5.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

CEQA Guidelines, Section 15126.2(c) requires that the use of non-renewable resources and the commitment of future generations to similar uses be discussed in a project's Environmental Impact Report (EIR); the use of such resources is an irreversible effect of the development process. In addition, certain environmental accidents may cause irreversible damage to the environment.

The proposed Master Plan recommends that certain development or redevelopment projects be carried forth at the Airport over the next 20 years to increase the Airport's safety and efficiency. Construction of new buildings and paved surfaces would entail the commitment of energy and non-renewable natural resources, such as fossil fuels, sand and gravel, asphalt, metals and other minerals, and water, which could then no longer be utilized for other purposes. This commitment and consumption of building materials and energy is associated with any development in the region and would not be unique to the proposed project.

Future activities occurring at the Airport due to recommended projects would also result in the ongoing irreversible commitment of energy, water, and land. For example, additional vehicle travel would utilize energy sources, while solid waste generation would utilize limited landfill capacity.

The proposed Master Plan would not be expected to result in environmental accidents that have the potential to cause irreversible damage to the natural or human environment.

5.2 EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study was completed on the Airport's proposed Master Plan in June 2014 with an agency and public review period ending on July 25, 2014. Based on this environmental scoping process, the following possible effects of the proposed project have been determined to not be significant:

- Adverse impacts on visual resources, including changes in topography and impacts related to light or glare;
- Long term emissions, including greenhouse gases (GHGs) and odors, such that applicable air quality and GHG emission goals would not be met;
- Disturbance of known human remains or unique paleontological or geological resources;
- Soil erosion or impacts related to the use of septic systems;
- Hazards to the public due to the routine use, transport, or accidental upset of hazardous materials;
- Additional safety hazards related to the Airport Influence Area or adopted emergency response plans or evacuation plans;
- Risk of loss, injury, or death involving wildland fires;
- Excessive noise or groundborne vibration;
- Displacement of existing housing;
- Impacts to the availability of public services such as waste water disposal service or treatment, storm water drainage, water service or treatment, fire protection, police protection, schools, or other public facilities;
- Impacts to parks or other recreational facilities;
- Circulation-related impacts, such as impediments to emergency access and safe design of the transportation system;
- Impacts to the availability of public transit, bicycle, or pedestrian facilities;
- Change in air traffic patterns;
- Placement of housing within a flood hazard area or risk of loss, injury, or death due to inundation by seiche, tsunami, or mudflow;
- The physical division of an existing community.

The project's Initial Study is incorporated by reference into this EIR and is included in this EIR in **Appendix A**.

Following additional analysis completed as a part of this EIR, additional possible effects of the proposed project have also been found to be less than significant, i.e., Class III. These additional environmental effects are:

- Construction of new Airport facilities within Special Flood Hazard Areas. All projects at the Airport would be subject to the provisions of the City's flood development permit process as defined in Chapter 22.24 of the City *Municipal Code*.

- The proposed Master Plan is consistent with the City's General Plan, Climate Action Plan, and Water Quality Management Plan. It is also consistent with regional plans such as the County Air Pollution Control District's (APCD) 2010 and draft 2013 *Clean Air Plan* (CAP), the Regional Water Quality Control Board's (RWQCB) Basin Plan, and the Santa Barbara County Association of Government's (SBCAG) *Regional Transportation Plan and Sustainable Communities Strategy* (RTP-SCS). SBCAG's existing Airport Land Use Plan (ALUP) is currently being updated in the form of an Airport Land Use Compatibility Plan (ALUCP) per the California Department of Transportation's airport planning handbook; the proposed Master Plan, if approved, would be incorporated in the next ALUCP update, as necessary.

- Long term solid waste disposal for specific projects recommended by the proposed Master Plan are expected to be well below the City's 196-tons per year (tpy) threshold for project-specific impacts.

- The proposed Master Plan would not generate solid waste above what has already been accounted for by the City through its General Plan and Final General Plan EIR. Thus, the proposed Master Plan's cumulative solid waste disposal impacts have already been evaluated and mitigated through existing and proposed policies and programs of the City's General Plan.

5.3 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(b) requires that significant environmental effects that cannot be avoided be specifically identified. These "Class I" impacts are those that cannot be mitigated below a level of significance with the project as proposed and are thus "unavoidable" unless the project is redesigned to ameliorate the impact.

The Master Plan's long term cumulative traffic impacts fall into this category. Due to the proposed relocation of certain general aviation uses to the north side of the Airport, 36 additional PM peak-hour trips would use the South Fairview Avenue/Hollister Avenue intersection. In the implementation year 2032, this intersection is expected to operate at level of service (LOS) D. The City of Goleta has established a significance threshold of 15 trips for those intersections that operate at LOS D. The proposed project is over this threshold. The additional trips cannot be avoided unless the proposed relocation of general aviation use does not occur. However, the consolidation of all general aviation uses to the north side of the Airport is one of the primary aspects of the proposed plan and has significant future safety and efficiency ramifications for the Airport.

5.4 GROWTH-INDUCING IMPACTS

Under CEQA Guidelines Section 15126.2(d), a discussion of growth inducement should include "the ways in which the proposed project could foster economic or population growth, or the

construction of additional housing, either directly or indirectly in the surrounding environment," "projects which would remove obstacles to population growth," or "the characteristic[s] of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively." CEQA Guidelines Section 15126.2(d) also cautions against assuming that "growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The Airport is currently (2011) operating at 48 percent of its annual service volume (ASV). The Federal Aviation Administration (FAA) recommends that when an airport reaches 60 percent of its total ASV then capacity-increasing development should be considered. The proposed Master Plan relies on FAA-approved forecasts of aviation activity at the Airport and provides development scenarios for the short term (2017), intermediate term (2022) and long term (2032). These development scenarios are not only reflective of the level of activity forecast to occur at the Airport, but are dependent on Federal funding cycles and the availability of grant money for aviation projects. (Refer to Chapter Two of the Master Plan for a detailed discussion of the Master Plan's forecast methodology and conclusions and to Exhibit 2G of this EIR for the project's proposed Capital Improvement Program.) The Airport is not expected to reach an operational level within the Master Plan's 20-year planning horizon that would require capacity-increasing improvements.

The proposed Master Plan would help to direct growth that is forecast by the FAA to occur at the Airport over the next 20 years and to ensure that it occurs in a safe and efficient manner. This growth is expected to occur at an annual average rate of less than one percent of total and general aviation operations. Enplanements are expected to grow at an annual average rate of less than three percent, while based aircraft are expected to increase at an annual average rate of less than two percent. This moderate growth has been included in the City's General Plan and is an integral part of the City's overall anticipated economic activity.

Since the proposed Master Plan recommends redevelopment of the Airport for safety and efficiency reasons, rather than capacity-increasing projects that would allow for additional airport operations, the project would not foster economic or population growth and is not considered growth-inducing. The project would not involve unanticipated employment growth that would substantially increase population or housing demand and would not involve a substantial increase in major public facilities such as extension of water or sewer lines or roads that would facilitate other growth in the area. Rather, the Airport is in an urbanized area that is currently served by all required infrastructure.

The proposed Master Plan does not recommend the construction of additional housing nor would it remove obstacles to population growth or encourage or facilitate other activities that would significantly affect the environment within the cities of Santa Barbara or Goleta. Potential cumulative impacts of the proposed Master Plan itself are discussed in the following section below.

