

## CALIFORNIA COASTAL COMMISSION

1000 SOUTH CENTRAL COAST AREA  
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## RECORD PACKET COPY

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 Staff Report: 8/21/97  
 Hearing Date: 9/9-12/97  
 Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-97-134

APPLICANT: City of Santa Barbara, Airport  
 AGENT: Allison Cook

PROJECT LOCATION: Santa Barbara Municipal Airport, 601 Firestone Road, Goleta,  
 Santa Barbara County

PROJECT DESCRIPTION: Implementation of wetland creation, restoration, and enhancement consisting of grading and revegetation of 29.8 acres adjacent to the Goleta Slough, and removal and control of exotic vegetation on an additional 1.3 acre site within the Goleta Slough to mitigate impacts of re-grading and compacting existing airport runway and taxiway safety areas, only 3 acres of which are within the Commission's retained original permit jurisdiction.

Zoning: Airport Facilities, Airport Approach & Primary Surface,  
 Goleta Slough Reserve Zones  
 Plan Designation: Major Public & Institutional (Airport & Open Space)

LOCAL APPROVALS RECEIVED: City of Santa Barbara Local Coastal Development Permit (CDP97-0020)

SUBSTANTIVE FILE DOCUMENTS: Negative Declaration (ENV97-0005); Revised Safety Area Grading Project: Project Description, Purpose, Need (March 1997); Revised Wetland Mitigation Plan: Safety Area Grading Project (February 1997); Supporting Environmental Information for the Safety Area Grading Project (July 1996).

SUMMARY OF STAFF RECOMMENDATION: Staff is recommending approval of the proposed project with a special condition addressing post-project monitoring reports for wetland creation, restoration, and enhancement actions in the Goleta Slough.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. Approval with Conditions.

The Commission hereby grants, subject to the conditions below, a permit for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, is located between the sea and first public road nearest the shoreline, is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. Standard Conditions.

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date 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. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
6. 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.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS:

1. Post-Project Monitoring

Following completion of the mitigation project, the applicant shall submit to the Executive Director copies of the post-project monitoring reports prepared in conjunction with the mitigation project. These reports shall assess the success of the mitigation measures and identify any remedial actions necessary to ensure complete compliance with the mitigation standards included in the mitigation program.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. Background and Project History

The present application is part of a larger project which consists of two components: (1) re-grading, compacting, and maintaining the existing airport infield and taxiway safety areas of the Santa Barbara Municipal Airport which includes isolated and degraded upland and wetland habitats; and (2) mitigating impacts to habitats associated with the airport infield and taxiway safety areas through creating, restoring, and enhancing wetland and upland habitats adjacent to the airport facilities within and adjacent to the Goleta Slough.

Of the 123 acres of airport safety area to be re-graded and compacted, approximately 120 acres fall with the City of Santa Barbara's original coastal permitting jurisdiction; only approximately 3 acres falls within the Coastal Commission's area of retained original permit jurisdiction. Only 3 acres of the airport safety area is part of this permit application.

Of the 30.2 acre mitigation site (28.9 plus 1.3 acres), approximately 5 acres is within the City of Santa Barbara's original coastal permitting jurisdiction, and not subject to original permitting jurisdiction of the Coastal Commission. The remaining 25 acres of mitigation area falls within the Coastal Commission's areas of retained original permit jurisdiction, and is the subject of this permit application.

The report therefore focuses on the mitigation component of the project, but also provides background and a description of the re-grading and compacting, and on-going maintenance of the airport infield and taxiway safety area component.

The proposed project has been initiated in response to Federal Aviation (FAA) Administration requirements to maintain airport runway and taxiway safety areas. Runway and taxiway safety areas are unpaved areas immediately adjacent to runways and taxiways. They are intended to enhance the safety of airplanes which undershoot or overrun, or veer off the runway or taxiway in an emergency event, and they provide accessibility for emergency activities such as firefighting and rescue. The safety area includes all of the infield and taxiway safety areas. The infield refers to the full extent of unpaved areas in between and adjacent to runways and taxiways.

The FAA stipulates that runway and taxiway safety areas shall be:

Cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations;

2. Drained by grading or storm sewers to prevent water accumulation;

3. Capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft; and

4. Free of objects, except for objects that need to be located in the safety area because of their function. Objects higher than 3 inches above grade should be constructed of low impact resistant supports of the lowest practical height with the frangible point no higher than 3 inches above grade. Other objects, such as manholes, should be constructed at grade. In no case should their height exceed 3 inches above grade.

Additionally, FAA requirements stipulate that safety areas need to be compacted to 90 percent of their relative maximum level of compaction.

The Santa Barbara Municipal Airport safety areas are currently characterized by irregular surfaces (i.e., humps and depressions), caused by water, wind, vegetation, and jet activity. The safety areas are mowed regularly for safety purposes, and irregular surfaces have been periodically graded and compacted in the past. The irregularities range from four inches to one foot throughout the airport safety areas.

Since 1991 the FAA certification inspectors have identified areas throughout the airport safety areas which need to be graded. Surveys conducted by the Airport staff in 1996 identified significant surface irregularities throughout the infield; these irregularities are such that a comprehensive grading effort is necessary to ensure smooth, compact surfaces and to maintain adequate drainage.

The City of Santa Barbara has issued a local Coastal Development Permit (CDP97-0020) for the that portion of the project within the area of the City original coastal permitting jurisdiction, which includes a majority of the re-grading and compacting of the airport runway and taxiway safety areas, and a small portion of the wetland mitigation site. This locally issued Coastal Development Permit was not appealed, and has been issued.

#### B. Project Location and Description

The entire project site is located adjacent to and within the Goleta Slough. The entire re-grading and compacting project area encompasses 126.96 acres (including approximately 30 acres of isolated and/or degraded habitats), only 123 acres of which would be affected by the initial grading and compacting. Approximately 3 acres falls within the Commissions original retained permit jurisdiction.

The City of Santa Barbara has developed a mitigation plan encompassing approximately 30 acres to offset impacts to wetland and upland habitats generated by the airport runway and taxiway safety maintenance plan. Approximately 25 acres of this component of the project falls, within the Coastal Commission's retained original permit jurisdiction.

The entire project consist of three elements:

1. Grading and compacting the existing runway and taxiway "safety areas" to meet Federal Aviation Administration (FSA) requirements.
2. Future and ongoing repair and maintenance activities in the safety area, including grading and compacting as necessary, and facility repair.
3. Restoration of transitional wetland habitats along the margins of the Goleta Slough near the safety areas.

#### Grading and Compacting

The following provides a description of the entire re-grading and compaction portion of the project contained within both the City and the Coastal Commission's areas of retained jurisdiction.

The initial grading of the airport safety areas (runway infield and taxiways) involve the following actions:

Clear and grub the surface area, removing all vegetation and about 2 inches of the upper soil. This material would be moved from the safety area and disposed off-site, outside of the coastal zone. Vegetative material in wetland areas in the safety area would be conserved and moved to the mitigation site for use in revegetation.

Remove the upper six inches of saline soils that occur in scattered patches throughout portions of the safety areas for use at the wetland restoration site. About 14 to 23 acres involving 12,335 to 18,525 cubic yards of saline soils would be removed and transported to the mitigation site.

Cut and fill earthworks to grade to a smooth surface using a scraper and/or motor grader. Surface soils would be moved about to provide the proper grade and smoothness, and to ensure proper drainage of the safety area.

Graded and compacted areas would be planted with non-native annual grasses which are currently found in the Goleta Slough area to control wind and water erosion. Small portions of the safety area may also be seeded with low annual wildflowers.

All of the infield areas currently contain drainage outlets in the center and are gradually sloped at about 1 to 3 percent. The safety areas would also be graded to maintain adequate drainage from newly smoothed and compacted safety areas per FAA requirements. Similar slopes would be maintained after grading.

The total amount of material excavated in the safety area has been estimated to be about 54,338 to 57,742 cubic yards, of which 32,416 to 34,897 cubic yards would be exported to a disposal site off-site, and 12,335 to 18,525 cubic yards of saline soils to be transported to the wetland restoration site. Approximately 47,569 to 53,448 cubic yards would be imported to replace the excavated material in the safety area.

#### Future Maintenance Activities

The safety area is regularly mowed to keep vegetation short and to exclude woody plants. Mowing is conducted in accordance with the Airport's Wildlife Hazard Management Plan, as required by the FAA.

Maintenance grading of the safety area would be required in the future on a ongoing and as-needed basis as irregular surfaces due to natural soil dynamics, wind or rain erosion, or the action of plants. Although the extent and frequency of maintenance grading are uncertain, grading is likely to occur every 3 to 5 years and would be restricted to localized portions of the safety area. These areas would be hydroseeded after grading. In the event of a major flood that deposits sediments throughout the safety areas such as occurred during the 1995 flood, the Airport would require substantial grading of the safety area to remove sediments.

Additional maintenance and repair activities in the safety area include repair and rehabilitation of signs, drain inlets, lights, buried storm drains, utility lines, rebuilding runway or taxiway shoulders, and installation of new signs, drains, utility lines, or lights to replace old facilities, meet new requirements or to improve airport operations.

#### Wetland Mitigation/Creation/Restoration/Enhancement

The following provides a description of the entire wetland mitigation actions, including those within both the City's and the Coastal Commission's areas of retained original permitting jurisdiction. (As noted above, approximately 25 of the 30 acres of the mitigation area are within the Coastal Commission's areas of retained original permit jurisdiction.)

The over all goal of the restoration component of the mitigation plan is to compensate for the loss of wetland and upland values and functions in the safety area due to the re-grading and compacting, and on-going maintenance, and to provide greater functions and values in the mitigation area than are currently provided in the isolated and degraded habitats associated with the infield and taxiway safety areas.

The principal mitigation site is 29.86 acres adjacent to and within the Goleta Slough. The affected section of Goleta Slough is just south of the runways and taxiways, on airport property, along the northern edge of the Goleta Slough. Of this 29.86 acre site, 25.38 acres would involve wetland creation, including grading and/or planting. Another 1.37 acres of this site would be involve wetland enhancement through planting and/or weeding. The remaining 3.11 acres of the site would be left in their present condition and are interspersed with the other habitats. The 29.86 acres does not include an additional 1.3 acres of weeding located in the southeastern portion of the Goleta Slough.

There are four elements of the wetland mitigation program.

1. Create non-tidal transitional marsh habitats (palustrine habitats) along the northern margins of the Goleta Slough in order to recreate habitats similar to what were present along margins of alluvial fans prior to the human development of the Goleta Slough. Habitats to be created include the following:

Middle Marsh Habitats (non-tidal palustrine persistent emergent wetlands, regularly saturated by rainfall and runoff). Herbaceous vegetation dominated by Distichlis spicata, Frankenia grandifolia, Jaumea carnosa, and Salicornia virginica.

High Marsh Habitats (non-tidal palustrine persistent emergent wetlands, regularly saturated by rainfall and runoff, slightly less moist and saline than middle marsh habitat). Grassland/herbaceous vegetation found on the alluvial fans, often surrounding or incorporating barren salt flats. Characteristic species include Arthrocnemum subterminale, Hordeum depressum, Monathochloe littoralis, Spergularia marina, and Lasthenia glabrata.

Seasonal Wetlands in Local Depressions with Saline Soils, or Salt Flats (non-tidal palustrine persistent emergent wetlands, regularly saturated by rainfall and runoff). Sparse open vegetation dominated by Hordeum genticulatum, Spergularia marina, Salicornia virginica, and Suaeda calceoliformis.

A total of 25.38 acres of new transitional marsh habitats (palustrine and high estuarine habitats) would be created at the mitigation site. Of this type, about 2.5 acres would be high estuarine marsh (to be located between 4.5 and 5 feet above mean sea level), and subject to short-term and infrequent inundation by the highest tide. The remainder of the new wetlands would be palustrine marsh subject to short-term shallow inundation and prolonged soil moisture from rainfall and runoff. Most of the mitigation site would be graded with a slight slope towards the salt marsh. However, small depressions would create localized moist soil conditions, and possibly, salt flats after a number of years of evaporation.

