6.0 COORDINATION AND PUBLIC INVOLVEMENT

An extensive community participation program was initiated in July 1994 and continued through February 1995 before the Draft Specific Plan was developed. The program consisted of the following:

- Three community workshops with an average attendance of 115 participants per workshop were held to solicit public input.

- Three community newsletters were prepared and circulated to citizens of the community surrounding the Specific Plan area. The first newsletter, entitled *The Guide*, was circulated in local newspapers and provided an overview of the proposed planning process and how members of the public could be involved in that process.

- Thirty-three interviews were conducted with prominent community leaders, neighborhood groups, elected officials, and business leaders, and a survey of existing tenants in the Specific Plan area was conducted.

Members of the public can continue to be involved in the development of the Specific Plan by providing comments on this Draft EIR/EA and participating at Planning Commission and City Council hearings before the Specific Plan is finalized.

7.0 LIST OF PREPARERS, LIST OF PARTIES TO WHOM THE EIR/EA WAS SENT

7.1 LIST OF PREPARERS

Listed below are the employees of the Federal Aviation Administration (FAA) and the City of Santa Barbara who are responsible for the preparation of the EIR/EA. The responsibility for this document is with the FAA employees from the Western-Pacific Regional Headquarters in Los Angeles, California and with City of Santa Barbara employees. Included below are the identities and backgrounds of the principal preparers.

Substantial assistance in the preparation and data analysis were provided by the City of Santa Barbara pursuant to the California Environmental Quality Act of 1970. The prime consultant, selected jointly by the FAA and City of Santa Barbara pursuant to Section 1506.5(c) of the President's Council on Environmental Quality (CEQ) Regulations was Science Applications International Corporation (SAIC). In accordance with paragraph 76 of FAA Order 5050.4A *Airport Environmental Handbook*, a written statement, prepared by the FAA was completed by SAIC, disclosing that it has no financial or other interests in the execution of the outcome of the proposed development at the Airport. As required by FAA Order 5050.4A, paragraph 77, the names and qualifications of the principal persons contributing information are identified.

It is recognized that no one individual can be an expert in all of the environmental analysis presented in this EIR/EA. Consequently, an interdisciplinary team, consisting of technicians and experts in various topics was required to prepare and complete this study. All decisions that were made regarding the content and scope of this EIR/EA were made by the FAA and the City of Santa Barbara in order to satisfy both federal and state environmental documentation requirements.

7.1.1 Principal Preparers

FEDERAL AVIATION ADMINISTRATION

David B. Kessler, AICP, Environmental Protection Specialist, Western-Pacific Region, B.A. 1982 Physical Geography (Geology Minor), M.A. 1985 Physical Geography, 14 years experience. Principal FAA planner responsible for FAA contributions to all parts of the EIR/EA and overall coordination of comments from various federal, state, and local governmental agencies.

CITY OF SANTA BARBARA, CALIFORNIA

Jan Hubbell, AICP, Project Planner, Planning Division, Community Development, City of Santa Barbara. A.S. 1972 Urban Planning Technology, B.S. 1975 Urban and Regional Planning, 19 years experience. Principal City of Santa Barbara planner responsible for City contributions.

7.1.2 Principal Contributors

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION (PRIME CONSULTANT)

Steven Fusco, Project Manager, B.A. 1971 Architecture, M.U.P. 1973 Urban Planning, 1979 Environmental Mediation, 23 years experience. Mr. Fusco manages multi-disciplinary environmental teams in their completion of EISs and EIRs, ensuring compliance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

Craig Woodman, Assistant Project Manager, B.A. 1973 Anthropology, M.A. 1989 Anthropology, 21 years experience. Mr. Woodman has conducted Section 106 consultation and developed archaeological mitigation programs; prepared cultural resource management plans for federal lands; conducted

extensive literature searches; and designed and prepared cultural resource impact analyses for a wide variety of environmental documents for military and industrial projects.

Christopher Clayton, Specific Plan Assistant Project Manager, B.A. 1966 Geography (Honours), M.A. 1968 Geography, Ph.D. 1972 Geography, 22 years experience. His economic analysis expertise includes analysis of alternative uses of real property, and assessment of project-related impacts on communities in terms of population, employment, earning, income, and community infrastructure.

Robert Blakely, Principal Investigator, B.S. 1961 Aviation Management, 33 years experience. He has extensive experience evaluating air traffic operating relationships in complex airspace environments that include a mix of military and civil aviation activity.

Chantal Cagle, Archaeologist, B.A. 1982 Anthropology, M.A. 1986 Anthropology, 8 years experience. She has extensive experience in conducting and supervising archaeological investigations including research, surveys, excavations, and analyses, and has technical expertise in the analysis of ceramics and invertebrate faunal remains.