5.5 CUMULATIVE IMPACTS

Pursuant to CEQA Guidelines Section 15130(a), an EIR shall discuss the cumulative impacts of a project in order to determine whether those impacts are cumulatively considerable. "Cumulatively considerable" is defined by CEQA Guidelines Section 15065(a)(3) to include those situations where "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (See also CEQA Guidelines Section 15355(b), which refers to "reasonably foreseeable probable future projects.")

CEQA Guidelines Section 15130(b)(1) sets forth two methods for satisfying the cumulative impacts analysis requirement: (1) the "list-of-projects" approach; and, (2) the "summary-of-projections" approach. Under the former approach, the Lead Agency compiles a "list of past, present, and probable future projects producing related or cumulative impacts." Under the latter approach, the Lead Agency relies on a "summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect." Since this EIR is tiered off the City's Final General Plan EIR, the latter approach has been used for most of the cumulative analysis contained in this document. The exception to this is the cumulative traffic analysis, which is based in part on a list of projects that have occurred, are occurring, or will occur within the City of Goleta, where the Airport's surrounding street network is located (see **Appendix F**).

Based on the cumulative analysis provided in Chapter Four of this EIR, the following possible cumulative effects of the proposed project could occur:

- Cumulative impacts to regional air quality would be Class III, Less than Significant Impact. The proposed Master Plan is consistent with the Santa Barbara County Air Pollution Control District's (APCD) 2010 *Clean Air Plan* (CAP) and its Draft 2013 CAP.

- Cumulative impacts to GHG emission goals for the region would be Class III, Less than Significant Impact. The proposed Master Plan is consistent with the City's General Plan and adopted Climate Action Plan.

- The proposed Master Plan would be consistent with rules related to the southern California marine protected areas (MPA) for the Goleta Slough Marine Conservation Area; similarly, it would not preclude measures recommended in the Goleta Slough Ecosystem Management Plan (GSEMP). It may, however, be inconsistent with existing City Local Coastal Program (LCP) and General Plan policies and zoning regulations regarding protection of the Slough.

  To the extent that adverse impacts occur to Goleta Slough, cumulative impacts would occur to a regional biological resource. Therefore, mitigation and design measures for specific Master Plan projects planned within the G-S-R zoning overlay must ensure that there is no net loss of wetlands and that other resources of the Slough are protected from indirect impacts. As long as project-specific impacts to the Slough are fully miti-

gated, cumulative impacts to the Slough would be less than significant. Thus, cumulative biological impacts would be Class II, Less than Significant Impact with Mitigation.

- The proposed Master Plan would not generate solid waste above what has already been accounted for by the City through its General Plan and Final General Plan EIR. Thus, the proposed Master Plan's cumulative solid waste disposal impacts have already been evaluated and mitigated through existing and proposed policies and programs of the City's General Plan and would be Class III, Less than Significant Impact.

- Cumulative traffic impacts would be Class I, Significant Environmental Impact in the long term unless local and regional traffic improvements are constructed within the City of Goleta. These measures are not within the City of Santa Barbara's ability to implement. Based on the traffic impact study (**Appendix F**), in the long term the project's traffic would exceed the City of Goleta's and the City of Santa Barbara's adopted cumulative thresholds of significance at three intersections within the project study area (South Fairview Avenue/US 101 southbound ramps, South Fairview/Hollister Avenue, and Kellogg Avenue/Hollister Avenue) during the PM peak-hour. The Airport would contribute its fair-share cost allocation to the cost of future traffic improvements related to these impacts (based on the City of Goleta traffic impact mitigation fees).

No cumulative impacts related to cultural resources, geology and soils, hazards or hazardous materials, hydrology and water quality, or land use and planning would occur as a result of the proposed Master Plan.

Chapter Six

Chapter Six
SUMMARY OF ALTERNATIVES ANALYSIS

6.1 PROJECT OBJECTIVES

As previously discussed in Section 2.1, the primary objective of the Santa Barbara Airport Master Plan (Master Plan) is to provide the City of Santa Barbara (City) with guidance for future development which will safely meet aviation demand at the Airport for the next 20 years, i.e., 2012 to 2032. Accomplishing this in an environmentally sensitive manner is also an objective of the Master Plan.

The City's Airport Department has identified the following goals to be considered in the Master Plan:

- Relocation of general aviation facilities and new general aviation improvements.
- Airfield safety improvements.
- Consolidation of automobile parking associated with the Terminal.
- Terminal expansion.

Exhibit 3A contains a list of specific considerations related to Airport needs and opportunities for improvement; however, no actual development projects are proposed at this time. Future development projects at the Airport would be focused in one of three areas: airfield safety im-

provements; land side redevelopment north of Runway 7-25; or airfield and landside improvements around the Terminal.

6.2 ALTERNATIVES CONSIDERED BUT DISCARDED

Chapter Three of this Environmental Impact Report (EIR) summarizes design alternatives considered as part of the master planning effort that were eventually "discarded" in favor of the recommended development concept plan depicted in Exhibit 2B. Several of these preliminary design alternatives are vetted in detail in Chapter Five of the Final Draft Airport Master Plan, which has been incorporated into this EIR by reference. The Master Plan originally identified two airfield design alternatives, two terminal area alternatives, and two north landside alternatives. The recommended development concept plan was selected as the best design alternative based on Federal Aviation Administration (FAA) design and safety guidelines and criteria as well as environmental considerations (refer to Exhibit 3B).

In addition, the draft Master Plan originally recommended the demolition of five older hangars (Building Nos. 248, 249, 267, 309, and 317) to make additional room for redevelopment of the northside general aviation area and to remove structures from the floodway. However, based on an historical evaluation of these buildings under Federal, State, and City historic regulations, it was determined early in the EIR process that the demolition of these buildings would result in significant impacts to historical resources under CEQA (**Appendix E**). Instead, the recommended northside development concept plan was revised to include the retention of Buildings 267, 309, and 317 in their existing locations and the preservation and ultimate relocation of Buildings 248 and 249 out of the floodway.

The replacement of segments of perimeter fencing along Mesa Road was also originally considered in the draft Master Plan. In the long term, replacement of these perimeter fence segments would provide additional control over not only access to the Airport, but to the sensitive biological resources of the Slough. However, during the environmental scoping process for this EIR, the California Department of Fish and Wildlife (CDFW) and the Goleta Slough Management Committee (GSMC) both commented that the perimeter fence impedes the movement of wildlife through the area. Replacement of the fence with a higher chain link fence could exacerbate this situation. Therefore, it was determined that impacts related to higher chain link fencing that would restrict wildlife movement in and out of the Slough were potentially significant.

As mitigation, CDFW recommended that the existing fence be modified at key points to achieve a better balance within the Slough to support coyotes, gray foxes, and bobcats as key predators. This mitigation measure would need to be studied further by the Airport and FAA to ensure that such modifications did not hamper security and wildlife hazard management activities. It was determined that it would be better to reassess the situation in light of the findings of the Airport's ongoing wildlife hazard assessment.

Alternative locations for the Airport would require a comprehensive study that is beyond the scope of this EIR. The proposed project is a Master Plan to accommodate minor

redevelopment, safety improvements, and expansion of the Terminal to allow its continued safe and efficient functionality through a 20-year planning period. As discussed previously, Section 15126.6 (f)(3) of the CEQA Guidelines states, "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." Therefore, alternative locations have not been evaulated further in this EIR.