Additionally, a small barren area of approximately one acre is located at the terminus of an abandoned runway within the mitigation site. Because of soil contamination, the soil will be excavated to a depth of 4 feet and disposed off-site by the contractor.

2. Remove or lower approximately 1,900 linear feet of artificial berms in the salt marsh and restore to high estuarine marsh habitat that is irregularly flooded by high or extreme tides. This action would remove noxious weed sources (e.g., mustard, thistle, and fennel) from the upland habitats on the berms, remove predator movement corridors, and create new native habitats dominated by Salicornia virginica, and Frankenia grandifolia.

3. Establish populations of one or more of the following plants of special interest in selected portions of the newly restored areas:

Arthrocnemum subterminale  
Hordeum depressum  
Monathochloe littoralis  
Lasthenia glabrata  
Suaeda calceoliformis  
Hordeum brachyantherum

4. In addition to the 29 acre mitigation site the Airport has identified a 1.3 acre parcel in the Goleta Slough at the southeastern portion of the slough where invasive non-native plants would be removed and replaced with native species. The site is currently dominated by Iceplant (Carpobrotus chilensis), a variety of Mustard (Brassica spp.), Wild Fennel (Foeniculum vulgare), Western ragweed (Ambrosia psilostachya), Cheesweed (Malva parviflora), and non-native grasses (Bromus sp. and Avena sp.), and Myoporum (Myoporum laetum). The enhancement treatment would consist of removing invasive weeds, using herbicides in some cases. Weeding would occur 2 or 3 times during the spring and summer for two years. Once the non-native has been removed, native wetland plants would be expected to recolonize without active revegetation. Upland area would be seeded once the winter with coyote bush (Baccharis sp.) and Saltbush to facilitate recolonization.

Finally, approximately 3.11 acres of existing wetland at the mitigation site would be retained in their present form and included in the overall management and maintenance of the mitigation site.

Maintenance of the mitigation site will occur for 2 years following the grading and planting of the site. Weeding of the mitigation site will be conducted regularly during the 2-year maintenance period. Additional weeding will occur during the 5-year monitoring period if necessary to meet the performance goals for plant cover and species diversity. Monitoring and reporting of mitigation performance will be conducted for 5 years beginning immediately after the completion of the 2 year maintenance period. Several measure of performance will be used during the 2-year maintenance and 5-year monitoring periods. Additionally, typical plant vegetation sampling methods will be used during the 5-year monitoring period.

An 80 percent survival of seedlings and plants will be used to evaluate the success of the plantings. Additionally the following minimum plant cover goals will be used to estimate the success of the mitigation: 40 percent after 3 years; 45 per percent after 4 years; 50 percent after 5 years; 60 percent at 6 years; and 70 percent after 7 years.

The re-grading and compacting of the safety areas, as well as the construction of the wetland mitigation site is expected to begin in July 1998 and continue for 6 months. In the event that more than 6 months would be required, work would begin in May to avoid splitting the work into two years.

### C. Coastal Issues

#### 1. Biological Resources

PRC Section 30231, provides that:

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

(a) The diking, filling, or dredging of . . . 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:

(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.

(7) Restoration purposes.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary.

PRC Section 30240 provides that:

(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.

The safety areas encompasses 127 acres of unpaved land, consisting of two major vegetation types: (1) hydrophytic and/or halophytic vegetation (i.e., vegetation commonly associated with saturated and saline soil conditions respectively); and (2) upland vegetation. As noted above, almost all of this area, with the exception of two small areas at the end of the runways fall within the City of Santa Barbara's area of original permit jurisdiction and are not the subject of this permit application to the Coastal Commission.

The vegetation types within the safety areas were characterized and mapped based upon field surveys in April May, and December 1995 and in January 1996. The results of this survey indicates that most of the wetlands in the safety area represent sites with high soil salinity, where hydrophytic soils were deposited as fill during the construction of the runway and taxiways during the 1940's, prior to the creation of the Coastal Commission. Currently functioning hydric soils are mostly absent from the safety areas. Wetland

hydrology is also mostly absent from the safety areas which contains a storm drain system and which have been graded to facilitate drainage and prevent ponding. As a result the dominant plants at the wetland sites are functioning as halophytic plants rather than as hydrophytic plants.

The number of acres of wetland in the safety areas varies depending upon the definitions and interpretation of the wetland used by various regulatory agencies. The City has recognized the Coastal Commission's definition of wetlands for the purposes of developing mitigation measures for the project. Using the Commission's broad definition of wetlands, the safety areas contains 22.94 acres of wetlands, though much of this acreage is in a highly degraded state and with low functions and values.

The grading and compacting would impact 22.94 acres of wetland habitat, principally halophytic vegetation associated with the highly saline, but currently non-functioning hydrophytic soils which have been placed on the safety area as artificial fill during the initial construction of the airport in the 1940's.

To compensate for the loss of wetland vegetation and barren salt flats and their associated functions and values, the City is proposing to implement a wetland mitigation plan. The principal restoration site, which is located between the airport runway and the northern edge of the Goleta Slough, encompasses 29.86 acres. The mitigation site consists of fill material to a depth of three to four feet. This fill overlays native marsh and alluvial soils. Almost 5,200 linear feet, will be excavated and regraded to lower elevations, create more gentle grade changes with terraces and improve soil and hydrological conditions for restored wetland habitats. About 44,300 cubic yards of material will be excavated from the mitigation site. Of this amount, 7,400 cubic yards will be used as fill in the area. Additional 30,500 cubic yards will be exported to the safety area for use as fill. As noted above, the 29.86 acres does not include the weeding of a 1.3 acre area at the southern edge of the Goleta Slough.

Most of the restoration site would be converted to transitional wetlands with a variety of new functions and values, primarily related to botanical and wildlife habitat values. Creating and restoring transitional middle and high marsh habitats along the northern margin of Goleta Slough would result in the following benefits: (1) provide a heritage value by restoring habitats similar to historic habitats, including that of certain rare plants that are either no longer present or not well represented in the marsh ecosystem; (2) improve the ecological diversity and value of the marsh ecosystem by partially restoring the vegetation and topography to a more natural historic configuration; and (3) improve wildlife habitat values at the site by providing more native vegetative structure, plant diversity and edge complexity than do the impacted habitats in the airport infield and safety areas.

Additionally, a portion of the site would be restored to marsh or mudflat, primarily through the removal of berms. Removal of weed species at the restoration site would also enhance the habitat values, as a source of weed seed would be removed.

Upon implementation of the project, 22.94 acres of hydrophytic and/or halophytic vegetation in the safety areas would be replaced with upland vegetation. Upland grasses species would be planted. Combined with the existing 104.22 acres of uplands, this would result in a total of almost 127 acres of upland vegetation in the safety area.

The proposed mitigation project entails the creation, restoration, and enhancement of wetland habitat within the Goleta Slough. The excavation and filling with saline soils is intended to restore historic transitional wetland habitats types now absent or rare in the vicinity of the Goleta Slough. The proposed project is therefore one of the permitted uses under PRC Section 30233. Further, the proposed mitigation proposal has been designed to minimize impacts to adjacent wetland habitats, and to enhance the functions and values of those habitats by increasing the structural diversity around the northern margins of the Goleta Slough.

The mitigation proposal has the potential to temporarily adversely affect the environmentally sensitive habitats associated with the northern margin of the Goleta Slough through the introduction of heavy equipment, disturbance of soils subject to erosion, and through the introduction of pollutions from the operation of heavy equipment. The mitigation program includes specific measures - including an access and pollution control contingency plan - to control the use of heavy equipment within the vicinity of the northern margin of the Goleta Slough, and to control potential release of pollutants into the adjacent environmentally sensitive habitats. The proposed project is therefore consistent with the provisions of PRC Section 30231 and 30240.

In summary, there will be a net increase in wetland habitats from 22.94 to 28.94 acres, plus an additional 1.3 acres will be weeded to improve both wetland and upland habitats. Further, the replacement wetlands would, because of their location adjacent to the northern margin of the Goleta Slough and more complex vegetative structure, provide more habitat functions and greater values than the current isolated and degraded wetlands situated within the infield and marginal safety areas.

The proposed mitigation proposal involves excavation of upland soils and the translocation of saline soils to a site adjacent to the existing northern margin of the Goleta Slough. Because of the uncertainty of the long-term viability of these soils to support specially adapted halophytic vegetation, a series of test plots were established using relocated saline soils. While results from this test were positive, continued monitoring of the proposal will be necessary to ensure the success of the created wetland types.

Special Condition #1 requires the applicant to provide post-project monitoring reports prepared in conjunction with the mitigation for the re-grading and compacting component of the over-all project.

The Commission therefore finds that approval of the proposed development, as conditioned, is consistent with the Sections 30231, 30233, 30240 of the Coastal Act.

2. Geologic and Flood Hazards

Section 30253 of the Coastal Act states, in part, that new development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

The proposed project would entail the excavation, re-grading, and replacement of saline soil types within the airport runway and safety areas, as well as regarding and placement of saline soils along the northern margin of the Goleta Slough. The proposed action would not significantly change the hydrology of the Goleta Slough, though small depressions along the margins of the slough may accumulate runoff from rainfall, and other areas where berms are removed or lowered may be subjected to some tidal inundation during extremely high-tides. There are no structures within the mitigation site which would be threatened by this minor change in hydrologic conditions.

The Commission finds that the project, as conditioned, will be consistent with Section 30253 of the Coastal Act.

3. Public Access

PRC Section 30211 provides that:

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

Section 30212 provides, in part, that:

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

- (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,

The proposed project does not lie between the first public road paralleling the sea and the coast. The Santa Barbara Municipal Airport provides a major transportation and access facility for the south coast of Santa Barbara County, and adjacent areas. The proposed mitigation will not adversely affect access to the Goleta Slough or adjacent Goleta Beach, and is intended to off-set impacts generated by the safety grading project which is mandated by the Federal Aviation Administration as part of the operation of the Santa Barbara Municipal Airport.

The Commission finds that the project, as conditioned, will be consistent with PRC Sections 30211 and 30212 of the Coastal Act.

4. Archaeological Resources

PRC Section 30244 provides that:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required

The Santa Barbara Municipal Airport contains a wide variety of cultural resources, including pre-historic and historic Native American archaeological sites and historic structures.

A Phase I archaeological assessment prepared by the City identified one site within the project areas, at the east end of Runway 7-25 in the safety area for that runway. While no re-grading or recompacting would occur within this area as part of the proposed project, future maintenance work may occur as needed at a later date. Because the site has been previously disturbed it has been classified as a low sensitivity area in the Airport Phase I study. The City has provided for on-going monitoring of potential cultural sites within the project area by a professional archaeologist to ensure that any newly discovered sites are protected through appropriate mitigation. The project as proposed, and future maintenance activities within the area of the Commission's original permit jurisdiction are not expected to impact any cultural or historical resources.

The Commission finds therefore that the proposed project, as conditioned is consistent with PRC Section 30244 of the Coastal Act.

#### D. California Environmental Quality Act

The Coastal Commission's permit process has been designated as the functional equivalent of CEQA. Section 13096(a) of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of CEQA. Section 21080.5 (d)(2)(i) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse impacts that the activity may have on the environment.

As discussed above, the proposed pipeline support project has been mitigated to incorporate the protection of environmentally sensitive habitats, and the waiver of liability for any flood related damages. As conditioned, there are no feasible alternatives or mitigation measures available, beyond those required, which would lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and is found consistent with the requirements of CEQA and the policies of the Coastal Act.

