

COASTAL CONSERVANCY

Staff Recommendation  
May 27, 2004

**GOLETA SLOUGH TIDAL RESTORATION DEMONSTRATION PROJECT**

File No. 99-092  
Project Manager: Trish Chapman

**RECOMMENDED ACTION:** Authorize disbursement of up to \$250,000 to the City of Santa Barbara to implement the Goleta Slough Tidal Restoration Demonstration Project, a demonstration project to monitor the effects of restoring tidal circulation to the slough on the bird air strike hazard at Santa Barbara Municipal Airport.

**LOCATION:** Goleta Slough, City of Santa Barbara

**PROGRAM CATEGORY:** Resource Enhancement

---

**EXHIBITS**

Exhibit 1: Project Location and Site Map

Exhibit 2: Negative Declaration and Initial Study *(not included with Exhibit 1 to September 8, 2005 staff recommendation)*

Exhibit 3: Letters of Support *(not included with Exhibit 1 to September 8, 2005 staff recommendation)*

---

**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 21351- 31270 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed two hundred, fifty thousand dollars (\$250,000) to the City of Santa Barbara to implement the Goleta Slough Tidal Restoration Demonstration Project, subject to the following conditions:

1. Prior to commencement of construction and to disbursement of any funds to the City:
  - a. The City shall submit for the review and written approval of the Executive Officer of the Conservancy:
    - i. A detailed work program, project budget and timeline.
    - ii. The names and qualifications of any contractors or subcontractors that the City intends to employ to construct the project.
    - iii. Evidence that all applicable permits and approvals for the project have been obtained.

*GOLETA SLOUGH TIDAL DEMONSTRATION PROJECT*

---

2. The City shall implement the Mitigation and Monitoring Reporting Program that it adopted on December 3, 2003 for the project in compliance with the California Environmental Quality Act (attached to the accompanying staff recommendation as part of Exhibit 2).
3. Conservancy funding shall be acknowledged by erecting and maintaining a sign in the project area, which has been reviewed and approved by the Executive Officer of the Conservancy.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with Chapter 6 of Division 21 of the Public Resources Code (31251-31270) regarding enhancement of coastal resources.
2. The proposed project will enhance wetland habitats in Goleta Slough and is consistent with City of Santa Barbara’s Local Coastal Program (LCP) which states call for the preservation and restoration of the slough.
3. The Conservancy has reviewed the Mitigated Negative Declaration (Exhibit 2 to the accompanying staff recommendation) for the Goleta Slough Tidal Restoration Demonstration Project, adopted by the City of Santa Barbara on December 3, 2003 to comply with the California Environmental Quality Act (“CEQA”), and finds that, with the mitigations and monitoring proposed, there is no substantial evidence that the proposed Conservancy project may have a significant effect on the environment, as defined in 14 California Code Regulations Section 15382.
4. The proposed project is consistent with the guidelines and criteria in the Conservancy’s Project Selection Criteria and Guidelines adopted on January 24, 2001.”

---

**PROJECT SUMMARY:**

The proposed project would provide a grant to the City of Santa Barbara to implement the Goleta Slough Tidal Restoration Demonstration Project. This project will help resolve a long-standing issue that currently inhibits restoration efforts at Goleta Slough, and could facilitate the eventual restoration of over 100 acres of coastal salt marsh habitat. The project has been identified as a Tier 2 priority of the Southern California Wetlands Recovery Project (WRP).

The Santa Barbara Airport lies in the middle of the western arm of Goleta Slough (Exhibit 1). The airport is owned and operated by the City. Most of the wetlands in the western slough have been isolated from tidal circulation by berms, severely degrading the habitat quality. Restoration of tidal circulation to basins that have become hydrologically isolated in the slough was identified as a top priority in the 1997 Goleta Slough Ecosystem Management Plan. However, proposed restoration of tidal circulation to basins surrounding the airport has raised concerns from the Federal Aviation Administration (FAA) and the City that wetlands restoration activities could increase the risk of airplanes hitting birds potentially leading to harm of equipment and/or people. A 1998 study commissioned by the Airport concluded that tidal restoration would decrease or not affect the bird-strike hazard. However, staff from the USDA Wildlife Services,

---

*GOLETA SLOUGH TIDAL DEMONSTRATION PROJECT*

---

which serve as advisors to the FAA on this issue, questioned the validity of the analysis and conclusion. As a result, the FAA informed the Conservancy that it is their position that tidal restoration projects at Goleta Slough should not proceed without additional information to support the conclusion that tidal restoration will not increase the bird-strike hazard.