6.3 COMPARISON OF ALTERNATIVES CONSIDERED

Two alternatives, in addition to the project as proposed, were carried forth for analysis in this EIR: a No Project alternative and an Environmentally Superior alternative. **Table 6A** compares the environmental effects of each. Under the No Project alternative, the Airport would remain in its present condition with no improvements to the existing facilities other than general maintenance; the Environmentally Superior alternative would be similar to the project as proposed, but without the extension of Taxiway H and related projects. The primary differences in impact between the project as proposed and the No Project alternative are a reduction in impacts related to demolition or construction, indirect impacts to the Goleta Slough, a reduction in additional impervious surfaces, and inconsistencies with policies of the Airport's Local Coastal Program (LCP) and the City's G-S-R, Goleta Slough Reserve zone. However, the environmental benefits of the project as proposed, for example, removing existing structures within the floodway would not be realized under the No Project alternative.

TABLE 6A
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	Proposed Master Plan (Proposed Project)	No Project Alternative (compared to Proposed Project)	Environmentally Superior Alternative (compared to Proposed Project)
Air Quality/ Greenhouse Gas Emissions			
Impact AQ-1: Long term (Operation) Impact	Class III, Less than Significant Impact	Same	Same
Impact AQ-2: Short term (Demolition or Construction) Impact	Class II, Less than Significant Impact with Mitigation	Less	Less
Impact AQ-3: Cumulative Impact/*Clean Air Plan* Consistency	Class III, Less than Significant Impact	Same	Same
Impact AQ-4: Global Climate Change/Climate Plan Consistency	Class III, Less than Significant Impact	Same	Same
Biological Resources			
Impact BIO-1: Loss of jurisdictional wetlands and indirect impact to Goleta Slough	Class II, Less than Significant Impact with Mitigation	Less	Less
Impact BIO-2: Cumulative impact to Goleta Slough	Class II, Less than Significant Impact with Mitigation	Less	Less

TABLE 6A (continued)
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	Proposed Master Plan (Proposed Project)	No Project Alternative (compared to Proposed Project)	Environmentally Superior Alternative (compared to Proposed Project)
Cultural Resources			
Impact CR-1: Long-term relocation of Bldgs. 248 & 249 out of floodway	Class II, Less than Significant Impact with Mitigation	**Greater - Historic structures would remain in the floodway.**	Same
Impact CR-2: Impacts to Buildings 317, 309, and 267 (eligible for listing as City of Santa Barbara Structures of Merit)	Class III, Less than Significant Impact	Same	Same
Impact CR-3: Future projects could be located within a moderate sensitivity zone for cultural resources	Class II, Less than Significant Impact with Mitigation	Less	Same
Geology and Soils/Hazards and Hazardous Materials			
Impact G/HAZ-1: Risks due to seismic activity	Class II, Less than Significant Impact with Mitigation	Less	Same
Impact G/HAZ-2: Risks due to soil conditions	Class II, Less than Significant Impact with Mitigation (adverse soil conditions); Class III, Less than Significant Impact (erosion)	Less	Same
Impact G/HAZ-3: Risk due to routine handling and transport or accidents involving hazardous materials	Class III, Less than Significant Impact	Less	Same
Impact G/HAZ-4: Risks involving exposure to soil or groundwater contamination.	Class II, Less than Significant Impact with Mitigation	Less	Same
Hydrology and Water Quality			
Impact HYD-1: Potential drainage and water quality impact	Class III, Less than Significant Impact	Less	Less
Impact HYD-2: Potential flooding hazards	Class III, Less than Significant Impact and Class IV, Beneficial Impact (re: development within Floodway); Class II, Less than Significant Impact with Mitigation (re: sea level rise hazards)	**Greater - Existing structures would remain in the floodway; additional measures to address sea level rise would not necessarily be incorporated.**	Less - Taxiway H would no longer be proposed for the floodway.
Impact HYD-3: Substantial unmitigated risk of tsunami inundation	Class III, Less than Significant Impact	Same	Same

TABLE 6A (continued)
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	Proposed Master Plan (Proposed Project)	No Project Alternative (compared to Proposed Project)	Environmentally Superior Alternative (compared to Proposed Project)
Land Use and Planning			
Impact LU-1: Impact to established communities	Class III, Less than Significant Impact	Same	Same
Impact LU-2: Compatibility with applicable General Plan policies and other City plans	Class III, Less than Significant Impact	Less	Less
Impact LU-3: Compatibility with Airport's LCP	Class II, Less than Significant with Mitigation	Less	Less
Impact LU-4: Consistency with the City's General Plan and G-S-R zone	Class II, Less than Significant Impact with Mitigation	Less	Less
Public Utilities (Solid Waste Disposal)			
Impact SW-1: Long term (operational) impact	Class III, Less than Significant Impact	Unknown	Same
Impact SW-2: Short term (Demolition and/or Construction) Impact	Class II, Less than Significant Impact with Mitigation	Less	Less
Impact SW-3: Cumulative impact	Class III, Less than Significant Impact	Unknown	Same
Transportation/Traffic			
Impact T-1: Project-specific impacts to traffic and circulation in the short term	Class III, Less than Significant Impact	Less (only in terms of construction traffic)	Less (only in terms of construction traffic)
Impact T-2: Cumulative project impacts to traffic and circulation in the intermediate term	Class III, Less than Significant Impact	Less	Less (only in terms of construction traffic)
Impact T-3: Cumulative project impacts to traffic and circulation in the long term (South Fairview Avenue/Hollister Avenue)	Class I, Significant Environmental Impact[1]	Less[1,2]	Less[1,2] (only in terms of construction traffic)

[1] Once Senate Bill (S.B.) 743 is implemented, it is possible that project-related cumulative impacts associated with the Atlantic Aviation relocation would no longer be considered significant under CEQA. The vehicle miles traveled (VMT) that are associated with Atlantic Aviation in its new location would be less than its old location since the new location is closer to major arterials (i.e., South Fairview Avenue and Hollister Avenue) as well as US 101.
[2] Some intersections within the study area are forecast to operate below an acceptable level of service with or without trips generated by the project.

6.4 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Based on the analysis contained in Chapter Four and summarized in **Table 6A**, the "environmentally superior" alternative involves not constructing the Taxiway H extension and related projects. This would reduce environmental impacts to Goleta Slough and avoid inconsistencies with the Airport's General Plan, LCP and G-S-R zoning. Other differences in impact between the

project as proposed and the Environmentally Superior alternative are a reduction in impacts related to construction, indirect impacts to Goleta Slough, and a reduction in additional impervious surfaces.

However, the "environmentally superior" alternative would not meet the project's objectives to accommodate future airport operations in a safe manner. Although removing the Taxiway H and related projects from the proposed Master Plan would reduce environmental impacts, it would continue unsafe and inefficient airfield circulation patterns at the Airport that create safety hazards to aircraft using the runway and taxiway system. If a full-length parallel taxiway north of Runway 7-25 is not provided, aircraft utilizing the north general aviation ramps would continue to cross the active primary runway to get to the Runway 7 threshold. This situation has been identified by FAA as a safety "hot spot."

Chapter Seven

Chapter Seven
MITIGATION, MONITORING, AND REPORTING

The following mitigation, monitoring, and reporting program (MMRP) has been prepared pursuant to Section 15097 of the *California Environmental Quality Act* (CEQA). Section 15097 requires all State and local agencies establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a mitigated Negative Declaration or specified environmental findings related to Environmental Impact Reports.

The following MMRP for the proposed Master Plan at Santa Barbara Airport describes the mitigation measures identified in the program Draft Environmental Impact Report (EIR), identifies responsible entities for implementing and monitoring the plan, and outlines the mitigation measure timeline. The intent of the MMRP is to identify and enforce a means for properly and successfully implementing the mitigation measures as identified within the Draft EIR.