A B C D E F G H I J K L M N O

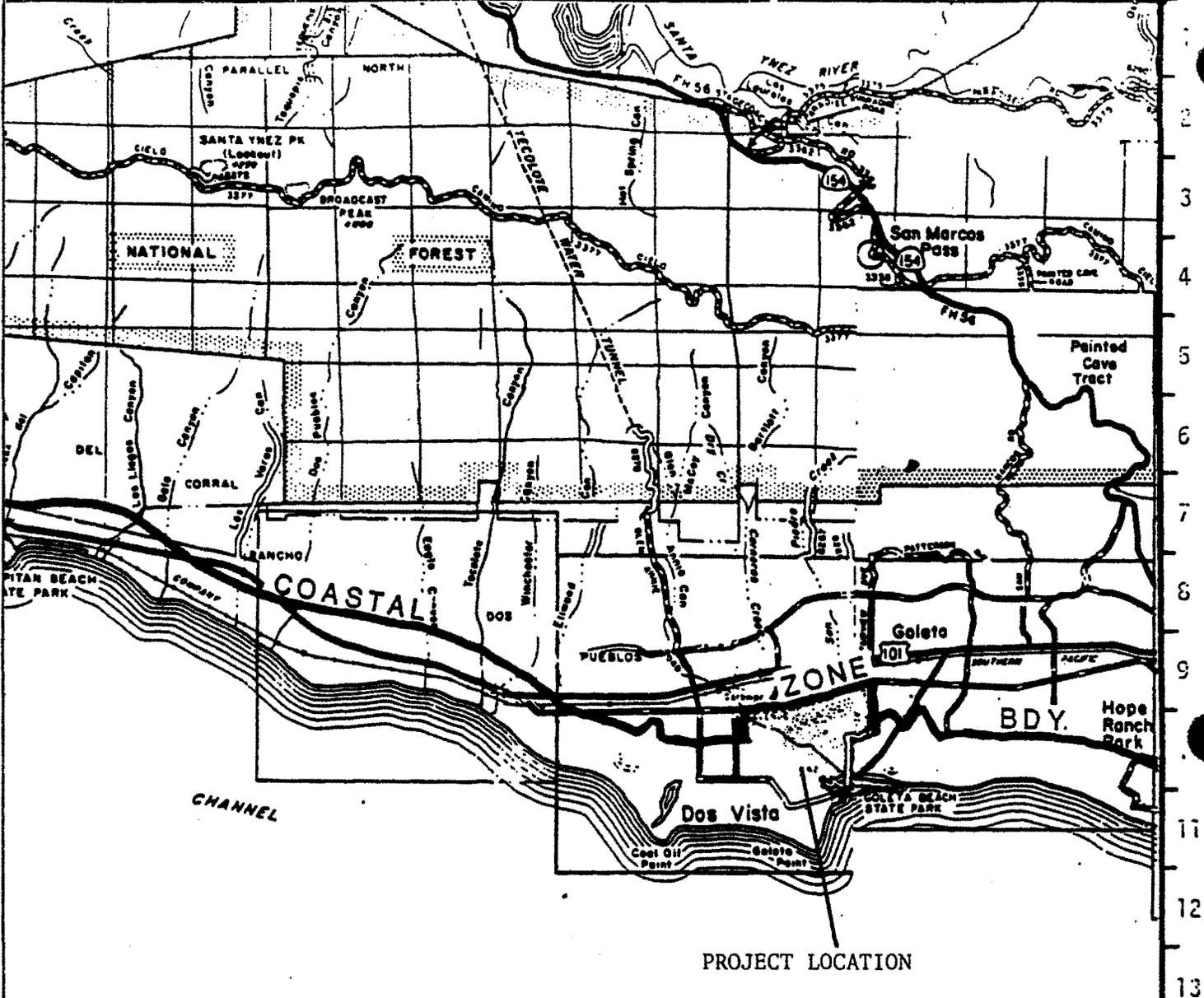
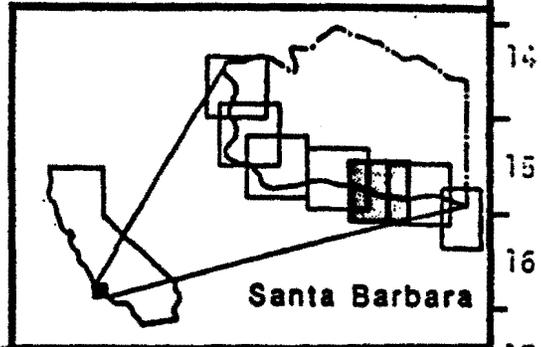


