCP Certification Permit and Appeal Jurisdiction map. The Commission has certified the Local Coastal Program for the City of Santa Barbara Airport and Goleta Slough (Land Use Plan and Implementation Ordinances) which contains policies for regulating development and protection of coastal resources, including the protection of environmentally sensitive habitats, recreational and visitor serving facilities, coastal hazards, and public access.

**E. CEQA**

Section 13096(a) of the Commission's administrative regulations requires Commission approval of Coastal Development Permit and Amendment applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect, which the activity may have on the environment.

The Commission finds that, the proposed project as amended and as previously conditioned will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project as amended has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

# CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA  
89 SOUTH CALIFORNIA ST., SUITE 200  
VENTURA, CA 93001  
(805) 585-1800



Page 1 of 5  
Date: June 2, 2005  
Permit Application No. 4-03-109

## COASTAL DEVELOPMENT PERMIT

On April 15, 2004, the California Coastal Commission granted to City of Santa Barbara Airport Department, permit 4-03-109, subject to the attached Standard and Special Conditions, for development consisting of: Implementation of the Goleta Slough Tidal Restoration Experiment component of the Airfield Safety Projects including excavation of two small tidal basins from larger non-tidal basins and installation of culvert connections to tidal channels in the Goleta Slough south of the Airport. Each experimental basin will be located near a non-tidal "control basin" to allow a comparison of environmental changes, including bird activity, due to tidal circulation. This permit is more specifically described in the application on file in the Commission offices.

The development is within the coastal zone in Santa Barbara County at Santa Barbara Airport, 500 Fowler Road.

Issued on behalf of the California Coastal Commission by,

PETER DOUGLAS  
Executive Director

By: Melissa Hetrick  
Coastal Planner

### ACKNOWLEDGMENT:

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee acknowledges that Government Code Section 818.4 which states in pertinent part, that: "A public entity is not liable for injury caused by the issuance. . . of any permit. . ." applies to the issuance of this permit.

**IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGEMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE. 14 Cal. Admin. Code Section 13158(a).**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Permittee

**Exhibit 1  
CDP 4-03-109-A1  
  
Originally Issued  
CDP 4-03-109**

**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.

**SPECIAL CONDITIONS:**

1. **Removal of Excess Grading Material.**

Prior to 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 and debris. Should the disposal site be located in the Coastal Zone, a Coastal Development Permit shall be required.

2. **Other Required Agency Permits**

Prior to issuance of Coastal Development Permit the applicant shall submit, for the review and approval of the Executive Director, evidence of final required approvals from the Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWCQB), and California Department of Fish and Game.

3. **Mitigation Measures**

All mitigation measures required in the Final Mitigated Negative Declaration for the proposed Tidal Restoration Experiment project are hereby incorporated by reference as special conditions of the subject permit unless specifically modified by any additional special conditions set forth herein.

4. **Compliance with City of Santa Barbara Conditions of Approval**

All conditions of approval contained in City of Santa Barbara Planning Commission Resolution No. 068-03 (attached) applicable to the proposed project are hereby incorporated as special

conditions of the subject permit unless specifically modified by any additional special conditions set forth herein.

## **5. Tidal Restoration**

In accordance with LCP (Airport and Goleta Slough) policy C-11 relative to the Tidal Restoration Experiment the City shall comply with the following requirements:

(a) Within five (5) years of issuance of the Coastal Development Permit for the Airfield Safety Projects, the City shall present all documentation, findings and conclusions relative to the tidal restoration studies for review by the Commission. If the evidence demonstrates that tidal restoration is an infeasible means of satisfying the wetland mitigation requirements of the Airfield Safety Projects due to safety concerns, and/or the tidal restoration experiment or project is terminated at any point subsequent to implementation of an approved tidal restoration plan, the City shall immediately implement additional wetland mitigation measures to supplement mitigation efforts in full compliance with the 4:1 wetland mitigation requirements.

(b) If the results of the Goleta Slough Tidal Restoration/Bird Strike Experiment indicate that tidal restoration will not significantly and adversely increase the potential for aircraft bird strikes as determined by the FAA, the City shall provide 13.99 acres of the required wetland mitigation as part of a future, long-term project to restore tidal circulation to portions of Goleta Slough. In the event that tidal restoration mitigation is determined to be infeasible, the City shall provide 13.99 acres of in-kind mitigation for impacts to seasonal wetlands to complete the mitigation requirement. The additional 13.99 acres of wetland mitigation will fulfill the Airport's requirement for wetland mitigation for the Airfield Safety Projects. Priority shall be given to on-site mitigation for the additional 13.99 acres of wetland mitigation. Off-site mitigation measures shall only be approved should it not be feasible to fully mitigate impacts on-site. The City shall coordinate with the California Department of Fish and Game and the Goleta Slough Management Committee to identify potential off-site mitigation sites. Off-site mitigation measures shall be implemented in an area in close proximity to the project as is feasible, and shall not be located outside of Santa Barbara County.

(c) Once there is authorization from the FAA to proceed with tidal restoration, and concurrence with the California Department of Fish and Game and the Goleta Slough Management Committee on the nature, scope and schedule of the tidal restoration projects following completion of the tidal restoration experiment, the City shall act as lead agency to develop and implement a Tidal Restoration Plan for at least 13.99 acres with participation from U.C. Santa Barbara, the California Department of Fish and Game, the Goleta Slough Management Committee and adjacent property owners. Should any participating agencies or property owners choose not to participate, or an agreement is not reached with all interested parties, the City shall continue to implement tidal restoration options to the maximum extent feasible unless the Commission or the FAA prohibit or deny tidal restoration. The Final Tidal Restoration Plan shall require a Coastal Development Permit.

## **6. Water Quality Management Plan**

In accordance with all requirements of LCP (Airport and Goleta Slough) policies C-12 and C-13, the City shall comply with all provisions of the *Water Quality Management Plan (WQMP)* dated September 2003 for the Tidal Restoration Experiment. Any tidal restoration activity, such as the removal of non-native vegetation, shall use non-chemical strategies where feasible. Where chemical strategies are determined to be necessary, they should be employed in a manner that minimizes or eliminates impacts to water quality and aquatic organisms. Prior to issuance of the Coastal Development Permit, the City shall submit evidence of the review and approval of the WQMP for the Tidal Restoration Experiment by the Regional Water Quality Control Board (RWQCB). Any substantial changes to the WQMP required by the RWQCB shall require an amendment to the Coastal Development Permit.