This MMRP is intended to be used by City of Santa Barbara (City) staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. The MMRP will provide for monitoring activities prior to construction, during construction, and following project completion.

City Planning or Airport staff will be responsible for the following:

- On-site, day-to-day monitoring of construction activities.
- Reviewing construction plans and equipment staging/access plans to ensure conformance with adopted mitigation measures.
- Ensuring contractor knowledge of and compliance with the MMRP.
- Obtaining assistance, as necessary, from technical experts in order to develop site-specific procedures for implementing the mitigation measures.
- Maintaining a log of all significant interactions, violations of permit conditions or mitigation measures, and necessary corrective measures.

In addition, individual projects under the Master Plan may be subject to existing or required permit conditions such as those associated with the Airport's National Pollutant Discharge Elimination System (NPDES) permit and storm water pollution prevention plan (SWPPP), the City's Storm Water Management Program (SWMP), and individual Special Flood Hazard Area development permits/variances, Coastal Development Permits (CDPs), Water Quality Management Plans (LCP Policy C-13), and Construction Phase Erosion Control and Polluted Runoff Control Plans (LCP Policy C-14). The City's Standard Conditions of Approval also apply to projects under the proposed Master Plan.

Mitigation Measure	Description	Implementing Entity	Monitoring Entity	Implementation Schedule	Date Initiated/ Date Completed
Impact AQ-2. Construction and/or building removal occurring under the proposed Master Plan could exceed 25 tons of any pollutant (except CO) within a 12-month period. (Short term impact)					
AQ/mm-1	As a condition of approval, all construction and/or building removal projects occurring under the proposed Master Plan shall be required to estimate said project's combined emissions from all construction equipment to ensure that the project would not exceed 25 tons of any pollutant except CO within a 12-month period. Standard equipment exhaust mitigation measures recommended by the Air Pollution Control District (APCD) for such projects shall be implemented, as appropriate.	Developer or contractor	APCD	Prior to issuance of Authority to Construct permit from APCD.	
Impact BIO-1 & BIO-3. The proposed Taxiway H Airfield Safety Project could include a loss of jurisdictional wetlands and indirect construction impacts to Goleta Slough and sensitive flora and/or fauna. (Project-specific & cumulative impact)					
BIO/mm-1	BIO/mm-1: Programmatic Wetland Restoration Plan (PWRP). The PWRP is intended to provide a framework for future project-specific Habitat Mitigation and Monitoring Plans (HMMPs) to provide compensatory mitigation for indirect and direct impacts to jurisdictional wetland habitat and established wetland and riparian setback/buffers. The PWRP shall be consistent with all Airport operation and management policies, the Wildlife Hazard Management Plan, the *California Coastal Act* and Airport Local Coastal Program (LCP), the *Goleta Slough Ecosystem Management Plan* (GSEMP), the *California Fish and Game Code* (CFGC), the *Clean Water Act* (CWA), and other plans and polices that regulate wetland habitat. Under direction of the PWRP, the Taxiway H Airfield Safety Project will be required to submit for regulatory agency (United States Army Corps of Engineers [USACE], California Department of Fish and Wildlife [CDFW], California Coastal Commission [CCC], and City, as appropriate)	City Planning	Airport staff	Prior to approval of Master Plan	

	approval of a HMMP for impacts to jurisdictional areas. Components of the PWRP shall include, at minimum, the following requirements and information: 1. Mitigation for wetland habitat and and/or wetland and/or riparian buffers shall be a minimum of 2:1 (restoration to impact) ratio. Agencies may require a higher ratio depending on the habitat value and function that is proposed to be impacted. 2. Wetland mitigation should occur on Santa Barbara Airport property (onsite) in lands historically part of the Goleta Slough wetland complex and on lands currently mapped as disturbed or dominated by non-native species which would be reasonably expected to establish sustainable wetland habitat. 3. The Airport shall comply with the conditions and recommendation of existing guiding documents as well as those under development (i.e., Wildlife Hazard Assessment for the Airport, LCP amendments, and the GSEMP). 4. Restoration strategies shall be proposed that balance the criteria identified in Nos. 2 and 3 above, as well as agency requirements for wetland restoration. Mitigation Areas 1 through 4 (see below) and potential restoration strategies shall be considered in preparation of the PWRP and any project-specific HMMPs. Table 4G and Exhibit 4D identify four potential mitigation areas where areas within or adjacent to the Slough could be restored to create replacement wetlands. Areas 1 and 2 are located southwest of Tecolotito Creek within the existing G-S-R zone; Areas 3 and 4 are located southwest of				

	the intersection of the Airport's existing runway system within the existing A-F (Airfield Facilities) zone. As part of the mitigation effort, if selected, Mitigation Areas 3 and/or 4 would first be rezoned to G-S-R. Combined, the mitigation areas would provide an opportunity for almost 30 acres of new wetland. The mitigation area(s) shall be selected in consultation with USACE, Regional Water Quality Control Board (RWQCB), and CDFW, as appropriate. The areas would first be re-contoured, and then planted with a variety of short wetland vegetation. The desired plant composition shall be consistent with the GSEMP and compliant with Airport safety regulations (for example saltgrass or meadow barley as key components). 5. The genetic origin of all native wetland and riparian propagules shall be from the Goleta Slough. Wetland plants shall be, at a minimum, facultative (FAC) species (i.e., equally likely to occur in wetlands [estimated probability 34 – 66 percent] or non-wetlands) per the USACE definition. 6. Restoration shall be phased to ensure that all restoration plantings are in place with sufficient irrigation prior to final inspection. Irrigation shall be reduced or eliminated after Year 2 depending on environmental conditions (i.e., drought may prolong irrigation). The wetland restoration shall be without supplemental irrigation for at least two years prior to final approvals. This could result in a maintenance and monitoring period greater than five (5) years. 7. Prior to commencement of development activities, the Airport shall file a performance bond with the				

	City to complete restoration and maintain plantings for a five (5) year period. 8. The extent of development shall be restricted to those areas displayed on site grading plans to avoid additional impacts to wetland habitat and wetland and/or riparian buffers. Development boundaries shall be delineated (i.e., using wooden stake with highly visible environmentally-friendly paint) in the field prior to any ground-breaking activities. 9. PWRP Timing and Approvals. The Airport shall submit the PWRP to the CCC for review and approval. The PWRP shall also be submitted to the USACE, CDFW, and RWQCB for their review; however, approvals are not required from these agencies. Future project-specific HMMPs will be reviewed and required as part of regulatory permitting (404/401, streambed alteration, etc.).				
Impact BIO-2. Indirect impacts could occur to sensitive resources of the Slough. (Cumulative impact)					
BIO/mm-2	BIO/mm-2: During construction of the Taxiway H project, all applicable policies of the LCP shall be required, including but not limited to the following: • A buffer strip of a minimum of 100 feet in width shall be maintained in a natural condition along the periphery of all wetland communities. Where development of an airfield safety project renders maintenance of the buffer infeasible, the City shall provide the maximum amount of buffer area feasible and all impacts to wetland habitat shall be mitigated to the maximum extent feasible such that no net loss of wetland habitat occurs (Policy C-4). • Wetland areas temporarily affected by construction activities shall be restored to pre-construction conditions (Policy C-11). • The project shall incorporate BMPs or a	Contractor	City Planning or Airport staff	During/post construction	

	combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible (Policy C-12). • Special-status plant and wildlife protection measures shall be implemented (Policy C-15). • All construction, habitat mitigation and restoration plans, and special-status plant and wildlife mitigation and protection measures, shall be reviewed and approved by the regulatory agency/agencies having jurisdiction over the identified resource (Policy C-16).				
Impact CR-1. The Master Plan proposes to pursue a management plan for the General Western Aero hangars that would mothball and stabilize the buildings in their existing location until such time as they can be relocated out of the floodway.					
CR/mm-1	The following mitigation program shall be implemented: 1. Mothball and stabilize following National Park Service (NPS) Preservation Brief 31; 2. Prepare management plan, which includes: - Nominate for National Register of Historic Properties (NRHP); - Seek approval to move hangars out of floodway to a location on the Airport that would preserve the integrity of the historic property; - Consult with interested parties to propose future uses and explore research/grant funding options; - Based on proposed uses, determine treatment plan to restore, preserve, or rehabilitate per Secretary of Interior standards. 3. Show relocation areas on "Development Concept Map" of proposed Master Plan.	City Planning or Airport staff	City Planning or Airport staff	As soon as possible	