EXHIBIT NO.	1
APPLICATION NO.	
	4-97-134
	Santa Barbara City

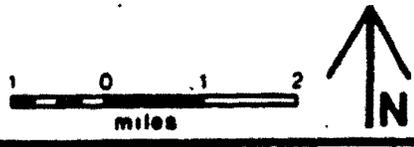


OCEAN

PROJECT LOCATION

California Coastal Commission

# LOCATION MAP



## County of Santa Barbara

EXHIBIT NO. 2
APPLICATION NO.
4-97-134
Santa Barbara City

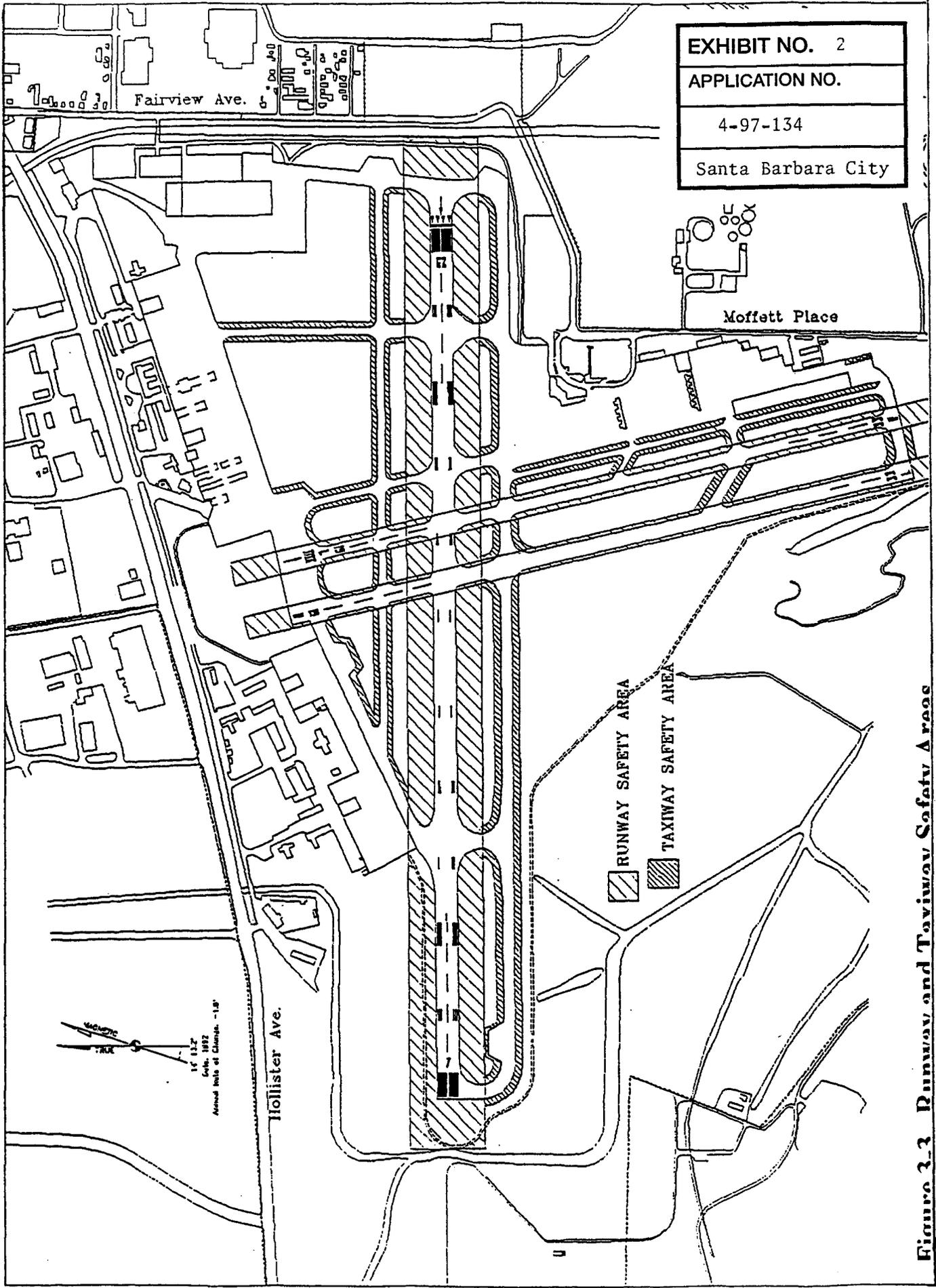


Figure 3.3 Runway and Taxiway Safety Areas

-  Permit Jurisdiction
-  Appeal Jurisdiction
-  30613 Appeal Jurisdiction

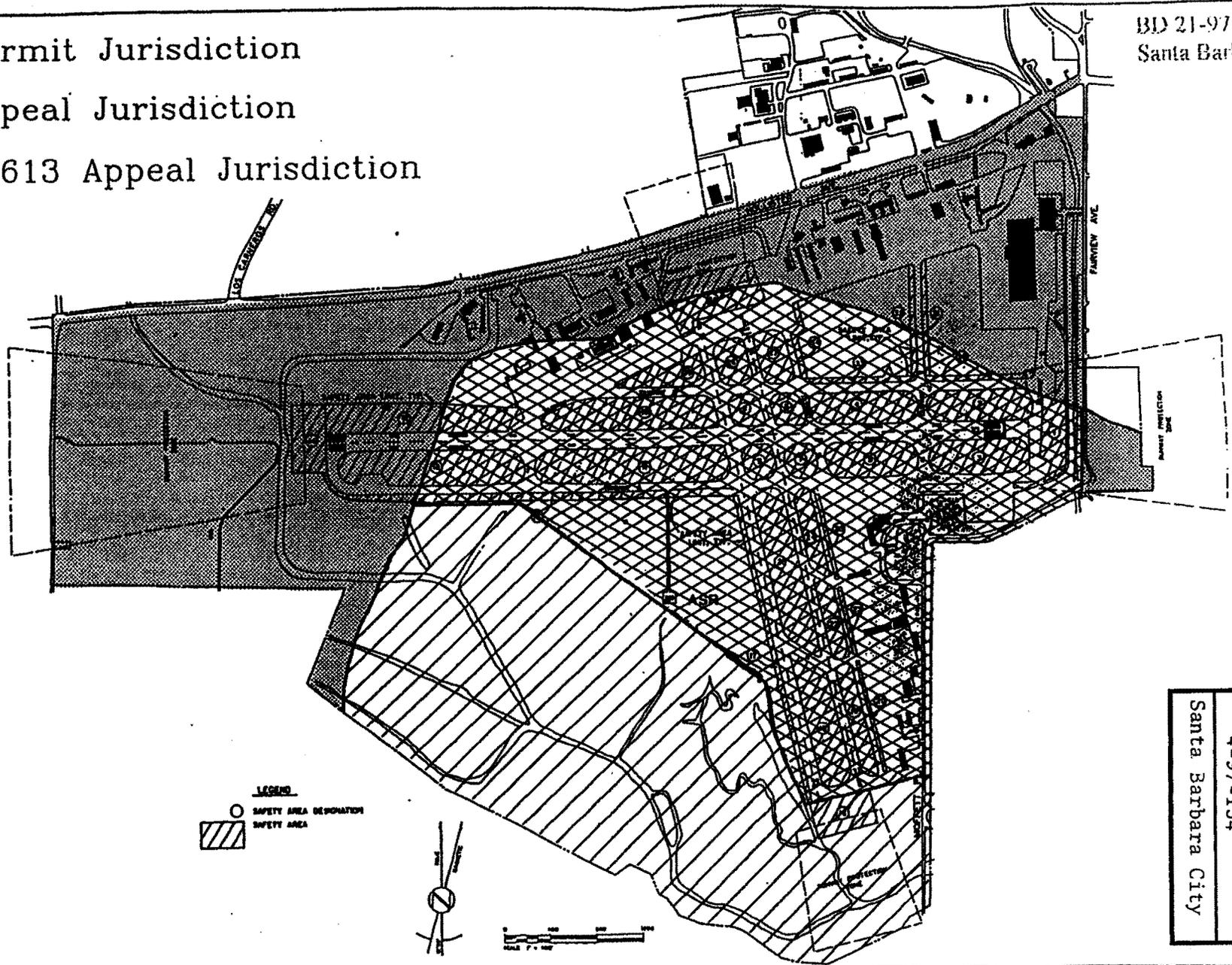


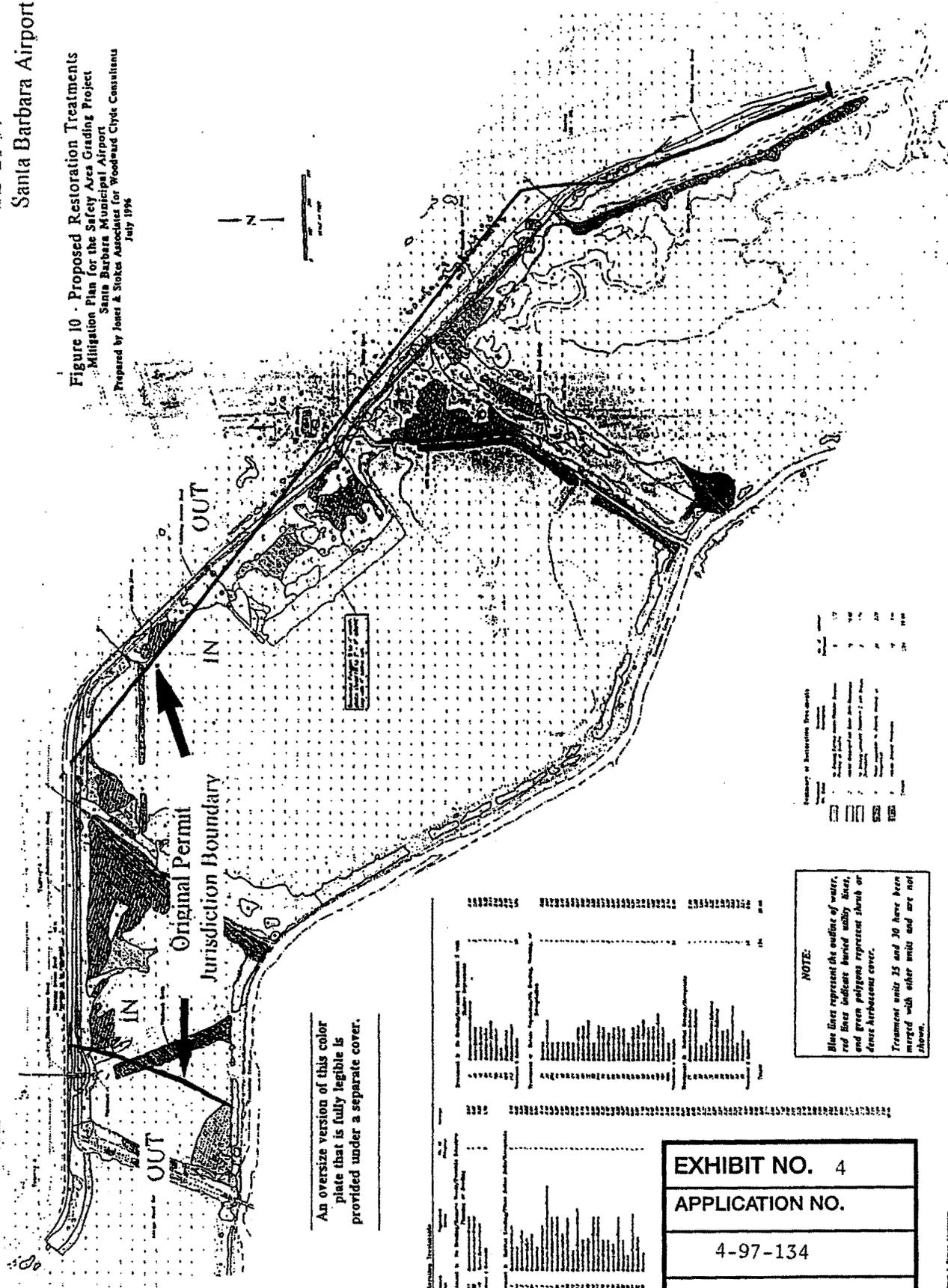
EXHIBIT NO. 3
APPLICATION NO. 4-97-134
Santa Barbara City

Figure 2. Safety Area Grading Project

BD 21-97

# Santa Barbara Airport

**Figure 10 - Proposed Restoration Treatments**  
Mitigation Plan for the Safety Area Grading Project  
Santa Barbara Municipal Airport  
Prepared by Jones & Stokes Associates for Woodward Clyde Consultants  
July 1996



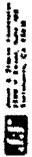
**NOTE:**

Blue lines represent the outline of water, red lines indicate limited water flow, and green polygons represent shrub or dense herbaceous cover.

Treatment units 25 and 30 have been merged with other units and are not shown.

Unit No.	Area (Acres)	Volume (CY)	Notes
1	0.15	150	...
2	0.20	200	...
3	0.10	100	...
4	0.25	250	...
5	0.18	180	...
6	0.12	120	...
7	0.30	300	...
8	0.15	150	...
9	0.22	220	...
10	0.18	180	...
11	0.10	100	...
12	0.28	280	...
13	0.15	150	...
14	0.20	200	...
15	0.12	120	...
16	0.35	350	...
17	0.18	180	...
18	0.25	250	...
19	0.15	150	...
20	0.20	200	...
21	0.10	100	...
22	0.30	300	...
23	0.15	150	...
24	0.22	220	...
25	0.18	180	...
26	0.10	100	...
27	0.28	280	...
28	0.15	150	...
29	0.20	200	...
30	0.12	120	...

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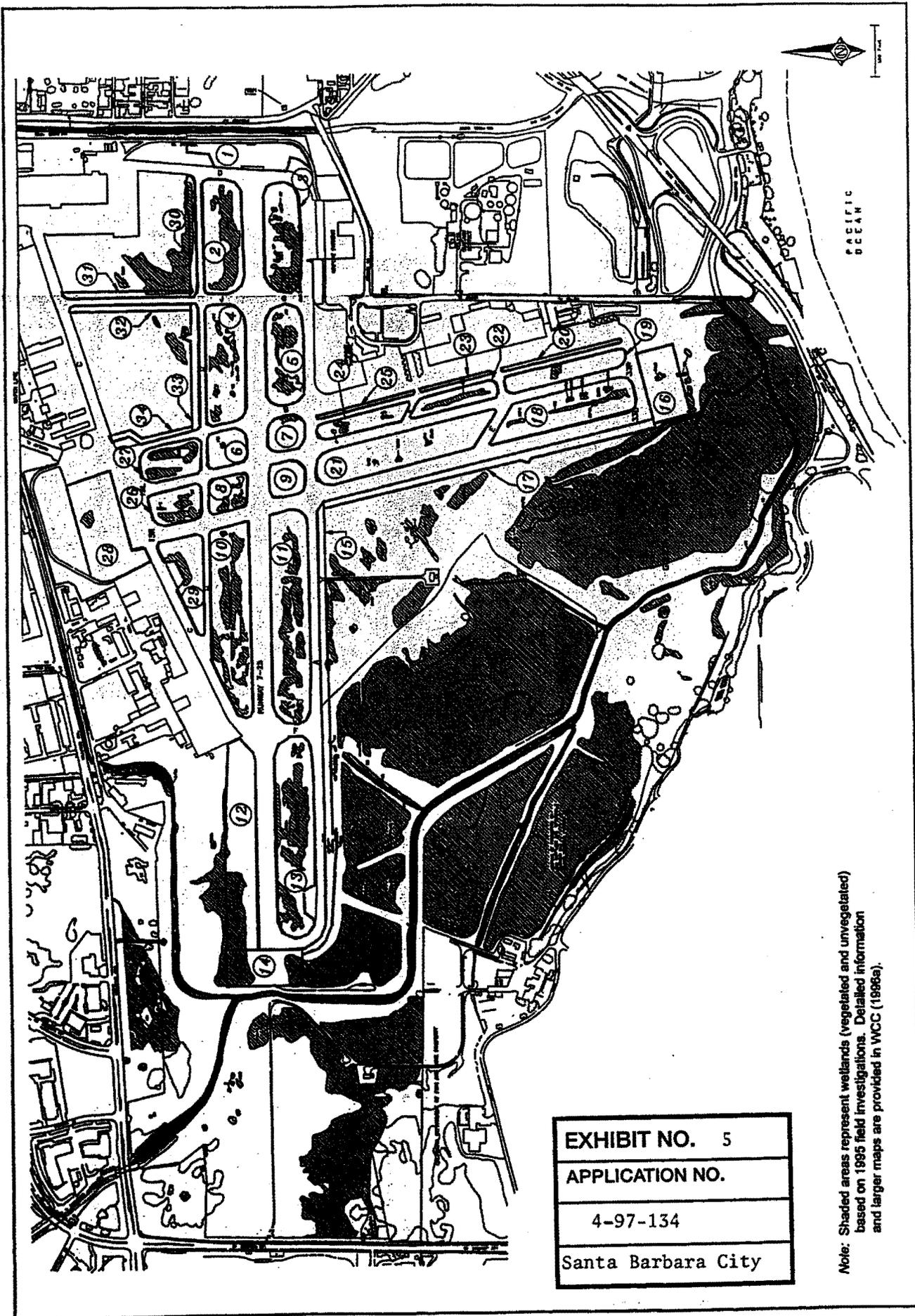