#### **7. Construction Phase Erosion Control and Polluted Runoff Control Plans**

In accordance with all requirements of LCP (Airport and Goleta Slough) policy C-14, the City shall comply with all provisions of the *Construction Storm Water Pollution Prevention Plan (SWPPP)* dated September 2003 for the Tidal Restoration Experiment. Prior to issuance of the Coastal Development Permit, the City shall submit evidence of the review and approval of the SWPPP for the Tidal Restoration Experiment by the Regional Water Quality Control Board (RWQCB). Any substantial changes to the SWPPP required by the RWQCB shall require an amendment to the Coastal Development Permit.

#### **8. Special Status Plant and Wildlife Protection Measures**

In accordance with the requirements of LCP (Airport and Goleta Slough) Policies C-15 and C-16, special status plant and wildlife protection measures shall be implemented for all phases of construction of the Airfield Safety Projects Tidal Restoration Experiment that will potentially impact sensitive plant and wildlife species and/or that will result in disturbance or degradation of habitat areas that contribute to the viability of plant or wildlife species designated as rare, threatened or endangered under State or Federal law, including plant species designated as rare by the California Native Plant Society. With respect to the Airfield Safety Projects Tidal Restoration Experiment, all construction, habitat mitigation and restoration plans, and special status plant or wildlife mitigation and protection measures, shall, prior to commencement of construction, be reviewed and approved by the regulatory agencies having jurisdiction over the identified resource, including the California Department of Fish and Game, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service, and shall at a minimum include:

- (a) Project timing and implementation schedules that describe timing, duration, methods, and staging areas for all construction operations and restoration plans. The project timing and implementation schedules shall include a submittal schedule for implementation of proposed restoration plans and for all resource monitoring reports.
- (b) Prior to commencement of construction activities, surveys of the project area shall be conducted for special status wildlife species. Should the site survey identify special status wildlife species on or near the project site, a qualified biologist or resource specialist shall develop a plan to avoid or mitigate potential impacts to the sensitive species. Resource avoidance or mitigation plans shall be reviewed and approved by the regulatory agencies having jurisdiction over the identified resource and commencement of construction shall not proceed until such review and approval is granted.
- (c) Special resource avoidance and management plans shall be implemented for Belding's savannah sparrow during all phases of construction. Construction shall occur between

July 15 and November 1 to avoid the nesting and breeding season for the Belding's Savannah Sparrow.

- (d) Construction activities during construction shall minimize potential impacts to steelhead. Construction shall occur between July 15 and November 1 to avoid the migration period of steelhead.
- (e) Prior to commencement of construction activities, surveys of the project area shall be conducted for special status plant species. Potential impacts to sensitive plant species shall be fully mitigated and a qualified botanist or other resource specialist shall develop a plan to avoid or mitigate potential impacts to the sensitive species. Resource avoidance or mitigation plans shall include, but not be limited to, species-specific salvage or seed collection, salvage of topsoil, restoration of disturbed areas and establishment of new populations in suitable habitat areas. Mitigation, restoration, management, maintenance and monitoring plans to carry out the provisions of this special condition shall be developed by a qualified botanist and/or resource specialist and shall be reviewed and approved by the California Department of Fish and Game. Evidence of CDFG review and approval shall be submitted to the Executive Director of the Coastal Commission prior to commencement of construction.

## **9. Monitoring**

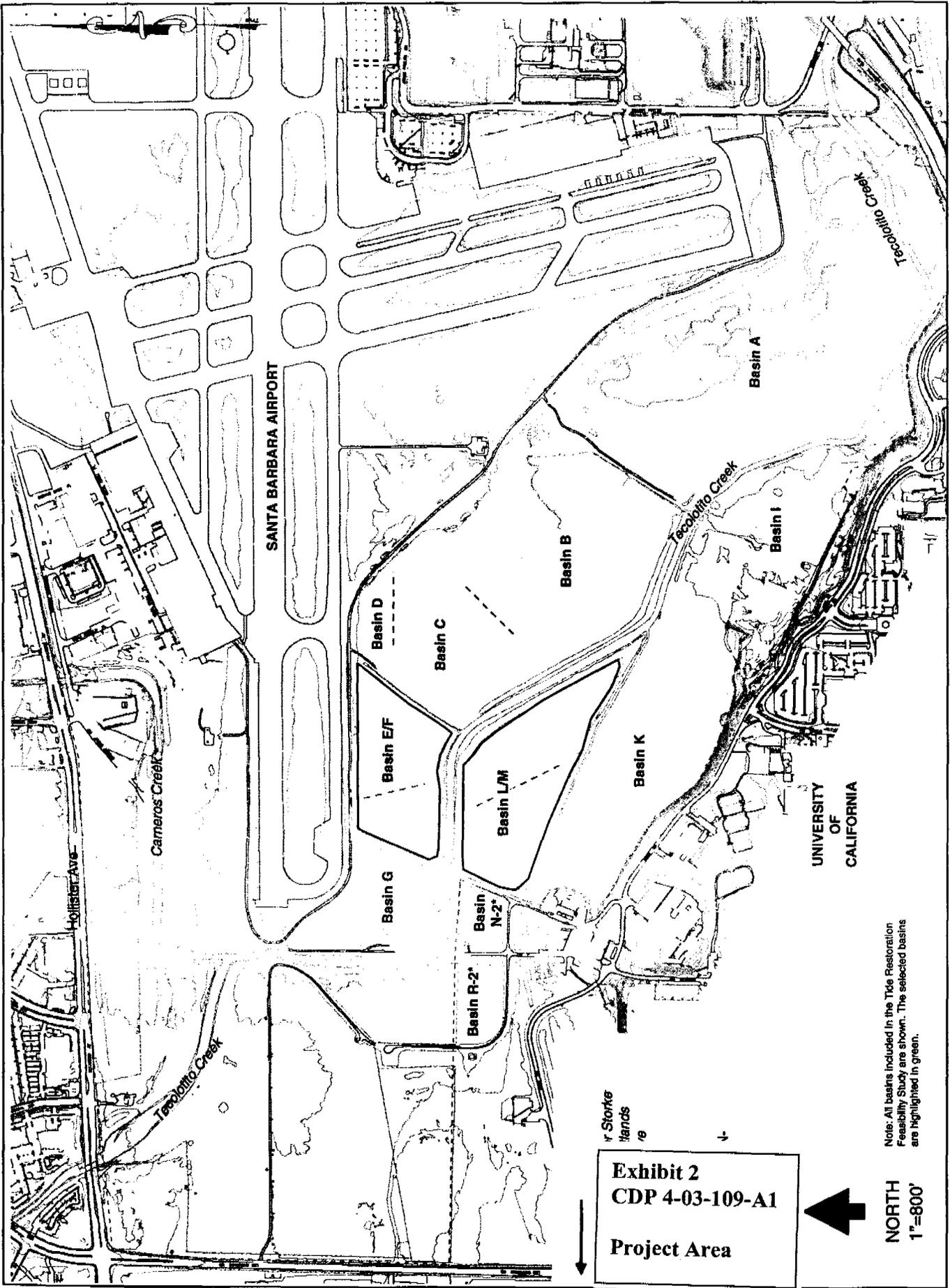
The Tidal Restoration Experiment shall be monitored to insure that habitat and hydraulic objectives are met and to compare tidal and non-tidal basins to assess whether any increases in bird strike hazards result from restoring tidal circulation. Bird activity in the experimental and control basins shall be monitored and recorded on a weekly basis throughout the duration of the experiment. At a minimum, field biologists shall record the following information: (1) types and numbers of birds observed; (2) bird activity (e.g., feeding, resting, flying); and (3) movement to, from, and within the experimental basins. In addition, bi-weekly surveys shall be conducted at other tidal and non-tidal basins in Goleta Slough that are not involved in the experiment in order to provide a broader context for interpreting the data.

