SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT NO. 582
JOHN WAYNE AIRPORT SETTLEMENT AMENDMENT IMPLEMENTATION PLAN

SCH NO. 2003091046

Prepared for:

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June 11, 2004

NOTICE OF AVAILABILITY OF DRAFT SUPPLEMENTAL EIR NO. 582
JOHN WAYNE AIRPORT SETTLEMENT AMENDMENT IMPLEMENTATION PLAN

What is a Notice of Availability: The County of Orange has prepared a Draft Supplemental Environmental Impact Report (SEIR) which evaluates the potential impacts of construction activities associated with approved operational modifications at John Wayne Airport (JWA). The purpose of this Notice of Availability (NOA) is to inform local residents, institutions, and other interested parties about the availability of the Draft SEIR during the Public Comment Period and to solicit comments regarding the Draft SEIR.

Project Location & Description: The project is located at JWA. In April 1985, the County of Orange, acting as the proprietor and operator of JWA, adopted a "Master Plan" for further development of physical facilities at the airport and an increase in previously imposed limits on certain aircraft operations which had been adopted by the County principally for purposes of controlling aircraft noise impacts in surrounding residential communities ("the 1985 Master Plan"). Following onset of litigation challenging the 1985 Master Plan, in the summer of 1985, the County of Orange, the City of Newport Beach, Stop Polluting Our Newport (SPON) and the Airport Working Group (AWG) reached a comprehensive agreement settling all pending actions and claims related to the 1985 Master Plan and related EIR 508. This agreement ("Settlement Agreement") was memorialized in a series of stipulations signed and filed in the various courts in which those actions were then pending. The original term of the Settlement Agreement, which imposed certain operational restrictions at JWA, required that it remain in effect through December 31, 2005

On May 22, 2001, the Orange County Board of Supervisors (Board) approved a Memorandum of Understanding (MOU) between the County and the City of Newport Beach (City) to study the potential of modifying and extending certain restrictions at JWA beyond December 31, 2005. Program EIR 582, prepared pursuant to and consistent with the California Environmental Quality Act (CEQA) and CEQA Guidelines requirements, addressed the potential environmental impacts associated with an amendment to the Settlement Agreement. On June 25, 2002, the Board certified Final Program EIR 582 as adequate and complete and found that it contained all information required by CEQA, the CEQA Guidelines and the County Local CEQA Procedures Manual.

Consistent with Board direction, JWA continued to engage in active discussion with incumbent and potential new entrant air carriers, the City, SPON and AWG. In connection with discussion between the County and the airlines serving (or interested in serving) JWA, the airlines requested certain capacity opportunities beyond those authorized by the Board action on June 25, 2002. The resulting "settlement amendment" and a related Addendum to Final Program EIR 582 (Addendum 582-1) were approved and accepted by the Board.

The objective of the proposed project is to implement facilities improvements necessary to adequately accommodate the authorized increase in operating capacity at JWA previously authorized by the settlement amendment and related Addendum 582-1. The proposed project consists of facilities improvements only, and does not alter the previously agreed to and approved annual passenger levels and related operational agreements. In order to provide the decision makers and the public with information useful in considering the policy and environmental ramifications of the construction of improvements to the commercial airline facilities consistent with the settlement amendment, the County has prepared Draft Supplemental EIR (SEIR) 582, which is now available for public review and comment.

List of Anticipated Significant Environmental Effects: Draft SEIR 582 examines the potential construction-related impacts generated by the proposed project in relation to the following CEQA Checklist categories: land use, water quality and drainage, air quality, transportation, noise, aesthetics (visual compatibility), hazardous materials, and public services and utilities. The proposed project would result in significant, short-term impacts to transportation, air quality during the various stages of construction. In addition, the proposed project would result in potentially significant impacts on hazardous materials, solid waste disposal, and wastewater facilities, however, these impacts could be reduced with implementation of the proposed mitigation program.

Public Comment Period: The Public Comment Period is from Monday, JUNE 14, 2004 to Thursday, JULY 29, 2004. **ALL COMMENTS OR OTHER RESPONSES TO THIS NOTICE MUST BE SUBMITTED IN WRITING TO:**

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JWA SETTLEMENT AMENDMENT IMPLEMENTATION PLAN SUPPLEMENTAL EIR 582

TABLE OF CONTENTS

Appendices

LIST OF TABLES

LIST OF EXHIBITS

LIST OF ACRONYMS

A

AAM	Annual Arithmetic Mean
AAQS	(National) Ambient Air Quality Standards
ACM	Asbestos Concrete Materials
ADD	Average Daily Departures
ADT	Average Daily Traffic
AGM	Annual Geometric Mean
ALUC	Airport Land Use Commission
ANCA	Airport Noise and Capacity Act of 1990
AQMD	(South Coast) Air Quality Management District
ARFF	Airport Rescue and Fire Fighting
ASMP	Airport System Master Plan
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
AWG	Airport Working Group

B

bls	Below Land Surface
BMP	Best Management Practice
Btu/lb	British Thermal Units/Pound

C

CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act of 1970
CIWMP	Countywide Integrated Waste Management Plan
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide

D

dB	Decibel
DOT	(U.S.) Department of Transportation

E

ECMP	Environmental Compliance Monitoring Program
EIR	Environmental Impact Report
EPA	(U.S.) Environmental Protection Agency
ESAs	Environmentally Sensitive Areas

F

FAA	Federal Aviation Administration
FBO	Fixed Based Operator

FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map

G

GANO	General Aviation Noise Ordinance
GSE	Ground Service (Support) Equipment

H

HC	hydrocarbon
HCA	(Orange County) Health Care Agency
HCM	Highway Capacity Manual

I

I	Interstate
ICU	Intersection Capacity Utilization
IWMD	(County of Orange) Integrated Waste Management Department

J

JWA	John Wayne Airport

L

LAFCO	Local Agency Formation Commission
LOS	Level of Service

M

MAP	Million Annual Passengers
mg/m^3	Milligrams per cubic meter
mph	Miles per Hour
MRF	Material Recovery Facility

N

NAAQS	National Ambient Air Quality Standards
NB	Northbound
NIOSH	National Institute for Occupational Safety and Health
NO_2	Nitrogen Dioxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NTSB	National Transportation Safety Board

O

O_3	Ozone
OCFA	Orange County Fire Authority
OCSD	Orange County Sheriff's Department

P

Pb	Lead
$PM_{2.5}$	Respirable particulate matter greater than 2.5 microns in size
PM_{10}	Respirable particulate matter greater than 10 microns in size
ppm	Parts per Million
PRC	Public Resources Code
PSIA	Pounds per Square Inch, Average

R

RELs	Reference Exposure Levels
ROC	reactive organic compounds
RON	Overnight airplane parking space (i.e., remaining at the airport overnight)
RSA	Runway Safety Area
RWQCB	(California) Regional Water Quality Control Board

S

SB	Southbound
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	(California) State Clearinghouse
SEIR	Supplemental Environmental Impact Report
SENEL	Single Event Noise Exposure Level
SIP	State Implementation Plan
SNA	John Wayne Airport Identifier
SO_2	Sulfur Dioxide
SO_4	Sulfates
SPON	Stop Polluting Our Newport
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan

T

TAC	Toxic Air Contaminant
TSS	Total Suspended Solids

U

$\mu g/m_3$	Micrograms per cubic meter
UPS	United Parcel Service
U.S.	United States
USDC	United States District Court
USDO	United States District Office
UST	Underground Storage Tank

V

V/C	Volume to Capacity Ratio
vph	Vehicles per Hour
vphpl	Vehicles per Hour per Lane

SECTION 1.0 EXECUTIVE SUMMARY

1.1 GENERAL INTRODUCTION

This document is a Draft Supplemental Environmental Impact Report (SEIR) to Final Program EIR 582 and Addendum 582-1 prepared under the California Environmental Equality Act (CEQA) (Cal. Pub. Res. Code §§21000, *et seq.*) and its implementing state regulations (CEQA Guidelines) (14 Cal. Reg. §§15000, *et seq.*). Final Program EIR 582 and Addendum 582-1 are briefly summarized in section 1.3 below.

Consistent with CEQA Guidelines this SEIR incorporates, by reference, the findings and recommendations of Final Program EIR 582 and Addendum 582-1. This SEIR focuses on new, construction-related effects which were not previously considered. The Proposed Project is described below in the "Project Summary" and "Project Description" sections of this SEIR.

1.2 PROJECT SUMMARY

The Settlement Amendment Implementation Plan (Proposed Project) involves the construction of improvements to the commercial airline facilities at John Wayne Airport, Orange County (SNA) (JWA), to accommodate additional operating capacity authorized by recent modifications to the 1985 Settlement Stipulation (settlement amendment), as discussed in more detail in Section 2.2.2, and as analyzed in Final Program EIR 582 and Addendum 582-1. A detailed description of the project is provided in Section 2.4, Project Description, of this SEIR.

1.3 PURPOSE AND SCOPE OF SEIR AND PREVIOUS ENVIRONMENTAL DOCUMENTS

Section 21166 of CEQA provides that when an EIR "has been prepared for a project pursuant to this division, no subsequent or supplemental EIR shall be required by the lead or responsible agencies unless one of these events occurs.

1) Substantial changes to the project are proposed that require major revisions to the EIR.

2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions in the EIR.

3) New information, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified as complete, becomes available."

Section 15162 of the CEQA Guidelines provides that a subsequent EIR is required if:

1) "Substantial changes are proposed in the project requiring major revisions to the previous EIR because of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2) Substantial changes have occurred with respect to the circumstances under which the project is undertaken, which will require major revisions to the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3) New information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified as complete shows any of the following: (a) the project will have one or more significant

effects not discussed in the previous EIR; (b) significant effects previously examined will be substantially more severe than shown in the previous EIR, (c) mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (d) mitigation measures or alternatives which are considerably different from those analyzed in the final EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative."

Section 15163 of the CEQA Guidelines allows a lead agency to prepare a supplement to an EIR when any of the conditions described in Section 15162 (stated above) would require the preparation of a subsequent EIR, but only minor additions or changes are necessary to make a previous EIR adequately apply to the project in the changed situation. Section 15163(b) further states, "the supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised" and "the supplement may be circulated by itself without re-circulating the previous draft or final EIR".

The County of Orange (County) has determined that a supplement to the Final Program EIR 582 and Addendum 582-1 is required to evaluate the potential construction-related impacts of the project. Additionally, the SEIR will provide an analysis of whether new or revised mitigation measures are required in order to mitigate the construction-related impacts of the Proposed Project.

The SEIR has been preceded by a number of previous environmental documents relevant to the Proposed Project, including the following:

1.3.1 ENVIRONMENTAL IMPACT REPORT 508 AND ENVIRONMENTAL IMPACT STATEMENT

In 1985, the Board certified EIR 508 for the JWA Master Plan and Santa Ana Heights Land Use Compatibility Program. The document addressed the environmental impacts associated with an increase in air carrier operations at JWA. The project evaluated an increase from forty-one (41) average daily departures (ADDs) to seventy-three (73) ADDs, serving an estimated 10.24 million annual passengers (MAP). The Master Plan provided for new facilities to accommodate the increased number of ADDs and MAP. The facilities in the Master Plan included, but were not limited to, a new terminal building, parking structures, circulation improvements, and fuel farms. The Settlement Agreement resolved litigation associated with the implementation of the Master Plan for JWA. The improvements at JWA were constructed, and the new terminal and facilities opened in 1990.

1.3.2 FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT 582

As previously noted, Final Program EIR 582 was prepared by the County for the JWA settlement amendment. The document addressed the potential impacts associated with proposed modifications to the settlement amendment, including an extension of the term of the settlement amendment. Final Program EIR 582 evaluated three "project" scenarios or alternatives, each with different levels of air operations, passenger levels and facilities improvements. The three scenarios reflected negotiations that the County, the City of Newport Beach (City), and two citizens groups, "Stop Polluting Our Newport (SPON) and "Airport Working Group" conducted regarding a possible extension of the settlement amendment, and defined the terms of any settlement amendment proposed or acceptable to at least one of the parties. In order to permit the elected officials of the County and the City to determine the final terms of any settlement amendment, the three project scenarios were evaluated at an

equivalent level of detail in the Final Program EIR. A preferred alternative was selected when the Board certified Final Program EIR 582 on June 25, 2002. It is the basis for the proposed construction project. Table 1-1 provides a brief summary of the key elements of each scenario addressed in Final Program EIR 582. A variation of Scenario 2, which results in no additional environmental impacts from those evaluated in Scenario 2, was approved as the Proposed "Settlement Amendment" Project.

TABLE 1-1
VERVIEW OF PROJECT SCENARIOS EVALUATED IN FINAL PROGRAM EIR 582

Principal Restrictions And Constraints	No Project Alternative	Scenario 1	Scenario 2	Scenario 3	Settlement Amendment Agreement
Curfew	No change	No change	No change	No change	No change
Noise Regulated Passenger Flights	73	85 as of 1/1/2005	85 as of 4/1/2002	85 as of 4/1/2002 and 100 as of 1/1/2006	85 as of 1/1/2003
Annual Passenger Limit	8.4 MAP*	9.8 MAP	10.8 MAP as of 4/1/2002	No restrictions as of 4/1/2002	10.3 MAP as of 1/1/2003 and 10.8 as of 1/1/2011
Cargo Flights	2	2	4 as of 1/1/2006	4 as of 1/1/2006	4 as of 1/1/2003 with provisions to use 2 of the ADD for passengers until sufficient demand for cargo
Passenger Loading Bridge (Gate) Limits	14	18 as of 1/1/2005	18 as of 4/1/2002	18 as of 4/1/2002 and 24 as of 1/1/2006	20 as of 1/1/2003 and up to 2 hardstands for arriving aircraft
Settlement Agreement Extended to	N/A	12/31/2015	12/31/2010	12/31/2015	12/31/2015
GA Facilities	No restrictions	No change until 1/1/2021	No restrictions	No restrictions	No restrictions
GANO	No change	No change	No change	No change	No change
Master Planning	No restrictions	Not permitted until 1/1/2016	No restrictions	No restrictions	No restrictions

MAP is the acronym for Million Annual Passengers

Source: Final EIR 582 (2002) and the Eighth Supplemental Stipulation,(2003)..

1.3.3 ADDENDUM 582-1

As discussed above, Final Program EIR 582, which is summarized in Section 2.2.3, evaluated three project scenarios at an equal level of detail. Addendum 582-1 was prepared to analyze an operational scenario at JWA that was within the range of the scenarios analyzed in Final Program EIR 582, but differed in the following ways:

- Commuter passengers were increased from 400,000 to 500,000 total passengers to reflect the modification of the definition of "commuter aircraft" to include aircraft regularly configured with seventy (70) or fewer passenger seats.

- The number of cargo ADDs was increased from two (2) Class A ADDs to four (4) Class A ADDs to reflect the approved settlement amendment, which authorizes up to four (4) cargo ADDs at JWA. Additionally, passenger commercial carriers are provided with the

opportunity to use up to two (2) of the Class A ADDs cargo flights on a supplemental basis if there is no demand for these cargo flights by cargo air carriers.

Addendum 582-1 concluded that the above operational changes would have no new impacts beyond those previously identified in EIR 582.

1.4 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

During the circulation of the Notice of Preparation (NOP) for the SEIR, comments on the Proposed Project were received from the following parties:

- South Coast Air Quality Management District
- California Department of Conservation
- Costa Mesa Sanitary District
- Caltrans, District 12
- City of Newport Beach
- City of Irvine
- Air Fair

The following parties had no comments on the NOP, but requested information on the project's progress:

- City of Lake Forest
- City of Rancho Santa Margarita
- City of Anaheim
- City of Fullerton

Copies of all written comments are contained in Appendix A.

Potential traffic, noise and air quality impacts were the concerns most frequently expressed.

The primary issue to be resolved is whether to approve facilities improvements to accommodate the increased capacity authorized by the settlement amendment.

1.5 EIR FOCUS AND EFFECTS FOUND NOT TO BE SIGNIFICANT

In accordance with Section 15063 of the State CEQA GUIDELINES, the County prepared an Initial Study for the Proposed Project and distributed it along with the NOP to responsible and interested agencies, and key interest groups. The NOP was distributed to 236 individuals or agencies for a 30-day review period beginning on September 9, 2003, and ending October __, 2003.

Copies of the NOP, distribution list, and the comments received on the NOP are included in Appendix A. Based on the environmental analysis presented in the NOP, the County determined that a supplement to Final Program EIR 582 and Addendum 582-1 is required to evaluate the potential construction-related impacts of the Proposed Project that were not evaluated in Final Program EIR 582 and Addendum 582-1.

Impacts associated with operations at JWA were addressed in Final Program EIR 582 or the Addendum to Final Program EIR 582. This SEIR addresses topical issues that require construction-level analysis because construction of the proposed facilities improvements could result in impacts and associated mitigation measures that were not evaluated in Final Program EIR 582 or the Addendum to Final Program EIR 582.

Construction-related impacts to:

- Land use (conflict with adjacent, existing, or planned on-site land uses)
- Water quality and drainage
- Air quality
- Transportation
- Noise
- Aesthetics (visual compatibility)
- Hazardous material
- Public services and utilities.

Based on the NOP/IS prepared for Final Program EIR 582, it was determined that the following issues did not require analysis in Final Program EIR 582. The environmental conditions at JWA for these issues have not changed and analysis of these issues is not warranted in this SEIR. Refer to the NOP included in Appendix A, or Final Program EIR 582 for additional information regarding these topical issues.