EXHIBIT NO. 6
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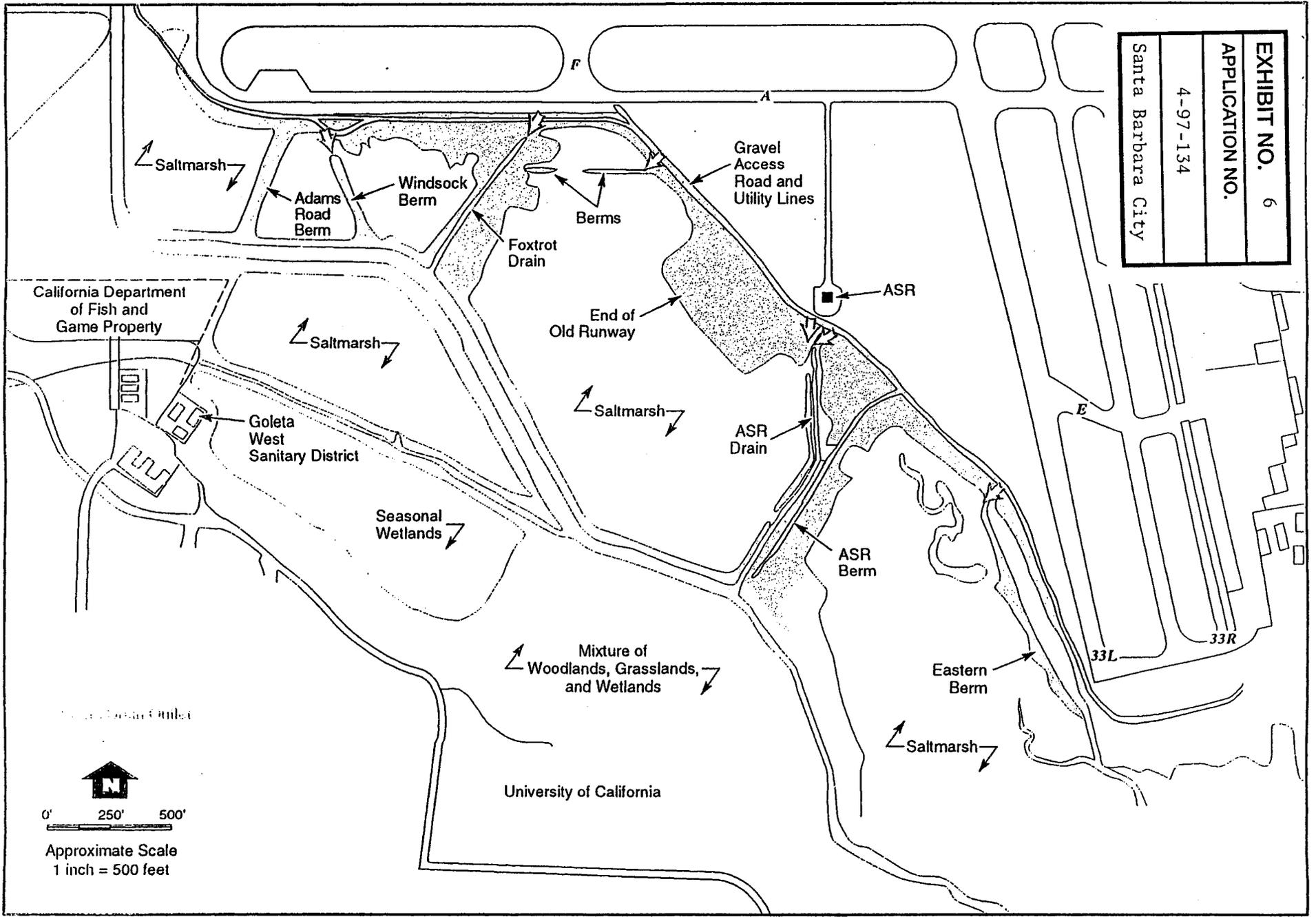


Figure 6. Overview of Mitigation Site and Vicinity

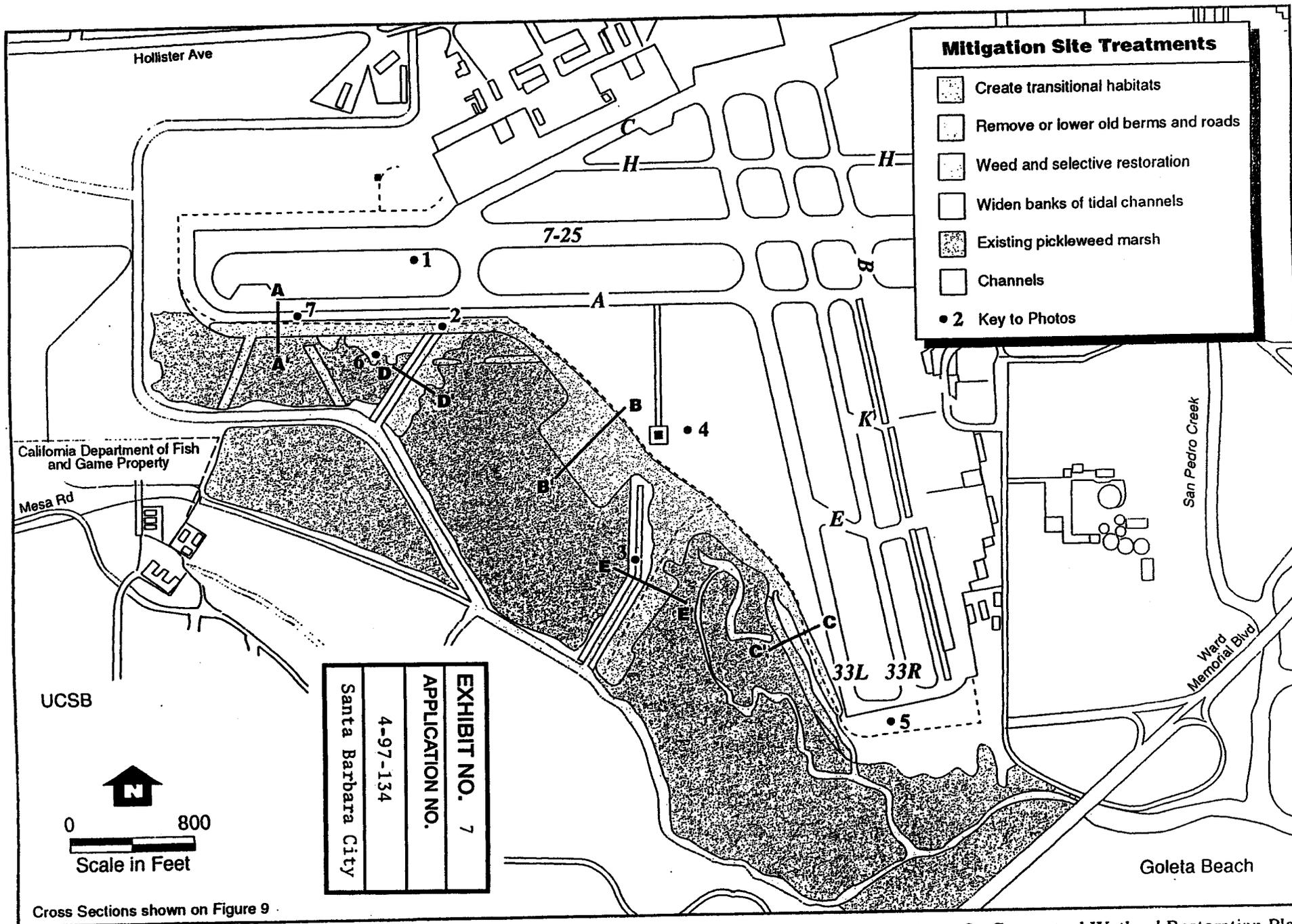
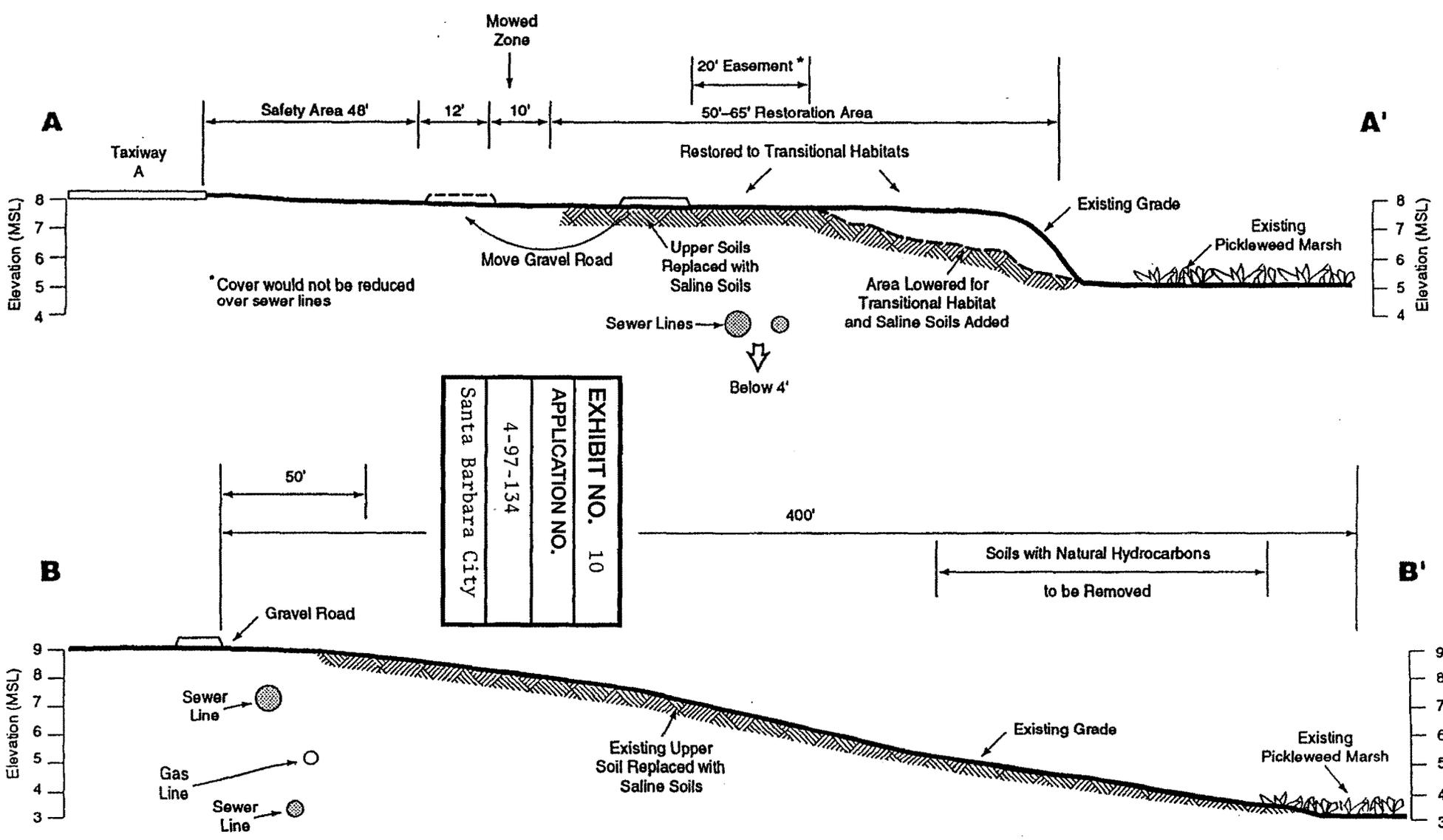