The objective of the Goleta Slough Tidal Restoration Demonstration Project is to obtain empirical data that can adequately address the FAA's concerns and resolve the bird-strike issue. The Feasibility Study for the Demonstration Project calls for introducing muted tidal action to basin F in the slough and full tidal action to basin L. Tidal circulation would be restored by either cutting a hole in the berm or installing culverts through the berm. The two experimental basins along with two control basins would then be monitored for two to three years, with monitoring focused primarily on bird use. The Tidal Restoration Demonstration Project has been designed so that either of the experimental basins could be returned to its original condition within 24 hours, if monitoring data indicates that the demonstration project has resulted in an increase in the bird-strike hazard. The Feasibility Study outlines criteria for evaluating the bird-strike hazard based on the number and species of birds observed. It also defines thresholds for determining that the field experiment should be terminated due to increased hazard. It is estimated that it will cost approximately \$475,000 to construct the project and \$230,000 for an intensive two year monitoring program.

In August 2002, Airport staff met with representatives from USDA Wildlife Services to discuss the experimental design outlined in the Feasibility Study. Their concerns were addressed in the final study, and in June 2003 the FAA confirmed that they did not object to the demonstration project being undertaken. The FAA is not willing to enter into a formal agreement binding them to the results of the study; however, Airport and Conservancy staff believe that the FAA has been negotiating in good faith and will accept the study results. This belief is supported by the FAA's efforts to use the Santa Barbara protocol in field experiments at other airports faced with similar issues related to wetland restoration.

Development of the Tidal Restoration Demonstration Project is being overseen by Airport staff and the Goleta Slough Management Committee in close coordination with the FAA. The Management Committee includes representatives from the City, Airport, County, Conservancy, Coastal Commission, Department of Fish and Game, U.S. Fish and Wildlife Service, U.S Army Corps of Engineers, U.C. Santa Barbara, and local landowners, businesses, and environmental organizations.

Completion of the Tidal Restoration Demonstration Project is the only way to move beyond the current impasse towards eventual restoration of more than 100 acres of Goleta Slough. Without the additional information which will be gained through the demonstration project, the FAA will object to any tidal restoration activities in the western slough.

**Site Description:** Goleta Slough encompasses over 700 acres of coastal wetlands located on the south coast of Santa Barbara County. The slough represents the northern limit of distribution for several plant and animal species found in Southern California estuaries. Historically Goleta Slough supported 1800 acres of tidal salt marsh, but the site has been degraded and greatly reduced in size through both natural sedimentation and artificial filling. In the 1940s, a substantial portion of the western slough was filled to construct a military airfield, which later became the Santa Barbara Municipal Airport. The 430-acres of the slough which are owned by

---

*GOLETA SLOUGH TIDAL DEMONSTRATION PROJECT*

---

the California Department of Fish and Game (CDFG) and the Santa Barbara Municipal Airport have been designated the Goleta Slough Ecological Reserve. The Reserve is managed by CDFG.

Both natural and anthropogenic processes have contributed to a reduction in tidal circulation within the slough. During this century, approximately 60 percent of the tidal wetlands in the slough have been lost (largely filled) or isolated from tidal action. The resulting loss of intertidal salt marsh has substantially reduced the biological diversity at Goleta Slough. Restoration of tidal circulation to areas that have become hydrologically isolated in the slough has been identified as a top priority in the draft Goleta Slough Ecosystem Management Plan.

Approximately 100 acres of Goleta Slough consist of small basins isolated from tidal circulation by berms and/or culverts (Exhibit 1). These basins receive little or no tidal influence, and their primary water source is winter rains. Habitat types within the basins include degraded salt marsh, salt pan, and seasonal freshwater marshes and wet grasslands. The Feasibility Study recommends using basins F and L for the Tidal Restoration Demonstration Project. Tidal influence to both basins F and L is limited to only extremely high tides. Freshwater seasonally ponds in both basins. Pickleweed is the dominant vegetation in both basin F and L.

**Project History:** In 1998, the Coastal Conservancy began working with the Goleta Slough Management Committee to identify opportunities for restoration of tidal wetlands in Goleta Slough. A project to restore 25 acres of degraded salt marsh in the western slough was identified, and on June 24, 1999, the Conservancy approved \$120,000 for preparation of an enhancement plan for the project. Additional project funding was expected from the U.S. Fish and Wildlife Service and County of Santa Barbara. At the time of Conservancy approval, indications were that the FAA would not object to the project. The Conservancy directed staff to work with the FAA and to discontinue project development if the FAA indicated opposition to the project. On September 27, 1999, the Conservancy received a letter from the FAA stating their position that tidal restoration projects in the vicinity of the airport should not proceed without additional information to support the conclusion that restoration would not increase the bird-strike hazard. Consequently, Conservancy work on the 25-acre project was halted.