## **10. Maintenance of Experimental Basins**

A maintenance and monitoring program shall be implemented for the duration of the experiment. Routine maintenance shall include the following: (1) inspections of the culvert and slide gate to detect any blockage, sediment build-up, or erosion at the inlet or outlet; (2) removal of obstructing vegetation, debris, and sediment from the inlet and outlet of the culverts; (3) weeding of the basins, including berms, to reduce non-native weeds and facilitate revegetation of construction disturbed areas with native wetland plants; and (4) re-planting of the revegetated portions of the berms and basins to increase native plant cover in the event that the initial seeding is not adequate.

## **11. Termination of Experiment – Restoration**

In the event that the results of the Tidal Restoration Experiment are not favorable or termination of the experiment is caused for any reason, the experimental tidal basins shall be restored to pre-project conditions. Within 120 days of termination of the experiment the City shall submit an application to the Commission for a Coastal Development Permit to restore the affected project tidal basins and to complete the required final component of wetland restoration elsewhere within the Goleta Slough.

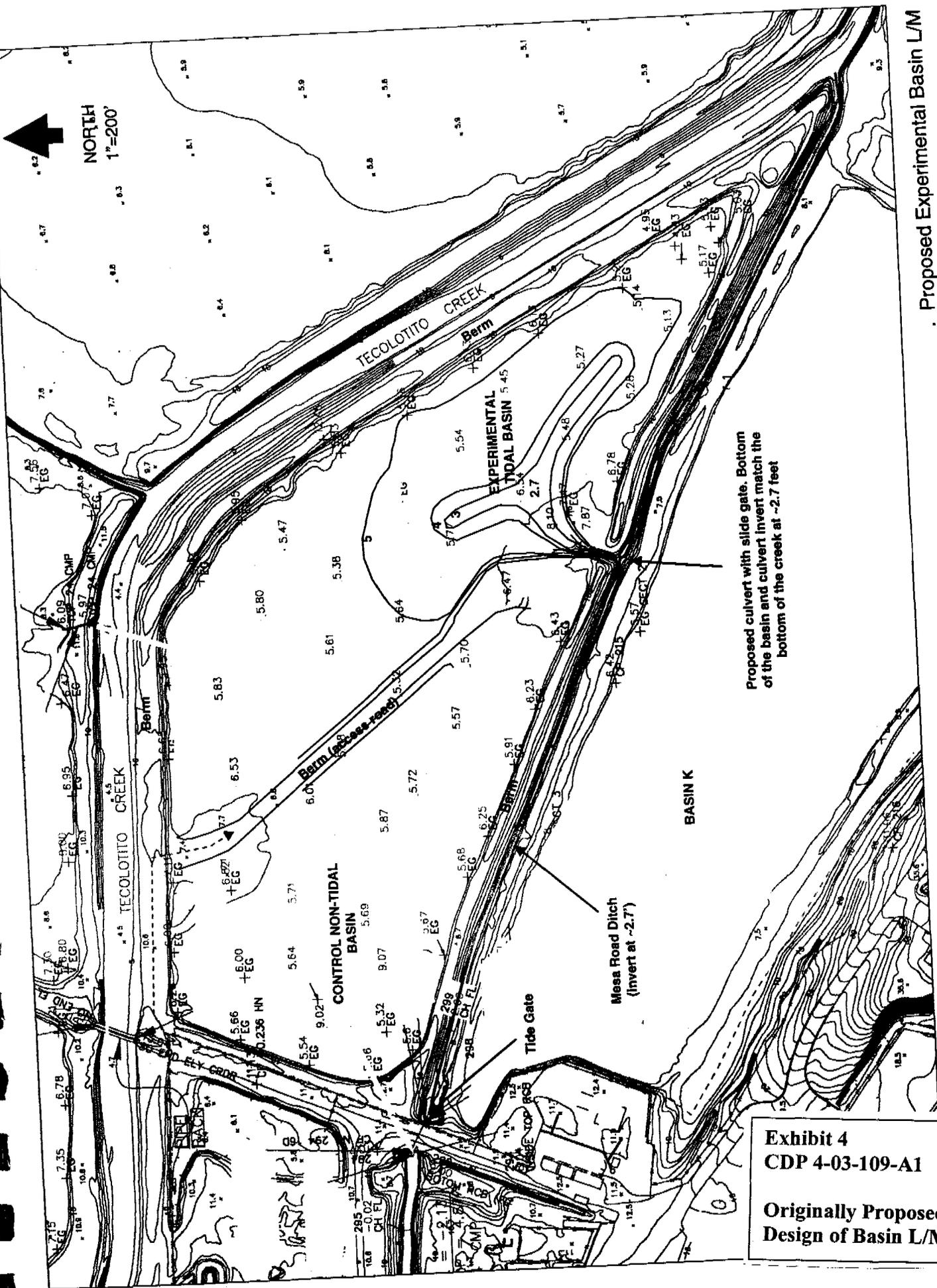


Locations of Basins E/F and L/M





NORTH  
1"=200'