Impact CR-3. Proposed Master Plan projects located within a moderate sensitivity zone of the MARA could have project-specific or cumulative impacts on cultural resources protected by Federal, State or City laws and guidelines.					
CR/mm-2	All future projects under consideration within the Master Plan shall be evaluated based on the screening process set forth in the City's Master Archaeological Resources Assessment (MARA). If a proposed project is located within a mapped sensitivity zone, a determination shall be made regarding whether or not all proposed earth disturbance would be confined to areas of previous disturbance. The proposed project shall then follow the appropriate mitigation and reporting requirements provided in the MARA. Native American consultation shall occur as each individual project is proposed and shall include, but not be limited to, the list of contacts provided by the Native American Heritage Commission in response to the environmental scoping process for this EIR.	City Planning or Airport staff	City Planning or Airport staff	Prior to individual project approval	
CR/mm-3	The City's Standard Condition of Approval regarding "Unanticipated Archaeological Resources Contractor Notification" shall be implemented as necessary.	Contractor	City Planning or Airport staff	During construction	
Impacts G/HAZ-1 & G/HAZ-2. Future Master Plan development could be adversely affected by seismic activity or adverse soil conditions. (Project-specific impact)					
G/HAZ/mm-1	The construction of load-bearing structures shall be subject to the recommendations of a site- and project-specific geotechnical investigation and/or engineering report. This mitigation is not necessary for minor development projects such as the installation of replacement fencing or aboveground storage tanks.	Developer or contractor	City engineer	During project design	
Impact G/HAZ-4. There is the potential for the exposure of project occupants or construction workers to hazardous materials at the Airport. (Project-specific impact)					
G/HAZ/mm-2	A Construction Contingency Plan shall be developed that addresses methods to control potential migration of any contamination discovered during construction as well as safety practices for on-site construction personnel and the general public. Details of the plan shall include, but not be limited	Contractor	City Planning	Prior to project construction	

	to: • Soils monitoring for identification of contaminated soil during and after construction for all eroded and/or graded soils; • Measures to be taken to protect workers and the public (such as fencing or hazard flagging, covering contaminated soil with plastic, etc.) and to prevent migration of contaminants to the surrounding environment; and • Notification procedures including, but not limited to, Santa Barbara County Environmental Health Services. These Contingency Plans may be incorporated into the Construction Phase Erosion Control and Polluted Runoff Control Plans required per LCP Policy C-14 for projects requiring a CDP (see Section 4.5.2), if appropriate.				
GEO/mm-3	If contamination is discovered, a project-specific remediation plan shall be prepared and implemented that reduces all contaminant concentrations to acceptable levels.	Contractor	Airport staff	During project construction	
Impact HYD-2. Future flooding at the Airport due to climate change and sea level rise is anticipated to be approximately five feet by the year 2100.					
HYD/mm-1	The potential impact of local sea level rise associated with global climate change shall be considered in the planning and design of recommended Master Plan projects. Project-specific coastal development permit submittals for projects that may be subject to tidal inundation and flooding shall include an analysis of improvement location and design in relation to projected future changes in sea level rise, utilizing the best available science, to ensure new development is located and designed to eliminate or minimize, to the maximum extent feasible, hazards associated with anticipated sea level rise over the expected design life of the project (75 years).	City Planning	Airport staff	Prior to approval of individual project	

HYD/mm-2	The Airport shall be required to raise all new or reconstructed buildings to one foot above base flood elevations as well as apply thicker pavement lifts during regular intervals over the lifetime of the Airport to reduce the potential for flooding on the tarmac.	Airport Planning	Airport staff	Ongoing throughout regular Airport construction and maintenance projects	
Impacts LU-3 and LU-4. Recommended projects within the proposed Master Plan, such as the proposed Taxiway H Airfield Safety Project, could result in inconsistencies with LCP policies related to Goleta Slough and with the City's General Plan designation and G-S-R zone. (Project-specific impact)					
LU/mm-1	A detailed project-specific impact analysis and mitigation program for the Taxiway H extension project, and associated analysis of the project's consistency with the G-S-R zone and the policies of the Airport's LCP and *California Coastal Act*, shall be conducted during the coastal development permit and/or LCP amendment review process. The analysis shall specifically address project alternatives, mitigation, and/or additional LCP policy requirements necessary to ensure that any permitted impacts to wetland and sensitive habitat and associated buffers will be adequately minimized and mitigated to ensure long term protection of Goleta Slough habitats and open space.	City Planning	Airport staff	Prior to approval of individual projects	
LU/mm-2	A consistency review of the Taxiway H extension project with the updated Goleta Slough Ecosystem Management Plan shall be conducted during the project-specific coastal development permit and/or LCP amendment review process, as applicable. Project-specific mitigation measures shall be identified and incorporated into the City's CDP, and/or LCP policies shall be identified and incorporated into Airport LCP, where determined necessary and feasible, to ensure project consistency the GSEMP.	City Planning	Airport staff	Prior to approval of individual projects	

Impact SW-2. Some proposed building demolition or construction under the proposed Master Plan could result in significant impacts to regional solid waste disposal. (Short term impact)					
SW/mm-1	As a condition of approval, projects recommended by the proposed Master Plan must feasibly reduce, reuse, and recycle demolition and construction waste consistent with State and City diversion goals.	Developer or contractor	City Planning or Airport staff	Prior/during construction	

Chapter Eight

8.1 REPORT PREPARERS

Persons responsible for preparation of this Environmental Impact Report (EIR) document are listed below.

NAME	EXPERTISE	PROFESSIONAL EXPERIENCE
CITY OF SANTA BARBARA		
Andrew R. Bermond, AICP	Airport Project Planning, Environmental Analysis, Coastal Resources Planning	MPA, Public Administration; B.A. History and Environmental Studies. Prepares and manages development review and long-range planning efforts for the 960-acre Santa Barbara Airport; oversees and prepares environmental review documentation, coordinating with up to twelve state, federal, and local government regulatory agencies pursuant to CEQA/NEPA.
EIR PREPARERS		
Coffman Associates		
Jim Harris, PE	Airport Master Planning, Environmental Analysis and Airport Management	B.S., Civil Engineering. Responsible for overall project management of airport master planning, noise and land use compatibility planning and environmental documentation for airports.