In 1998, the airport commissioned a “Wetlands Mitigation Feasibility Study and Wildlife Hazard Assessment.” This study found that the isolated basins surrounding the airport currently support seasonal ponds and wet grasslands. In general, these seasonal wetlands attract medium- to large-size birds, including several species of migratory birds that fly in flocks. In contrast, the study predicted that restored tidal wetlands would attract smaller, low flying birds, that were less prone to flocking. The study concluded that tidal restoration could increase the overall bird use by converting seasonal wetlands to perennial wetlands; however, it also predicted that this would not result in an increase in bird-strike hazard due to the change in bird population to lower risk birds. As stated above, these conclusion were questioned by the USDA Wildlife Services, which serve as advisors to the FAA on this issue.

The FAA indicated conditional support in their September 27, 1999 letter of a tidal restoration feasibility study that would empirically test the predictions of the Airport’s 1998 bird-strike study. On January 27, 2000, the Conservancy authorized disbursement of \$70,000 for preparation of planning documents for the Goleta Slough Tidal Restoration Feasibility Study. On September 28, 2000, this authorization was amended to increase the grant amount to \$150,000 and revise the scope of work to include baseline data collection on bird activity. Due to a time-limit on the County’s funds for the project, the entire \$150,000 for this phase of the project was

---

*GOLETA SLOUGH TIDAL DEMONSTRATION PROJECT*

---

provided by the County.

The City completed a draft of the Demonstration Project Feasibility Study in February 2002. In August 2002, Airport staff met with representatives from Wildlife Services to discuss the experimental design. Wildlife Services indicated that they would submit a letter to the FAA recommending that the demonstration project be conducted. Subsequently, the FAA submitted comments on the experimental design which were addressed in the final study. In a letter to the Airport dated June 26, 2003, the FAA stated that they did not object to the field experiment being undertaken. In October 2002, the Conservancy approved \$108,000 of its funding, plus \$40,000 of grant funding from the County, for the City to undertake environmental review and permitting and prepare final design plans. The City has completed these tasks and is now ready to implement the project.

**PROJECT FINANCING:**

Coastal Conservancy	\$250,000
California Department of Transportation, Environmental Enhancement and Mitigation Program (pending)	\$250,000
U.S. Environment Protection Agency, Wetlands Protection Grant (pending)	\$172,000
City of Santa Barbara	<u>33,000</u>
<b>Total Project Cost</b>	<b>\$705,000</b>

The intended source of Conservancy funds is monies appropriated to the Conservancy from Proposition 40, the "California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002." Allowable uses under this legislation include acquisition, restoration, and protection of land and water resources in accordance with the Conservancy's enabling legislation. The proposed project will facilitate restoration of wetland resources at Goleta Slough, and will further efforts of the WRP to acquire, restore, and enhance coastal wetland and coastal watersheds in Southern California. Therefore, the project is consistent with the purposes of the funding source.

The City of Santa Barbara has applied for additional project funding from the California Department of Transportation and the U.S. Environmental Protection Agency. If these grant funds are not approved, the City will seek funding from other sources including the County Coastal Resource Enhancement Fund, U.S. Fish and Wildlife Service National Coastal Wetlands Conservation grant program.

**CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:**

The Goleta Slough Tidal Restoration Demonstration Project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Public Resources Code, Sections 31251-31270.

Pursuant to Section 31251, the Conservancy may award grants to local agencies to enhance coastal resources including those that have lost natural or scenic value because of natural or

---

*GOLETA SLOUGH TIDAL DEMONSTRATION PROJECT*

---

human-induced events. The proposed project will facilitate the enhancement of wetland resources of Goleta Slough through resolution of a significant barrier to tidal restoration in the slough.

Section 31252 provides that the area proposed for enhancement be identified as requiring public action to resolve existing or potential resource protection problems. Consistent with Section 31252, both the City and County of Santa Barbara Local Coastal Programs call for the preservation and restoration of wetland resources at Goleta Slough. Both LCPs recognize that this will require public action.

Consistent with Section 31253, the amount of proposed Conservancy funding for this project was determined by the total amount of funding available for coastal resource enhancement projects, the fiscal resources of project partners, and the urgency of the project relative to other eligible coastal resource enhancement projects.

**CONSISTENCY WITH CONSERVANCY'S  
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 5 Objective A**, the proposed project will increase Coastal Resource Conservation by facilitating the restoration and enhancement of up to 4.6 acres of coastal wetland habitat and will further the goals of the Southern California Wetlands Recovery Project.