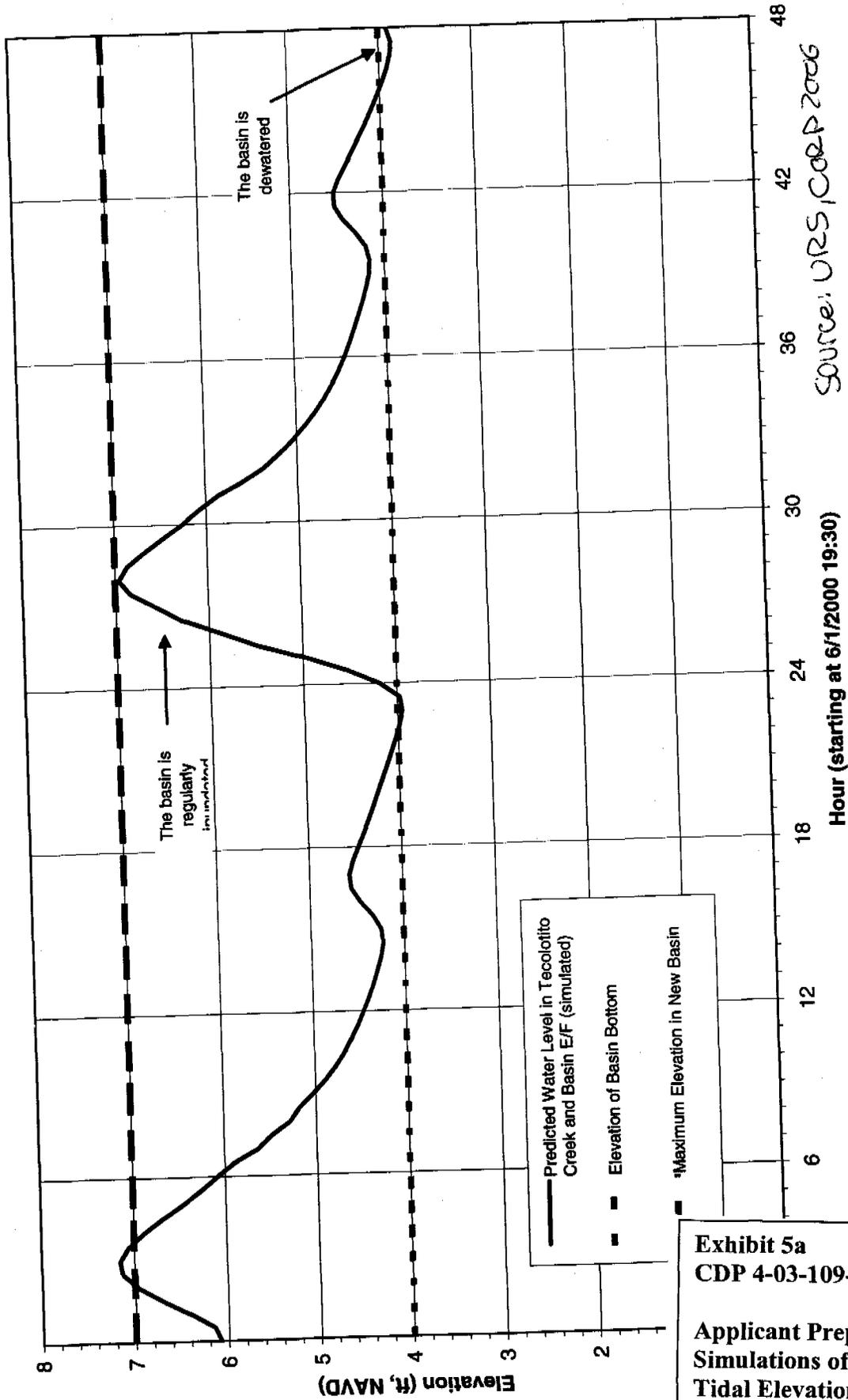


Proposed culvert with slide gate. Bottom of the basin and culvert invert match the bottom of the creek at -2.7 feet