Judi Krauss	Transportation and Land Use Planning; Environmental Analysis and Documentation; Socioeconomics	M.A., Economics w/ emphasis in Natural Resource Economics; B.A., Environmental Studies. Experience in transportation and land use planning, socioeconomic studies, and CEQA analysis/documentation. Has worked extensively in Santa Barbara County.
Kory Lewis	Land Use Planning, Environmental Analysis and Documentation, Noise Monitoring and Assessment, Air Quality Analysis	Masters, Urban Planning; B.A., Geography. Experience in land use management and noise assessment, and preparation of environmental documentation for airport development projects. Experienced in working with California Air Pollution Control Districts through southern California.
Eric Pfeifer, LEED Green Associate	Airport Master Planning, Environmental Analysis and Documentation	Masters, Business Administration; B.S., Airport Administration. Experienced in airport master planning and associated environmental documentation under both NEPA and CEQA. Prepares sustainability assessments and plans.
Applied Earthworks, Inc.		
M. Colleen Hamilton, RPA	Senior Architectural Historian	M.A., History; B.A., Anthropology. Conducts "built" environment surveys, building assessments, bridge evaluations, and data recovery of several historic archaeological sites in Santa Barbara. Developed and negotiated Memorandums of Agreement and Environmentally Sensitive Area action plans for historic properties in Santa Barbara.
Aubrie Morlet	Architectural Historian	M.A., Public History; B.A., History with emphasis in Architectural History. Specializes in history and architecture throughout the State. Prepared Historic Resource Evaluation Reports and Historic Property Survey Reports for the West Downtown Historic Building Survey; has a thorough understanding of the City Master Environmental Assessment (MEA) guidelines.
Dudek		
John Davis IV	Senior Biologist	M.S., Biology; B.S. Ecology. Has over 15 years' experience, specializing in biological assessments; special-status plant and wildlife species surveys; habitat restoration; and environmental regulations, permitting, and compliance.

April Winecki	Coastal Planner; Senior Project Manager	B.S., Environmental Studies. Expert in California Coastal Commission procedures, including the facilitation of LCP amendments and policy consistency analysis. Experienced in land development permit processing, environmental planning, impact and constraint analysis, condition compliance, and mitigation monitoring.
Kimley-Horn and Associates		
David K. Sorenson, PE	Senior Traffic Engineer	M.S., Transportation Planning; B.S. Civil Engineering. Specializes in traffic impact analysis, traffic operations, traffic modeling, military projects, transit planning, community planning, and master planning. Conducted hundreds of transportation and mobility studies ranging from airports, hospitals, shopping centers, military bases, and other commercial and residential developments.
David Park, PE	Traffic Analyst	M.S., Civil and Environmental Engineering (Transportation); B.S. Civil and Environmental Engineering. Specializes in traffic impact analysis studies and has conducted reports for airports, schools, casinos, military bases, residential lots, shopping centers, and other commercial developments.

8.2 LIST OF AGENCIES CONSULTED

The following agencies were notified and input solicited regarding the preparation of this EIR:

California Department of Transportation (Caltrans) – Division of Aeronautics
Caltrans, District 5
California Environmental Protection Agency, Air Resources Board
California Governor's Office of Planning and Research (State Clearinghouse)
California Highway Patrol
California Natural Resources Agency, Department of Conservation
California Natural Resources Agency, Department of Fish and Wildlife (CDFW), Region 5
California Natural Resources Agency, Department of Parks and Recreation
California Natural Resources Agency, Department of Water Resources
California Natural Resources Agency, Office of Historic Preservation
City of Goleta, Advanced Planning Division
City of Goleta, Public Works Department
Federal Aviation Administration (FAA), Western-Pacific Region, Los Angeles Airport District Office
Goleta Slough Management Committee (GSMC)
Native American Indian Commission

Regional Water Quality Control Board, Central Coast Region (3)
Santa Barbara County Air Pollution Control District (SBCAPCD)
Santa Barbara County Association of Governments (SBCAG)
Santa Barbara County Flood Control and Water Conservation District (SBFCD)
University of California, Santa Barbara (UCSB)

8.3 REFERENCES

The following documents and websites were utilized for the preparation of this EIR:

CA.gov (California Climate Change Portal) 2014. *Our Changing Climate 2012 Vulnerability & Adaption to the Increasing Risks of Climate Change in California* (Publication #CEC-500-2012-007). Available at: http://climatechange.ca.gov/climate_action_team/reports/third_assessment/index.html, accessed June.

California Air Resources Board (CARB), California Environmental Protection Agency 2014. 2013 State Area Designation Maps. Available at: http://www.arb.ca.gov/desig/adm/adm.htm, accessed June.

California Building Standards Commission 2014. Available at: http://www.bsc.ca.gov/, accessed June.

California Department of Fish and Game (CDFG) 2012. *Guide to the Southern California Marine Protected Areas - Point Conception to California-Mexico Border*, January.

California Department of Toxic Substances Control (DTSC) 2014. EnviroStor database. Available at: http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=42970004, accessed June.

California Department of Transportation (Caltrans) 2011. *California Airport Land Use Planning Handbook*, October.

California Natural Diversity Database (CNDDB), California Department of Fish and Wildlife, 2011.

Central Coast Regional Water Quality Control Board (RWQCB), California Environmental Protection Agency, 2011. *Water Quality Control Plan for the Central Coast Region* (Basin Plan), June.

City of Goleta 2006, updated 2009. *Goleta General Plan/Coastal Land Use Plan*.

City of Goleta 2013. *Marriott Residence Inn and Hollister Project Center Project Final Environmental Report*, October.

City of Goleta 2014. *Village at Los Carneros Project Final Environmental Impact Report*, June.

City of Goleta 2015. Project Goleta, Featured Projects, http://www.projectgoleta.com/featured-projects/ekwill-fowler-project/, accessed January.

City of Santa Barbara 1997. *Goleta Slough Ecosystem Management Plan* (GSEMP), prepared by Goleta Slough Management Committee. Available at: http://www.goletaslough.org/gsmcplanlist.php?s=_index, accessed July 2014.

City of Santa Barbara 2002. *Santa Barbara Airport Final Environmental Impact Statement/Environmental Impact Report for the Aviation Facilities Plan*, EIS No. 010183/SCH #2000111037, August.

City of Santa Barbara 2003. *Coastal Plan: Component 9 – Airport*, including amendments certified by the California Coastal Commission.

City of Santa Barbara 2007. Final Draft *Greenhouse Gas (GHG) Inventory and Carbon Footprint Reduction Plan for Santa Barbara Airport*, prepared by HNTB and KB Environmental Sciences, Inc., November 6.

City of Santa Barbara 2008. Santa Barbara Municipal Airport Draft Wildlife Hazard Management Plan, July 14.

City of Santa Barbara 2009. *Master Archaeological Resources Assessment for the Santa Barbara Municipal Airport* (MARA), Santa Barbara, California, prepared by Applied Earth Works, Inc., November.

City of Santa Barbara 2009. *National Pollutant Discharge Elimination System (NPDES) Storm Water Management Program* (SWMP), January.

City of Santa Barbara 2010. Certified Final *Program Environmental Impact Report for the Plan Santa Barbara General Plan Update* (SCH #2009011031), prepared by AMEC Earth & Environmental, Inc., September.

City of Santa Barbara 2011. *Santa Barbara General Plan* (*Plan Santa Barbara)*, December.

City of Santa Barbara 2012. *Climate Action Plan* (Climate Plan), September.

City of Santa Barbara 2014. *Municipal Code*, Titles 22, 28 and 29. Available with revisions at: http://www.santabarbaraca.gov/gov/cityhall/municode.asp, accessed July.

County of Santa Barbara 2008. *Environmental Thresholds and Guidelines Manual*, October.