- Agriculture
- Population and housing
- Geophysical
- Hydrology
- Safety hazards due to design features, inadequate emergency access, hazards or barrier to pedestrians and bicyclists, impacts to rail, waterborne, or air traffic
- Aesthetics (light/glare, and impacts to scenic highways)
- Cultural Resources
- Recreation

- Mineral Resources
- Schools
- Other Government Services

1.6 ORGANIZATION OF THE EIR

This document has been divided into sections and is bound in two volumes. The first section provides an overview of the Proposed Project and potential environmental impacts. Section 2 provides the project description and history, outlines the project objectives, and details the intended uses of the EIR. Section 3 provides the environmental setting, impacts, and mitigation measures associated with eight topical areas. For each topical area, the thresholds for determining the significance of an impact have been identified. All the mitigation measures identified in the EIR are compiled in Section 4 to facilitate a review of the measures proposed for adoption as part of this Proposed Project. Section 5 lists the persons and organizations consulted, and Section 6 lists the preparers and contributors to the document. The references used in preparing the document are contained in Section 7. A glossary of terms is provided in Section 8.

As previously indicated, the document is presented in two volumes. The second volume contains the technical appendices. The technical appendices include technical studies prepared for the Proposed Project as well as the NOP, the settlement amendment, and related documents.

1.7 REFERENCED DOCUMENTS, AND AVAILABILITY OF STUDIES AND REPORTS

Copies of this Draft SEIR, the technical appendices, and cited or referenced studies or reports are available for review at the JWA Administrative Offices:

John Wayne Airport
Administrative Office
3160 Airway Avenue
Costa Mesa, California 92626
Contact: Sean Donnelly

In addition, the EIR and technical appendices are available at the following libraries:

Costa Mesa
1855 Park Avenue
Costa Mesa CA 92627

Costa Mesa/Mesa Verde
2969 Mesa Verde Drive East
Costa Mesa CA 92626

Irvine/Heritage Park Regional

14361 Yale Avenue
Irvine CA 92604

Irvine/University Park

4512 Sandburg Way
Irvine CA 92612

Newport Beach
1000 Avocado Avenue
Newport Beach CA 92660

Newport Beach
Mariners Branch
2005 Dover Drive
Newport Beach, CA 92660

Santa Ana
26 Civic Center Drive
Santa Ana, CA 92701

Langson Library
University of California, Irvine
Irvine, CA 92683

1.8 SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES THAT WOULD REDUCE OR AVOID THAT EFFECT

Table 1-2 presents a summary of the potential environmental effects of the Proposed Project; measures to mitigate project impacts to the extent feasible, and expected status of effects following the implementation of the mitigation measures. The more detailed evaluation of these issues is presented in Section 3. If the text of the mitigation measure is too lengthy to include in tabular format, it is briefly summarized in the table and the mitigation measure number is noted. All mitigation measures are listed in their entirety in the appropriate portion of Section 3 and in Section 4. In Table 1-2, the significance of each impact is indicated by the following abbreviations that parenthetically follow the summary description of the effect: S=significant impact; LS=impact is less than significant according to the State CEQA GUIDELINES; and NI=no impact.

TABLE 1-2

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
Land Use and Other Relevant Planning (Section 3.1) The Proposed Project would not result in significant off-site land uses impacts. On-site impacts would be considered less than significant. (LS)	To minimize potential interruptions to on-going airport operations, the Airport Director, or his designee, shall review and approve a Construction Staging Program prepared by the project contractor. (Project Design Feature, PDF, 3.1a) No mitigation measures are required.	With implementation of PDF 3.1a, the Proposed Project would have less than significant land use impacts.
Transportation and Circulation (Section 3.2) The Proposed Project would result in significant, short-term transportation impacts during the various stages of construction. (S)	Ground transportation access to/from all existing terminals and parking structures shall be maintained during each construction stage. (PDF 3.2a) The ground transportation plan for each stage shall be designed so that it does not materially change the distribution of airport trips between the various access points serving the Airport. (PDF 3.2b) During each construction stage, adequate on-site roadway capacity shall be provided to serve the ground transportation demand for 10.3 MAP operation. (PDF 3.2c) Ensure that airport trips at any of the access locations will not exceed the volumes used in the Final Program EIR 582 impact analysis. Furthermore, the transportation plan to be developed for each construction stage will provide for adequate internal circulation and will not encourage trips to use the surrounding street system in any manner that would cause impacts beyond those previously identified. (PDF 3.2d) No mitigation measures are required.	With application of the recommended PDFs, the construction-related traffic impacts associated with the Proposed Project would be reduced to a level considered less than significant.

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
Noise (Section 3.3) Daytime construction is exempt from the County of Orange ordinance. Nighttime construction would exceed noise ordinance limits. However, because the construction activity is not a permanent noise but represents a temporary impact, and because hotels are transient lodging facilities already exposed to high traffic noise levels from MacArthur Boulevard and normal aircraft activity at JWA, this impact is not considered significant. (LS)	Prior to the issuance of any construction notice to proceed (NTP), JWA shall require contractors to produce evidence that: 1. All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers, to the extent reasonably practicable. 2. All operations shall, to the extent feasible, comply with Orange County Codified Ordinance Division 6 (Noise Control), however, nighttime construction shall be exempted from the Ordinance. 3. Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings. (SC 3.3a) Notations in the above format, appropriately numbered and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition. (SC 3.3b) **Mitigation Measures** The County shall notify the Hilton, Atrium and Radisson hotels on MacArthur Boulevard near the Airport that nighttime construction activities at JWA could result in short-term noise impacts that might be heard from the hotels. (MM 3.3a) No additional mitigation measures are required.	The Proposed Project would not result in significant noise impacts.
Air Quality (Section 3.4) Construction activities associated with the Proposed Project would result in significant and unavoidable air quality impacts. (S)	All of the mitigation measures discussed below shall be included in the Specifications and/or Construction Drawings for each component of the project. (MM 3.4a) A publicly visible sign shall be posted with the telephone number and name of a contractor's representative to contact regarding dust complaints. This person shall respond and	The mitigation measures presented herein would reduce emissions, but not to the point that they would fall under the SCAQMD's thresholds. Even with mitigation, emissions of NO_x

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
	take any necessary corrective action within 24-hours. All complaints and resolutions shall be coordinated with the John Wayne Airport Environmental Compliance Monitoring Program. (MM 3.4b) The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary to prevent the transport of dust offsite. This person will coordinate these measures with the John Wayne Airport Environmental Compliance Monitoring Program. (MM 3.4c) All construction equipment operations shall be suspended during second stage smog alerts. (MM3.4d) Comply with SCAQMD Rules 402 and 403. During construction of the Proposed Project, the County and its contractors will be required to comply with regional rules, which would assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires that air pollutant emissions should not create a nuisance off-site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Two options are presented in Rule 403; monitoring of particulate concentrations or active control. Monitoring involves a sampling network around the project with no additional control measures unless specified concentrations are exceeded. The active control option does not require any monitoring, but requires that a list of measures be implemented starting with the first day of construction. (MM 3.4e) All diesel fuel brought on site for use by construction equipment shall be low sulfur diesel fuel. The use of low sulfur diesel fuel is required for stationary construction equipment by SCAQMD Rules 431.1 and 431.2. All stationary and mobile equipment that is fueled on site will utilize low sulfur diesel fuel. The Airport cannot reasonably control the type of fuel in vehicles brought on site, therefore	and PM_{10} and potentially ROG during construction of the project would exceed the SCAQMD thresholds even after mitigation, and short-term construction air quality impacts would be significant and unavoidable.

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
	there is no requirement that all vehicles use low sulfur diesel fuel. The Airport can control the type of fuel brought onsite for refueling. Clean diesel fueled vehicles are those that comply with the final federal rule regarding on-road diesel emissions issued in December, 2000, 40 CFR Parts 69, 80, and 86. (MM 3.4f) Further reduce construction equipment emissions by implementing the following measures to the greatest extent practicable. Some additional gains in emission control will be realized from the implementation of these measures. • Maintain construction equipment engines consistent with manufacturers' recommendations. • Utilize post-combustion controls in combustion engine construction equipment. • Configure construction parking to minimize traffic interference. • Schedule construction operations affecting traffic for off-peak hours. • Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service • Utilize existing power sources (*i.e.*, power poles) when feasible. This measure would minimize the use of higher polluting gas or diesel generators. • Minimize obstruction of through-traffic lanes. When feasible,	

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
	construction should be planned so that lane closures on existing streets are kept to a minimum. • Use low emission mobile construction equipment. To the greatest extent practicable CARB certified equipment should be used for construction activities. A fraction of all of the active construction equipment is CARB certified. Depending on regional construction activities some or all of the CARB certified construction equipment may be utilized on other projects. When available CARB certified construction equipment shall be utilized prior to non-CARB certified equipment. • Consider the use of alternative diesel fuel formulations such as PuriNOx™ and Amber 363 to the extent available. • Encourage the use of low sulfur diesel fuel for vehicles not fueled on site including haul trucks. As discussed in MM 3.4f, the Airport cannot reasonably control the type of fuel in vehicles brought on-site. (MM 3.4g)	
Water Quality and Drainage (Section 3.5) No significant water quality or drainage impacts would result from construction of the Proposed Project. (NI)	JWA has established a framework for water quality through the implementation of standard conditions and BMPs for construction activities. The Proposed Project shall comply with all relevant provisions of the Orange County Municipal Permit (OCMP).	With implemenation of all applicable SCs and BMPs, water quality impacts associated with the Proposed Project would be reduced to a level considered less than significant.

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
	(SC 3.5a) Prior to the commencement of construction, all contractors who are conducting construction activities solely within the confines of a building or structure shall submit a Stormwater Pollution Prevention Plan (SWPPP) for any onsite lay-down areas. Prior to commencement of construction the Deputy Airport Director, Facilities, or his designee, must approve the SWPPP. (SC 3.5b) Prior to the approval of the project plans and specifications for any project involving demolition, sawcutting, removal of pavement or disturbance of soil, plans must be submitted to the Deputy Airport Director, Facilities or his designee for confirmation and approval that the plans are consistent with the Airport's drainage plan, stormwater drainage system, and Stormwater Pollution Prevention Plan (SWPPP) and National Pollutant Elimination System (NPDES) guidelines. Construction, demolition, or grading plans must include a SWPPP. (SC 3.5c) At least 30 days prior to the planned commencement of construction for any project or group of projects that will disturb one acre or more of soil, the contractor shall submit for review and approval a project(s) specific Stormwater Pollution Prevention Plan (SWPPP) which covers the construction area, construction lay-down area,	

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
	and haul routes, to the Deputy Airport Director, Facilities or his designee. JWA will then file a Notice of Intent (NOI) to be covered by the statewide General Stormwater Permit for construction activities. (SC 3.5d) Prior to commencement of construction, all airport contractors who are required to prepare a Stormwater Pollution Prevention Plan (SWPPP) must receive approval of a final SWPPP for the project(s) from the Deputy Airport Director, Facilities or his designee. (SC 3.5e) During construction, the JWA Environmental Compliance Monitoring Program (ECMP) team will inspect construction areas, construction lay-down areas and haul routes. The sites will be inspected to ensure that all BMP's are being performed and are in place, and will monitor the sites for possible sources of pollution, contamination, or off-site migration or tracking of contaminants such as mud. (SC 3.5f) No further mitigation is required.	
Aesthetics (Section 3.6) The Proposed Project would not result in significant aesthetic impacts. (NI)	No significant aesthetic impacts have been identified; no mitigation is required.	The Proposed Project would not result in significant aesthetic impacts.
Hazardous Materials (Section 3.7) The Proposed Project could result in short-term, potentially significant hazardous waste impacts. (S)	Prior to demolition and excavation of the Signature Maintenance Hangar, JWA shall conduct a study of potential soil contamination at the site using hydrologic push sampling technology. The results of this study will be used to evaluate the risk associated with demolition and excavation. Prior to excavation and demolition, JWA will perform all recommended further investigations or remedial activities, as required. (SC 3.7a) During demolition and excavation activities, JWA shall have	The potentially significant construction-related hazardous waste or hazardous materials impacts of the Proposed Project would be reduced to a level below significance with implementation of recommended mitigation

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
	a geoenvironmental consultant onsite to inspect and sample the soil for contaminants. If observations during demolition activities indicate that site soil is affected by contaminants, demolition work should be stopped in the area involved until an analysis of the soil conditions can be performed and additional recommendations evaluated and performed as necessary. (SC 3.7b) The Airport Director, or his designee, shall verify that every contractor that would be transporting or handling hazardous materials and/or wastes during project implementation has permits and licenses from all relative health and regulatory agencies to operate and properly manifests all hazardous or California regulated material. (SC 3.7c) If a major spill occurs during any construction-related activity, the Airport Rescue and Fire Fighting (ARFF) Station shall be notified and called to the scene. (SC 3.7d) The Airport shall require that any diesel fuel stored on-site for temporary back-up electrical generators is securely stored. (SC 3.7e) Consistent with its BMPs, SCE shall remove any oil that is not self-contained with the equipment at the substation to prevent spillage. (BMP 3.7a) Prior to issuance of a demolition permit for the Signature Hangar, the building shall be screened for lead-based paint prior to demolition. If lead-based paint is identified, it shall be mitigated in accordance with all applicable federal, state and local regulatory requirements. (MM 3.7a) Prior to demolition of the Signature Hangar the applicant shall test for asbestos containing materials. Should the building being demolished contain asbestos, the applicant shall comply with notification and asbestos removal procedures outlined in SCAQMD Rule 1403 to reduce	measures.

Impact	Mitigation Measure	Level Of Significance After Mitigation/Status Of The Mitigation Measure
	asbestos related health risks. (MM 3.7b) No further mitigation is required.	
Public Services and Utilities (Section 3.8) The Proposed Project would result in a significant impact on solid waste disposal. However, recycling the materials could reduce the demand on the landfill. (S) Potential impacts on wastewater facilities are assumed to be a significant impact. (S)	The Airport shall require that each of the diesel fuel-powered electrical generators, if used, will come with a one-year AQMD certificate for air quality. (SC 3.8a) The Airport shall require that any diesel fuel storage tanks brought on-site for the temporary electrical generators, if used, would comply with all applicable SCAQMD requirements. (SC 3.8b) At the time of construction of improvements, the contractor specifications shall require the contractor to submit a recycling plan for all demolition debris, including all concrete, steel, and asphalt resulting from project demolition to minimize impacts to existing landfills. The contractor shall provide JWA with verification that the materials have been recycled. (MM 3.8a) Prior to exceeding the current "will serve" threshold of 10.24 MAP, JWA shall negotiate an agreement for additional wastewater service with the Orange County Sanitation District. (MM 3.8b) No further mitigation is required.	With the implementation of MM 3.8a impacts associated with solid waste would be reduced to a level of less than significant. However, given that mitigation measure MM3.8b requires the negotiation of an agreement with OCSD and there are no assurances that an agreement will be reached, the potential impact on wastewater services would remain significant.

SECTION 2.0 HISTORY AND DESCRIPTION OF THE PROPOSED PROJECTS

2.1 PROJECT LOCATION

JWA is owned and operated by the County of Orange (County) and is currently the only commercial service airport in Orange County. It is located immediately adjacent to and south of Interstate 405 (I-405), north of State Route 73 (SR-73), west of MacArthur Boulevard, and east of State Route 55 (SR-55). Southwest of the Airport is the area generally referred to as Santa Ana Heights, as well as portions of the City of Newport Beach. The project area is surrounded by the cities of Newport Beach, Irvine, Santa Ana, and Costa Mesa. A regional vicinity map and a site location map are provided as Exhibits 2-1 and 2-2, respectively. The total airport area is approximately 504 acres with aviation activities encompassing approximately 469 acres[1].

2.2 PROJECT SETTING

The study area is generally urban in character. Extensively developed industrial and commercial land uses abut the Airport to the north, east, and west and lower density residential area and open space land uses are located to the south and southwest. An extensive arterial highway and freeway system surrounds the Airport providing access from several locations to the Airport. In contrast to the urban development surrounding the Airport, the Upper Newport Bay, located approximately 3,600 feet south of the airport, is an important natural area, providing habitat to many wildlife species. Exhibit 2-3 provides an aerial photograph of the Airport and surrounding areas.

2.2.1 PROJECT HISTORY

In April 1985, the County, acting as the proprietor and operator of JWA, adopted a "Master Plan" and certified County EIR 508 for further development of physical facilities at the Airport. The Master Plan proposed to lift previously imposed limits on certain aircraft operations. The limits had originally been adopted by the County principally for purposes of controlling aircraft noise impacts in surrounding residential communities.

Following adoption of the 1985 Master Plan and the certification of EIR 508, the County, the City of Newport Beach and two citizens groups, "Stop Polluting Our Newport" (SPON) and the "Airport Working Group" (AWG), initiated litigation related to the Master Plan and EIR 508.[2] At that time, an appeal by the County from an earlier trial court ruling on JWA's 1981 Master Plan and related EIR (EIR 232) was also pending[3].

In the summer of 1985, the County of Orange, the City of Newport Beach, SPON, and AWG reached a comprehensive agreement settling all pending actions and claims related to the 1985 Master Plan and EIR 508, and the pending appeal on the 1981 Master Plan/EIR 232 litigation. The agreement is commonly referred to as the "settlement agreement"[4].