Exhibit 4  
CDP 4-03-109-A1  
Originally Proposed  
Design of Basin L/M

Proposed Experimental Basin L/M

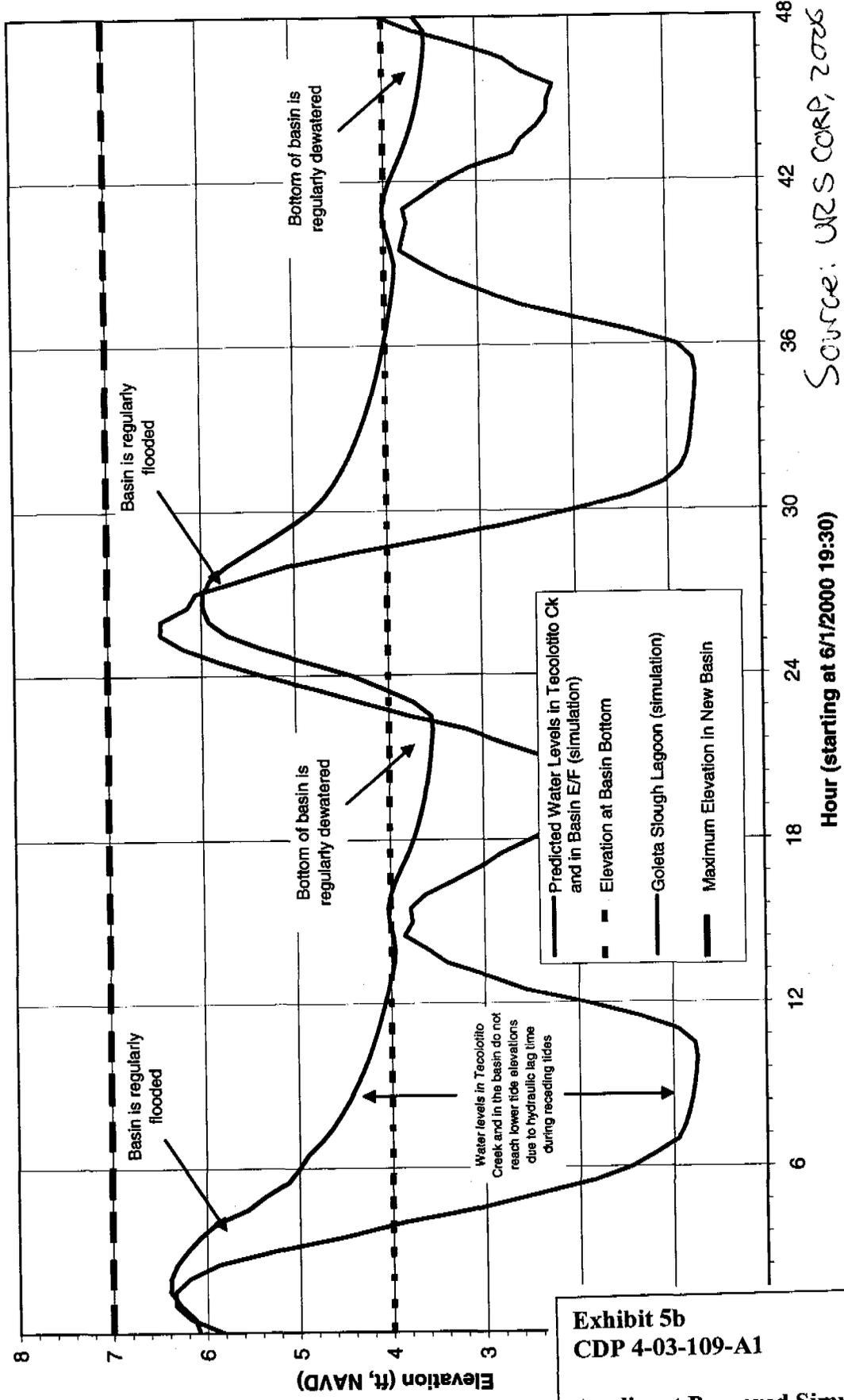
Chan / Simulated Tide Cycle at Basin E/F with Closed Slough Mouth



Source: URS, CARP 2006

Exhibit 5a  
 CDP 4-03-109-A1  
 Applicant Prepared  
 Simulations of Average  
 Tidal Elevations Expected  
 in Basin E/F

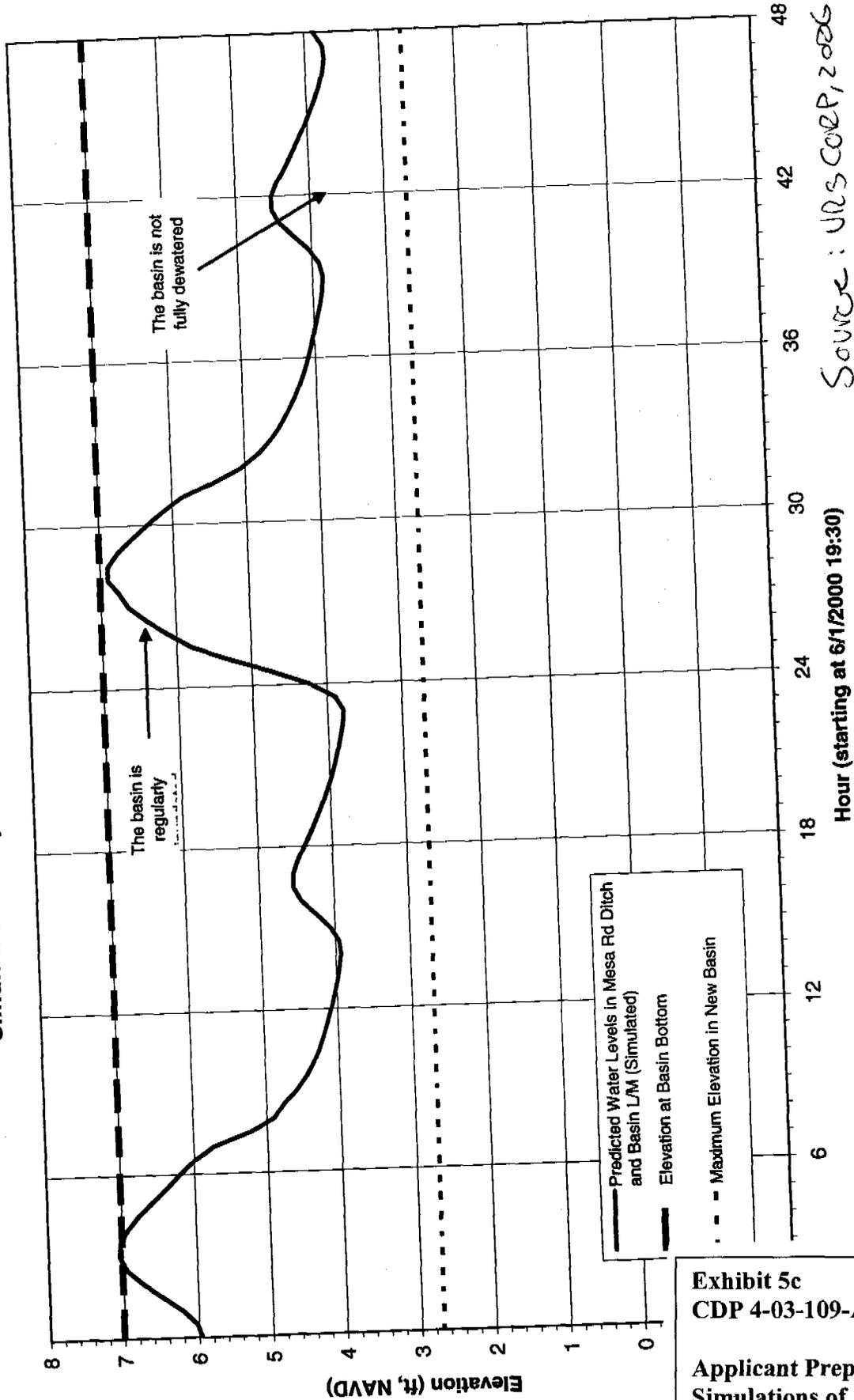
**Simulated Tide Cycle at Basin E/F with Open Slough Mouth**