Figure 8. Conceptual Wetland Restoration Plan







Note: Cross-Section Locations Shown of Figures 8

Figure 9A. Cross-Sections of Mitigation Treatments

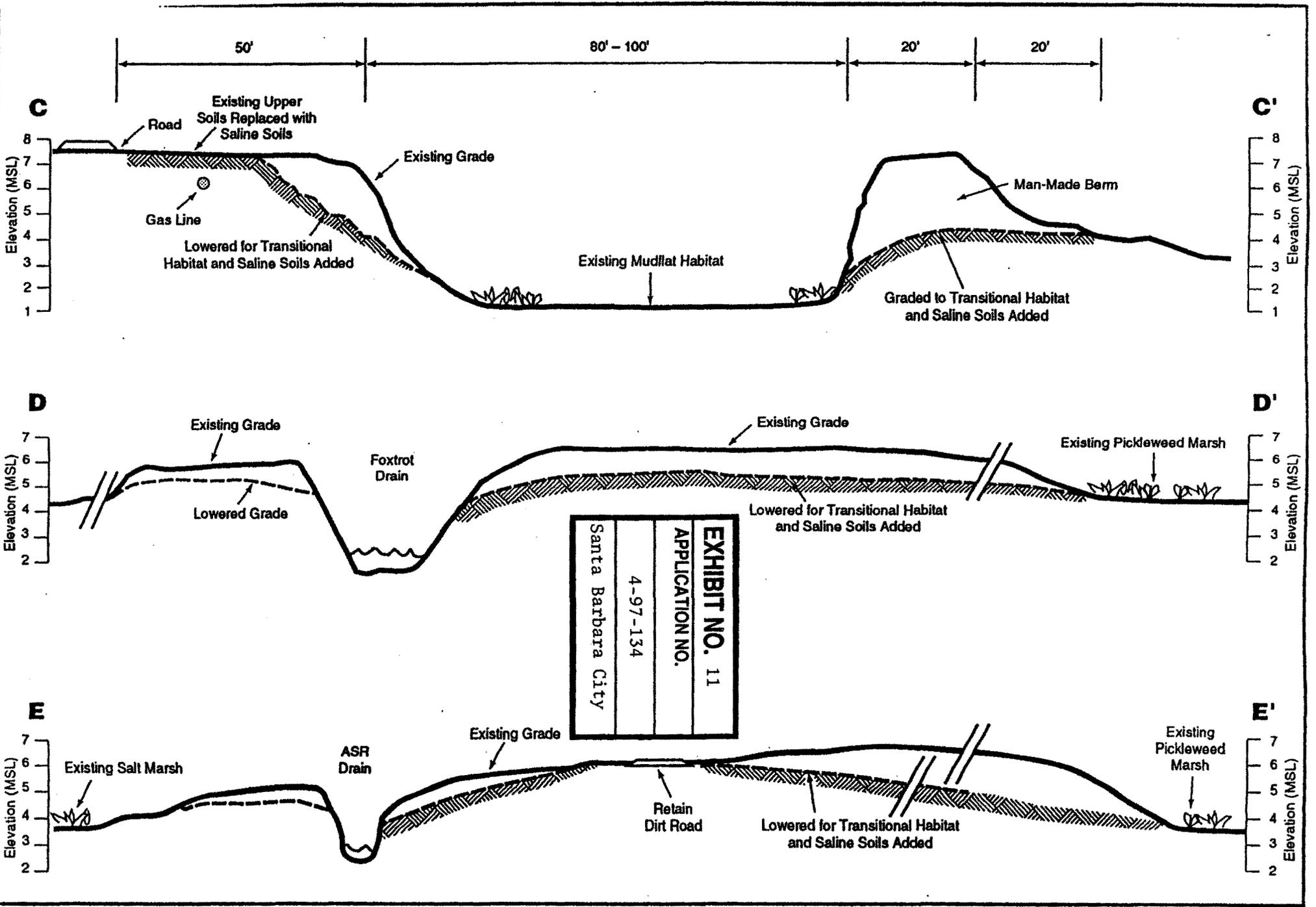


Figure 9B. Cross-Sections of Mitigation Treatments

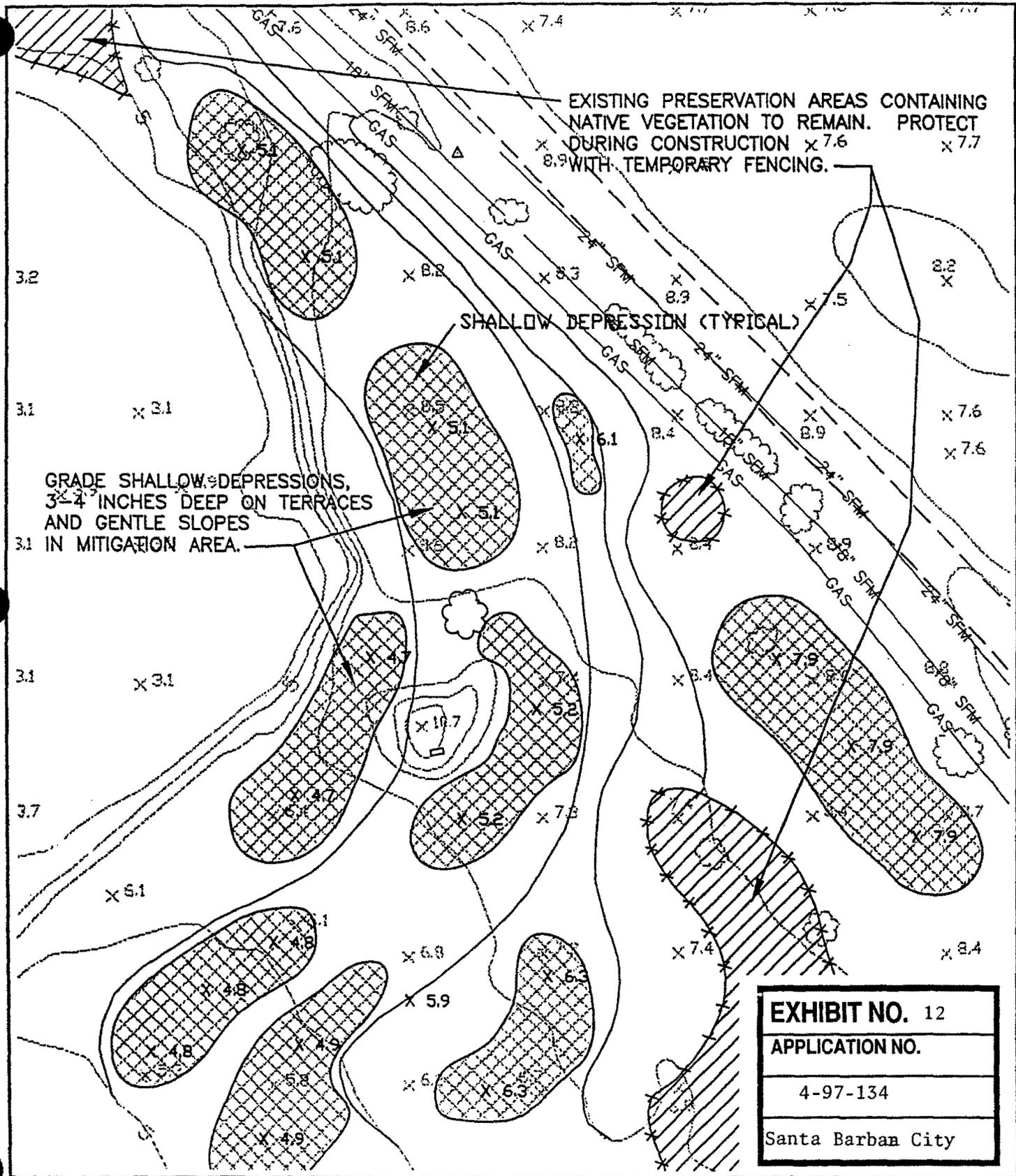


Figure 12. Typical Patterns for Shallow Depressions

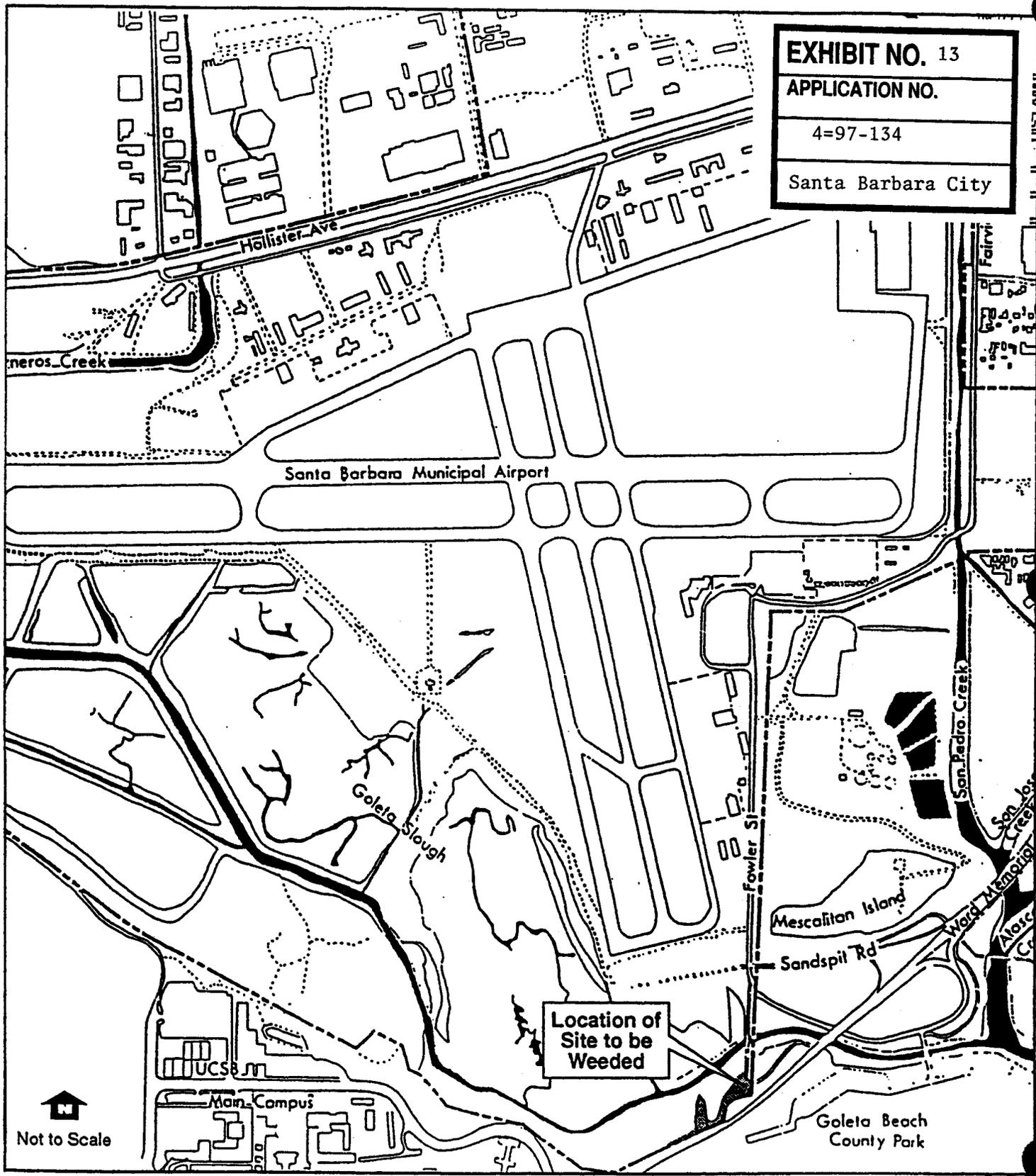


Figure 1. Location of Site to be Weeded

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Not to Scale

Legend	
	Ruderal
	Iceplant Series
	Coyote Brush Series
	Pickleweed Series
	Limonium Series (Sea Lavender)
	Saltgrass Series
	Frankenia Series (Alkali Heath)