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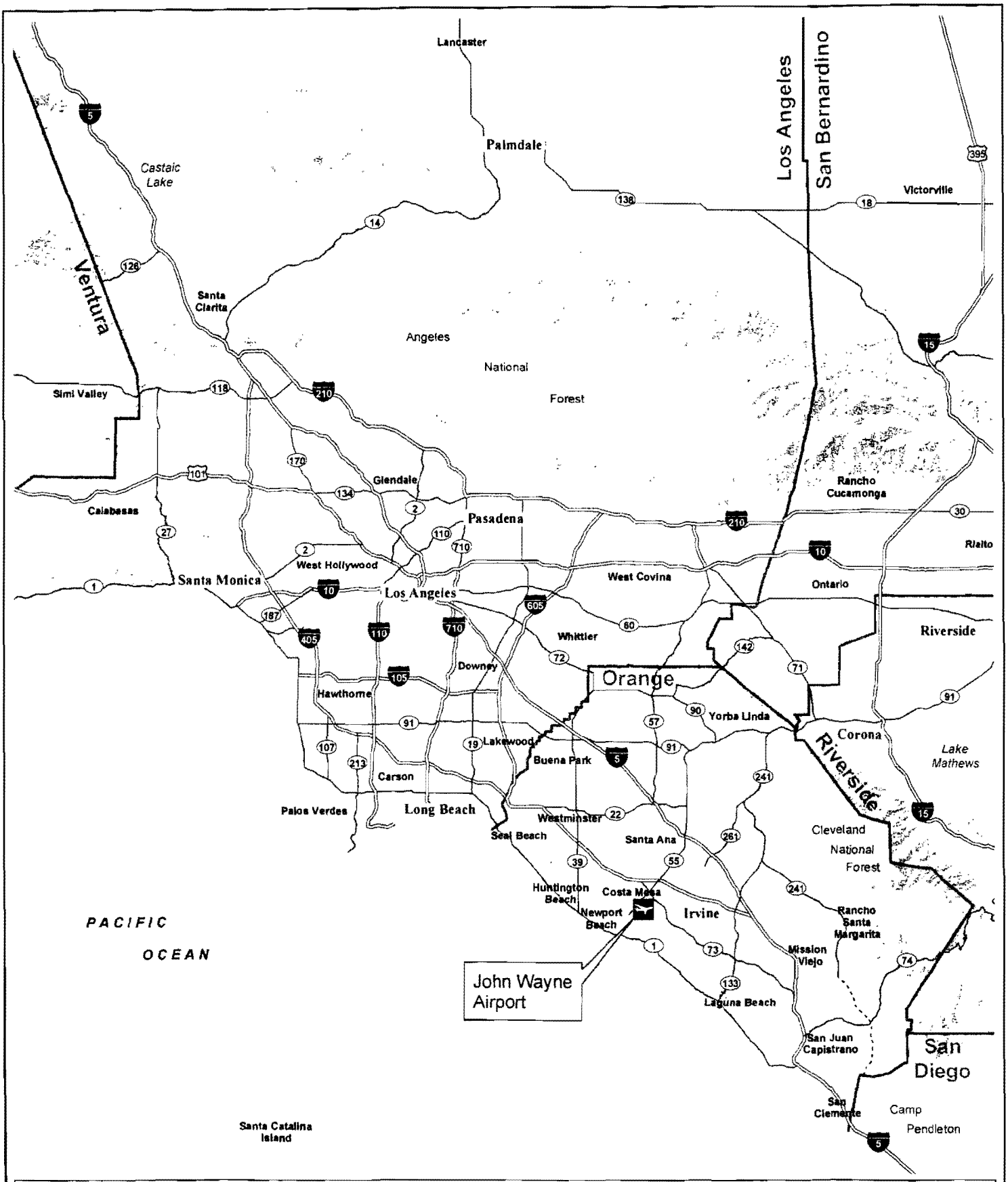
[1] The total airport area is approximately 504 acres; however, this includes the clear zone area that has been developed as a golf course and is separated from the airport by a major roadway and is not available for aeronautical or directly related uses.

[2] United States District Court for the Central District of California and Orange County Superior Court

[3] California Court of Appeals for the Fourth District

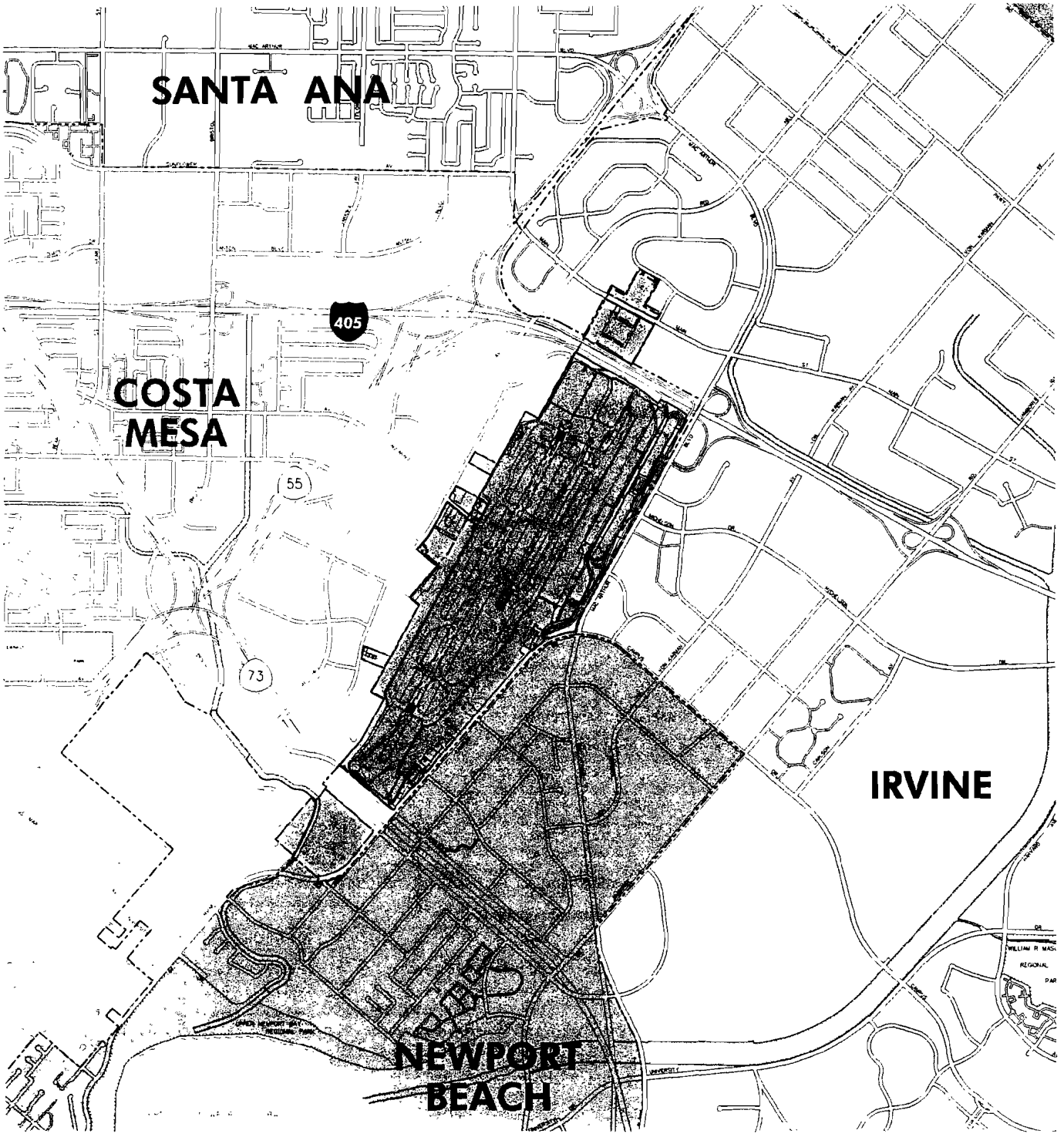
[4] Confirmed by the District Court, after hearing, in December 1985. A copy of the Settlement Agreement and the first seven amendments to the Settlement Agreement are provided in Final EIR 582.



Regional Location

Exhibit 2-1

John Wayne Airport
Settlement Agreement Amendment



Source: John Wayne Airport

Local Vicinity

Exhibit 2-2

John Wayne Airport
Settlement Amendment Implementation Plan

BonTerra CONSULTING

R:/Projects/JWA/J002/Ex2-2_LV_061004.pdf

Aerial Photograph

Exhibit 2-3

John Wayne Airport
Settlement Amendment Implementation Plan

N
W
E
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0.25 0 0.25 0.5 Miles

JOHN WAYNE AIRPORT

R:/Projects/JWA/J002/Ex2-3_AP_041304.pdf

On December 5, 2000, the Orange County Board of Supervisors (Board), by a unanimous vote, directed the County Executive Officer or his designee to work with the City to study the potential of extending certain restrictions at JWA beyond December 31, 2005. On May 22, 2001, the Board approved a Memorandum of Understanding (MOU) between the County and the City for preparation of an Environmental Impact Report (EIR) for such purposes. This EIR was designated as EIR 582, and was circulated for public review and comment pursuant to, and consistent with, CEQA and CEQA Guidelines requirements.

On June 25, 2002, the Board certified Final Program EIR 582 as adequate and complete and found that it contained all information required by CEQA, the CEQA Guidelines and the County Local CEQA Procedures Manual. In addition, the Board adopted statutorily required Findings, Mitigation Monitoring and Reporting Plan (MMRP), and Statement of Overriding Considerations consistent with CEQA and CEQA Guidelines requirements. At the same time, the Board authorized execution of an Amended Stipulation which had already gained approval from the City, SPON and AWG (settling parties).

Consistent with Board direction, JWA continued to engage in active discussions with incumbent and potential new entrant air carriers, the City, SPON and AWG. In connection with discussions between the County and the airlines serving (or interested in serving) JWA, the airlines requested certain capacity opportunities beyond those authorized by the Board action on June 25, 2002. Those were addressed in an Addendum to EIR 582 which the County prepared. The settling parties approved modifications to the settlement agreement on December 10, 2002. The resulting "settlement amendment" and a related Addendum to EIR 582 (Addendum 582-1) were accepted and approved by the Board. A copy of the resulting amendment to the settlement agreement is provided in Appendix B. Additionally, the key provisions of the settlement amendment are summarized below:

2.3 SUMMARY OF THE PRINCIPAL TERMS OF THE EXISTING SETTLEMENT AMENDMENT

- Defines all regulated passenger flights as Class A flights and eliminates the distinction between Class A and Class AA flights.[5] The definition/distinction for Class E aircraft is unaffected by the settlement amendment.

- Increases the number of regulated flights allocated to commercial passenger carriers at JWA from seventy-three (73) ADDs to eighty-five (85) ADDs beginning on January 1, 2003, through December 31, 2015.

- Increases the authorized passenger level served at JWA from 8.4 million annual passengers ("MAP") to 10.3 MAP, beginning January 1, 2003, through December 31, 2010, and further increases the authorized MAP level from 10.3 MAP to 10.8 MAP beginning on January 1, 2011.

- Continues to allow scheduled commercial operations by "Exempt Aircraft" (*i.e.,* Class E Aircraft), subject only to the authorized MAP levels.

- Provides a total of four (4) Class A ADDs cargo flights (for a total of eighty-nine (89) Class A ADDs flights) beginning on January 1, 2003, through December 31, 2015.

[5] The ADDs at JWA were divided into three (3) "classes" based on the noise characteristics of the aircraft on departure prior to the Eighth Supplemental Stipulation. The Class A flights were the noisiest. The next quietest class of ADDs was designated as Class AA. The quietest class is the Class E. The Class E flights do not have a maximum number of flights allowed because they are below the regulatory noise levels established in the EIR 508 (86.0 dB SENEL). However, the number of passengers on Class E flights does count toward the maximum of passengers allowed by the settlement amendment.

- Provides the passenger commercial carriers with the opportunity to use up to two (2) of the Class A ADDs cargo flights on a supplemental basis if there is no demand for these cargo flights by cargo air carriers.

- Increases the permitted number of passenger loading bridges at JWA from fourteen (14) to twenty (20) loading bridges beginning on January 1, 2003, and permits up to two (2) hardstand positions for aircraft arriving at JWA, under certain specified conditions. In addition, certain hardstand positions are permitted on a temporary basis during any construction in order to permit full utilization of the newly authorized capacity until construction of new facilities is completed.

- Changes the following definition to read: "Commuter Air Carrier" or "Commuter Carrier" means any person who: (i) operates Regularly Scheduled Air Service into and out of JWA for the purpose of carrying passengers, freight, cargo, or for any other commercial purpose; (ii) with Class E Aircraft regularly configured with seventy (70) or fewer passenger seats; and (iii) operating at gross take-off weights of not more than ninety thousand (90,000) pounds. For the purposes of the Plan, Commuter Air Carrier includes all Commuter Cargo Carriers.

2.4 PROJECT OBJECTIVES

The objective of the Proposed Project is to implement facilities improvements necessary to adequately accommodate the authorized increase in operating capacity at JWA, as authorized by the settlement amendment. To meet that objective, the project design must be compatible with the design of the existing terminal area facilities and:

- Create environments in both new and existing terminals, which are equivalent, respecting the architectural/aesthetic character of the existing terminal in the new terminal.

- Maximize safety and security of passengers, visitors, and tenants by adhering to Transportation Security Administration (TSA), FAA and all applicable codes utilizing proven state-of-the-art technology, anticipating new requirements where possible.

- Maintain current commuter/business character (quick-in/quick-out) while providing an attractive, pleasant experience for passengers, visitors and employees with clear, uncomplicated terminal systems.

- Provide uncomplicated, operationally and energy-efficient, value-driven design within a plan that can be developed in incremental stages.

- Emphasize flexibility to accommodate changing airline/airport operational needs over time.

2.5 PROJECT DESCRIPTION

As part of its implementation of the capacity and facilities improvements permitted by the settlement amendment, the County has developed the following Settlement Amendment Implementation Plan (Proposed Project). The Proposed Project, depicted in Exhibit 2-4 is consistent with the information provided in Final Program EIR 582 and Addendum 582-1, with certain revisions, as outlined below:

- Construction of a new terminal building south of the existing facility that would provide up to six (6) passenger-loading bridges. Two (2) of the six (6) new passenger-loading bridges would be equipped to allow Federal Inspection Services (FIS), including Customs. The new terminal building facility and the existing facility would be connected via a concourse approximately 360 feet in length on the secure side of the terminal. The anticipated footprint of the facility is approximately 100,000 sq. ft. and is proposed as a multi-level structure encompassing an arrival level, departure level and mezzanine. Terminal design would allow access to all twenty (20) passenger-loading gates from either the existing or proposed terminal building. An additional commuter area would be provided within the new terminal building facility to the south to accommodate commuter activity in the southernmost terminal. Passenger access to the commuter facilities would be on the lower level and access to these aircraft would be through ground loading.

- An extension of the existing terminal to the north, providing four (4) passenger departure areas and holdrooms as well as ground boarding locations for commuter flights. Passenger access to these facilities would be via a new enclosed escalator adjacent to the existing stairway from the upper level passenger departure areas to the lower level and access to the aircraft would be through ground loading.

- An extension of the hydrant fueling system to serve the passenger gates in the new terminal building and support aircraft refueling activities in the South Remain Overnight Area and Cargo operations areas located south of the new terminal building. The hydrant fueling improvements would extend the existing hydrant fueling system to allow for hydrant fueling at up to forty (40) aircraft parking locations.

- Construction of a new multi-story parking structure sufficient to accommodate the authorized passenger levels that will be served at JWA. The parking structure would be located south of the existing east parking structure in the area currently used for valet parking. The parking structure footprint would be approximately 150,000 sq. ft. and provide up to 3,200 additional parking positions when completed. The proposed parking structure would be located within the onsite roadway improvements described below. The existing upper level roadway return would be demolished and the lower level return may be retained to improve on-site traffic flow and construction staging.

- Modification of the onsite roadway in front of the existing terminal to accommodate the new terminal and parking structure. The addition of a new terminal building south of the existing facility would necessitate an extension of the elevated roadway and lower roadway by approximately 900 feet. This will involve the construction of a temporary bypass between the sections of the existing elevated roadway and new construction. The temporary bypass would be approximately 450 feet in length and 30 feet wide, and would accommodate two lanes of bypass traffic on the upper roadway during the construction of the roadway project. It is expected that this temporary bypass would then be converted to a walkway that would allow pedestrian traffic between the new elevated roadway structure and the new terminal building.

- Expansion of the existing apron area to allow for the parking of up to thirty-four (34) total RON commercial aircraft. Twenty (20) aircraft would be parked at gated positions, and ten (10) aircraft will be parked in remote, non-gated positions, and four (4) will be commuter aircraft parked at non-gated positions. This would occur by extending the apron south of the current terminal where the air cargo operations currently occur. The RON area would be increased by approximately 165,000 square feet and necessitate changes to the size and location of the transient apron currently located between the existing RON area and the first leasehold south of the RON. As a result of this RON

expansion, air cargo operations would be moved further south to accommodate the new terminal building and facilities, but still remain on the east side of the Airport.

- Modification of the lease holdings area on the east side of the Airport immediately south of the existing air carrier RON. This would include construction of a new hangar on the leasehold immediately south of the existing south RON. The strengthening of an existing transient apron would be required to accommodate the aforementioned improvements.

- Provision of an additional right-turn lane on westbound Campus Drive to Bristol Street North, as required with Mitigation Measure T-1 in Final Program EIR 582. This turn lane would increase the number of turn lanes on Campus Drive to a total of three (3). The turn lane addition would be approximately 250 feet long and 15 feet wide. This improvement would require the relocation of the existing airport maintenance building from the southeast corner of the Airport to an undeveloped parcel on the west side of the Airport in the vicinity of the existing airport administration building. The proposed maintenance facility will be located on a 2.4-acre site west of Aircraft Rescue and Fire Fighting (ARFF) Station 33. The new maintenance building would occupy a footprint of approximately 27,800 sq ft, and the gross facility including outbuildings will be approximately 32,000 sq ft. The existing maintenance facility on airport property on the corner of Campus Drive and Bristol would be demolished.

- Modification of ancillary airfield components, such as relocation of helicopter landing pads required due to the aforementioned transient apron improvements and RON expansion, improvements to Taxiway 'C' to accommodate increased aircraft weights and to allow for two-way traffic during the morning bank of flights, and Taxilane 'A' improvements to support the increased length of the RON area and new terminal building, and other changes required by project design.

- Relocation of various parking operations including on-site employee parking, valet parking, and rental car areas to accommodate the new terminal building.