County of Santa Barbara Public Works 2014. Tajiguas Landfill. Available at: http://www.countyofsb.org/pwd/pwrrwm.aspx?id=3242, accessed July.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe 1979. *Classification of Wetlands and Deepwater Habitats of the United States*, United States (U.S.) Fish and Wildlife Service Report No. FWS/OBS/-79/31, Washington, D.C.:U.S. Fish and Wildlife Service.

Dudek 2012. *Special-Status Species Inventory for the Santa Barbara Airport Master Plan Update*, prepared for Coffman Associates, October.

Dudek 2012. *Wetlands Inventory for the Santa Barbara Airport Master Plan*, prepared for Coffman Associates, October.

Federal Aviation Administration (FAA) 2000. Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems* (NPIAS), December.

FAA 2006. Order 1050.1E, *Environmental Impacts: Policies and Procedures*, March 20.

FAA 2006. Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, April 28.

FAA 2014. Order 5100.38D, *Airport Improvement Program Handbook*, September 30.

Federal Emergency Management Agency (FEMA), U.S. Department of Homeland Security, Building Codes, 2014. Available at: http://www.fema.gov/earthquake/building-codes, accessed June.

Goleta Slough Management Committee (GSMC), in consultation with URS Corporation, 2014. Working draft Goleta Slough Ecosystem Existing Conditions Report, version dated September 17.

GSMC, 2015. Draft Final Goleta Slough Area Sea Level Rise and Management Plan, version dated February .

Kahn, Steve, Utilities Engineer, City of Santa Maria Utilities Division, 2014. Personal communication with Judi Krauss, Coffman Associates, August 18.

Milbrooke, Anne, Patrick Andrus, Jody Cook, and David B. Whipple 1998. *Guidelines for Evaluating and Documenting Historic Aviation Properties.* National Register Bulletin. U.S. Department of Interior, National Park Service, Cultural Resources, Washington, D.C.

National Park Service (NPS), U.S. Department of the Interior, 1997, 2002. Bulletin 15, *How to Apply National Register Eligibility Criteria*. Available at: http://www.nps.gov/nr/publications/bulletins/nrb15/, accessed July 2014.

Office of Historic Preservation (OHP), California Department of Parks and Recreation, 2014. *California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register)*, California OHP Technical Assistance Series #6. Available at:

http://ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf, accessed September 12.

Office of Planning and Research (OPR), Governor's Office, California, 2005. *Tribal Consultation Guidelines, Supplement to General Plan Guidelines*, November 14.

Santa Barbara County Air Pollution Control District (SBCAPCD) 2014. Permits and Engineering, the APCD Permit Process. Available at: http://www.sbcapcd.org/eng/ez/ez.htm, accessed June.

SBCAPCD & Santa Barbara County Association of Governments (SBCAG) 2011. Final *2010 Clean Air Plan* (CAP), January.

SBCAPCD & SBCAG 2013. Draft *2013 Clean Air Plan* (CAP), Triennial Update to the 2010 Clean Air Plan. June.

SBCAG 2009. *Santa Barbara County Congestion Management Program*, June 18.

SBCAG 2013. *2040 Regional Transportation Plan & Sustainable Communities Strategy,* adopted August 15.

SBCAG 2014. Traffic Solutions, "Taking Transit in Santa Barbara County." Available at: http://www.trafficsolutions.info/transit.htm, accessed September.

Santa Barbara County Flood Control District (SBFCD) 2010. *Flood Control Maintenance Activities in the Goleta Slough Final Subsequent Environmental Impact Report* (SCH #2000031092), October.

Santa Barbara Independent 2014. "Goleta Slough Ecosystem Plan Update and Sea Level Rise Study" – Notice of Public Meeting. Available at: http://www.independent.com/events/2014/feb/11/33349/, posted February 3.

State Water Resources Control Board, California Environmental Protection Agency, 2012. *California Ocean Plan*, adopted October 16; effective August 19, 2013.

Triem, Judith and Mitchel Stone 1995. *Determinations of Eligibility for Historic Resources at the Santa Barbara Municipal Airport*. San Buenaventura Research Associates, Santa Paula, California. Prepared for Science Applications International Corporation, Santa Barbara, California.

U.S. Army Corps of Engineers (USACE) 2014. National Wetland Plant List update. Available at: http://rsgisias.crrel.usace.army.mil/NWPL/, accessed January 2015.

U.S. Environmental Protection Agency (EPA) 2014. Green Book, California Nonattainment/ Maintenance Status for Each County by Year for All Criteria Pollutants, as of July 2. Available at: http://www.epa.gov/airquality/greenbk/anayo_ca.html, accessed July 2014.

U.S. EPA. My WATERS mapper. Available at: http://watersgeo.epa.gov/mwm/, accessed June 2014.

U.S. EPA. Surf Your Watershed, Santa Barbara Coastal Watershed—18060013. Available at: http://cfpub.epa.gov/surf/huc.cfm?huc_code=18060013, accessed June 2014.

University of California, Santa Barbara research (UCSB) 2014. Santa Barbara Wildlife Linkages Project. Available at: https://sites.google.com/site/cawildlifelinkagesproject/, accessed September 16.

Weeks, Kay D. and Anne E. Grimmer 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings*, National Park Service, U.S. Government Printing Office, Washington, D.C.

Wilken, Dr. Dieter 2010. *Rare Plants of Santa Barbara County*, Santa Barbara Botanic Garden.

8.4 ACRONYMS AND ABBREVIATIONS

A.B. – Assembly Bill (California State legislature)
ACM – asbestos-containing materials
A.D. – anno domini (dating system using the birth of Christ as a reference point in time)
ADT – average daily traffic/trips
AHPA – *Archaeological and Historic Preservation Act of 1974*
AIA – Airport Industrial Area
AIP- Airport Improvement Program
ALUC – airport land use commission
ALUCP – Airport Land Use Compatibility Plan
ALUP – Airport Land Use Plan
APCD – Air Pollution Control District
ARC – Airport Reference Code
ARFF – aircraft rescue and firefighting
ASOS – automated surface observation system
ASV – annual service volume (defined as the number of annual aircraft operations that may be accommodated by the runway system at an airport)
ATC – Authority to Construct (type of permit from APCD)
ATCT – airport traffic control tower
A-A-O zone – Airport Approach and Operations (City of Santa Barbara)
A-C zone – Airport Commercial (City of Santa Barbara)
A-F zone – Airport Facilities (City of Santa Barbara)
A-1-1 & 2 zones – Airport Industrial (City of Santa Barbara)

BMPs – best management practices

CAAQS – California Ambient Air Quality Standards
Caltrans – California Department of Transportation
CAP – *Clean Air Plan*
CARB – California Air Resources Board
CAT – Category
CBSC – California Building Standards Commission
CCC – California Coastal Commission
CCR – California Code of Regulations
CDFG – California Department of Fish and Game (in January 2013, the CDFG was renamed CDFW)
CDFW – California Department of Fish and Wildlife
CDP – Coastal Development Permit
CEQA – *California Environmental Quality Act*
CERCLA – *Comprehensive Environmental Response, Compensation, Liability Act* (also known as Superfund)
CESA – *California Endangered Species Act*
CFCG – *California Fish and Game Code*
CFR – Code of Federal Regulations
CH_4 - methane
CIP – Capital Improvement Program
CIWMP – *California Integrated Waste Management Plan*
CMP – Congestion Management Plan
CNDDB – California Natural Diversity Database
CNEL – Community Noise Equivalent Level
CNPS – California Native Plant Society
CO – carbon monoxide
CO_2 -carbon dioxide
CRHR – California Register of Historic Resources
CRPR – California Rare Plant Rank
CSC – California Species of Concern
CWA – Federal *Clean Water Act*
cy – cubic yards
C-M zone – Commercial Manufacturing (City of Santa Barbara)
C-R zone – Commercial Recreation (City of Santa Barbara)