Source: URS CORP, 2006

**Exhibit 5b**  
**CDP 4-03-109-A1**  
**Applicant Prepared Simulations**  
**of Average Tidal Elevations**  
**Expected in Basin E/F**

# Simulated Tide Cycle in Basin L/M with Closed Slough Mouth

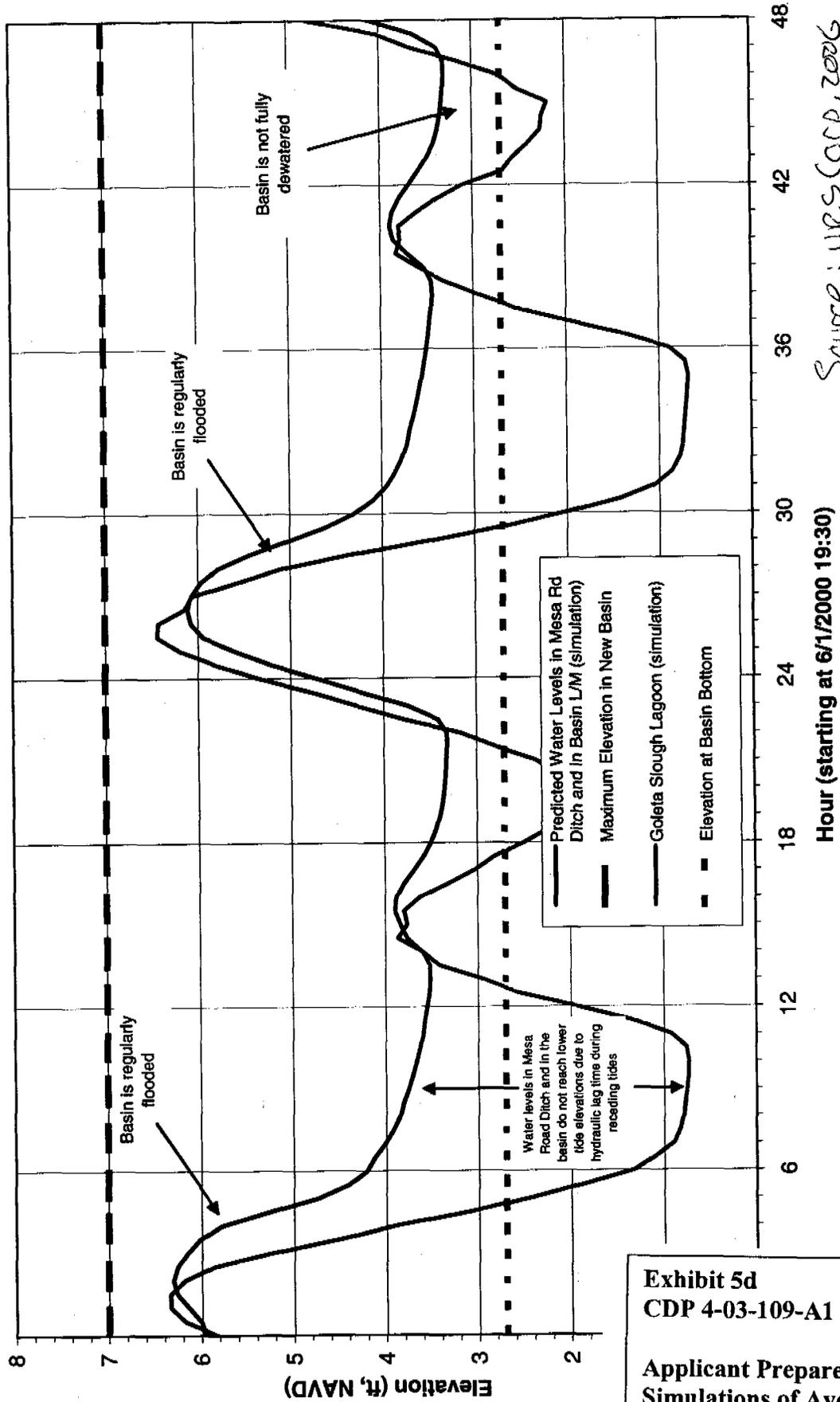


Source: URS CORP, 2006

**Exhibit 5c**  
**CDP 4-03-109-A1**

**Applicant Prepared Simulations of Average Tidal Elevations Previously Expected in Basin L/M**

Figure 5d Simulated Tide Cycle at Basin L/M with Open Slough Mouth



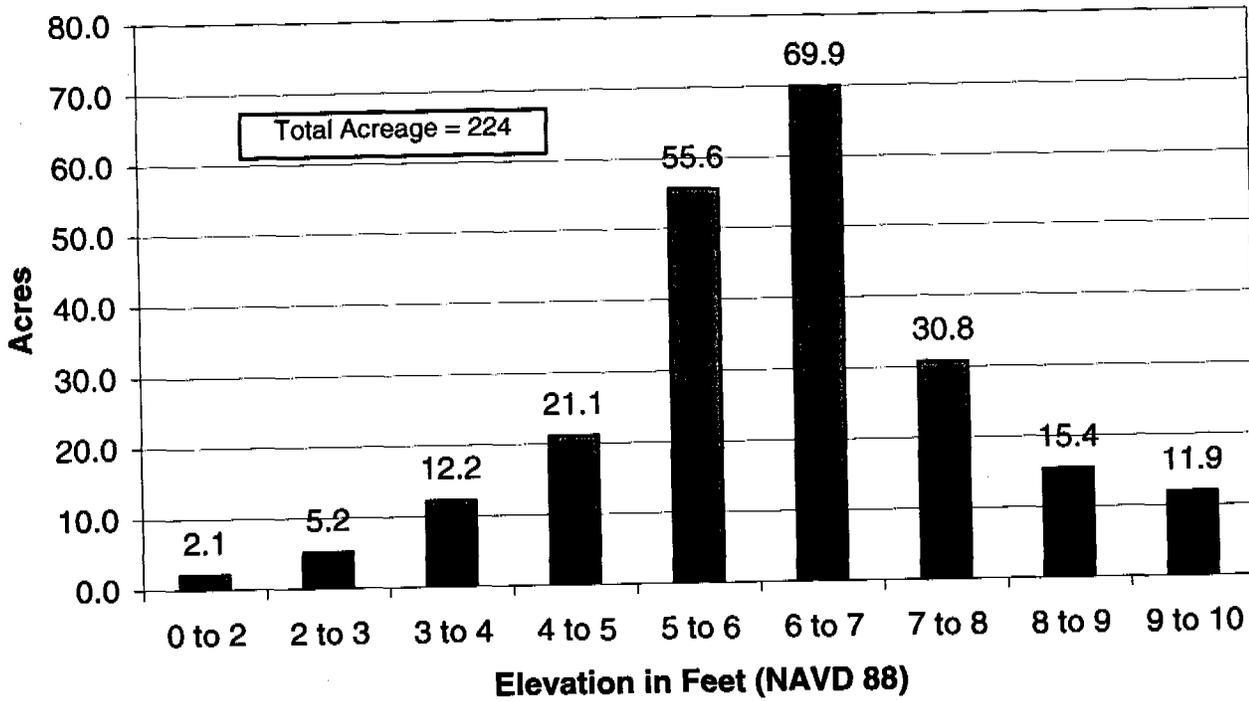
Source: URS Corp, 2006

Hour (starting at 6/1/2000 19:30)

**Exhibit 5d**  
**CDP 4-03-109-A1**

**Applicant Prepared**  
**Simulations of Average**  
**Tidal Elevations Previously**  
**Expected in Basin L/M**

Chart 3. Elevation Profile of Goleta Slough Basins (Combined)



Source: URS Corp. 2006

Exhibit 6  
CDP 4-03-109-A1

Elevations of Basins  
in Goleta Slough

APPENDIX B

LOCAL AGENCY REVIEW FORM

SECTION A (TO BE COMPLETED BY APPLICANT)

Applicant Karen Ramsdell, Santa Barbara Airport  
 Project Description Santa Barbara Airport proposes to construct a modified tidal circulation experiment in Basins E/F.  
 Location Goleta Slough (G-S-R).  
 Assessor's Parcel Number 073-0450-003

SECTION B (TO BE COMPLETED BY LOCAL PLANNING OR BUILDING INSPECTION DEPARTMENT)

Zoning Designation G-S-R / Goleta Slough Reserve N/A du/ac  
 General or Community Plan Designation Major Public Institutional du/ac

Local Discretionary Approvals

- Proposed development meets all zoning requirements and needs no local permits other than building permits.
- Proposed development needs local discretionary approvals noted below.

Needed Received

- |                          |                                     |  |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/>            | Design/Architectural review                              |
| <input type="checkbox"/> | <input type="checkbox"/>            | Variance for _____                                       |
| <input type="checkbox"/> | <input type="checkbox"/>            | Rezone from _____  |
| <input type="checkbox"/> | <input type="checkbox"/>            | Tentative Subdivision/Parcel Map No. _____               |
| <input type="checkbox"/> | <input type="checkbox"/>            | Grading/Land Development Permit No. _____                |
| <input type="checkbox"/> | <input type="checkbox"/>            | Planned Residential/Commercial Development Approval      |