- Removal of the Edison 66 KV substation located south of the southwest parking structure and in the footprint of the new terminal building. When the substation is removed and prior to the start of construction on the new terminal building, Preferred Emergency (PE) gear will be installed or a secondary feed from the Michelson substation will be established on the Airport to avoid potential loss of electrical service. The selected temporary, back-up electric power source will be removed when the Airport installs an electric co-generation plant on site as part of a separate, independent project currently in design.

The only off-airport improvements would be the improvements at the Campus Drive/Bristol North intersection. The traffic mitigation measure in Final Program EIR 582 identified the need for a third southbound right-turn lane at the Campus Drive/Bristol North intersection.

2.6 PROJECT STAGING

The Proposed Project construction would be staged to allow for more efficient use of the limited space and to minimize conflicts onsite. The contractor would determine the precise staging of construction. The exact form of the staging would be developed as part of the design process and traffic management plans for each project would be developed as appropriate.

2.7 INTENDED USES OF THE SEIR

This SEIR has been prepared to address the potential impacts associated with construction of the JWA facilities improvements authorized under the settlement amendment. This document will provide the County, the lead agency, with environmental analysis necessary to permit full consideration of implementation of the settlement amendment facilities improvements and related projects.

2.8 REGIONAL AVIATION IMPACTS

The proposed construction activities at JWA would not result in any impacts to aviation services within the region. No shift of air operations from JWA to other airports in the region would occur as a result of the Proposed Project.

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SECTION 3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

In accordance with Sections 15125 and 15126(a) to (c) of the State CEQA Guidelines, this Chapter of the EIR provides analysis of impacts for those environmental topics where it was determined that the Proposed Project could result in "potentially significant impacts," as identified in the Initial Study included in Appendix D. Each topical section includes the following information: description of the existing setting; identification of methods used for the analysis presented in the section; identification of thresholds of significance; analysis of potential project effects and significant impacts; identification of a mitigation program, if required, to reduce the impacts; and level of significance after mitigation.

As discussed in the Initial Study (Appendix D), the County of Orange determined the following environmental resource areas would not result in any impacts and do not need any further analysis in the EIR: agriculture, population and housing, geophysical, hydrology and drainage (flooding), safety hazards, aesthetics (light/glare and impacts to scenic highways), cultural resources, recreation, mineral resources, schools, and other government services. Construction-related impacts determined to be potentially significant with project implementation include land use, hydrology and water quality, transportation, noise, air quality, aesthetics (visual compatibility), hazardous materials, and public services and utilities.

Section 15064.7 of the State CEQA Guidelines addresses thresholds of significance and encourages each public agency to develop thresholds of significance through a public review process. Subsequently, these thresholds must be published and adopted by agency ordinance, code, or regulation. The County has not formally adopted thresholds of significance. The thresholds used in this EIR have been derived from several sources, including previous EIRs prepared by the County, the County of Orange General Plan, the CEQA Checklist, adopted thresholds from other agencies (such as the Federal Aviation Administration (FAA) and the South Coast Air Quality Management District), and the professional opinions of County staff.

The mitigation program identified to reduce potential project impacts consists of Standard Conditions and Requirements and mitigation measures. The components of the mitigation program are described below; the mitigation program is presented in Section 8 of this EIR.

- **Project Design Features** – Project Design Features (PDFs) are specific design elements proposed by the project applicant and incorporated into the project to prevent the occurrence of, or reduce the significance of, potential environmental effects. Because PDFs have been incorporated into the project, they do not constitute mitigation measures as defined by CEQA. However, PDFs are identified in the mitigation section for each topical issue to ensure that they are included in the mitigation monitoring program to be developed for, and implemented as a part of, the proposed project.

- **Standard Conditions and Requirements** – Standard conditions and requirements are based on local, state, or federal regulations or laws that are frequently required independently of CEQA review. They also serve to offset or prevent specific impacts. Typical standard conditions and requirements include compliance with the provisions of the Uniform Building Code, South Coast Air Quality Management District Rules, local agency fee programs, etc. Additional conditions may be imposed on the project by government agencies during the approval process, as appropriate.

- **Mitigation Measures** – Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant through the

application of PDFs and standard conditions and requirements, project-specific mitigation measures have been recommended.

The topical sections that follow incorporate the approaches described above.

3.1 LAND USE

Existing and proposed land uses surrounding the Airport were fully documented in Final Program EIR 582. Final Program EIR 582 also reviewed the consistency of the Proposed Project with the land use plans of affected jurisdictions. No further discussion of these issues is presented in this SEIR.

This SEIR addresses the potential impacts on existing airport uses associated with construction of the proposed improvements, including construction staging and any onsite impacts associated with the proposed facilities. The SEIR evaluates the interface of the new terminal and related facilities with existing uses.

3.1.1 ENVIRONMENTAL SETTING/EXISTING CONDITIONS

JWA is owned and operated by the County of Orange. The airport property encompasses a 504-acre site, of which less than approximately 469 acres are available for airfield operations. The majority of the Airport is located in unincorporated Orange County, with a small portion along the northwest boundary near Paularino Avenue extending into the city limits of Costa Mesa. Surrounding jurisdictions include the cities of Irvine, Newport Beach, Santa Ana, and Costa Mesa, and unincorporated Orange County. A portion of the Newport Beach Golf Course south of the airfield is within the boundaries of JWA.

The Airport is immediately adjacent to and south of I-405 and east of SR-55. Primary access to the Airport is provided from MacArthur Boulevard and Michelson Drive (via I-405), while secondary entrances are provided from SR-55 (via a direct airport connector) and Campus Drive.

Following is a summary of existing on-site land uses.

Existing On-site Land Uses

Existing facilities located within the JWA property include airside facilities, passenger terminal facilities, support facilities, general aviation facilities, and airport access and auto parking facilities. The Airport is located in both unincorporated Orange County and the City of Costa Mesa. The Airport uses within the City of Costa Mesa include general aviation uses, maintenance and storage facilities, and the JWA administration building.

Airside Facilities

JWA has a variety of airside facilities. The term "airside," as used in this report, relates principally to the airfield facilities and includes the runway and taxiway system, the runway approach areas, and associated equipment such as airfield lighting and navigational aids. The existing airside facilities, as well as other major operating elements of JWA, include the following:

- Runways – JWA has two parallel runways oriented in a north-south direction. Runway 1L/19R, which is 5,700 feet-long by 150 feet wide, is used primarily for commercial aircraft. Paved blast pads are located at both ends of Runway 1L/19R to protect areas beyond the runway from erosion due to jet blast. Runway 1R/19L, 2,887 feet long by 75 feet wide, is used for general aviation aircraft only.

- Runway Safety Areas – A runway safety area (RSA) is defined as a rectangular area centered about the runway that is cleared, drained, graded, and usually turfed. Under normal conditions, this area should be capable of accommodating aircraft that may veer

off the runway, as well as fire-fighting equipment. At JWA, the RSA for Runway 1L-19R is 500 feet wide, centered on the runway centerline, and extends 1,000 feet beyond each runway end.

- Taxiways – Various taxiways at JWA allow aircraft to quickly exit a runway, or taxi to and from the terminal efficiently. The existing taxiway system is comprised of three parallel taxiways and a number of exit taxiways which facilitate the movement of aircraft while on the ground.

- Navigational Aids – JWA is equipped with an instrument landing system and various other navigational aids (navaids) to provide pilots with electronic guidance to and from the Airport. These navaids include the following equipment: Instrument Landing System (ILS), Localized Directional Aid (LDA), Non-directional Beacon (NPB), Middle Marker, Rotating Beacon, Air Traffic Control Tower (ATCT), Ceilometer, Automated Surface Observing System (ASOS), and Runway Visual Range (RVR).

- Airfield Lighting – The main runway is equipped with high intensity runway edge lights (HIRL), and Runway 1R/19L is edge lit with medium intensity runway edge lights (MIRL). The main runway is also marked with standard precision instrument markings, while Runway 1R/19L is a visual runway and is only marked with runway numbers and centerline markings.

Passenger Terminal Facilities

The JWA terminal building, officially named the Thomas F. Riley Terminal Building, is of relatively recent construction, having been opened to the public on September 16, 1990. The terminal building is located at the north end of the airfield, parallel to and east of the runways. The building comprises approximately 337,900 square feet with three general elements:

1) The Departure level includes airline ticketing areas, concessions space, airline gate hold areas, and public spaces (*i.e.,* circulation and restrooms). The Departure level, which has a total of 14 gates, presently accommodates 11 airlines: Alaska Airlines, Aloha Airlines, America West Airlines, American Airlines, Continental Airlines, Delta Air Lines, Frontier Airlines, Midwest Airlines, Northwest Airlines, Southwest Airlines, United Airlines.

2) The Arrivals level includes baggage claim, public areas (*i.e.,* circulation and restrooms), concession areas (*i.e.*, rental cars and other retail), and various tenant and airport support facilities.

3) The Mezzanine level is located in the central atrium area above the central food court, and includes airline mileage club lounges for United Airlines (*i.e.,* Red Carpet Club) and American Airlines (*i.e.,* Admirals Club). These two airline mileage club lounges total approximately 3,550 square feet each.

Support Facilities

Several facilities at JWA provide specific support functions to the operation of the Airport, including the air traffic control tower, fire station, aviation fuel facilities, County airport administration offices, and County airport maintenance facilities. These facilities are described in Final Program EIR 582.

Currently, the Orange County Fire Authority operates four fire stations that provide service to the Airport. The primary Airport Rescue and Fire Fighting (ARFF) facility (Station No. 33) is located on the west side of the field adjacent to the air traffic control tower at Paularino Avenue.

The Orange County airport maintenance facility is located on 6.1 airfield acres at the corner of Campus Drive and Bristol Street North. A 6,074 square-foot building accommodates maintenance vehicles and shops. An adjacent area is used for parking maintenance vehicles. Space in one of the County t-hangars is used for storage containers. As described in Section 2, this maintenance facility would be relocated as part of the Proposed Project.

General Aviation Facilities

Orange County's aviation history is deeply rooted in general aviation (*i.e.*, private, non-commercial aviation) activity. From 1923, the year the airfield was founded by aviation pioneer Eddie Martin, until 1939, the Airport operated as a privately owned general aviation facility. Today, JWA is the home base for approximately 600 private general aviation aircraft. General aviation activity accounts for approximately 80 percent of the Airport's total number of operations (takeoffs and landings). JWA's general aviation aircraft run the gamut from vintage biplanes and helicopters to sleek corporate jets.

The general aviation facilities at JWA include fixed based operators (FBOs), tie-downs, and hangars. The FBOs provide fuel, supplies, aircraft maintenance, flying lessons, and other services. JWA's two full-service FBOs are Signature Flight Support and Newport Jet Center; the two limited-service FBOs are Jay's Aircraft Maintenance and Martin Aviation. There are also currently 406 county tie-down spaces for general aviation at JWA. Additional hangar space is provided by Executive Hangars (88 spaces) and South Coast Hangars (ten spaces). Lastly, the Airport directly manages the leases for 13 hangar units near the Dove Street gate. .

Airport Access and Auto Parking Facilities

A number of roadways, both regional and local, define the major boundaries of the Airport site. I-405 traverses a northwest-southeast alignment in the immediate airport vicinity. This freeway lies immediately north of JWA and defines a portion of the northern property boundary. (A portion of the Airport property lying north of I-405 is the site of the two existing off-airport parking lots.) MacArthur Boulevard and Campus Drive form the eastern boundary of the Airport, while Bristol Street and SR-73 form the southern boundary. Red Hill Avenue, which lies to the west of the Airport, is the closest major roadway to the west. The majority of traffic approaching and departing JWA does so via MacArthur Boulevard and I-405.

Passenger terminal parking on the Airport is provided in three parking structures. Adjacent to and immediately north and south of the passenger terminal building are two parking structures (A1 and B1, respectively) of four levels each, that are physically connected to the terminal. Parking A1 has a 1,562 vehicle capacity, while Parking B1 has a capacity of 1,411 vehicles. The east parking structure has two halves with a ground transportation center between. The northern half is A2, while the southern half is B2. A2 and B2 provide parking for 4,416 vehicles on four levels. Vehicles parking in this structure are distributed among rental cars (728 spaces), employee parking (615 spaces), and public parking (3,073 spaces). Off-airport, or long-term, parking is located south of Main Street at the Main Street Lot, north of Main Street in the "T" lot. These parking lots have 1,860 spaces.

3.1.2 SUMMARY OF LAND USE IMPACTS AND MITIGATION MEASURES IDENTIFIED IN FINAL PROGRAM EIR 582 AND THE ADDENDUM TO FINAL PROGRAM EIR 582

Summary of Land Use Impacts

Final Program EIR 582 identified that construction of facility improvements would be accomplished within the existing airport area, and focused on the potential impacts to off-site surrounding land uses associated with airport operations under three project scenarios. This section provides a summary of the land use impacts identified in Final Program EIR 582 and Addendum 582-1, and is followed by an analysis of potential impacts to existing and planned land uses associated with the proposed construction of the Airport facility improvements.

Final Program EIR 582 and the Addendum 582-1 concluded that the only land use impacts associated with the approved project were indirect impacts associated with noise. The noise levels are associated with the number of regulated flights and the MAP levels served at the Airport. The approved Project and fleet mix, as defined by the settlement amendment, were used to generate Community Noise Equivalent Level (CNEL) at the sensitive receptor locations. The analysis concluded that for all sensitive uses within the 65 decibels (dB) CNEL noise contour, the noise increase associated with the approved Project would be less than 1.5 dB, and would not be considered significant. There would be an increased area within the 65 dB CNEL noise contour, but it includes commercial areas which are not considered noise sensitive land uses and a small area of residential uses that have already been sound attenuated. The land use impacts of the approved Project were determined to be less than significant.

Previously Adopted Mitigation Measures

Final Program EIR 582 concluded that Scenario 2 (the adopted alternative) would result in significant unavoidable land use impacts due to the fact that an additional 0.03 square miles of residential land would become incompatible with noise levels from JWA. The Noise Section of Final Program EIR 582 identified mitigation measures such as acoustical insulation and land use restrictions within the impacted area to address this issue. However, Addendum 582-1 presented updated fleet mix data and projections consistent with the terms of the modified settlement amendment (modified Scenario 2) which resulted in lower projected noise levels than those previously projected in connection with Scenario 2. These lower projected noise levels effectively eliminated the land use incompatibility issue identified in Final Program EIR 582. Because the land use impacts were found to be less than significant, no mitigation was required.

3.1.3 METHODOLOGY

The potential land use impacts of the Proposed Project were evaluated by comparing the compatibility of existing on-site land uses to the proposed on-site land uses. Methods utilized to determine the potential project impacts, included a field reconnaissance survey of the area in September 2003, review of aerial photographs, and meetings with planning staff at JWA.

3.1.4 THRESHOLDS OF SIGNIFICANCE

The Proposed Project would be considered to have a significant impact related to land use if it would:

- Create substantial incompatibilities between the Proposed Project's land uses and adjacent existing and planned land uses

The following section, 3.1.5, provides a detailed discussion regarding the Proposed Project's land use impacts.

Analysis Of Project Impacts

As discussed in Section 2.4, Project Description, the Proposed Project would implement numerous capacity and facilities improvements permitted by the settlement amendment and approved in connection with the certification of Final Program EIR 582 and Addendum 582-1. As a result of the Proposed Project, a new terminal building and parking structure would be constructed, the existing terminal to the north would be extended, the hydrant fueling system would be extended, existing aprons would be expanded and strengthened, the lease holdings area on the east side of the Airport would be modified, ancillary airfield components would be modified or relocated, the on-site roadway would be modified, and an additional right-turn lane would be provided on southbound Campus Drive to Bristol Street North. Due to its overall complexity, the Proposed Project would be completed in stages.

Incremental modifications to, or relocations of, various on-site uses would be required for implementation of the Proposed Project. Consequently, the Proposed Project would potentially impact on-going uses at the Airport such as passenger access, aircraft fueling, parking, traffic flow, RON and transient access, leasehold operations, air cargo operations, aircraft taxiing, aircraft maintenance, and helicopter operations. As discussed in Section 3.8, Public Services and Utilities, electrical service would potentially be impacted when the SCE 66 KV substation is removed during the earliest stages of project construction.

As discussed in Section 3.3, Noise, construction activities associated with the Proposed Project could potentially exceed noise ordinance limits for the maximum noise exposure at the hotels nearest John Wayne Airport (*i.e.,* the Hilton Hotel, the Atrium Hotel and the Radisson Hotel on MacArthur Boulevard) during nighttime construction. However, because the construction activity is not a permanent noise but represents a temporary impact, and because the hotels are transient lodging facilities already exposed to high traffic noise levels from MacArthur Boulevard and normal aircraft activity at JWA, this impact is not considered significant.

3.1.5 MITIGATION PROGRAM

Project Design Features

PDF 3.1a To minimize potential interruptions to on-going airport operations, the Airport Director, or his designee, shall review and approve a Construction Staging Program prepared by the project contractor.

Level Of Significance After Mitigation

With implementation of PDF 3.1a above, the Proposed Project would have less than significant impact land use impacts.

3.2 TRANSPORTATION AND CIRCULATION

This section presents an analysis of potential ground transportation impacts associated with construction-related activities at John Wayne Airport (JWA) consistent with the increased levels of usage and added facilities, which were approved under Final Program EIR 582 and Addendum 582-1. The information in this section is based on data provided in the *JWA Settlement Amendment Implementation Plan SEIR Traffic Report*, prepared by Austin-Foust Associates, Inc. in May 2004. The full report is reproduced in Appendix C of this supplemental EIR.

3.2.1 BACKGROUND AND SCOPE

The JWA Settlement Amendment Implementation Plan (SAIP) authorizes increases in operational capacity at JWA through year 2015, as well as the construction of airport facility improvements in support of the increased operations. Potential traffic impacts associated with serving 10.8 MAP were analyzed in Final Program EIR 582, certified by the Orange County Board of Supervisors on June 25, 2002, and in Addendum 582-1, adopted and certified by the Orange County Board of Supervisors on December 10, 2002. Year 2001 conditions (7.7 MAP) were the baseline for those traffic analyses.