**CONSISTENCY WITH CONSERVANCY'S  
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, in the following respects:

**Required Criteria**

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** The Goleta Slough Tidal Restoration Demonstration Project is being developed in cooperation with the Goleta Slough Management Committee, which includes representatives from the City, County, Airport, Conservancy, Coastal Commission, Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.C. Santa Barbara, and local landowners, businesses, and environmental organizations. The project has also received the support of USDA Wildlife Services. The project has been selected as a priority by the Southern California Wetlands Recovery Project. Letters of support are provided in Exhibit 3.
4. **Location:** The proposed project would be located within the coastal zone of the City of Santa Barbara.
5. **Need:** Neither the City of Santa Barbara (the landowner) nor the California Department of Fish and Game (the land manager) have sufficient funds to undertake this project. Without Conservancy funds, the project will not move forward.

*GOLETA SLOUGH TIDAL DEMONSTRATION PROJECT*

---

6. **Greater-than-local interest:** The proposed project has greater than local interest for two reasons. First, Goleta Slough is one of the few coastal wetland systems that supports both southern California and central California coastal species. This rare conjunction of species makes it very valuable ecologically. Second, many airports in the country are located adjacent to or near a wetland, and concerns about the effect of wetlands restoration on bird-strike hazards have been raised at airports throughout the country. The proposed project utilizes a methodology for examining these concerns on a site-specific basis that could be replicated at any airport. The study methodology was developed with the input of state and federal resource and regulatory agencies, as well as wetland scientists from the University of California at Santa Barbara. Airport staff have already been asked to give a presentation on the experimental design to a national conference on bird-strike issues.

**Additional Criteria**

7. **Leverage:** See the “Project Financing” section above.
8. **Conflict resolution:** See “Project History” section above.
9. **Innovation:** The study methodology developed for this project provides a replicable template for addressing bird-strike concerns at other sites and can be easily modified to fit the specific conditions of another site.
10. **Readiness:** The City of Santa Barbara is ready to proceed with the project as soon as all the funding is secured.
11. **Realization of prior Conservancy goals:** See “Project History” section above.
12. **Cooperation:** The project will be overseen by City’s Airport staff and the Goleta Slough Management Committee in close coordination with the FAA. The Management Committee includes representatives from the City, County, Airport, Conservancy, Coastal Commission, Department of Fish and Game, U.S. Fish and Wildlife Service, U.S Army Corps of Engineers, U.C. Santa Barbara, and local landowners and environmental organizations.

**CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

Goleta Slough is addressed in both the County of Santa Barbara Local Coastal Program (LCP) and the City of Santa Barbara LCP (Airport Component). Both the County and City LCPs identify Goleta Slough as an environmentally sensitive habitat area that should be protected. The County LCP requires the County to work with other agencies for the restoration of sensitive habitats in the slough. The City’s LCP requires the City to enter into an agreement with CDFG and other appropriate agencies to establish the slough as an ecological preserve and to work cooperatively to preserve and restore its resources. The City’s LCP also requires that the management and restoration of Goleta Slough be undertaken in coordination with safe Airport operations. Finally, the LCP states that “tidal action should be maintained in a manner which would maintain optimum populations of marine organisms.” The proposed project will facilitate tidal restoration in the slough that is compatible with airport operations and is consistent with the goals of the both the County and City LCPs.

**COMPLIANCE WITH CEQA:**

On December 3, 2003, the City of Santa Barbara, the Conservancy’s grantee, acting as lead

*GOLETA SLOUGH TIDAL DEMONSTRATION PROJECT*

---

agency under the California Environmental Quality Act (“CEQA”), adopted a Mitigated Negative Declaration (Exhibit 2) for implementation of a short-term field experiment in Goleta Slough to assess the feasibility of a long-term tidal restoration program. The Conservancy, acting as a CEQA responsible agency, will contribute funds towards implementation of the Tidal Restoration Demonstration Project.

The Mitigated Negative Declaration cites potential environmental effects in the areas of air quality, biological resources, and water environment that may result from implementation of the tidal restoration demonstration project. Additionally, the City received two comment letters (attached as part of Exhibit 2) from the California Department of Transportation (DOT) and the Coastal Conservancy. The DOT letter raised additional concerns about impacts to aviation. Potential effects of the project will be reduced to a level of insignificance by the required mitigation measures to: 1) employ dust management practices and revegetate disturbed soils; 2) use best management practices to minimize emissions from construction equipment; 3) employ a biologist to monitor the site for Belding’s savannah sparrow and halt work around any active nest site; 4) prohibit construction from November 1 through July 15; 5) reseed disturbed areas; and 6) implement a storm water pollution prevention plan (see p. 44 of Exhibit 2 for complete language of mitigation measures). Concerns raised by the DOT are addressed through communication between the Airport and FAA, and evidence to this effect was included in the Response to Comments (see p. 139-145 of Exhibit 2).