David Dischner, Principal Investigator, B.A. 1974 Urban Affairs, Hazardous Materials Management Certificate, 1988, 21 years experience. Mr. Dischner has a comprehensive background in environmental regulations focusing on hazardous material management programs and environmental analysis documentation.

Michael Dungan, Principal Investigator, B.A. 1975 Zoology, M.S. 1979 Ecology/Evolutionary Biology, Ph.D. 1984 Ecology/Evolutionary Biology, 19 years experience. He has broad experience in terrestrial, wetland, and marine ecosystems, including research and publications on the ecology and evolution of marine intertidal communities.

Cay FitzGerald, Technical Illustrator, Studies toward B.A. Fine Arts, Santa Barbara City College, 14 years experience. She is responsible for illustration, design, and layout.

Karla Green, Document Production Specialist, A.S. 1986 Geology, Certified GeoScience Technician 1986, 10 years experience. Ms. Green is responsible for processing text, tables, and forms for technical documents utilizing several different software programs.

Tamara Klug, Botanist, B.A. 1992 Ecology and Evolution, 3 years experience. Mrs. Klug is experienced doing botanical field surveys, collections, research, and reports. She has an understanding of plant taxonomy and ecology in general, with specific experience with many California native plant species.

Edward Mullen, Wildlife Biologist, B.S. 1987 Biology, M.A. 1990 Biological Sciences, 8 years experience. Mr. Mullen specializes in ornithology and sensitive species. His experience includes biological analysis on a wide range of environmental projects.

Thomas Mulroy, Principal Scientist, B.A. 1968 Zoology, M.S. 1971 Biology, Ph.D. 1976 Ecology and Evolutionary Biology, 26 years experience. Dr. Mulroy specializes in plant and animal ecology, taxonomy, biology of endangered species, revegetation, mitigation planning, and environmental analysis. Certified as a Senior Ecologist by the Ecological Society of America, since 1982.

Marilyn Niles, Cost Accounting, A.S. 1984 Geology, 21 years experience. She is responsible for overseeing all operation accounting functions, including project budgets, A/P, and A/R.

Shirl Perizzolo, Technical Editor, B.S. 1975 Library Studies, 20 years experience. Provides technical editing, text processing, and compilation of bibliographies, glossaries, and in-

dexes for multidisciplinary environmental documentation.

David Savinsky, B.S. 1987 Chemical Engineering, 8 years experience. Mr. Savinsky has been responsible for the preparation of aircraft, construction equipment, and point source emission inventories for several projects. Mr. Savinsky has also classified hazardous waste in accordance with hazardous waste and wastewater regulations.

Forrest Smith, Publications Manager, B.A. 1970 History and Political Science, 23 years experience. Mr. Smith currently manages and coordinates production and editing of technical documents ranging from small technical reports for a wide variety of disciplines to large, integrated environmental impact statements.

Lisbeth Springer, Senior Environmental Planner, B.A. 1975 Sociology, M.C.R.P. 1980 City and Regional Planning, 15 years experience. She has professional experience in project management, planning, and preparation of environmental and socioeconomic studies and provides technical expertise in land use and social resource analysis, and military base reuse planning.

Bradford Stewart, Systems Analyst, B.A. 1979 Geography/Environmental Studies, M.A. 1982 Geography, 15 years experience. He manages digital mapping efforts using GIS technology for numerous projects nationwide and internationally in support of special studies, environmental analyses, and environmental impact statements.

David Stone, BA 1978 Anthropology, MA 1984 Anthropology, 21 years experience. Mr. Stone has extensive experience in environmental review and project management in a variety of issue areas including residential, commercial, industrial, and energy development, as well as comprehensive, programmatic planning efforts.

Eric Tambini, Principal Investigator, B.A., 1984 Geological Sciences, Certificate in Hazardous Waste Management, 1992, Registered Geologist, 1995, 9 years experience. Mr. Tambini provides expertise in geologic and groundwater analysis, regulatory compliance, environmental documentation, risk analysis, and database management.

Rosemary Thompson, Senior Biologist, B.A. 1967 Zoology, Ph.D. 1972 Oceanography, 24 years experience. She is certified by the American Fisheries Society in wetlands delineation as applies to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. She is skilled in instream flow analyses using the instream flow incremental methodology developed by the U.S. Fish and Wildlife Service.

Lorraine Woodman, Principal Investigator, B.A. 1975 Anthropology, M.A. 1978 Anthropology, Ph.D. 1981 Anthropology, 14 years experience. She is experienced in the preparation of land use and siting studies; traffic, noise, community services, utility, recreation, and visual impact analyses; plan and policy consistency analyses; coastal zone consistency determinations; and project definition and engineering reports.