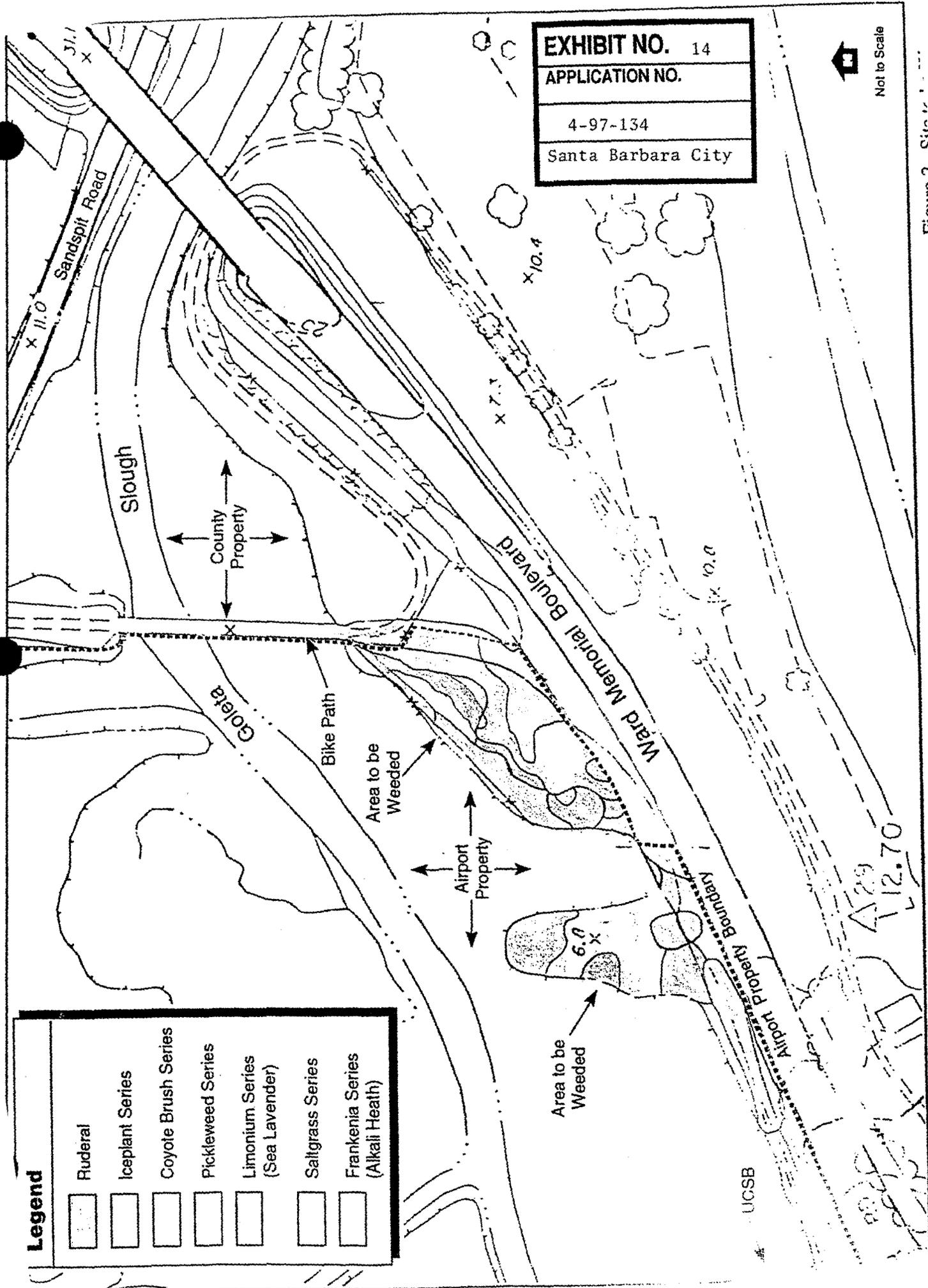


Figure 2. Site Map

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TABLE 3  
SUMMARY OF VEGETATION TYPES IN THE SAFETY AREA

Vegetation Types	Vegetative Structure	Relative Abundance in Safety Area	Other Co-Dominant Species
<i>Hydrophytic and Halophytic Vegetation</i>			
Pickleweed Series ( <i>Salicornia virginica</i> )	Perennial herbs and unvegetated saltflats	Infrequent	Alkali Heath ( <i>Frankenia salina</i> ), Saltgrass ( <i>Distichlis spicata</i> ), Saltmarsh Sandspurry ( <i>Spergularia marina</i> ), Mediterranean Barley ( <i>Hordeum marinum ssp. gussoneanum</i> ), African Brass-buttons ( <i>Cotula coronopifolia</i> ), and Sickle Grass ( <i>Parapholis incurva</i> ).
Saltmarsh Sandspurry Series ( <i>Spergularia marina</i> )	Annual herbs and unvegetated saltflats	Frequent	Mediterranean Barley, Saltgrass, Pickleweed, African Brass-buttons, and Sickle Grass.
Saltgrass Series ( <i>Distichlis spicata</i> )	Perennial grasses	Rare	Mediterranean Barley, Pickleweed, Curly Dock ( <i>Rumex crispus</i> ), Saltmarsh Sandspurry, and Sickle Grass
Curly Dock Series ( <i>Rumex crispus</i> )	Perennial herbs	Uncommon	Italian Ryegrass ( <i>Lolium multiflorum</i> ), Saltgrass, Alkali Heath, and Smooth Spike-primrose ( <i>Epilobium pygmaeum</i> )
California Annual Grassland Series	Annual grassland	Frequent	Italian Ryegrass, Curly Dock, Spreading Alkali-weed ( <i>Cressa truxillensis var. truxillensis</i> ), Saltgrass, Sickle Grass, African Brass Buttons, Alkali Heath, Mediterranean Barley, and Fescue ( <i>Vulpia myuros</i> )
<i>Upland Vegetation</i>			
California Annual Grassland Series	Annual grassland	Abundant	Italian Ryegrass, brome grasses ( <i>Bromus spp.</i> ), Slender Wild Oat ( <i>Avena barbata</i> ), Mediterranean Barley, Canary Grass, Blue Ryegrass ( <i>Elymus glaucus</i> ), Whitestem Filaree ( <i>Erodium moschatum</i> ), barleys ( <i>Hordeum spp.</i> ), Yellow Sweetclover ( <i>Melilotus indica</i> ), Burclover ( <i>Medicago polymorpha</i> )
Ruderal Series	Annual herbs	Abundant	Mustards ( <i>Brassica spp.</i> ), Cocklebur ( <i>Xanthium strumarium</i> ), Telegraph Weed ( <i>Heterotheca grandiflora</i> ), brome grasses, Slender Wild Oat, Whitestem Filaree, Cheeseweed ( <i>Malva parviflora</i> ), Yellow Sweetclover, Burclover

**TABLE 4**  
**ACREAGE OF VEGETATION TYPES IN THE SAFETY AREA**

Vegetation Types	Cowardin et al. (1979) Wetland Classification Type	Acreage in the Safety Area
<i>Hydrophytic and/or Halophytic Vegetation (i.e., wetland vegetation)</i>		
Pickleweed Series	Palustrine persistent emergent (saline soils); includes unvegetated saltflats	0.93
Saltmarsh Sandspurry Series	Palustrine persistent to non-persistent emergent (saline soils); includes unvegetated saltflats	9.57
Saltgrass Series	Palustrine persistent emergent (saline soils)	0.60
Annual Grassland (wet)	Palustrine non-persistent emergent (saline soils)	11.84
Subtotal =		22.94
<i>Upland Vegetation</i>		
Annual Grassland (dry)	Not applicable	63.46
Ruderal Series	Not applicable	40.56
Subtotal =		104.02
TOTAL =		126.96

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TABLE 5  
VEGETATION TYPES IN THE SAFETY AREA

Grading Unit (see Figure 2)	Acres	Hydrophytic and/or Halophytic Vegetation (acres)					Upland Vegetation: Grassland and Ruderal (acres)
		Pickle-weed*	Salt Marsh Sand-spurry*	Salt Grass	Wet Grassland	Total	
1	3.52				0	0	3.52
2	5.74				1.99	1.99	3.75
3	4.82		1.86		0.13	1.99	2.83
4	5.84		0.66	0.23	0.03	0.92	4.92
5	4.54		0.95			0.95	3.59
6	1.72			0.04		0.04	1.68
7	1.55		0.12			0.12	1.43
8	1.76		0.35			0.35	1.41
9	1.53					0	1.53
10	8.80		2.60			2.60	6.20
11	10.17	0.08	1.10		2.23	3.41	6.76
12	8.94				1.72	1.72	7.22
13	9.71	0.78			2.86	3.64	6.07
14	4.00				1.71	1.71	2.29
15	4.97		0.02		0.04	0.06	4.91
16	3.44	0.05			0.08	0.13	3.31
17	2.17					0	2.17
18	6.46		0.16	0.33	0.09	0.58	5.88
19	2.88		0.17			0.17	2.71
20	0.64					0	0.64
21	8.35				0.08	0.08	8.27
22	2.04				0.37	0.37	1.67
23	0.40					0	0.40
24	2.15		0.26			0.26	1.89
25	0.46					0	0.46
26	2.36	0.02	0.74			0.76	1.60
27	2.78				0.35	0.35	2.43
28	7.19		0.20			0.20	6.99
29	3.20		0.38			0.38	2.82
30	1.04				0.05	0.05	0.99
31	1.00				0.11	0.11	0.89
32	0.96					0	0.96
33	1.12		<0.01			0	1.12
34	0.71					0	0.71
Total =	126.96	0.93	9.57	0.60	11.84	22.94	104.02

\*Note: These vegetation types are characterized by large unvegetated salt flats which are included in the acreages..

**TABLE 6  
OCCURRENCE OF WETLANDS IN THE SAFETY AREA**

Definition	Portions of the Safety Area Grading Unit Affected (see Figures 3 and 4)	Total Acreage
<p><b>Using Three Characteristics:</b></p> <p>Corps (1987) definition and field procedures require three wetland characteristics.</p>	<p>Unit 11 (0.11 a. of saltmarsh sandspurry)            Unit 14 (0.68 a. of wet grassland)            Unit 15 (0.04 a. of wet grassland)            Unit 16 (0.13 a. of wet grassland &amp; pickleweed)            Unit 27 (0.35 a. of wet grassland)            Unit 29 (0.38 a. of wet grassland)            Unit 33 (0.002 a. of saltmarsh sandspurry)</p>	1.69
<p><b>Using Two Characteristics:</b></p> <p>Wetland definitions that require the presence of hydrophytic plants and wetland hydrology (e.g., Tiner, 1989).</p>	<p>Unit 11 (0.11 a. of saltmarsh sandspurry)            Unit 12 (1.72 a. of wet grassland)            Unit 14 (1.71 a. of wet grassland)            Unit 15 (0.06 a., wet grassland &amp; saltmarsh sandspurry)            Unit 16 (0.13 a. of wet grassland &amp; pickleweed)            Unit 27 (0.35 a. of wet grassland)            Unit 29 (0.38 a. of wet grassland)            Unit 33 (0.002 a. of saltmarsh sandspurry)</p>	4.46
<p><b>Using One Characteristic:</b></p> <p>Wetlands based only on the presence of wetland hydrology.</p>	<p>Unit 11 (0.11 a. of saltmarsh sandspurry)            Unit 12 (1.72 a. of wet grassland)            Unit 14 (1.71 a. of wet grassland)            Unit 15 (0.06 a., wet grassland &amp; saltmarsh sandspurry)            Unit 16 (0.13 a. of wet grassland &amp; pickleweed)            Unit 27 (0.35 a. of wet grassland)            Unit 29 (0.38 a. of wet grassland)            Unit 33 (0.002 a. of saltmarsh sandspurry)</p>	4.46
<p><b>Using One Characteristic:</b></p> <p>Wetland definition that only requires the presence of hydrophytic plants.</p>	<p>All hydrophytic and/or halophytic vegetation types listed in Tables 4 and 5.</p> <p><i>(Note: this definition assumes that halophytic plants in the safety area are functioning as hydrophytic plants. Field evidence (WCC, 1996a) indicates that most of the plants are likely to be halophytic)</i></p>	22.94

*Note that the above acreage values include unvegetated salflats, and that the total wetland acreage based on each definition is independent of the other acreages.*

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**TABLE 8  
SUMMARY OF TEMPORARY AND PERMANENT IMPACTS  
TO CORPS WETLANDS AND TO WETLAND VEGETATION**

Grading Unit	Veg. Type	Corps Wetlands (see Figure 3)			Wetland Vegetation (non-Corps wetlands; see Figure 4)		
		Acreage to be Removed	Perimeter of Adjacent Wetlands	Acreage of Temp. Disturbed Wetlands in the 10' Zone	Acreage to be Removed	Perimeter of Adjacent Wetland Vegetation	Acreage of Temp. Disturbed Wetland Veg. in the 10' Zone
<b>Corps Wetlands with Adjacent Corps and Non-Corps Wetlands</b>							
11	2	0.11	0	0	3.41	0	0
14	11	0.68	200	0.05	1.71	300	0.07
15	2,11	0.04	50	0.01	0.06	300	0.06
16	1,11	0.13	110	0.03	0.13	110	0.03
27	11	0.35	0	0	0.35	0	0
29	2	0.38	0	0	0.38	0	0
33	2	0.002	20	0.005	0.002	20	0.005
<b>Non-Corps Wetland Vegetation with Other Adjacent Wetland Vegetation</b>							
12	11	0	0	0	1.72	800	0.18
30	11	0	0	0	0.05	500	0.11
31	11	0	0	0	0.11	350	0.08
<b>Non-Corps Wetland Vegetation without Other Adjacent Wetland Vegetation</b>							
Misc. (24 units)	varies	0	0	0	15.02	0	0
<b>Total =</b>		<b>1.69</b>		<b>0.10</b>	<b>22.94</b>		<b>0.54</b>