As a Program EIR, Final EIR 582 did not assess the potential traffic impacts specifically associated with construction of the planned airport facility improvements. Hence, this supplemental EIR provides an analysis of the potential impacts associated with the construction-related traffic and presents findings as to whether that traffic would cause additional impacts compared to those identified in Final Program EIR 582.

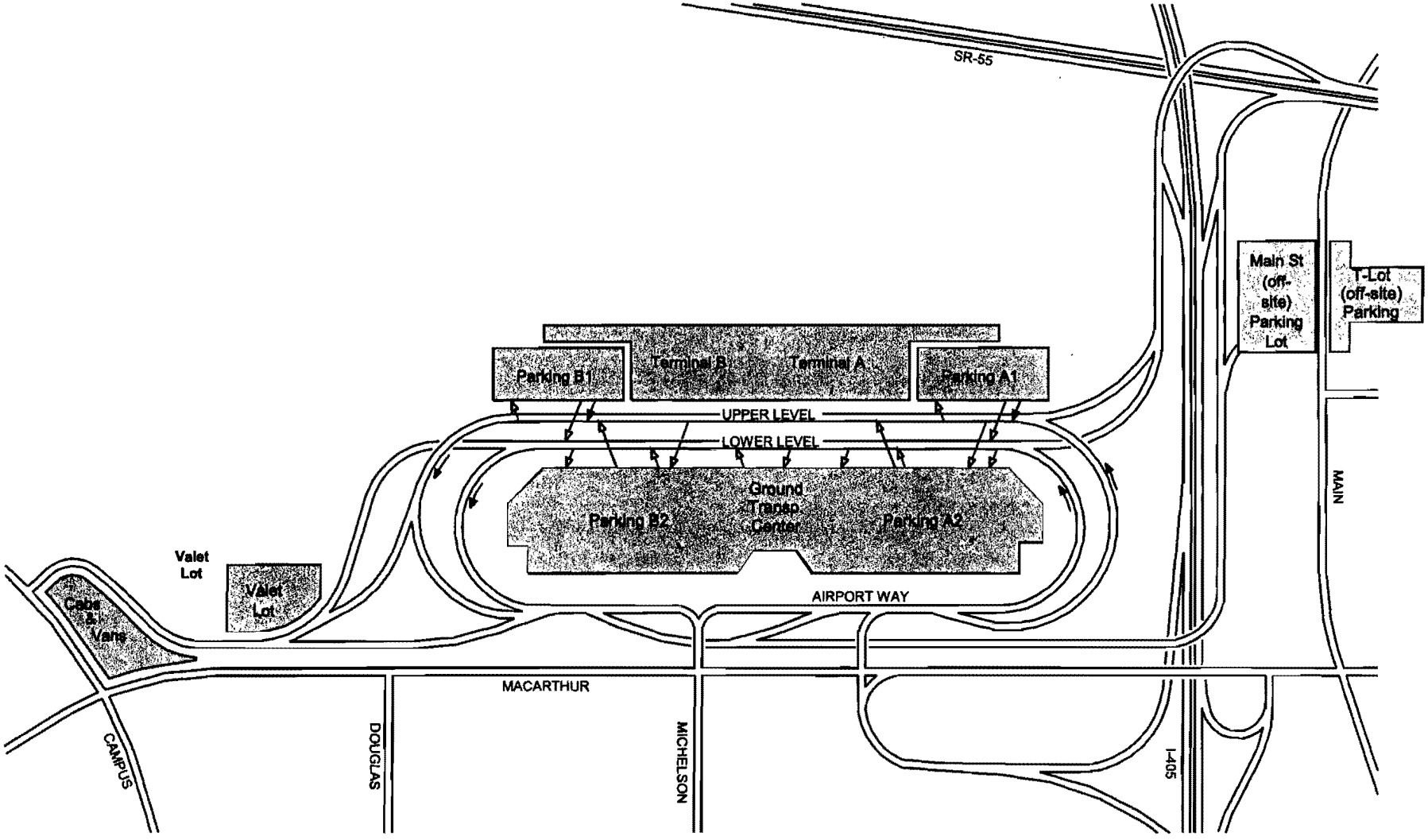
As detailed in Section 2.4, actual construction of approved airport facility improvements would occur in four basic stages: site work, foundations, vertical construction, and finish work. Of the four basic stages, site work (excavation and grading) would generate the largest amount of construction traffic by a factor of 10. Therefore, the excavation and grading stage was used as a worst-case scenario for the purpose of analyzing construction-related traffic impacts.

3.2.2 ENVIRONMENTAL SETTING

The existing roadway network in the study area is illustrated in Exhibit 3.2-1. Arterial street access to JWA from the freeway network is provided by MacArthur Boulevard via an interchange with the San Diego Freeway (I-405) and by Campus Drive via ramps to and from the SR-73 Freeway. In addition, there are direct ramps connecting the airport roadway system to SR-55 north of I-405.

The I-405 Freeway provides regional access for airport users along the coastal corridor. It has interchanges with the SR-55 Freeway, the SR-73 Freeway, and with several arterials which provide access to the Airport. The most direct access to JWA from the I-405 Freeway is via the MacArthur Boulevard interchange. On- and off-ramps to and from the southbound freeway lanes are located directly opposite the Airport Way North access road. On- and off-ramps to and from the northbound freeway lanes are located on the north side of the freeway, with access from Michelson Boulevard.

The SR-55 Freeway provides direct access to JWA to and from the north. This freeway has interchanges with the I-405 and SR-73 Freeways, as well as on- and off-ramps at Baker Street and Paularino Avenue. The SR-73 Freeway extends from the I-405 Freeway southeast through Costa Mesa to Newport Beach/Irvine where it becomes the SR-73 toll road. SR-73 continues through various south Orange County cities to a connection with I-5 south of Avery Parkway.



Existing Roadway Network

Exhibit 3.2-1

John Wayne Airport
Settlement Amendment Implementation Plan

JOHN WAYNE AIRPORT

R:/Projects/JWA/J002/Ex3.2-1_roads_06104.pdf

Primary arterial street access to the Airport on the east side is provided by MacArthur Boulevard, an eight-lane arterial allowing access to Airport Way North from Newport Beach to the south and Irvine and Santa Ana to the north. Campus Drive, a six-lane road, provides direct access to both Airport Way North (the middle airport access point) and Airport Way South. Campus Drive links the Airport with Jamboree Road to the east and the SR-73 Freeway to the south. Paularino Avenue and Red Hill Avenue provide limited access to the Airport on the west side.

3.2.3 ASSUMPTIONS AND METHODOLOGY

As stated above, potential traffic impacts associated with serving 10.8 MAP were analyzed in Final Program EIR 582. This Traffic Study prepared by Austin-Foust Associates in May 2004 for this supplemental EIR (Attachment C) provides:

1) A validation of the 2001 baseline using 2003 data;

2) A validation of the data used in Final Program EIR 582 with updated 10.8 MAP forecasts;

3) An assessment of potential traffic impacts associated with construction-related activities at John Wayne Airport.

3.2.4 DATA VALIDATION

Tables 3.2-1 and 3.2-2 compare the Airport trip generation data from Final Program EIR 582 with that compiled for the analysis in this supplemental EIR. A "design day" is selected for analysis purposes, and represents an average of the weekdays during the month when JWA experiences highest passenger volumes (August). Within the design day, two peak hours are defined. The AM peak hour (7:30 AM to 8:30 AM) and PM peak hour (5:00 PM to 6:00 PM) correspond to the peak hours of the surrounding roadway system.

Existing (Actual) Airport-Generated Traffic

Table 3.2-1 shows actual traffic volumes for August 2001 and August 2003, respectively. The 2001 data illustrates design day volumes corresponding to 7.7 MAP (and utilized in Final Program EIR 582), and the 2003 data illustrates volumes corresponding to 8.5 MAP. The differential between the two is also presented.

TABLE 3.2-1
COMPARISON BETWEEN 2001 AND 2003 TRAFFIC DATA FOR JWA

Source	MAP	AM Peak			PM Peak			ADT
		In	Out	Total	In	Out	Total	
Existing (Actual) Traffic								
Aug. 2001 (EIR 582)	7.7	1,250	1,138	2,378	1,875	1,879	3,754	47,474
Aug. 2003	8.5	1,240	1,090	2,330	1,720	1,830	3,550	51,300
Differential (%)	16%	0%	-4%	-2%	-8%	-3%	-5%	8%

Source: Austin Foust, 2004

As compared to 2001 average daily traffic (ADT) volumes, the 2003 ADT volumes show an increase of eight percent, reflecting some of the increase in MAP during this time period. However, the peak hour volumes do not show any increase, and in most cases show a decrease. This largely reflects the changes in passenger arrival patterns that have occurred due to recently implemented passenger security checks, with arrivals being spread out into off-peak times.

Future (Projected) Airport-Generated Traffic

Table 3.2-2 shows the projections for 10.8 MAP, first depicting those projections used in Final Program EIR 582, then depicting the projections prepared in this analysis. A calculation of the differential between the two is also presented.

TABLE 3.2-2
COMPARISON OF PROJECTED TRIP GENERATION AT JWA
FINAL EIR 582 VS. CURRENT PROJECTION

Source	MAP	A.M. Peak[1]			P.M. Peak[2]			ADT
		In	Out	Total	In	Out	Total	
Future (Projected) Traffic								
Projected EIR	10.8	1,740	1,599	3,339	2,631	2,637	5,268	66,612
Current Projection	10.8	1,590	1,400	2,990	2,200	2,640	4,450	65,700
Differential		-150	-199	-349	-431	-297	-728	-912

[1] 7:30 A.M. to 8:30 A.M.
[2] 5:00 P.M. to 6:00 P.M.
ADT – Average Daily Traffic (total vehicles entering and leaving the Airport over a 24-hour period for the design day)

Source: Austin Foust, 2004

As can be seen, the 10.8 MAP ground transportation projections based on the recent (August 2003) count data are lower than those projected in Final Program EIR 582 using the 2001 baseline. This is particularly the case for the estimated trips during the two peak periods. It is assumed that the security measures for check-in will continue into the future; hence the future peak hour traffic patterns will reflect those observed in 2003 rather than those prevailing in August 2001 when such security measures were not in place.

Conclusions With Respect to Data Validation Effort

Based on the above analyses, it can be concluded that the August 2003 traffic counts validate the trip generation projections utilized in Final Program EIR 582, and in fact evidence that the Final Program EIR 582 analysis overstated both projected AM/PM peak hour trips and projected total trips.

3.2.5 CONSTRUCTION TRAFFIC IMPACTS

This section describes future traffic to and from the airport that would be generated by construction-related activities, and then discusses associated impacts.

Thresholds of Significance

For CEQA purposes, defined impact criteria are utilized to determine if a proposed project causes a significant impact. The proposed construction project may result in a significant impact if it would cause any of the following conditions to occur:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);

- Exceed, either individually or cumulatively, a level of service (LOS) standard established by the County CMP agency for designated roads or highways;

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

- Result in inadequate emergency access;

- Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Construction Traffic Estimates

Estimates were made of the amount of construction traffic that would be generated by implementation of the physical facilities for the Settlement Amendment Implementation Plan. The derivation focused on each of the major construction components (terminal area, new parking structure, and taxiway/apron reconfiguration), and estimated the construction traffic associated with excavation and grading activities generated by each. Recognizing that construction activity varies over the period of construction, the estimates represent the highest volumes that would be anticipated to occur on any given day.

The construction traffic estimates are based on an evaluation of construction activity types and use representative vehicular trip rates associated with those activities to derive the construction related trips. The following are the derivations for each construction component:

- **Terminal area excavation and grading** – The terminal addition would require an estimated 7.4 acres of existing pavement to be removed, along with an underlying soil layer. The maximum level of activity for this excavation and grading is estimated at 300 daily trucks operating over a ten-hour period during the day. Associated with this would be around 20 worker vehicles traveling to and from the airport.

- **New parking structure and roadway area excavation and grading** – Construction of the new parking structure and roadway would require that approximately 12 acres of existing pavement be removed, along with an underlying layer of soil. The material would be hauled off the site with a maximum activity level of 300 daily truck trips. Associated worker trips are estimated at 30 vehicles per day.

- **Taxiway and apron reconfiguration area excavation and grading** – The construction of the taxiway and apron reconfiguration would require approximately 8.3 acres of existing pavement to be removed, along with an underlying layer of soil. This material would be hauled off the site with a maximum estimated activity of 300 daily truck trips. Associated worker trips would be around 20 vehicles per day.

In addition, the new parking structure would require a concrete pouring operation that is planned to occur during night time hours when the airport is not operating. Up to a maximum of 36 concrete trucks will bring concrete in for this nighttime operation.

As previously mentioned, actual construction work would occur in four basic stages, with the first stage (excavation and grading) generating up to ten times more construction-related traffic

than the three following stages: foundations, vertical construction, and finish work. The actual number of construction-related truck trips during the last three stages of construction would fluctuate on a day-to-day basis, averaging around 10 percent of the maximum truck traffic estimate presented here for the excavation and grading activities. At no time would the other construction stages result in greater numbers of construction vehicles than the maximum estimate for the first stage. Thus, excavation and grading activity-related traffic represents a worst-case scenario for the purpose of traffic impacts analysis.

Table 3.2-3 summarizes the estimates for the maximum daily construction traffic:

TABLE 3.2-3
MAXIMUM DAILY CONSTRUCTION TRAFFIC

Component	Duration	Daily Trucks Loaded	Worker Vehicles
Parking Structure*	10 Hours	300	30
Terminal Expansion	10 Hours	300	20
Airfield Improvements	10 Hours	300	20
* Excluding evening concrete pours Source: Austin-Foust Associates, 2004			

The traffic analysis prepared for construction-related activities at JWA assumes a worst-case scenario -- that is, it assumes the maximum truck and vehicle trips for each component occur on the same day. Although this level of construction-related daily vehicular activity would not occur in actuality, the worst-case analysis approach ensures that construction-related traffic impacts are fully accounted for and appropriately mitigated.

The worst-case analysis would result in a maximum 900 trucks entering and leaving the airport for construction activities on a single day, resulting in 1800 truck trips. In addition, a maximum of 100 worker vehicles would travel to and from the site on the same day, resulting in an additional 200 daily trips.

Construction Traffic Impact Analysis

As stated above, Final Program EIR 582 evaluated traffic impacts associated with increases in operational capacity up to 10.8 MAP. Final Program EIR concluded that those impacts would be less than significant with respect to the local and regional transportation system and all associated goals and policies.

The analysis of construction traffic impacts provided in this supplemental EIR assumes a passenger demand level of 10.3 MAP as the basis for impact determination. This is the estimated maximum passenger demand that could be served prior to the availability of additional terminal and parking spaces, as required under the provisions of the settlement amendment. Table 3.2-4 below summarizes the ground transportation demands for 10.3 MAP including comparison figures for 8.5 MAP (year 2003) and 10.8 MAP (Implementation Plan buildout).

TABLE 3.2-4
GROUND TRANSPORTATION DEMAND SUMMARY

	2003 (8.5 MAP)	Interim (10.3 MAP)	Future (10.8 MAP)
Air Passengers			
Total Annual Passengers	8,500,000	10,300,000	10,800,000
Peak Month Passengers	850,400	1,038,100	1,091,000
Design Day Peak Month (DDPM) Passengers	28,200	34,400	36,100
Vehicles			
Design Day Vehicles (DDV) Entering and Exiting	51,300	62,500	65,700
Design Day AM Peak Hour Vehicles Entering and Exiting	2,330	2,840	2,990
Design Day PM Peak Hour Vehicles Entering and Exiting	3,550	4,320	4,540
AM peak hour: 7:30 – 8:30 PM peak hour: 5:00 – 6:00 Source: Austin-Foust Associates, 2004			

Estimates of projected construction truck traffic associated with excavation and grading activities were calculated and are summarized in Table 3.2-5, below. Some additional traffic due to construction workers will occur, but these trips are primarily before the AM and PM peak hours, and a representative value has been added to the ADT volume. It should be noted that the maximum truck and vehicle trips associated with stage 1, excavation and grading, would occur for a relatively short duration. As noted above, the three construction stages following excavation and grading would result in significantly fewer construction-related vehicle trips.

TABLE 3.2-5
CONSTRUCTION RELATED TRAFFIC ADT SUMMARY

Component	Hourly Trucks Loaded	Daily Trucks Loaded	Am Peak Hour[1]			Pm Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Parking Structure	30	300	30	30	60	30	30	60	600
Terminal Expansion	30	300	30	30	60	30	30	60	600
Airfield Improvements	30	300	30	30	60	30	30	60	600
Totals	90	900	90	90	180	90	90	180	1800
Construction Workers									200

[1] AM peak hour: 7:30 – 8:30
[2] PM peak hour: 5:00 – 6:00
ADT – Average daily traffic (total vehicles entering and leaving the Airport over a 24-hour period for the design day.

Source: Austin-Foust Associates, 2004

To evaluate the impacts of construction traffic, the estimated truck trips and construction worker trips was added to the total airport generated trips (see Table 3.2-6, Combined Construction and Airport Generated Trips, below). Note that projected truck trips have been multiplied by a passenger car equivalent (PCE) factor of 3.0 to account for their equivalent impacts in intersection capacity analyses.

TABLE 3.2-6
COMBINED CONSTRUCTION AND AIRPORT GENERATED TRIPS

	A.M. Peak Hour[1]			P.M. Peak Hour[2]			ADT
	In	Out	Total	In	Out	Total	
10.3 MAP Estimate	1,492	1,348	2,840	2,127	2,193	4,320	62,500
Trucks*	270	270	540	270	270	540	5,400
Workers							200
Total	1,762	1,618	3,380	2,397	2,463	4,860	68,100

[1] AM peak hour: 7:30 – 8:30
[2] PM peak hour: 5:00 – 6:00
ADT – Average daily traffic (total vehicles entering and leaving the Airport over a 24-hour period for the design day.