DNL (also known as L_{dn}) – Day-Night Noise Level
DOD – Federal Department of Defense
DOT – Federal Department of Transportation
DPR – California Department of Parks and Recreation
DPS – distinct population segment
DTSC – California Department of Toxic Substances Control
DTWL – dual tandem wheel loading
du – dwelling unit
DWL – dual wheel loading

EB – eastbound
EDMS – Emissions and Dispersion Modeling System (a computer program developed by the military and FAA to assess the air quality impacts of proposed airport development projects)
EFH – Essential Fish Habitat
EIR – Environmental Impact Report
E.O. – Executive Order
EPA – Federal Environmental Protection Agency
ESA – Federal *Endangered Species Act*
ESHA – environmentally sensitive habitat area (areas protected by the *California Coastal Act*)

FAA – Federal Aviation Administration
FAC – Facultative; equally likely to occur in wetlands (estimated probability 34 – 66 percent) or non-wetlands
FBO – fixed base operator
FEMA – Federal Emergency Management Agency
FIRM(s) – Flood Insurance Rate Map(s)
FP – Fully Protected
FUDS – Formerly Used Defense Sites
FY – fiscal year

Gal. – gallon (or gallons)
GHG(s) – greenhouse gas (or gases)
GPS – global positioning system
GSE – ground service equipment
GSEMP – *Goleta Slough Ecosystem Management Plan*
GSMC – Goleta Slough Management Committee
GSER – Goleta Slough Ecological Reserve
GSSMCA – Goleta Slough State Marine Conservation Area
GWP – global warming potential
G-S-R zone – Goleta Slough Reserve Zone (City of Santa Barbara)

HABS/HAER - Historic American Buildings Survey/Historic American Engineering Record
HIRL – high intensity runway edge lighting
HMMP – habitat mitigation and monitoring plan
H_2O – water vapor

ICC – International Code Council
ICU – Intersection Capacity Utilization method
ILS – instrument landing system
IUCN – International Union for Conservation of Nature and Natural Resources
IWMF – Integrated Waste Management Facility
LAX – Los Angeles International Airport
LCP – Local Coastal Program
LiDAR – Light Detection and Ranging topographic data
LNAV – lateral navigation

LOS – Level of Service
LPV - localizer performance with vertical guidance
LR – locally rare (per *Rare Plants of Santa Barbara County*)

MALSR – medium intensity approach lighting system (with runway alignment indicator lights)
MARA – *Master Archaeological Resources Assessment for the Santa Barbara Municipal Airport*
MBTA – *Migratory Bird Treaty Act of 1918*
MCAS – Marine Corps Air Station
MCMs – minimum control measures
MEA-CR – *Master Environmental Assessment* and its *Guidelines for Archaeological Resources and Historic Structures and Sites* (City of Santa Barbara document)
MIRL – medium intensity runway edge lighting
MITL – medium intensity taxiway lighting
MMRP – mitigation, monitoring, and reporting program
MOA – Memorandum of Agreement
MPA – marine protection area
MRS – Munitions Response Site
MSA - *Magnuson-Stevens Fishery Conservation and Management Act*
msl – mean sea level
MT CO_2e – metric tons of carbon dioxide equivalent (GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalent" [CO_2e]. The CO_2e for a gas is derived by multiplying the mass of the gas by the associated global warming potential [GWP], i.e., potential of a gas or aerosol to trap heat in the atmosphere, such that MT CO_2e = [metric tons of a GHG] x [GWP of the GHG]. For example, the GWP for CH_4 is 21.)
MTD – Metropolitan Transit District
M-RP zone – Industrial Research Park (City of Goleta)
M-S-GOL zone – Service Industrial (City of Goleta)

NAAQS – National Ambient Air Quality Standards
NAVD88 – North America Vertical Datum of 1988
NB – northbound
NEPA – *National Environmental Policy Act*
NHPA – *National Historic Preservation Act of 1966*
NOAA – National Oceanic and Atmospheric Administration
NOAA Fisheries – National Marine Fisheries Service
NOP – Notice of Preparation
NO_2 – nitrogen dioxide
NO_x – nitrogen oxides
NPDES – National Pollutant Discharge Elimination System
NPIAS – National Plan of Integrated Airport Systems
NPL – National Priorities List
NPS – National Park Service
NRHP – National Register of Historic Places
N_2O – nitrous oxide

OHP – California Office of Historic Preservation
OHWM – ordinary high water mark
OPR – Governor's Office of Planning and Research
O_3 - ozone

PAC – Airport Master Plan advisory committee
PAPI – precision approach path indicator
Pb – lead
PCBs – polychlorinated biphenyls
PM – particulate matter
$PM_{2.5}$ – particulate matter measuring 2.5 micrometers in diameter
PM_{10} – particulate matter measuring 10 micrometers or less in diameter
PRC – California Public Resources Code
PTO – Permit to Operate (type of permit from APCD)
PU zone – Public Utility (County of Santa Barbara)
PUC – California Public Utilities Code
PWRP – programmatic wetland restoration plan
P-R zone – Park & Recreational (City of Santa Barbara)

RCRA – *Resource Conservation Recovery Act*
REC zone – Recreation (County of Santa Barbara)
REIL – runway end identifier lighting
ROC – reactive organic compounds
RPZ – runway protection zone
RTP-SCS – *Regional Transportation Plan and Sustainable Communities Strategy*
RSA – runway safety area
RVZ – runway visibility zone
RWQCB – Regional Water Quality Control Board

SAA – *State Aeronautics Act*
SB – southbound
S.B. – Senate Bill (California State legislature)
SBA – Santa Barbara Municipal Airport
SBCAG – Santa Barbara County Association of Governments
SBCAPCD – Santa Barbara County Air Pollution Control District
SBFCD – Santa Barbara County Flood Control and Water Conservation District
SCH – State Clearinghouse (California Office of Planning and Research)
sf – square foot (or feet)
SMOOTH – Santa Maria Organization of Transportation Helpers
SO_2 - sulfur dioxide
SO_x - sulfur oxides
SPCC – spill preventions control and countermeasures
SP-6 zone – Airport Industrial Area Specific Plan (City of Santa Barbara)
SR – State Route
SWL – single wheel loading

SWMP – Storm Water Management Program
SWPPP – storm water pollution prevention plan
sy – square yard (or yards)
S-D-3 zone – Special District 3 Coastal Overlay (City of Santa Barbara)

TAF – Terminal Area Forecast
TDM – travel demand management
TOFA – taxiway object free area
tpy – tons per year
TRACON – Terminal Radar Approach Control
TSCA – *Toxic Substances Control Act*
tsf – thousand square feet

U.S. – United States
USACE – United States Army Corps of Engineers
USC – United States Code
UCSB – University of California, Santa Barbara
USFWS – United States Fish and Wildlife Service
USTs – underground fuel storage tanks
UXO – unexploded ordnance

V/C – volume to capacity ratio
VMT – vehicle miles traveled
VNAV – vertical navigation
VOCs – volatile organic compounds
VOR – very high frequency omni-directional range

WB – westbound
WQMP – Water Quality Mitigation Plan

Zone AE – FEMA flood zone definition indicating a Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood where Base Flood Elevations have been determined.