| <input type="checkbox"/> | <input type="checkbox"/>            | Site Plan Review   |
| <input type="checkbox"/> | <input type="checkbox"/>            | Condominium Conversion Permit                            |
| <input type="checkbox"/> | <input type="checkbox"/>            | Conditional, Special, or Major Use Permit No. _____      |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other <u>SUBSTANTIAL CONFORMANCE DETERMINATION w/CDP</u> |

CEQA Status

- Categorically Exempt Class \_\_\_\_\_ Item \_\_\_\_\_
- Negative Declaration Granted (Date) \_\_\_\_\_
- Environmental Impact Report Required, Final Report Certified (Date) \_\_\_\_\_
- Other \_\_\_\_\_

Prepared for the City/County of SANTA BARBARA/SANTA BARBARA Janice M. Hubbell  
 Date 7/29/05 Title SENIOR PLANNER

RECEIVED

ARNOLD SCHWARZENEGGER, Governor

State of California - The Resources Agency

AUG 5 2005



DEPARTMENT OF FISH AND GAME

http://www.dfg.ca.gov  
4949 Viewridge Avenue  
San Diego, CA 92123  
(858) 467-4201

CALIFORNIA  
COASTAL COMMISSION  
SOUTH CENTRAL COAST DISTRICT



4 August 2005

Laurie Owen  
Santa Barbara Airport  
601 Firestone Road  
Santa Barbara, California 93117

Modified Tidal Restoration Project

Dear Laurie,

The California Department of Fish and Game (the Department) has reviewed the project modifications report for the Tidal Restoration Demonstration Project in Goleta Slough. Our review finds no substantial change in Airport's ability to gain the needed information on the effects of tidal restoration by going forth with the modified project. The experiment may need to be carried out longer than the original project to get the amount of information needed to determine the full effects of tidal restoration, but this is something that can only be determined as the experiment is monitored. The Department believes the modified project may even be a better experiment design than the original project as it will place full tidal restoration closer to the airport's actual areas of operation. The Department recommends installing the infrastructure for the stop logs mentioned on page 7 of the report. This will allow further experimentation with water levels after the initial experiment data is gathered. Similar structures will be installed on the Department's property during the restoration efforts we hope to begin 2006. The Department is excited by the aspects of restoring the tidal restoration to the Slough, and looks forward to seeing the results of the experiment.