Source: Austin-Foust Associates, 2004

The combined total was then compared to the traffic generation numbers used in the Final Program EIR 582 traffic analysis. Table 3.2-7, Comparison with Final Program EIR 582, compares the Final Program EIR 582 AM peak hour (7:30 to 8:30), PM peak hour (5:00 to 6:00), and total daily trips against the projected 10.3 MAP plus construction traffic numbers.

TABLE 3.2-7
COMPARISON WITH FINAL PROGRAM EIR 582

	A.M. Peak Hour[1]			P.M. Peak Hour[2]			ADT
	In	Out	Total	In	Out	Total	
EIR 582 Totals	1,740	1,599	3,339	2,631	2,637	5,268	66,612
10.3 MAP Projection plus construction traffic	1,762	1,618	3,380	2,397	2,463	4,860	68,100

[1] AM peak hour: 7:30 – 8:30
[2] PM peak hour: 5:00 – 6:00
ADT – Average daily traffic (total vehicles entering and leaving the Airport over a 24-hour period for the design day.

Source: Austin-Foust Associates, 2004

On-Site Impacts

As stated above, the analysis in this supplemental EIR assumes a worst-case scenario with respect to potential traffic impacts which is unlikely to occur. Nevertheless, to minimize potential impacts to on-site traffic during construction, the new terminal building and parking structure will be constructed in stages. A ground transportation plan associated with each stage of construction will be prepared to serve on-site traffic while that stage is under construction.

Off-Site Impacts

In Final Program EIR 582, an analysis was carried out to identify potential impacts of airport generated traffic on intersections within jurisdictions surrounding the airport. The analysis used AM and PM peak hour forecasts to calculate "with project" and "without project" intersection capacity utilization (ICU) values for those intersections. Mitigation measures were identified when specified levels of significance were exceeded. The information presented here shows that the traffic generated by an interim year 10.3 MAP passenger level at JWA plus construction traffic will be less than the peak hour volumes used in the previous (Final Program EIR 582) ICU impact analysis. Hence, any ICU calculations based on this interim year level of passenger activity plus the maximum (worst case) amount of construction traffic would be lower than what was analyzed in Final Program EIR 582. It is, therefore, concluded that construction traffic

3.3 NOISE

Final Program EIR 582 and Addendum 582-1 address operational noise impacts resulting from capacity increases authorized by the settlement amendment. Project assumptions related to fleet mix, load factors, and daily flights have not changed from the analysis in Final Program EIR 582 and Addendum 582-1; therefore, operational noise impacts are not addressed in this SEIR.

Final Program EIR 582 and Addendum 582-1 did identify that construction of proposed facility improvements would result in a short-term increase in noise; however, due to the distance of construction activities from sensitive noise receptors, these impacts were considered less than significant. The following analysis provides an update of the analysis presented in Final Program EIR 582 and Addendum 582-1, providing a detailed discussion about construction-related noise impacts. The technical report prepared by Mestre-Greve Associates is provided in its entirety in Appendix D.

3.3.1 ENVIRONMENTAL SETTING/EXISTING CONDITIONS

Existing John Wayne Airport Noise

JWA serves both general aviation and scheduled commercial passenger airline and cargo operations. As noted earlier in this SEIR, the use of JWA is heavily regulated as a result of its limited area and facilities, environmental sensitivity of the local area, and a long history of airport-related litigation extending back at least to 1969.

JWA has accumulated extensive data from its noise monitoring system, and other studies and data sources relating to aircraft operations and noise levels, permitting unusually precise modeling and prediction of noise levels. Radar track plots and sophisticated use of noise levels measured at the noise monitoring stations have produced very accurate depictions of flight tracks. The noise levels of all commercial aircraft operations and many general aviation operations are recorded at ten permanent noise-monitoring stations around the Airport. Both Community Noise Equivalent Level (CNEL) and Single Event Noise Exposure Level (SENEL) are monitored and calculated each day and for each aircraft. In accordance with the California Airport Noise standards and regulations, a detailed report, called the "Quarterly Report," is compiled every three months summarizing this information. Noise complaint data is also routinely recorded and analyzed. The aircraft operational data, noise measurements, and contours for JWA are among the most accurate of any in the world. Noise Abatement Quarterly Reports can be obtained from JWA.

Background Information And Methodology

This section presents background information on the characteristics of noise and summarizes the methodologies used to study the noise environment, including:

- Properties of sound that are important for technically describing sound
- Acoustic factors influencing human subjective response to sound
- Potential disturbances to humans and health effects due to sound

Following is information regarding sound rating scales used in this study, and a summary of noise assessment criteria.

Sound Rating Scales

The description, analysis, and reporting of community sound levels is made difficult due to the complexity of human response to sound and myriad sound-rating scales and metrics developed to describe acoustic effects. Various rating scales are designed to approximate the human

subjective assessment to the "loudness" or "noisiness" of a sound. Noise metrics have been developed to account for additional parameters such as duration and cumulative effect of multiple events. In addition, by their very nature, cumulative metrics are designed to describe "annoyance" and other reactions to a noise environment on a community-wide basis. This approach to measuring and describing a noise environment statistically accounts for human variability in response to noise.

Noise metrics are categorized as single event metrics and cumulative metrics. Single event metrics describe the noise from individual events, such as one aircraft flyover. Cumulative metrics describe the noise in terms of the total noise exposure throughout the day. Noise metrics used in this study are summarized below:

Single Event Metrics

- **Frequency Weighted Metrics (dBA).** In order to simplify the measurement and computation of sound loudness levels, frequency weighted networks have obtained wide acceptance. The A-weighting (dBA) scale has become the most prominent of these scales and is widely used in community noise analysis. Its advantages are that it has shown good correlation with community response and is easily measured. The metrics used in this study are all based upon the dBA scale.

- **Maximum Noise Level.** The highest noise level reached during a noise event is, not surprisingly, called the "Maximum Noise Level," or Lmax.

- **Single Event Noise Exposure Level (SENEL) or Sound Exposure Level (SEL).** This metric is essentially equivalent to the Sound Exposure (SEL) metric. It is computed from the A-weighted sound level during the event. The SENEL metric not only takes into account the maximum noise level of the event (as does dBA), but also takes into account the duration of the noise event.

Cumulative Metrics

Cumulative noise metrics assess community response to noise by including in the metric calculation, the loudness of individual noise events, the duration of each noise event, the total number of noise events, and the time of day these events occur, into one single number rating scale.

Equivalent Noise Level (Leq)

Leq is the sound level corresponding to a steady-state A-weighted sound level containing the same total energy as several SEL events during a given sample period. Leq is the "energy" average noise level during the time period of the sample. It is based on the observation that the potential for noise annoyance is dependent on the total acoustical energy content of the noise. Leq can be measured for any time period, but is typically measured for 15 minutes, 1 hour or 24-hours. Leq for a one-hour period is used by the Federal Highway Administration for assessing highway noise impacts. Leq for one hour is called Hourly Noise Level (HNL) in the California Airport Noise Regulations and is used to develop CNEL values for aircraft operations.

Community Noise Equivalent Level (CNEL)

CNEL is a 24-hour, time-weighted energy average noise level based on the A-weighted decibel and the SENEL metric. It is a measure of the overall noise experienced during an entire day. The term "time-weighted" refers to the penalties attached to noise events occurring during certain sensitive time periods. In the CNEL methodology, noise events occurring between the hours of 7 p.m. and 10 p.m. are "penalized" by approximately 5 dB. This penalty accounts for

the greater potential for noise to cause communication interference during these hours, as well as typically lower ambient noise levels during these hours. This has the effect of treating each evening noise event for purposes of calculating CNEL values as if each event was, in effect, three events. Noise that takes place during the night (10 p.m. to 7 a.m.) is penalized by 10 dB. This penalty was selected to attempt to account for the higher sensitivity to noise in the nighttime (primarily because of potential sleep disturbance effect) and the expected further decrease in background noise levels that typically occur in the nighttime. In practical terms, this means that each nighttime noise event is effectively treated as if it were ten noise events.

CNEL is required for use in California by the California Airport Noise Regulations, and is used by local planning agencies in their General Plan Noise Elements for land use compatibility planning.

Day Night Noise Level (DNL)

The DNL index is very similar to CNEL but does not include the evening (7:00 p.m. to 10:00 p.m.) penalty that is included in CNEL. It does include the nighttime (10:00 p.m. to 7:00 a.m.) penalty. Typically the DNL value is about 1 dB lower than the comparable CNEL value, although the difference may be greater if there is an abnormal concentration of noise events in the 7:00 p.m. to 10:00 p.m. evening time period. DNL is specified by the FAA for airport noise assessment and by the Environmental Protection Agency (EPA) for community noise and airport noise assessment. The FAA guidelines (described later) allow for the use of CNEL as a substitute to DNL; the use of CNEL for California airport projects is commonly accepted by FAA and other federal agencies.

Supplemental Metrics

Supplemental metrics include Percent Noise Level (Ln) and detectability. The Ln is the level exceeded n% of the time during the measurement period. Percent noise level is commonly used in community noise ordinances, which regulate noise from mechanical equipment, entertainment noise sources and the like. It is not normally used for transportation noise regulation. The concept of detectability and its relation to annoyance appears to be applicable to low-level sound situations that are common in remote areas. However, it should be noted that the research on detectability was conducted primarily under constrained laboratory conditions. Detectability is not used as a metric for analysis in this study.

3.3.2 NOISE/LAND USE COMPATIBILITY GUIDELINES

Noise metrics quantify community response to various noise exposure levels. The public reaction to different noise levels has been estimated from extensive research on human responses to exposure of different levels of aircraft noise. Noise standards generally are expressed in terms of the DNL (or CNEL in California) 24-hour averaging scale based on the A-weighted decibel. Utilizing these cumulative noise metrics and community attitude surveys, agencies have developed standards for assessing the compatibility of various land uses with the noise environment. There are no single event noise based noise/land use compatibility criteria for aircraft noise that have been adopted by the federal government or the State of California.

This section presents information regarding noise and land use criteria useful in the evaluation of noise impacts. The FAA has a long history of publishing noise/land use assessment criteria for airports. These laws, regulations and expert agency guidance provide the basis for local development of airport plans, analyses of airport impacts, and the enactment of compatibility policies. Other agencies, including the EPA, the Department of Defense, the State of California, the County of Orange, and most cities, have developed or suggested general noise/land use compatibility criteria. A summary of some of the more pertinent regulations and guidelines are presented in the noise technical report included in Appendix D.

State of California

The Aeronautics Division of the California State Department of Transportation (Caltrans) enforces the California Airport Noise Regulations. These regulations establish 65 dB CNEL as a noise impact boundary within which there shall be no incompatible land uses. This requirement is based, in part, upon the determination in the Caltrans regulations that 65 dB CNEL is the level of noise that should be acceptable to "...a reasonable man residing in the vicinity of an airport." Airports are responsible for achieving compliance with these regulations. Compliance can be achieved through noise abatement alternatives, land acquisition, land use conversion, land use restrictions, or sound insulation of structures. Airports not in compliance can operate under variance procedures established within the regulations. JWA has operated under a variance to the California Airport Noise Regulations.

California Noise Insulation Standards apply to all multi-family dwellings built in the State (*i.e.*, 45 dB CNEL interior noise levels required). Single-family residences are exempt from these regulations; however, the County of Orange and many cities do require compliance through their respective General Plans. With respect to community noise sources, the regulations require that all multi-family dwellings with exterior noise exposures greater that 60 dB CNEL must be sound insulated such that the interior noise level will not exceed 45 dB CNEL. These requirements apply to all roadway, rail, and airport noise sources.

The State of California requires that all municipal General Plans contain a Noise Element. The requirements for the Noise element of the General Plan include describing the noise environment quantitatively using a cumulative noise metric such as CNEL or DNL, establishing noise/land use compatibility criteria, and establishing programs for achieving and/or maintaining compatibility. Noise elements shall address all major noise sources in the community including mobile and stationary sources.

Airport Land Use Commissions were created by state law (Section 21670, Public Utilities Code) for the purpose of establishing a regional level of land use compatibility between airports and their surrounding environs. The Airport Land Use Commission for Orange County adopted an Airport Environs Land Use Plan (AELUP) for John Wayne Airport in 2002. The AELUP establishes noise/land use acceptability criteria for sensitive land uses at 65 dB CNEL for outdoor areas and 45 dB CNEL for indoor areas of residential land uses. These criteria are compatible with the criteria used by the County of Orange.

County of Orange

The General Plan Noise Element of the County of Orange establishes noise and land use planning criteria for the unincorporated areas of the County. These noise guidelines and standards cover roadway noise, rail noise, and airport noise including military and civilian airports. The County has adopted noise standards for various land uses in terms of CNEL and Leq. These standards are shown in Exhibits 3.3-1 and 3.3-2. For residential land uses the County has established a maximum exterior noise level standard of 65 dB CNEL for private outdoor living areas and an interior standard of 45 dB CNEL. The County of Orange uses the 60 dB CNEL contour as a threshold for review of projects in order to screen projects and ensure that the 65 dB CNEL exterior and 45 dB CNEL interior criteria are met. In other words, projects located within the 60 dB CNEL contour are required to submit detailed acoustical studies ensuring compliance with the County noise standards.

Orange County Compatibility Matrix for Land Uses and Community Noise Equivalent Levels (CNEL) and Equivalent Noise Levels (Leq)

TYPES OF USE	65+ decibels CNEL	60 to 65 decibels CNEL
Residential	3a b e	2a e
Commercial	2c	2c
Employment	2c	2c
Open Space		
Local	2c	2c
Community	2c	2c
Regional	2c	2c
Educational Facilities		
School (K through 12)	2c d e	2c d e
Preschool, college, other	2c d e	2c d e
Places of Worship	2c d e	2c d e
Hospitals		
General	2a c d e	2a c d e
Convalescent	2a c d e	2a c d e
Group Quarters	1a b c e	2a c e
Hotels/Motels	2a c	2a c
Accessory Uses		
Executive Apartments	1a b e	2a e
Caretakers	1a b c e	2a c e

County of Orange Land Use Compatibility Criteria — Exhibit 3.3-1

John Wayne Airport Settlement Amendment Implementation Plan

JOHN WAYNE AIRPORT

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Orange County Compatibility Matrix for Land Uses and Community Noise Equivalent Levels (CNEL) and Equivalent Noise Levels (Leq) - Explanations and Definitions

ACTION REQUIRED TO ENSURE COMPATIBILITY
BETWEEN LAND USE AND NOISE FROM EXTERNAL SOURCES

1 - Allowed if interior and exterior community noise levels can be mitigated.

2 - Allowed if interior levels can be mitigated.

3 - New residential uses are prohibited in areas within the 65-decibel CNEL contour from any airport or air station; allowed in other areas if interior and exterior community noise levels can be mitigated. The prohibition against new residential development excludes limited "infill" development within an established neighborhood.

STANDARDS REQUIRED FOR COMPATIBILITY OF LAND USE AND NOISE

a = Interior Standard: CNEL of less than 45-decibels (habitable rooms only)

b = Exterior Standard: CNEL of less than 65-decibels from any source in outdoor living areas.

c = Interior Standard: Leq(h) = 45 to 65 decibels interior noise level, depending on interior use.

TYPICAL USE	Leq(h)*
Private Office, Church Sanctuary, College Preschool, Schools (Grade K-12), Board Room, Conference Room, etc.	45
General Office, Reception, Clerical, etc.	50
Other Schools and Colleges	52
Bank Lobby, Retail Store, Restaurant, Typing Pool, etc.	55
Manufacturing, Kitchen, Warehousing, etc.	65

d = Exterior Standard: Leq(h) of less than 65- decibels in outdoor living areas.

e = Interior Standard: As approved by the Board of Supervisors for sound events of short duration such as aircraft flyovers or individual passing railroad trains.

* h = Time duration of usage in hours.

The County has historically restricted night operations at JWA. Air carriers are not permitted to depart JWA before 7:00 a.m. (8:00 a.m. on Sundays) or after 10:00 p.m. (local time). Air carriers are not permitted to arrive at JWA before 7:00 a.m. (8:00 a.m. on Sundays) or after 11:00 p.m. (local time). General aviation aircraft are permitted to operate at night only if they meet strict nighttime noise limits (less than 86 dB SENEL at any departure noise monitoring station). These night restrictions predate both the 1985 Settlement Agreement and the Phase 2 Access Plan.

The Phase I (pre-1990) and Phase II (post-1990) Access Plan of John Wayne Airport implements, in part, the 1985 Master Plan, its airport related mitigation measures, and the 1985 Settlement Agreement, as amended.

The Orange County General Aviation Noise Ordinance (GANO) establishes single event noise limits and other restrictions for aircraft operating at JWA.

General Plans of Adjacent Cities

The following paragraphs discuss the noise policies of cities adjacent to JWA.

Newport Beach

The City of Newport Beach has established 65 and 45 dB CNEL, respectively, as the outdoor and indoor noise compatibility criteria for residential land uses. The "City of Newport Beach Noise Element" (1994) presents noise land use compatibility guidelines and noise standards for a variety of land use types.

Costa Mesa

The Noise Element of the 1990 General Plan (1992) contains Objective II-c, which includes Policy 101; "Discourage sensitive land uses from locating in the 65 CNEL noise contour of the JWA. Should it be deemed by the City as appropriate and/or necessary for a sensitive land use to locate in the 65 CNEL noise contour, ensure that appropriate interior noise levels are met and that minimal outdoor activities are allowed."