Stephen Ziemer, Principal Investigator, B.S. 1976 Environmental Engineering, M.A. 1978 Environmental Engineering, 20 years experience. He is experienced in the use of all EPA-approved air quality models, as well as various other emission and dispersion models. He is familiar with federal and state emission and air quality standards, permitting processes, and environmental review processes including NEPA and CEQA.

EDAW (SUBCONSULTANT)

Allen Folks, Project Manager, A.S. 1976 Landscape Design, B.S. 1981 Environmental Design, M.L.A. 1984 Landscape Architecture, 11 years

experience. He is experienced in developing specific plans and site planning.

Jayna Morgan, B.A. 1985 Social Ecology/Environmental Analysis and Planning, 11 years experience. She is experienced in developing specific plans, site planning, and EIRs.

John Petrovsky, Program Manager, B.A. 1973 Psychology, M.L.A. 1978 Landscape Architecture, 17 years experience. He is experienced in developing specific and site planning.

Tina Stott, B.A. 1981 Economics, Master of City Planning 1986 Certificate of Urban Design, 14 years experience. She is experienced in specific and site planning.

PENFIELD & SMITH (FLOODWAY ANALYSIS)

Craig Steward, P.E., Civil Engineer. B.S. 1981 Civil Engineering (Environmental Specialty), Post graduate and continuing education courses in groundwater modeling, surface water modeling, hydrologic modeling, and surface water quality control. Project engineer for flooding and flood safety issues for the EIR/EA.

SAN BUENAVENTURA RESEARCH ASSOCIATES (SUBCONSULTANT)

Mitch Stone, B.S. 1979 Urban Planning, M.A. Geography, in progress, 16 years experience. He is experienced in historical building evaluations.

Judith Triem, B.A. 1962 Spanish and History, M.A. 1980 Public History, 15 years experience. She is experienced in historic building evaluations.

ASSOCIATED TRANSPORTATION ENGINEERS (ATE) (SUBCONSULTANT)

Scott Schell, Principal Transportation Planner, B.A. 1982 Environmental Studies/Economics, 12 years experience. Has a broad background in traffic operations, transportation planning theory, and environmental regulations (CEQA, NEPA, etc.). Responsible for and participated in over 400 transportation planning studies and traffic impact reports for projects located throughout both northern and southern California, with specific expertise in the Santa Barbara County region.

ARIES CONSULTANTS (SUBCONSULTANT)

Judith Comperchao, B.A. 1978 Business Administration/Computer Science, 17 years experience. She is experienced in airport planning.

John Sanders, B.S. 1963 Civil Engineering, M.S. 1964 Planning, 31 years experience. He is experienced in airport planning.

BROWN-BUNTIN ASSOCIATES (SUBCONSULTANT)

Bob Brown, Principal Investigator, B.A. 1971 Biological and Physical Sciences, Graduate studies, Noise Control and Environmental Health, 25 years experience. He is experienced in noise assessments, especially for airports.

ECONOMIC RESEARCH ASSOCIATES (SUBCONSULTANT)

Bill Lee, B.S. 1968 Economics, M.B.A. 1970 Economics, 25 years experience. He is experienced in market analyses and other economic studies.

Dena Tamura, B.A. 1988 Business, M.S. City and Regional Planning 1990, 6 years experience. She is experienced in market analyses and other economic studies.

MIG (SUBCONSULTANT)

Jim Oswald, B.A. 1982, Urban Planning; B.S. 1982, Applied Earth Science; 14 years experience. He is experienced in public involvement programs.

7.2 LISTING OF PARTIES TO WHOM THE EIR/EA WAS SENT

As part of the coordination process, numerous federal, state, and local agencies have been contacted to aid in determining the consistency of the project with current and proposed plans, programs, and policies. The following agencies have been contacted concerning possible impacts from the proposed project. The letters of comment received are included as Appendix C of this EIR/EA.

Copies of the this EIR/EA have been distributed to the parties listed below:

Federal Agencies	Copies Sent
Federal Aviation Administration Hawthorne, California	6
U.S. Army Corps of Engineers Los Angeles, California	1
State Agencies	
Air Resources Board Sacramento, California	1
Department of Fish and Game Sacramento, California	1
Department of Water Resources Sacramento, California	1
Department of Transportation District 5 San Luis Obispo, California	1
Department of Transportation Aeronautics Division Sacramento, California	1
State Historic Preservation Officer Sacramento, California	1
Secretary for Resources Sacramento, California	1
Regional Water Quality Control Board San Luis Obispo, California	1
California Coastal Commission San Francisco, California	1
State Lands Commission Sacramento, California	1
State Office of Planning and Research Sacramento, California	10
University of California Santa Barbara, California	2
County Agencies	
Environmental Health Department Santa Barbara, California	1
Flood Control District Santa Barbara, California	1
Park Department Santa Barbara, California	1
Planning and Development Department Santa Barbara, California	2
Public Works Department Santa Barbara, California	2
Air Pollution Control District Santa Barbara, California	1
Board of Supervisors Santa Barbara, California	5
Planning Commissioners Santa Barbara, California	5
Regional Agencies	
Santa Barbara County Association of Governments Santa Barbara, California	1