Sincerely,

Morgan Wehtje  
Senior Environmental Scientist

cc: Terri Stewart  
Larry Eng  
Mike Mulligan

Mw/mw)

Jennifer:

As we discussed by phone this morning, we recently opened the only bid received for construction of the Goleta Slough Tidal Circulation Experiment. That bid came in at approximately \$1.7 million, well above the approximately \$968,000 engineer's estimate. Based on discussions with contractors that did not bid and the sole bidder (Granite Construction), there are several reasons for the discrepancy, including a lack of bidders interested in the project due a competitive advantage by Granite for the project as designed, higher than anticipated disposal costs for the soil removal caused by Tajiguas landfill's recent decision to no longer accept cover fill and the relative risk of the work at the site (potential for work shut-downs and equipment issues due to rain, high water table etc.).

In light of these developments, the Airport is considering scaling the project back to allow construction of just one experiment basin (Basin E/F) and either defer or abandon construction of Basins L/M. Basin E/F is more accessible, does not require shoring of the access berms, is slightly smaller, and requires less grading and disposal of material to construct. As a result, Basin E/F would be significantly less costly and less risky to construct. Basin E/F also has the benefit of a direct connection to Tecolotito Creek and would therefore yield important information about the hydrology necessary to restore tidal circulation along the creek (some hydrologic information is already known about existing tidal influence along the Mesa Road Channel that would have provided the tidal connection for Basins L/M).

As before, the Airport would monitor the effects of tidal circulation on bird activity for a period of two years. If at any time during the experimental period it appears that the experiment could result in an increase in aviation bird strike hazard, the Airport would have the ability to shut down the experiment consistent with the protocol established in the Final Feasibility Study for the project. If the experiment is successful and no increase in aviation bird strike occurs, the Airport may consider converting other existing freshwater wetlands to tidal circulation within Basin E/F or to other basins (including Basin L/M). Per the Coastal Development Permit for the Airfield Safety Projects (ASP), the Airport must report back to the Coastal Commission in approximately 3 years with respect to the results of the experiment and based on the results, must demonstrate how the Airport proposes to meet its remaining mitigation obligations for the ASP.

We have contacted the California Coastal Conservancy, which has provided the Airport with a \$250,000 grant for construction and operation of the experiment with respect to this proposed change. The Conservancy staff has requested verification from the FAA that the FAA does not object to this change in the project description.

I have faxed to you the previous correspondence from the FAA with respect to this project. Please let me know if you require any additional information to respond to the Conservancy's request. Thanks once again for all your help.

Laurie A. Owens, AICP  
Airport Project Planner  
(805) 692-6023  
Fax (805) 964-1380

RECEIVED

AUG 5 2005

CALIFORNIA  
COASTAL COMMISSION  
SOUTH CENTRAL COAST DISTRICT

Iza, Sara

From: Owens, Laurie  
Sent: Tuesday, July 26, 2005 10:46 AM  
To: Iza, Sara  
Subject: FW: Status of Goleta Slough Tidal Circulation Experiment

Laurie A. Owens, AICP  
Airport Project Planner  
(805) 692-6023  
Fax (805) 964-1380

-----Original Message-----  
From: Jennifer.Mendelsohn@faa.gov [mailto:Jennifer.Mendelsohn@faa.gov]  
Sent: Thursday, June 16, 2005 1:26 PM  
To: Owens, Laurie  
Subject: Re: Status of Goleta Slough Tidal Circulation Experiment

Laurie -

The FAA does not object to the scaled back Goleta Slough Tidal Circulation Experiment as described in your email below. Santa Barbara Airport must comply with the concerns stated in FAA's letter dated October 2, 2002.

Give me a call if you have any questions.

Jennifer Mendelsohn  
Southern California Standards Section  
Environmental Protection Specialist, AWP-621.6  
Phone: 310-725-3637  
FAX: 310-725-6849

"Owens, Laurie"  
<LOwens@SantaBarb  
araCA.gov>

06/15/2005 09:16  
AM

Jennifer Mendelsohn/AWP/FAA@FAA

To  
cc

Subject  
Status of Goleta Slough Tidal  
Circulation Experiment



# City of Santa Barbara

Community Development Department

RECEIVED

AUG 5 2005

www.ci.santa-barbara.ca.us

CALIFORNIA  
COASTAL COMMISSION  
SOUTH CENTRAL COAST DISTRICT

Directors Office

Tel: 805.564.5502

Fax: 805.564.5506

July 27, 2005

Housing &

Redevelopment

Tel: 805.564.5461

Fax: 805.564.5477

Melissa Hetrick  
California Coastal Commission  
89 South California Street, Suite 200  
Ventura, CA 93001

Planning

Tel: 805.564.5470

Fax: 805.897.1904

SUBJECT: DETERMINATION OF SUBSTANTIAL CONFORMANCE FOR  
MODIFIED TIDAL CIRCULATION DEMONSTRATION PROJECT  
AT SANTA BARBARA AIRPORT (CDP 2003-0021)

Building & Safety

Tel: 805.564.5485

Fax: 805.564.5476

Dear Ms. Hetrick:

630 Garden St.

PO Box 1990

Santa Barbara, CA

93102-1990

The City of Santa Barbara Planning Division staff has determined that the Modified Tidal Circulation Demonstration Project meets the purpose and intent of the originally proposed project and therefore substantially conforms to the City issued Coastal Development Permit (CDP 2003-0021). The City supports the proposed amendment to the Coastal Commission issued Coastal Development permit (CDP 4-03-109), which would allow for construction of the Basin E/F portion of the project.

Attached you will find a signed copy of the Approval in Concept form provided by your office. In addition, we have enclosed two sets of signed plans for the modified project.

Rental Housing

Mediation Task Force

Tel: 805.730.1523

Fax: 805.730.1528

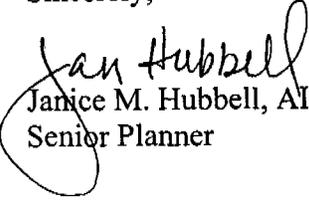
If you have any questions, please feel free to contact me at (805) 564-5470.

Sincerely,

423 W. Victoria St.

Santa Barbara, CA

93101

  
Janice M. Hubbell, AICP  
Senior Planner

- Attachments: 1. Approval in Concept dated July 28, 2005  
2. Two sets signed modified plans dated June 15, 2005

cc: Sara Iza, Associate Planner – City of Santa Barbara Airport

F:\USERS\PLANP C\Substantial Conforma

Exhibit 7  
CDP 4-03-109-A1  
  
Local, State, and  
Federal Approvals