Irvine

The General Plan Noise Element of the City of Irvine contains noise and land use compatibility guidelines consistent with those in use by the County (*i.e.*, 65 dB CNEL for noise sensitive outdoor areas and 45 dB CNEL for indoor areas of residential uses). Note that the City of Irvine has adopted a single event noise standard that applies to the interior of residential units located within a 60 dB CNEL contour. That requirement is that the Maximum Noise Level for the tenth percentile of the noise events shall not exceed 65 dBA (*i.e.*, only the loudest ten percent of noise events may exceed 65 dBA) (City of Irvine General Plan, 1995). This requirement, however, does not relate to or affect current noise events, since any such regulation would be outside of the scope of any city's regulatory authority. This requirement applies only to the structural design of the home to meet this noise standard.

3.3.3 SUMMARY OF IMPACTS AND MITIGATION MEASURES IDENTIFIED IN FEIR 582 AND THE ADDENDUM TO FEIR 582

3.3.3.1 Summary of Noise Impacts

As previously stated, Final Program EIR 582 and Addendum 582-1 analyzed noise associated with airport operations. Operational noise is not addressed in this supplemental EIR.

Final Program EIR 582 also addressed construction-related noise impacts. It was concluded that there are no sensitive land uses in the vicinity of the project site that would be impacted by construction-related noise. The nearest residences to JWA are located across Bristol Street in Santa Ana Heights and construction noise would not be audible in this area. Therefore, no significant construction noise impacts were identified for the Proposed Project.

3.3.3.2 Previously Adopted Mitigation Measures

No mitigation measures were adopted as part of Final Program EIR 582 and Addendum 582-1; however, existing programs to reduce noise impacts from the Airport would remain in effect.

3.4 METHODOLOGY

Based on typical noise levels from construction activities, the expected construction-related noise levels at the closest sensitive receptors to the Airport were estimated.

3.3.5 THRESHOLDS OF SIGNIFICANCE

Because the Proposed Project does not involve aircraft operations, significance criteria relative to aviation noise, and supplemental metrics and other measures (SENEL, number of flights, and change in the number of night operations) are not relevant to this analysis. Following is the construction-related threshold of significance for construction noise.

3.3.5.1 Construction Noise

Construction noise impacts are regulated by the County under its existing noise ordinances and standard mitigation measures. In Orange County, project-caused construction noise is deemed not significant if the hours of construction are limited to those identified in the County of Orange Standard Noise Mitigation Measures and the County of Orange Noise Ordinance. If construction occurs outside the hours permitted by the County regulations, the impact is considered significant if the noise levels produced by the construction activity exceed the noise limits permitted during those hours by the County of Orange Noise Ordinance.

3.3.6 Analysis Of Project Impacts

Construction noise can create a potential short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. The specific improvements proposed for the project include some demolition work where existing pavement exists and structures would be built, as well as normal construction activity associated with the construction of the parking structure, the new terminal, associated facilities and the right turn lane improvement (Campus Drive southbound to Bristol Street northbound). This would include grading, paving, setting of forms, framing, concrete pouring, and associated finish work.

The highest noise generating activities would include construction on the main terminal to add additional gates and construction of additional parking facilities. None of these activities would occur in the near vicinity of any noise sensitive land uses. The closest land uses to the terminal and parking garage construction project where construction noise may be heard are the hotels on MacArthur Boulevard near the existing terminal. The closest noise sensitive land uses to the Campus Drive right turn lane improvement include the homes across Bristol Street known as the Anniversary Tract (located south of the strip commercial on the south side of Bristol Street). For purposes of this environmental analysis, construction noise levels are estimated at the closest noise sensitive use for each of these areas.

Examples of typical construction noise at 50 feet are presented in Exhibit 3.3-3. The peak noise level for most of the equipment that would be used during the construction is 70 to 95 dBA at a distance of 50 feet. At 200 feet, the peak construction noise levels range from 58 to 83 dBA. At 400 feet the peak noise levels range from 52 to 77 dBA.

Using the data shown in Exhibit 3.3-3, the noise levels at off-site land uses can be estimated. The Hilton and Atrium hotels across MacArthur Boulevard from the Airport are located approximately 450 feet from the nearest construction activities proposed as part of the project. The Radisson Hotel near the Airport on MacArthur Boulevard is located more than 450 feet from the nearest construction activities proposed as part of the project. The residential area in the Anniversary Tract across Bristol Street from the proposed Campus Drive/Bristol Street right turn improvement project is located approximately 1,450 feet from proposed construction activities associated with this improvement. Table 3.3-1 shows the maximum noise levels associated with the noisiest construction equipment that may be used for the Proposed Project. Note that noise data for this construction equipment is reported as a range of noise levels, but the data shown are the maximums from that range of data (see Exhibit 3.3-3). Table 3.3-1 also shows how loud the construction equipment may be at the two receptor locations 450 and 1,450 feet from the equipment.

TABLE 3.3-1
MAXIMUM CONSTRUCTION NOISE LEVELS AT RECEPTORS

Equipment	Maximum Noise Level, dBA		
	at 50 feet	at Hotels[1]	at Residential[2]
Front Loader	97	77.9	67.8
Jackhammer	99	79.9	69.8
Concrete Mixer	90	70.9	60.8
Crane	96	76.9	66.8

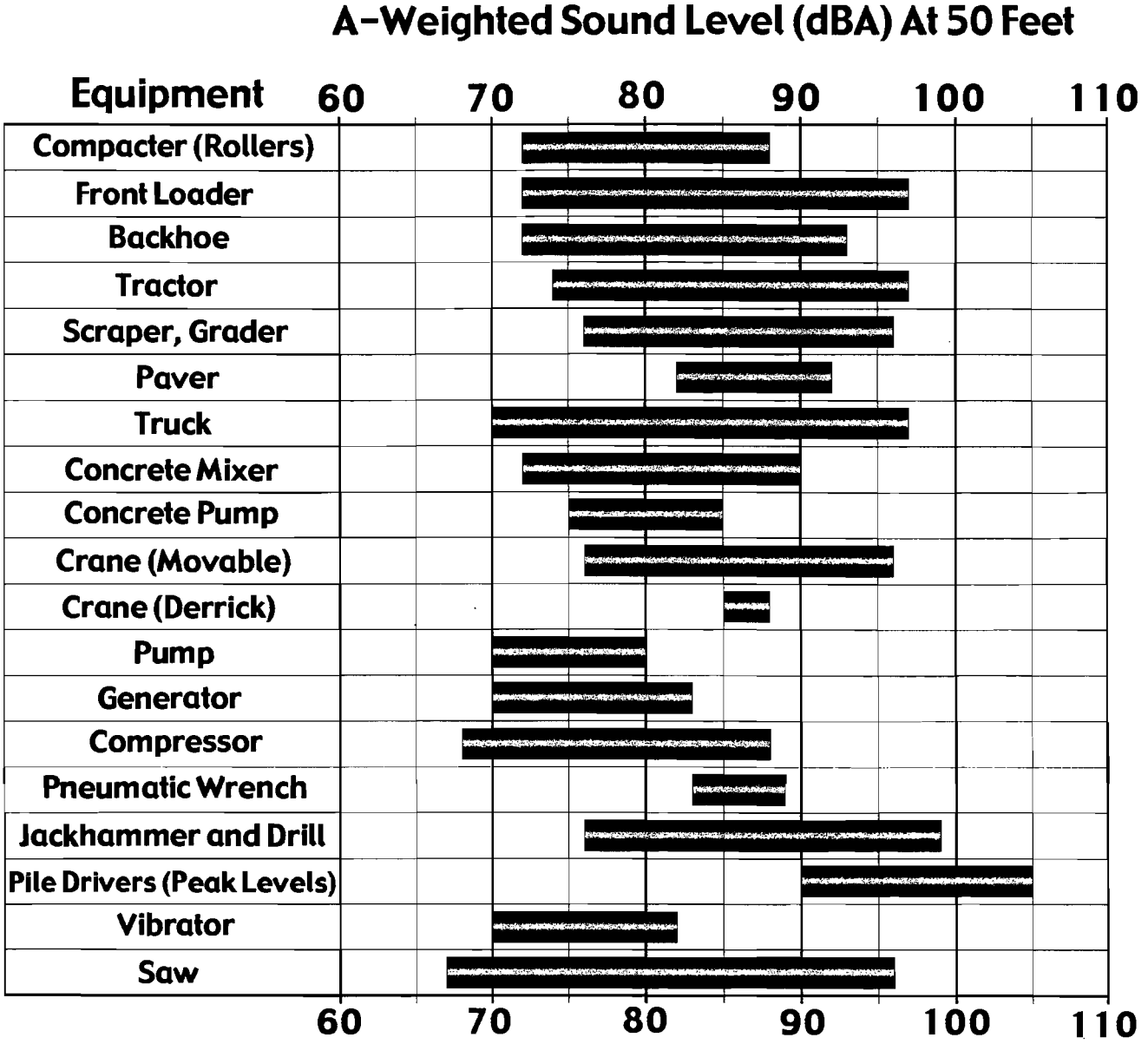
1. distance of 450 feet
2. distance of 1450 feet.

Source: Mestre Greve Associates, October 2003.

The County has adopted a comprehensive noise ordinance. The noise limits contained within the noise ordinance are written in terms of the amount of time (exposure) that a given noise level occurs. The Orange County Noise Ordinance noise limits are provided in Table 3.3-2. Note that the City of Irvine uses the same noise limits within its noise ordinance.

TABLE 3.3-2
ORANGE COUNTY NOISE ORDINANCE NOISE LIMITS

Exposure in 1 Hour	Daytime	Nighttime
Less than 30 minutes	55	50
Less than 15 minutes	60	55
Less than 5 minutes	65	60
Less than 1 minute	70	65
Anytime	75	70
If ambient noise level exceeds limit, the ambient becomes the limit.		



Source: **"Handbook of Noise control," by Cyril Harris, 1979**

Typical Construction Noise Levels — Exhibit 3.3-3

John Wayne Airport Settlement Amendment Implementation Plan

JOHN WAYNE AIRPORT

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For construction noise, the noise limit that is most limiting is generally the "anytime" exposure which requires that the noise level not exceed 75 dBA at any time during the day and 70 dBA at any time during the night. The County of Orange and all municipalities exempt construction noise from the noise ordinance limits provided that the construction takes place during certain established hours of the day. This project may involve night construction in order to minimize traffic flow disruptions during the day. As such the following analysis assumes that construction may take place during the daytime or nighttime hours.

A comparison of Table 3.3-1 and Table 3.3-2 shows that construction activities associated with the Proposed Project would not exceed noise ordinance limits for the maximum noise exposure at the nearest residential area for day or night construction at the residential uses across Bristol Street (from noise associated with the right turn lane improvement project). Noise exposure limits for the shorter exposures would not likely be an issue because traffic noise on Bristol Street would mask the construction noise associated with normal truck and tractor movements.

A comparison of Table 3.3-1 and Table 3.3-2 shows that the construction activities associated with the Proposed Project would exceed noise ordinance limits for the maximum noise exposure at the nearest hotel for both day and night construction. Noise exposure limits for the shorter exposures are not likely to be an issue because traffic noise on MacArthur Boulevard would mask the construction noise associated with normal truck and tractor movements.

The nearest lane of MacArthur Boulevard is approximately 225 feet from the Hilton and the Atrium hotels. At this distance, an automobile pass by would produce a maximum noise level of 65 dBA at the hotel, while a heavy truck would produce a maximum noise level of 80 dBA. The truck noise maximum is essentially identical in loudness to the loudest construction equipment noise estimated in Table 3.3-1. It should be noted that the noise levels shown in 3.3-1 are based on the highest noise level of the range of noise level shown for each piece of construction equipment identified in Exhibit 3.3-3. The average noise level for each piece of equipment is 8 to 10 dB less than the highest level of the range shown. While it is not possible to identify the construction noise level more precisely without knowing the exact piece of equipment that will be used, the data in Table 3.3-1 are worst case. Actual construction-related noise would most likely be less than the worst case estimates presented in Table 3.3-1.

Daytime construction is exempt from the ordinance. Nighttime construction would exceed noise ordinance limits. However, because the construction activity is not a permanent noise but represents a temporary impact, and because hotels located near JWA are transient lodging facilities already exposed to high traffic noise levels from MacArthur Boulevard and normal aircraft activity at JWA, this impact is not considered significant.

Building requirements in both the County and the City of Irvine require that hotel structures be designed and built to accommodate aircraft noise exposure from JWA and roadway noise exposure from MacArthur Boulevard. The sound attenuation that currently exists at the adjacent hotels may be adequate to mitigate nighttime construction noise from the project site. The hotels nearest the Airport (*i.e.,* the Hilton Hotel and Atrium Hotel) are within the City of Irvine and City of Newport Beach.

The City of Irvine General Plan Noise Element specifies that exterior noise level limits for hotels apply only to the "recreation area" associated with the hotel (footnote 2 of Figure F-1 of the General Plan Noise Element). The application of exterior noise levels to the limited recreation area is done to reflect that hotel uses may be located in busy commercial areas near freeways and only these specific areas of the hotel need meet the noise limit. However, the Irvine General Plan Noise Element goes further and exempts hotels near airports from any exterior noise limit. Specifically, Figure F-1 footnote 6 of the Irvine Noise element indicates that the

INTERIOR AND EXTERIOR NOISE STANDARDS
ENERGY AVERAGE (CNEL)

LAND USE CATEGORIES		ENERGY AVERAGE (CNEL)	
CATEGORIES	**USES**	**INTERIOR[1]**	**EXTERIOR[2]**
RESIDENTIAL	Single-Family Multiple-Family	45[3] 55[4]	65
	Mobile Home	____	65[5]
COMMERCIAL/ INDUSTRIAL	Hotel, motel, transient lodging	45	65[6]
	Commercial, retail, bank, restaurant	55	____
	Office building, professional office, research & development	50	____
	Amphitheater, concert hall, auditorium, meeting hall	45	____
	Gymnasium (Multipurpose)	50	____
	Health clubs	55	____
	Manufacturing, warehousing, wholesale, utilities	65	____
	Movie theater	45	____
INSTITUTIONAL	Hospital, school classroom	45	65
	Church, library	45	____
OPEN SPACE	Parks	____	65

Interpretation.

1. Interior environment excludes bathrooms, toilets, closets, and corridors.
2. Outdoor environment limited to private yard of single-family; multi-family residences private patio or balcony which is accessed by a means of exit from inside the unit; mobile home park; hospital patio; park picnic area; school playground; and hotel and motel recreation area.
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided pursuant to Appendix Chapter 12, Section 1208 of UBC.
4. Noise level requirement with open windows, if they are used to meet natural ventilation requirement.
5. Exterior noise level shall be such that interior noise level will not exceed 45 CNEL.
6. Except those areas affected by aircraft noise.

City of Irvine Noise Standards — Exhibit 3.3-4

John Wayne Airport
Settlement Amendment Implementation Plan

Source: City of Irvine General Plan

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exterior noise level limits for hotels do not apply to areas affected by aircraft noise. This reflects the fact that hotels are often located at or near airports to meet lodging demands associated with airport uses. Additionally, the City's Noise Element defines a hotel as a commercial/ industrial use (Table F-2, Land Use Compatibility, Irvine General Plan). The Noise Ordinance permits higher noise levels for commercial land uses than those permitted for residential land uses.

3.3.4 MITIGATION PROGRAM

Standard Conditions and Requirements

The following County standard conditions address construction-related noise:

SC 3.3a Prior to the issuance of any construction notice to proceed (NTP), JWA shall require contractors to produce evidence that:

1) All construction vehicles or equipment, fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers.

2) All operations shall, to the extent feasible, comply with Orange County Codified Ordinance Division 6 (Noise Control); however, nighttime construction shall be exempted from the Ordinance.

3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

SC 3.3b Notations in the above format, appropriately numbered and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

Mitigation Measures

MM 3.3a The County shall notify the Hilton, Atrium and Radisson hotels on MacArthur Boulevard near the Airport that nighttime construction activities at JWA could result in short-term noise impacts that might be heard from the hotels.

3.3.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Proposed Project would not result in significant construction-related noise impacts.

3.4 AIR QUALITY

Final Program EIR 582 and Addendum 582-1 specifically addressed operational air emissions resulting from implementation of the approved settlement amendment, including the increase in flight and passenger levels. Project assumptions related to fleet mix, load factors, and the number of flights have not changed from the analysis in the Final Program EIR 582 and Addendum 582-1; therefore, operational emissions are not addressed in this SEIR. Final Program EIR 582 did identify that the construction of proposed facility improvements would result in significant short-term construction air quality impacts; however, that analysis was not based on detailed project facility information as that information was not available when the Final Program EIR 582 was prepared. This section summarizes the air quality assessment prepared by Mestre-Greve Associates, which analyzes the potential construction-related air quality impacts of the project. The technical report is provided in its entirety in Appendix E.

3.4.1 ENVIRONMENTAL SETTING/EXISTING CONDITIONS

Final Program EIR 582 identified the existing air quality setting for the following issues: local air quality monitoring data, climate and meteorology, JWA-related emission sources, and relevant plans and policies. With the exception of local air quality monitoring data, the air quality setting has not changed since certification of Final Program EIR 582 and does not affect the results of the analysis of construction-related air quality impacts. Information related to local air quality has been updated, as appropriate and is provided below. Additionally, planning programs relevant to construction-related impacts are discussed.

Air Quality Management

The Proposed Project is located in the South Coast Air Basin (SCAB) and, jurisdictionally, is the responsibility of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD sets and enforces regulations for stationary sources in the basin and develops and implements Transportation Control Measures. The CARB is charged with controlling motor vehicle emissions. CARB establishes legal emission rates for new vehicles and is responsible for the vehicle inspection program. Other important agencies in the air quality management for the basin include the U.S. Environmental Protection Agency (USEPA) and the Southern California Association of Governments (SCAG). The USEPA implements the provisions of the federal Clean Air Act. This Act establishes ambient air quality standards that are applicable nationwide. In areas that are not achieving the standards, the Clean Air Act requires that plans be developed and implemented to meet the standards. The USEPA oversees the efforts in this air basin and insures that appropriate plans are being developed and implemented. The primary agencies responsible for writing the plan are SCAG and the SCAQMD, and the plan is called the Air Quality Management Plan (AQMP). SCAG prepares the transportation component of the AQMP.