Local Agencies

City Airport Commission	7
City Architectural Board of Review	7
City Council	7
City Planning Commission	9
City Attorney	2
Community Development Department City of Santa Barbara	5
Parks and Recreation Department City of Santa Barbara	1
Public Works City of Santa Barbara	1
Goleta Water District Goleta, California	1
Goleta West Sanitary District Goleta, California	1

Organizations

Goleta Slough Management Committee Santa Barbara, California	1
Goletans for a Balanced Community Plan Goleta, California	1
Santa Barbara Urban Creeks Council Santa Barbara, California	1
Environmental Defense Center Santa Barbara, California	1
Community Environmental Council Santa Barbara, California	1

DOCUMENT AVAILABLE FOR VIEWING AT THE FOLLOWING LOCATIONS:

Santa Barbara Municipal Airport
Administration
601 Firestone Rd.
Goleta, California 93117

City of Santa Barbara
Planning Division
630 Garden St.
Santa Barbara, California 93101

City Clerk's Office
Santa Barbara City Hall
De la Guerra Plaza
Santa Barbara, California 93101

Federal Aviation Administration
Western-Pacific Region
Airports Div., Rm 3012
15000 Aviation Blvd.
Hawthorne, California 90261

Santa Barbara City Library
Central Branch
40 E. Anapamu St.
Santa Barbara, California 93101

Goleta Branch Library
500 N. Fairview Ave.
Goleta, California 93117

UCSB Library
Government Publications
UCSB
Santa Barbara, California 93117

8.0 LIST OF ABBREVIATIONS, ACRONYMS, AND GLOSSARY OF TERMS

8.1 ABBREVIATIONS AND ACRONYMS

AADT	annual average daily traffic
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
ADT	average daily traffic
af	acre-foot
AFB	Air Force Base
afy	acre-foot per year
APCD	Air Pollution Control District
AQAP	Air Quality Attainment Plan
AQIA	Air Quality Impact Analysis
AQMA	Air Quality Management Area
ARB	(California) Air Resources Board
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
ATE	Associated Transportation Engineers
BACT	Best Available Control Technology
B.P.	Years before Present
CAA	Clean Air Act (Federal)
CAAQS	California Ambient Air Quality Standards
Cal-EPA	California Environmental Protection Agency
CAP	Santa Barbara County 1994 Clean Air Plan
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCD	Census County Division
CCR	Code of California Regulations
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
COE	(Army) Corps of Engineers
CWA	Clean Water Act
cy	cubic yard
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
D.O.	dissolved oxygen
dB	decibel
dBA	A-weighted decibels
DEIS	Draft Environmental Impact Statement
DNL	day-night equivalent noise level
DOT	Department of Transportation
DTSC	Department of Toxic Substance Control
EA	Environmental Assessment
ECEC	Early Childhood Education Center
EHSD	Environmental Health Services Division
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	(U.S.) Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FBO	Fixed Based Operator
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIA	Federal Flood Insurance Administration
FIP	Federal Implementation Plan
FIRM	Flood Insurance Rate Map
FUDS	Formerly Used Defense Sites

g	gram
GA	General Aviation
gal	gallon
gpd	gallons per day
GSD	Goleta Sanitary District
GWD	Goleta Water District
GWSD	Goleta West Sanitary District
GWWTP	Goleta Wastewater Treatment Plant
HCF	Hundred Cubic Feet
HSWA	Hazardous and Solid Waste Act
HWCL	Hazardous Waste Control Law
INM	Integrated Noise Model
LCP	Local Coastal Plan
L_{eq}	equivalent sound level
L_{max}	A-weighted maximum sound level
LOS	level of service
LUE	Land Use Element
LUO	Land Use Ordinance
MCAS	Marine Corps Air Station
mi	mile
min	minute
MOU	Memorandum of Understanding
MSL	mean sea level
MTD	Metropolitan Transit District
NAAQS	National Ambient Air Quality Standards
NASP	National Airport System Plan
NEPA	National Environmental Policy Act
N_{eq}	equivalent number of noise events within an annual average day
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO	nitric oxide
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPIAS	National Plan of Integrated Airport Systems
NRHP	National Register of Historic Places
O_3	ozone
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
P & D	Planning & Development Department (Santa Barbara County)
PGP	Planning Grant Program [see AADA amendments of 1976]
PM_{10}	particulate matter with diameters of less than 10 microns
ppb	parts per billion
ppm	parts per million
ppt	parts per thousand
PRT	County Parks, Recreation, and Trails
PSD	Prevention of Significant Deterioration
PWD	Public Works Department
RACT	reasonably available control technology
RCRA	Resource Conservation and Recovery Act
RHC	reactive hydrocarbons
ROCs	reactive organic compounds
ROI	region of influence
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendment and Reauthorization Act
SBCo	Santa Barbara County
SBMA	Santa Barbara Municipal Airport
SBMC	Santa Barbara Municipal Code
SCS	U.S. Soil Conservation Service
SEL	sound exposure level
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	sulfur dioxide