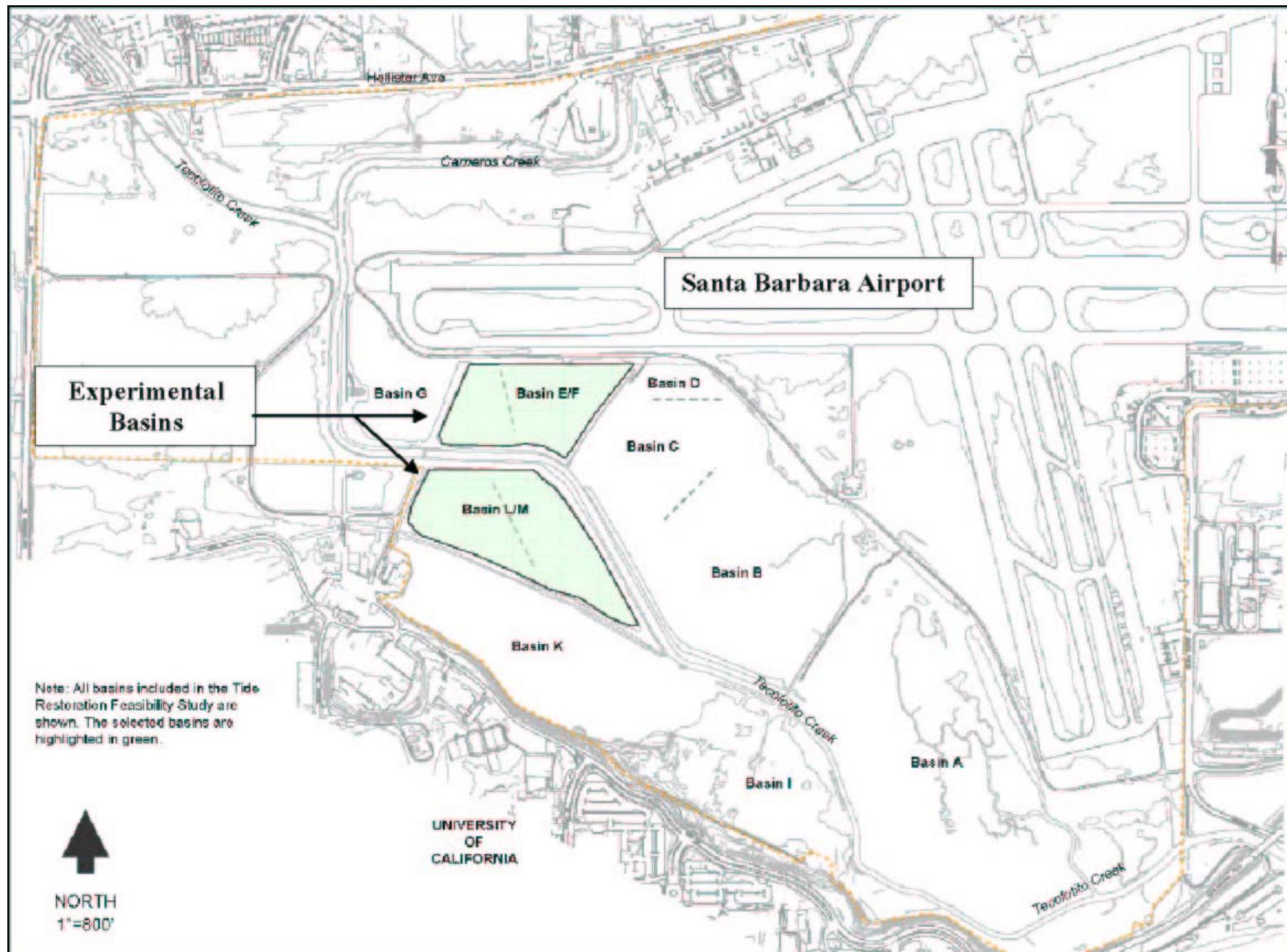
Staff has independently reviewed the City’s Mitigated Negative Declaration and recommends that the Conservancy find that implementation of the proposed project with the mitigation measures will not have a significant effect on the environment.

Upon the Conservancy's approval of the proposed project, staff will file a Notice of Determination.

**EXHIBIT 1A: Regional Location**



**EXHIBIT 1B: Site Map**



**EXHIBIT 1C: Experimental Basin Design**