**Vegetation types:**  
 1 = pickleweed series  
 2 = saltmarsh sandspurry series  
 11 = wet grassland

**Note: unvegetated salt flats are included in the above acreage values**

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**TABLE 10**  
**SUMMARY OF VEGETATION TYPES AT THE MITIGATION SITE**

Number	Vegetation Type (* indicates native vegetation. See Figure 7 for distribution at the mitigation site)	Likely to be Corps Wetland?	Wetland Vegetation Based on Dominant Species Only?	Acreage at the Mitigation Site
1	Salicornia Series* (=pickleweed marsh) a. Salicornia Monoculture b. Salicornia-Other Species Mixture	x	x	2.48
2	Frankenia Series* (=saltmarsh)	x	x	0.03
3	Typha Series* (=cattail stands)	x	x	0.55
4	Baccharis Series* (=coyote brush stands)			2.93
5	Sambucus Series * (=elderberry shrub)			0.01
6	Hordeum Series * (=barley grassland) a. Hordeum Grassland b. Hordeum-High Marsh Mixture c. Hordeum-Ruderal Grassland			0.71
7	Lolium Series (=ryegrass grassland) a. Lolium Grassland (non-wetland, 0.11) b. Lolium-High Marsh Mixture	x	x	0.84
8	Avena Series (=wild oats grassland) a. Avena Monoculture Grassland b. Avena Mixed Grassland c. Avena-High Marsh Mixture d. Avena-Ruderal Grassland			7.78
9	Bromus Series (=brome grass grassland)			0.43
10	Brassica Series (=mustard stands) a. Brassica Monoculture b. Brassica-Baccharis c. Brassica Grassland d. Brassica-High Marsh Mixture e. Brassica-Ruderal Mixture			11.49
11	Foeniculum Series (=wild fennel stands)			0.09
12	Picris Series (=ox-tongue weeds)			0.03
13	Lactuca Series (=wild lettuce)			0.09
14	Carpobrotus Series (=ice plant mats)			0.63
15	Eucalyptus Series (=small trees)			0.20
16	Nicotiana Series (=tree tobacco stands)			0.02
17	Myoporum Series (=introduced shrubs)			0.01
18	Barren			0.99
19	Gravel Road			0.56
<b>Total=</b>				<b>29.86</b>

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*A more detailed breakdown of the vegetation types is provided in Appendix B.*

**TABLE 11**  
**SUMMARY OF EXISTING VEGETATION ACREAGE AT THE MITIGATION SITE**

Vegetation Type	Acreage	Cowardin et al. (1979) Wetland Type
<i>Corps Wetlands</i>		
<i>Salicornia Series</i>	2.48	Estuarine persistent emergent
<i>Frankenia Series</i>	0.03	Estuarine persistent emergent
<i>Hordeum Series</i>	0.28	Palustrine non-persistent emergent
<i>Typha Series</i>	0.55	Estuarine persistent emergent
<i>Lolium Series (wet grassland)</i>	0.73	Palustrine non-persistent emergent
Subtotal =	4.07	
<i>Wetland Vegetation (non-Corps Wetlands)</i>		
None present	0	
<i>Uplands</i>		
Annual Grassland ( <i>Lolium</i> )	0.11	Not applicable
Annual Grassland ( <i>Hordeum</i> )	0.43	Not applicable
Coyote Brush Series	2.93	Not applicable
Various Ruderal & Introduced Types	20.77	Not applicable
Barren and Existing Road	1.55	Not applicable
Subtotal =	25.79	
TOTAL =	29.86	

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**TABLE 12  
SUMMARY OF IMPACTS TO EXISTING VEGETATION  
AT THE MITIGATION SITE**

Vegetation Type	Existing Acreage	Future Acreage
<i>Existing Wetlands *</i>		
Wetlands to be retained with no enhancement	3.11	3.11
Wetlands to be enhanced with more native species and removal of weeds	0.96	see below
Subtotal=	4.07	3.11
<i>New Wetlands to be Created or Enhanced</i>		
Uplands to be converted to wetlands	see below	24.42
Enhanced wetlands to be created from existing wetlands	see above	0.96
Subtotal=		25.38
<i>Uplands</i>		
Uplands to be retained	1.37	1.37
Uplands, barren areas, and roads to be converted to wetlands	24.42	see above
Subtotal=	25.79	1.37
<b>TOTAL=</b>	<b>29.86</b>	<b>29.86</b>

\* Only Corps-defined wetlands occur at the mitigation site.

**TABLE 13  
SUMMARY OF TEMPORARY IMPACTS TO WETLANDS,  
MUDDLATS, AND DRAINAGES AT THE MITIGATION SITE**

Pickleweed Marsh	Ruderal Area	Mudflats	Open Water (both sides)
<i>Linear Feet Adjacent to:</i>			
12,040	520	2,400	3,720
<i>Acreage of Temporary Disturbance:</i>			
0.83	0.04	0.17	0.26

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**TABLE 15  
COMPARISON OF CHANGES IN VEGETATION  
AT THE SAFETY AREA**

Vegetation Types	Existing Acreage	Acreage After Grading and Re-Seeding
<i>Hydrophytic and/or Halophytic Vegetation (i.e., wetland vegetation)</i>		
Pickleweed Series*	0.93	0
Saltmarsh Sandspurry Series*	9.57	0
Saltgrass Series	0.60	0
Annual Grassland (wet)	11.84	0
Subtotal=	22.94	0
<i>Upland Vegetation</i>		
Annual Grassland (dry)	63.46	126.96
Ruderal Series	40.56	0
Subtotal=	104.22	126.96
<b>TOTAL=</b>	<b>126.96</b>	<b>126.96</b>

*\*Note: These vegetation types are characterized by large unvegetated salt flats.*

The changes in vegetation at the mitigation site due to the wetland restoration program are summarized in Table 16.

About 3.11 acres of the existing wetlands at the mitigation site (totaling about 4.07 acres) would be retained in their present form, and included in the overall management and maintenance of the mitigation site. In their current condition, these wetlands do not need weeding or supplemental planting. However, they would be weeded during the restoration and maintenance period, if such a need arises. Hence, at this time, 3.11 acres of existing wetlands would be excluded from the proposed restoration grading and revegetation. About 0.96 acres of existing wetlands dominated by *Lolium* (treatment unit 94), *Hordeum* (treatment unit 71), and *Typha* (treatment unit 110) would be actively enhanced. These small patches of existing wetlands would be enhanced by creating small depressions and planting additional wetland species patches in selected portions of the wetland areas.

Slightly more than half of the existing 2.93 acres of coyote brush vegetation would be converted to transitional marsh vegetation because these areas of coyote brush have low shrub densities and/or

**TABLE 16**  
**COMPARISON OF VEGETATION CHANGES AT THE MITIGATION SITE**

Vegetation Type	Existing Acreage	Future Acreage After Wetland Restoration
<i>Existing Wetlands to be Retained Intact*</i>		
<i>Salicornia Series</i>	2.48	2.48
<i>Frankenia Series</i>	0.03	0.03
<i>Hordeum Series (unit 64)</i>	0.17	0.17
<i>Lolium Series (units 84,88,100)</i>	0.43	0.43
Subtotal=	3.11	3.11
<i>Existing Wetlands to be Enhanced</i>		
<i>Lolium Series (unit 94)</i>	0.30	included below in new wetland total
<i>Hordeum Series (unit 71)</i>	0.11	
<i>Typha Series (unit 110)</i>	0.55	
Subtotal=	0.96	
<i>New or Enhanced Wetlands</i>		
Transitional marsh vegetation created from uplands (or created through enhancing 0.96 acres of existing wetlands)	0	25.38
<i>Existing Uplands</i>		
<i>Lolium Series (annual upland grassland)</i>	0.11	0
<i>Hordeum Series (annual upland grassland)</i>	0.43	0
<i>Baccharis Series (coyote brush)</i>	2.93	1.37
Various Ruderal and Introduced Types	20.77	0
Barren and Existing Road	1.55	0
Subtotal=	25.79	1.37
<b>TOTAL=</b>	<b>29.86</b>	<b>29.86</b>

\* Only Corps-defined wetlands occur at the mitigation site.

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**TABLE 17**  
**COMPARISON OF WETLAND LOSSES AND GAINS**  
**IN THE SAFETY AREA AND AT THE MITIGATION SITE**

Wetland Vegetation (including barren salt flats) to be Removed at the Safety Area	Wetlands to be Restored and Enhanced at the Mitigation Site
<ul style="list-style-type: none"> <li>• Pickleweed Series</li> <li>• Saltmarsh Sandspurry Series</li> <li>• Saltgrass Series</li> <li>• Annual Grassland (wet)</li> </ul>	<ul style="list-style-type: none"> <li>• Existing wetlands that will be managed and protected (3.11 acres)</li> <li>• Transitional Marsh* to be created (24.42 acres)</li> <li>• Transitional Marsh* to be created by enhancing existing wetlands (0.96 acres)</li> </ul>
Total = 22.94 acres	Total = 28.49 acres

**\*Species of this habitat include:**

- |   |   |
|---|---|
| <p><i>Salicornia virginica</i><br/> <i>Elymus triticoides</i><br/> <i>Spergularia marina</i><br/> <i>Hordeum depressum</i><br/> <i>Hordeum brachyantherum</i><br/> <i>Arthrocnemum subterminale</i><br/> <i>Cressa truxillensis</i> var. <i>truxillensis</i><br/> <i>Juncus bufonius</i> var. <i>bufonius</i></p> | <p><i>Distichlis spicata</i><br/> <i>Frankenia salina</i><br/> <i>Atriplex lentiformis</i><br/> <i>Suaeda calceoliformis</i><br/> <i>Monanthocloe littoralis</i><br/> <i>Lasthenia glabrata</i><br/> <i>Limonium californicum</i></p> |
|---|---|

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**TABLE 19  
SUMMARY OF CUT, FILL, AND EXPORT ACTIVITIES AND VOLUMES  
FOR THE MITIGATION SITE**

Activity	Cut (cubic yards)	Import (cubic yards)	Fill (cubic yards)	Export to the safety area or offsite (cubic yards)
Excavate fill soils from 24.83 acres of the mitigation site (Treatment Nos. 2, 3, & 5)	37,902			
Excavate 0.99-acre barren area to 4-foot depth to remove oil-impregnated soils and export from Airport	6,389			6,389
Place excavated material as fill material on the mitigation site in areas that require fill to create suitable slopes			1,584	
Place excavated material as fill soil to depth of 3.66 feet on 0.99-acre barren area			5,856	
Transport excess excavated material to the safety area for use as fill				30,462
Place saline soils from the safety area on the surface of the mitigation site over about 20.84 acres at a 4-inch depth (min. amt.)		11,095	11,095	
<b>Total=</b>	<b>42,291</b>	<b>11,095</b>	<b>18,535</b>	<b>36,851</b>

### 8.3.2 Coordination of Grading with Safety Area Work

Grading of the mitigation site will be carefully coordinated and performed simultaneously with the safety area grading. Grading of both areas will require that material be excavated from one portion of an area and either transported to and placed on another area or exported from the Airport. To ensure the smooth execution of both efforts, the construction documents for both efforts will be bid as one contract by the Airport.