SO_4	sulfates
SO_x	sulfur oxides
SPRR	Southern Pacific Railroad
SWB	State Water Board
SWRCB	(California) State Water Resources Control Board
T&E	threatened and endangered
tpd	tons per day
tpy	tons per year
TRB	Transportation Research Board
TSCA	Toxic Substances Control Act
TSP	total suspended particulates
UCSB	University of California, Santa Barbara
μg/l	micrograms per liter
$\mu g/m^3$	micrograms per cubic meter
USC	U.S. Code
USCOE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VOCs	volatile organic compounds

8.2 GLOSSARY OF ENVIRONMENTAL TERMS

Ambient noise level. The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.

Anthropogenic. Relating to the study of humankind's origin and development.

Aquifer. The water-bearing portion of subsurface earth materials that yields or is capable of yielding useful quantities of water to wells.

Artifact/feature. Anything that owes its shape, form, or placement to human activity. Archaeological studies generally restrict use of the term "artifact" to portable objects, such as tools. Discrete, nonportable items, such as housepits, fire hearths, cairns, or buildings are usually described as "features."

Average daily trips. The total volume of traffic passing a point (both directions) during a given time period divided by the number of days in that time period -- resulting in average daily trips for 24 hours within the measured period.

A-weighted sound level (dBA). A measurement representing a sound generally as the human ear hears it by filtering out as much as 20 to 40 decibels of sound below 100 hertz (Hz). Used for aircraft and other noise evaluations.

Background noise level. Ambient noise level.

Baseline. The existing characterization of an area under no-project conditions.

Baseline Condition. The existing condition or conditions prior to future development that serve as a foundation for analysis.

Benthic. Bottom-dwelling community in a body of water (i.e., ocean or lake).

Biorational Methods. Methods of controlling vector or nuisance species, such as mosquitoes, that do not adversely affect non-target species.

Biota. Collective term for all plants and animals in an area.

Birds, Migratory. Generally applies to all species of birds that breed and winter in geographically separate locations. At a specific location, conventionally refers to species that pass through the area during migration, as opposed to year-round residents or species that either breed or overwinter in the area.

Birds, Raptor. Predatory birds such as hawks and owls.

Birds, Shore. Commonly refers to birds that forage on sandy or muddy shorelines, including sandpipers, plovers, and others.

Birds, Waterfowl. Commonly refers to ducks, geese, and swans.

Brackish marsh. A marsh that is flooded by a mixture of fresh and salt water.

Buffer zone. An area of undeveloped land adjacent to sensitive habitats that may itself have habitat value but, more importantly, serves as a separation between developed land and sensitive habitats such as wetlands. Recreation uses such as trails and bike paths can be located in buffer zones.

California Ambient Air Quality Standards. Standards established by the California Environmental Protection Agency used for protecting and improving air quality.

California Environmental Quality Act. This act requires that environmental documents (e.g., an EIR) be prepared to identify the possible impacts of a project and ways to mitigate those impacts. Decisionmakers

(e.g., City Council, Airport Commission, etc.) must read the EIR and discuss its findings before making a decision on the project. NEPA is the federal counterpart to this law. A joint EIR/EIS (see NEPA) has been prepared on the Airport Plan.

Cenozoic. An era of geological history that extends from the beginning of the Tertiary period to the present and is marked by a rapid evolution of mammals, birds, grasses, shrubs, and higher flowers and by little change in the invertebrates.

Class I bikeways. Class I bikepaths are completely separate from other roadways, are designed for exclusive use by bicyclists, and have limited cross-flow by motor vehicles as construction per State of California standards.

Class II bikeways. Class II bikepaths provide a right-of-way for bicyclists alongside roadways. These paths are separated by signage or some sort of physical barrier between the bike lane and the roadway as constructed per State of California standards.

Class III bikeways. Class III bikepaths are similar to Class II lanes, but do not have exclusive use of the lane. This classification shares the right-of-way with pedestrians and motor vehicles as constructed per State of California standards.

Coastal Uplands. Habitats within the coastal region that are not wetlands.

Community noise equivalent level. The CNEL is defined as the average equivalent sound level for a 24-hour day, which includes an addition of 10 decibels (dB) to sound levels occurring at night between the hours of 10:00 P.M. and 7:00 A.M. and 4.77 dB to sound levels occurring during the evening between 7:00 P.M. and 10:00 P.M.

Cumulative impacts. The impacts on the environment that result from the incremental impacts of the past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time.

Day-Night Equivalent Sound Level (DNL). The average sound level over a 24-hour period with noise events occurring between the hours of 2200 and 0700 subject to a penalty of 10 decibels.

Decibel (dB). A unit describing noise level or loudness representing a relative quantity. This reference value is a sound pressure of 20 micronewtons per square meter.

Dendritic tidal channel. Path used by water to encroach or leave the tidal channel.

Department of Transportation (DOT). Established in 1966 to promote coordination of existing federal programs and to act as a focal point for future research and development efforts in transportation.

Direct effects. Effects resulting solely from the project's implementation.

Ecosystem. The interacting physical and biological constituencies of a particular area.

Emergent hydrophytes. Erect, rooted, herbaceous plants that may be temporarily to permanently flooded at the base but do not tolerate prolonged inundation of the entire plant.

Endangered species. A species that is threatened with extinction throughout all or a significant portion of its range and is so designated by the U.S. Fish and Wildlife Service or the California Department of Fish and Game.

Endangered Species Act. A federal law first adopted in 1973 that protects plants and animals that are in danger of or threatened with extinction. California has its own

endangered species act administered by the California Department of Fish and Game.

Endemic species. A species whose natural distribution is confined to a specific locality, area, or region.

Environmental Impact Report. An informational document required by CEQA that describes possible environmental impacts and ways to reduce them ("mitigation measures") associated with a project (see CEQA).

Environmental Impact Statement. An information document required by NEPA that describes possible environmental impacts and ways to reduce them associated with a project and its alternatives (see NEPA).

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

Epicenter. A point, directly above the true center of disturbance, from which the shock waves of an earthquake apparently radiate.

Epifauna. Fauna living on the surface of a substrate (see "Substrate").

Equivalent sound level. The sound level containing the same total energy as a time varying signal over a given sample period.

Erosion. The process by which the land surface is worn away by the action of waves, wind, or flooding water.

Estuarine system. The estuarine system consists of deepwater tidal habitats and adjacent tidal wetlands that are usually semienclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land.

Estuary. A coastal embayment semienclosed by land with open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land.

Facultative. Able to tolerate or make use of a particular condition, but not requiring or being limited to that condition; as in "facultative wetland plant species," which occurs in wetlands, but not exclusively.

Facultative wetland. Areas that are mostly in wetland and sometimes in upland habitats.

Fault. A fracture in the earth's crust accompanied by a displacement of one side of the fracture with respect to the other in a direction parallel to the fracture.

Fauna. Collective term for all the kinds of animals in an area.

Flora. Collective term for all the kinds of plants in an area.

Freshwater marsh. A marsh that is flooded by fresh water.

General Plan. California law requires that all cities and counties prepare and adopt a comprehensive, long-range plan for the physical development of a city or county. These are usually called General or Comprehensive Plans.

Goleta Slough. The wetlands contained in the Goleta Valley that are currently or were historically estuarine wetlands and deepwater habitats within the Goleta Slough estuary, excluding the nontidal portion of streams that flow into the estuary.

Goleta Slough ecosystem. The combined physical and biotic features of (1) the wetlands (including estuarine, riverine, and

palustrine types) and deepwater habitats with the Goleta Slough; (2) adjacent uplands; and (3) contiguous streams in the Goleta Valley.

Goleta Slough Ecosystem Management Area. The Goleta Slough ecosystem as delineated on the Management Area Map as approved by the Goleta Slough Management Committee.

Goleta Slough estuary. The name of the largest estuary in the Goleta Valley. As used here, it includes only those wetlands and deepwater habitats that currently receive tidal flushing.

Goleta Slough State Ecological Reserve. The State Ecological Reserve System, administered by the California Department of Fish and Game (CDFG), was established for the purpose of protecting rare or endangered native plant, wildlife, or aquatic organisms, and specialized habitat types. General rules and regulations apply to all reserves with special circumstances and needs of individual reserves addressed in a Memorandum of Understanding between CDFG and the interested party. In 1983, two parcels located on either side of Los Carneros Road became the Goleta Slough State Ecological Reserve. With the adoption of the City's Airport Component of the Local Coastal Program in 1991, the entirety of the Goleta Slough Reserve Zone (approximately 300 acres) on Airport property was added to the Goleta Slough State Ecological Reserve.

Goleta Slough Watershed. The entire geographic area where surface runoff or subsurface water flows that affect the Goleta Slough. This includes (1) the sub-watersheds of Atascadero, Maria Ygnacio, San Jose, San Pedro, Las Vegas, Carneros, and Tecolotito creeks; (2) portions of the UCSB Main and Storke campuses; and (3) portions of Isla Vista, the Storke Ranch, the Delco properties, and wetlands owned by the CDFG.

Groundwater. Water beneath the surface of the ground.

Habitat. The native environment of a plant or animal, including the plants, animals, and climate of that environment.

High Marsh. Habitat existing near to slightly above the upper limits of tidal influence and characterized by emergent herbaceous or shrubby vegetation.

Hydric soil. Soil that is wet long enough to periodically produce anaerobic conditions, thereby influencing the growth of plants.

Hydrologic Regime. The total quantity of water involved within the drainage system including water losses (seepage, evapo-transpiration, and outflow), gains (precipitation and base flow), and surface and subsurface storage.

Hydrophyte. Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content (plants typically found in wet habitats).

Impact. The changes in the physical or human environment that result from a particular action.

Indirect effect. Effects that are caused by the action and are later in time or farther re-moved in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Infauna. Benthic animals that burrow into the substrate at the bottom of a water body.

Intermittent. Coming and going at intervals; not continuous.

Intertidal. Existing at an elevation below the highest tides but above the lowest tides, and hence subject to alternating periods of submergence and emergence.

Invasive plants. Undesirable, usually non-native plants that tend to invade and become abundant in particular habitats.

Jurisdictional Wetlands. Wetlands and other waters of the United States and navigable waters of the United States that would be affected by a project or activity. The U.S. Army Corps of Engineers has authority to regulate placement of fill material pursuant to Section 404 of the Clean Water Act and activities that could affect navigable waters of the United States pursuant to Section 10 of the Rivers and Harbors Act.

Level of impact. Specific definitions for negligible, low, moderate, and high impacts for each environmental resource and its elements in an environmental impact statement and/or an environmental impact report.

Level of service. A qualitative measure describing operational conditions within a traffic stream; generally described in terms of such factors as speed and travel time, freedom to maneuver, delay, traffic interruptions, comfort and convenience, and safety. Six level-of-service ranges have been designated by the letter grades "A" through "F." LOS A and B represent primarily free-flow operations, LOS C represents stable conditions, LOS D nears unstable operations, LOS E represents unstable operations, and LOS F represents breakdown or force flow conditions.

Liquefaction. The state of being liquid; when soil liquefies (for example, as a result of an earthquake), the soil acts like quicksand.

Lithic. Related to or made of stone.

Local Coastal Plan (LCP). The Coastal Act of 1976 requires that cities and county in the Coastal Zone (generally within 1,000 feet from the shoreline) prepare a LCP. This plan requires that land near the ocean be given priority for uses that can only occur there (e.g., commercial fishing, ocean-oriented recreation, etc.). The LCP overrides the General Plan in the Coastal Zone.

Longshore currents. Ocean currents that run parallel to shore, transporting sediments, nutrients, organisms, and other material.

Marine system. The marine system consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine subsystems include subtidal deepwater habitats and intertidal wetlands.

Marsh. A wetland that is permanently or semi-permanently or seasonally flooded and is dominated by herbaceous plants.

Maximum sound level. The maximum sound level recorded during a single noise event.

Mitigation Measures. Controls that are used to lessen the environmental impacts of a proposed development action.

Mudflats. Mostly level shoreline areas lacking vegetation and characterized by fine sediments.

National Ambient Air Quality Standards (NAAQS). Standards established by the U.S. Environmental Protection Agency used for protecting and improving air quality.

National Environmental Policy Act of 1969. Requires that environmental documents (e.g., an EIS) be prepared for federal projects or those projects that involve federal money or approvals. This law is similar to CEQA except that several alternatives must be studied equally in an EIS. A joint EIR/EIS (see CEQA) will be prepared on the Master Plan.

Noise exposure contour. An outline graphically displayed on a plan or map identifying the limits of an area exposed to a specific sound level (e.g., 65 L_{dn} noise contour).

Obligate hydrophyte. Plants found only in wetlands.

Palustrine system. The palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in freshwater tidal areas. This system also includes ponds and non-vegetated flats (e.g., salt, sand, or mud).

Peak Hour. The hour of the day during which the greatest amount of aviation or traffic activity occurs.

Post-breeding staging area. Area where newly fledged birds congregate.

Potable. Suitable for drinking.

Rare species. A species that either (a) occurs in very few places or (b) in extremely small numbers where it does occur, relative to other species; generally implies vulnerability to extinction, at least locally.

Region of Influence. The area potential impacted by the proposed project, either directly or indirectly.

Revegetation. Regrowth or replacement of a plant community on a disturbed site.

Riparian. Pertaining to the banks and other adjacent terrestrial (as opposed to aquatic) environs of freshwater bodies, watercourses, estuaries, and surface-emergent aquifers (springs, seeps, oases), whose transported freshwaters provide soil moisture sufficiently in excess of that otherwise available through local precipitation to potentially support the growth of mesic vegetation.

Riverine system. The riverine system includes all wetlands and deepwater habitats contained within a channel, except (1) those dominated by persistent vegetation not affected by the energy of flowing water; and (2) those included within the estuarine system.

Ruderal. Weedy; used to describe both disturbed habitats that support predominantly non-native vegetation, and the plants that typically occur in such areas.

Saline soils/saline fill soils. Soils that contain salts (usually ocean-derived) which are dissolved upon wetting and affect the types of plants that can grow on a site. "Fill" soils have been transported and placed onto the original soil.

Salt marsh. A marsh flooded by salt and sometimes brackish water.

Sandy beach. Shoreline of coarse sediments with sparse or no vegetation.

Seep. A place where groundwater emerges from the surface but flows sparingly -- as opposed to a spring.

Seismicity. The frequency, intensity, and distribution of earthquakes in a given area.

Significance. The importance of the impact on the resource. Significance is judged from the standpoint of the impacted resource. CEQ regulations specify several tests to determine whether an action will significantly affect the quality of the human environment. While these tests apply to the entire action, they can also be used in amended form to judge impact significance for individual resources. Significance is an either/or determination: the level of impact described either is significant or is not significant. As specified in the CEQ regulations, significance needs to be determined for each of three geographic areas: local, regional, and national. This places the impact into context. Significance

is also determined in terms of intensity. Archaeological sites are also described as significant or insignificant. Significant sites require protection (which can include mitigation excavations) while protection is not required for insignificant sites.

Site-specific. Characteristic of a geographically defined location that may vary considerably from characteristics of adjacent locations or the characteristics of a larger area within which the location in question is contained.

Slough. A large marshy area supporting wetland habitats.

Sound exposure level. SEL accounts for the level and duration (total energy) of a noise event.

Specific Plan. A plan that is prepared to implement the General Plan (see above). The plan includes text and maps that specify land uses; public utilities including streets, water, and sewer, financing; and implementation.

State Implementation Plan (SIP). A plan developed by the State of California that identifies non-attainment areas (areas where NAAQS standards are exceeded) in order to improve air quality conditions.

Substrate. Generally, the surface upon which physical or biological processes are occurring.

Supra-tidal. Above the level of the highest tides.

Suspended particulates. Solid particle matter (usually less than 100 microns) that is suspended in air and can be removed by the use of a filter.

System. The term system refers to a complex of wetlands and deepwater habitats that share the influence of similar hydrologic, geomorphologic, chemical, or biological factors. Systems are further subdivided into more specific categories called subsystems. GSMC

Threatened species. A species that is likely to become endangered in the foreseeable future as designated under California or federal law.

Threshold of significance. Defined point when an environmental impact becomes a significant impact.

Tidal prism. Volume of water that is exchanged between the ocean and an embayment or estuary as a result of tidal action.

Transfer Station. A temporary repository for solid waste collected from individual businesses and residences. At the transfer station, it is loaded into larger vehicles for transport to the ultimate disposal location (e.g., a landfill).

Transitional habitats. Wetlands by definition are transitional between deepwater habitats and uplands. However, some habitats are intermediate between uplands and wetlands. When the land supports primarily upland species, it can be considered transitional upland. When the land supports primarily wetland species, it can be considered transitional wetland.

Upland/dryland. The land above and/or away from wetlands as to be solely dependent upon local precipitation for its water supplies. GSMC

Vadose zone. Layer of ground between the surface and the water table.

Vector. An organism that carries disease.

Vernal pools. Topographic depressions situated on clay soils that become ponded during winter and spring and support a distinctive assemblage of plants.

Volume-to-capacity ratio. The ratio of demand flow rate to capacity for a traffic facility.

Weeds. Any undesirable plant, but usually non-native, aggressively invasive, noxious species.

Wetland. A general definition is as follows:

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface of the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes;[1] *(2) the substrate is predominantly undrained hydric soil;*[2] *and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.*

For the purpose of establishing the regulatory jurisdiction of the U.S. Army Corps of Engineers, the following definition applies:

Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetlands, emergent. Wetlands characterized by rooted herbaceous vegetation.

Wetlands, forested. Wetlands whose vegetation is dominated by trees.

Wetlands, scrub-shrub. Wetlands whose vegetation is dominated by shrubs.

Wetlands, vernal. Wetlands that are inundated or saturated during the winter-spring rainy season, but are dry and may lack distinguishing vegetation at other times of the year.

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1. The U.S. Fish and Wildlife Service is preparing a list of hydrophytes and other plants occurring in wetlands of the United States.

2. The U.S. Soil Conservation Service is preparing a preliminary list of hydric soils for use in this classification system.

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