SCAQMD and SCAG, in coordination with local governments and the private sector, have developed the AQMP for the air basin. The AQMP is the most important air management document for the basin because it provides the blueprint for meeting state and federal ambient air quality standards. The 1997 AQMP was adopted locally on November 8, 1996, by the governing board of the SCAQMD. CARB amended the Ozone portion of the 1997 AQMP in 1999 as part of the California State Implementation Plan. The 1997 AQMP with the 1999 Amendments was approved by the USEPA in December of 1999. State law mandates the revision of the AQMP at least every three years, and federal law specifies dates certain for developing attainment plans for criteria pollutants. The 1997 AQMP with the 1999 Amendments supersedes the 1994 AQMP revision that was adopted locally by the SCAQMD in November 1996. The 1997 revision to the AQMP was adopted in response to the requirements set forth in the California Clean Air Act (CCAA) and the 1990 amendments to the Federal Clean Air Act

(CAA). SCAQMD and SCAG have published a new 2003 AQMP. The SCAQMD board voted to adopt the 2003 AQMD in August 2003 and CARB approved the 2003 AQMP in October 2003. However, USEPA must approve the AQMP before it becomes the applicable AQMP. At this time, it is unclear whether the USEPA will act on the 2003 AQMP because the federal agency has revoked the one-hour ozone standard which is addressed in the 2003 AQMP. Until the USEPA acts on the 2003 AQMP, the 1997 AQMP with the 1999 amendments shall remain the operative AQMP for the SCAB.

The U.S. Environmental Protection Agency (USEPA) has designated the SCAB as a non-attainment area for ozone, carbon monoxide, and suspended particulates. Nitrogen dioxide in the SCAB has met the federal standards for the third year in a row, and therefore, is qualified for redesignation to attainment. A maintenance plan for nitrogen dioxide is included in the 1997 AQMP. The CCAA mandates the implementation of the program that will achieve the California Ambient Air Quality Standards (CAAQS) and the CAA mandates the implementation of new air quality performance standards.

USEPA has designated SCAB as extreme non-attainment for 1-hour ozone, and serious non-attainment for PM_{10} and CO. Attainment of all federal PM_{10} health standards is to be achieved by December 31, 2006, and ozone standards are to be achieved by November 15, 2010. For CO, the deadline was to be December 31, 2000 however the basin was granted an extension. The SCAB has not had more than one violation of the federal CO standard in the past two years. Therefore, the SCAB has met the criteria for CO attainment. However, SCAB is still formally designated as a non-attainment area for CO until USEPA redesignates it as an attainment area. The 2003 AQMP, submitted to USEPA in winter 2003, is the proposed CO maintenance plan for the SCAB. As mentioned above, it is unclear whether USEPA will act on the 2003 AQMP.

In 1997, the USEPA established an 8-hour standard for ozone and standards for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). In 1999, a federal court ruling (American Trucking Associations, Inc., *et al.*, v. United States Environmental Protection Agency) blocked implementation of these standards. In February 2001, the United States Supreme Court upheld the standards but remanded some issues back to the Circuit Court. In March 2002, the Circuit Court upheld the standards. Establishment of a $PM_{2.5}$ standard was just the first step in the assessment and reduction of $PM_{2.5}$ levels. Tools need to be developed to accurately estimate $PM_{2.5}$ and precursor emissions, their dispersion and atmospheric interactions, and the resulting concentrations. Uncertainty brought by the court challenge delayed development of the tools to estimate $PM_{2.5}$ emissions and concentrations, especially at a project level. The focus at this time is establishment of a $PM_{2.5}$ measurement network to determine which areas are in attainment of the standard and which are not, and how substantial the concentrations are in areas of nonattainment. At this time, adequate tools are not available to perform a detailed assessment of $PM_{2.5}$ emissions and impacts at the project level. Further, there are no good sources for the significance thresholds for $PM_{2.5}$ emissions. Until tools and methodologies are developed to assess the impacts of projects on $PM_{2.5}$ concentrations, PM_{10} analysis will be used as an indicator of potential $PM_{2.5}$ impacts.

USEPA promulgated air quality designations for the new 8-hour ozone standard on April 15, 2004. As expected, the SCAB was designated a Severe Nonattainment Area. The State is now required to submit a state implementation plan (SIP) by April 2007 to demonstrate its approach for attaining the standard by June 2021. EPA is scheduled to promulgate air quality designations for the new PM2.5 standard by December 15, 2004. The SCAB will most likely be designated as non-attainment for the $PM_{2.5}$ standard.

On June 20, 2002, the CARB revised the PM_{10} annual average standard to 20 µg/m3 and established an annual average standard for $PM_{2.5}$ of 12 µg/m3. These standards were

approved by the Office of Administrative Law in June of 2003 and are now effective. However, as discussed above, while there are not adequate tools to assess $PM_{2.5}$ impacts, PM_{10} emissions provide the best methodology available to be used as an indicator of potential $PM_{2.5}$ impacts. SCAQMD has not altered the recommended significance thresholds or analysis techniques based on these revised standards.

The overall control strategy for the AQMP is to meet applicable state and federal requirements and to demonstrate attainment with ambient air quality standards. The 1997 AQMP uses two tiers of emission reduction measures: (1) short- and intermediate-term measures, and (2) long-term measures.

Short- and intermediate-term measures propose the application of available technologies and management practices between 1994 and the year 2005. These measures rely on known technologies and proposed actions to be taken by several agencies that currently have statutory authority to implement such measures. Short- and intermediate-term measures in the 1997 AQMP include 35 stationary source, seven on-road, six off-road, one transportation control and indirect source, five advanced transportation technology, and one further study measures. All of these measures are proposed to be implemented between 1995 and 2005. These measures rely on both traditional command and control and on alternative approaches to implement technological solutions and control measures.

To ultimately achieve ambient air quality standards, additional emission reductions will be necessary beyond the implementation of short- and intermediate-term measures. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 1997 and 2010. These long-term measures rely on further development and refinement of known low- and zero-emission control technologies for both mobile and stationary sources, along with technological breakthroughs.

Monitored Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates for the SCAB have been made for existing emissions ("1997 Air Quality Management Plan", October 1996). The data indicate that mobile sources are the major source of regional emissions. Motor vehicles (*i.e.*, on-road mobile sources) account for approximately 51 percent of volatile organic compounds (VOC), 63 percent of nitrogen oxide (NO_X) emissions, and approximately 78 percent of carbon monoxide (CO) emissions.

Air quality data for the project area is collected at the Costa Mesa monitoring station. The data collected at this station is considered representative of the air quality experienced in the vicinity of the Proposed Project. The air pollutants measured at the Costa Mesa station include ozone, carbon monoxide (CO) and, nitrogen dioxide (NO_2). The monitored air quality data from 1999 to 2002 for all of these pollutants are shown in Table 3.4-1. The nearest station that monitors particulate matter (PM_{10} and $PM_{2.5}$) is the Mission Viejo monitoring Station. The monitored air quality data from 1999 to 2002 for particulates are shown in Table 3.4-2. Tables 3.4-1 and 3.4-2 also present the Federal and State air quality standards.

TABLE 3.4-1
AIR QUALITY LEVELS MEASURED AT COSTA MESA MONITORING STATION

Pollutant	California Standard	National Standard	Year	% Msrd.[1]	Max. Level	Days State Standard Exceeded	Days National Standard Exceeded
Ozone	0.09 ppm	0.12 ppm	2002	99	0.087	0	0
	for 1 hr.	for 1 hr.	2001	100	0.098	1	0
			2000	100	0.102	1	0
			1999	92	0.098	1	0
Ozone	None	0.08 ppm	2002	99	0.070	n/a	0
		for 8 hr.	2001	100	0.073	n/a	0
			2000	100	0.086	n/a	1
			1999	92	0.075	n/a	0
CO	20 ppm	35 ppm	2002				
	for 1 hour	for 1 hour	2001	99	6.2	0	0
			2000	99	7.8	0	0
			1999	98	7.9	0	0
CO	9.0 ppm	9 ppm	2002	87	4.3	0	0
	for 8 hour	for 8 hour	2001	99	4.6	0	0
			2000	99	6.3	0	0
			1999	98	6.4	0	0
NO_2	0.25 PPM	None	2002	99	0.106	0	0
(1-Hour)	for 1 hour		2001	100	0.082	0	0
			2000	100	0.107	0	0
			1999	95	0.123	0	0
NO_2	None	0.053 ppm	2002	99	0.018	n/a	No
(AAM^2)		AAM^2	2001	100	0.017	n/a	No
			2000	100	0.020	n/a	No
			1999	95	0.020	n/a	No
SO_2	0.04 ppm	0.14 ppm	2002	99	0.011	0	0
(24 Hour)	24 Hr.	for 24 hr.	2001	87	0.005	0	0
			2000	100	0.006	0	0
			1999	100	0.005	0	0
SO_2	None	0.030 ppm	2002	99	0.002	n/a	No
(AAM^2)		AAM^2	2001	87	0.001	n/a	No
			2000	100	0.002	n/a	No
			1999	100	0.002	n/a	No

Note: Particulates (PM_{10} & $PM_{2.5}$) were not measured at Costa Mesa Station. Data for the Mission Viejo station is shown in Table 3.4-2.

[1] Percent of year where high pollutant levels were expected that measurements were made

[2] Annual Arithmetic Mean

Source: Mestre-Greve Associates, 2004

TABLE 3.4-2
AIR QUALITY LEVELS MEASURED AT MISSION VIEJO MONITORING STATION

Pollutant	California Standard	National Standard	Year	% Msrd.[1]	Max. Level	Days State Standard Exceeded	Days National Standard Exceeded
Particulates	50 ug/m3	150 ug/m3	2002	–	80	5/18	0
PM_{10}[4]	for 24 hr.	For 24 hr.	2001	94	60	3/18	0
(24 Hour)			2000	98	98	2/12	0
			1999	68	56	1/6	0
Particulates	20 ug/m3	50 ug/m3	2002	–	28/31	Yes	no
PM_{10}[5]	AGM[3]	AAM[2]	2001	94	24/26	Yes	no
(Annual)			2000	98	25/27	Yes	no
			1999	68	27/21	Yes	no
Particulates	None	65 ug/m3	2002	100	58.5	n/a	0
$PM_{2.5}$		For 24 hr.	2001	99	53.4	n/a	0
(24 Hour)			2000	100	94.7	n/a	1
			1999	–	56.6	n/a	0
Particulates	12 ug/m3	15 ug/m3	2002	100	15.5	Yes	yes
$PM_{2.5}$	AAM[2]	AAM[2]	2001	99	15.8	Yes	yes
(Annual)			2000	100	14.7	Yes	no
			1999	–	17.0	Yes	yes

1 Percent of year where high pollutant levels were expected that measurements were made
2 Annual Arithmetic Mean
3 Annual Geometric Mean
4 First number shown in the Days State Standard Exceeded column are the actual number of days measured that state standard was exceeded. The second number shows the number of days the standard would be expected to be exceeded if measurements were taken every day.
5 Levels Shown for Annual PM_{10} are AGM/AAM
Source: Mestre-Greve Associates, 2004

The monitoring data presented in Tables 3.4-1 and 3.4-2 show that ozone and particulate matter (PM_{10} and $PM_{2.5}$) are the air pollutants of primary concern in the project area.

The state 24-hour concentration standards for PM_{10} have been exceeded at the Mission Viejo monitoring station between six and 18 days over the past four years. The federal standard for PM_{10} was not exceeded. The state annual average standard has been exceeded for the past four years but the federal standard has not. The federal 24-hour standard for $PM_{2.5}$ was exceeded only once in the past four years, in 2000. The annual average $PM_{2.5}$ concentration has exceeded both the state and federal standards for the past four years. Particulate levels in the area are due to natural sources, grading operations and motor vehicles.

The state 1-hour ozone standard was exceeded one day in 1999, 2000 and 2001 and was not exceeded in 2002. The federal 1-hour standard has not been exceeded in the past four years and the 8-hour standard has only been exceeded once in 2002. The data from the past four years show a slight downward trend in maximum ozone concentrations.

Ozone is a secondary pollutant; it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in

the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon monoxide (CO) is another important pollutant that is due mainly to motor vehicles. Currently, CO levels in the project region are in compliance with the state and federal 1-hour and 8-hour standards. High levels of CO commonly occur near major roadways and freeways. CO may potentially be a continual problem in the future for areas next to freeways and other major roadways.

The monitored data shown in Tables 3.4-1 and 3.4-2 show that other than ozone, PM_{10} and $PM_{2.5}$ exceedances as mentioned above, no state or federal standards were exceeded for the remaining criteria pollutants.

3.4.1 SUMMARY OF AIR QUALITY IMPACTS AND MITIGATION MEASURES IDENTIFIED IN FINAL PROGRAM EIR 582 AND ADDENDUM 582-1

Summary of Air Quality Impacts

Final Program 582 and Addendum 582-1 evaluated the operational impacts resulting from increased operations at JWA. Operational impacts are not discussed in this construction-level SEIR.

Although Final Program EIR 582 did not address specific construction projects, it did acknowledge that air quality impacts (primarily construction equipment emissions and fugitive dust) could occur during construction associated with implementation of the project. Potential construction-related air quality impacts were determined to be significant and unavoidable. An analysis of potential construction-related air quality impacts is provided in Section 3.4.5 of this SEIR.

3.4.2 METHODOLOGY

The objectives of this analysis are to:

- Determine existing ambient air quality in the vicinity of JWA.
- Predict construction-related air quality emissions resulting from the Proposed Project and the associated air quality impacts in the vicinity of JWA to analyze project consistency.
- Determine consistency of the project with applicable air quality plans and policies.

This air quality analysis was conducted in accordance with the SCAQMD *CEQA Air Quality Handbook* (SCAQMD CEQA Handbook) for evaluating air quality impacts. The methodology for determining existing conditions, estimating construction-related emissions and assessing the significance of impacts is summarized below.

The air quality assessment is limited to an evaluation of criteria pollutants (*i.e.*, those pollutants for which USEPA or CARB has set criteria for ambient air quality). For this analysis, the following criteria pollutants were considered: ozone (O_3), CO, NO_2, SO_2, particulate matter with an equivalent aerodynamic diameter less than or equal to ten micrometers (PM_{10}), lead (Pb), and sulfates. Because ozone is a secondary pollutant (*i.e.*, it is not directly emitted but is formed in the atmosphere), emissions of volatile organic compounds (VOC) and NO_X, which

react in the presence of sunlight to form ozone, were used to assess impacts on ozone levels. The emissions of NO_X are also used to determine NO_2 impacts, as described later in this section.

3.4.3 THRESHOLDS OF SIGNIFICANCE

Regional Air Quality

In its 1993 CEQA Air Quality Handbook, the SCAQMD established significance thresholds to assess the regional impact of project related air pollutant emissions. Table 3.4-3 presents the significance thresholds for short-term construction emissions. Construction activities with daily emission rates below these thresholds are considered to have a less than significant effect on regional air quality throughout the South Coast Air Basin.

TABLE 3.4-3
SCAQMD REGIONAL POLLUTANT EMISSION THRESHOLDS OF SIGNIFICANCE

	Pollutant Emissions (Lbs/Day)				
	CO	ROG	NO_X	PM_{10}	SO_X
Construction	550	75	100	150	150

Local Air Quality

In October 2003, the SCAQMD Board adopted a methodology and significance thresholds to assess localized air quality impacts from on-site emissions. The adoption resolution calls for a nine-month phase-in period of the Localized Significance Thresholds (LSTs). During the phase-in period, the SCAQMD will conduct a pilot program with cities and local contractors to assess any potential implementation issues. Following any necessary revisions, the LSTs will be incorporated into the SCAQMD CEQA Handbook in July 2004.

Because of the preliminary nature of the LSTs, and the possibility that the significance thresholds will be revised to reflect various implementation issues, the preliminary criteria will not be used to assess the impacts of the proposed project. The analysis presented below provides a determination that the project would significantly impact both local and regional air quality. All reasonable and feasible mitigation measures to reduce pollutant emissions during construction are presented in Section 3.4.6 and are recommended for adoption in connection with project approval. These measures will reduce construction air quality impacts to the greatest extent feasible.

3.4.4 ANALYSIS OF PROJECT IMPACTS

Short-Term Impacts

Temporary impacts would result from project construction activities. Air pollutants would be emitted by construction equipment and fugitive dust would be generated during excavation of the existing facilities and grading of the site. The greatest amount of air pollutants would be generated during excavation and grading. Currently, the timing of all of the improvements proposed by the project has not been determined. They may or may not occur concurrently. As a worst-case assumption this analysis assumes that all components would be constructed concurrently. At this time the specific details of construction activities required to implement the project have not been determined, and estimates of construction activities used to calculate construction emissions were developed in coordination with JWA staff. The estimates were

developed with the intent of depicting the greatest potential amount of activity that would be required for the construction and, therefore, the highest levels of pollutant emissions.

The primary project components that would generate substantial emissions are excavation and grading of the terminal addition area, parking structure and roadway area, taxi-way and apron configuration area, and a new right turn lane from Campus Drive to Bristol Street. These emissions include removal of pavement and dirt as required.

It should be noted that emissions from building demolition are not included in this analysis for the following reasons. Two of the buildings that would be removed by the project are metal hangars and their demolition would not generate considerable levels of pollutants. The third building is the maintenance building that would be demolished to accommodate the right-turn lane from Campus Drive. Due to the small size of this building, emissions during demolition would be less than during excavation and grading as analyzed below.

The emissions from the individual project components are presented below followed by a discussion of the combined construction emissions from the project.

Emission Rates

Construction activities for large development projects are estimated by the USEPA. The emission factor for disturbed soil is 26.4 pounds of PM_{10} per day per acre, or 0.40 tons of PM_{10} per month per acre (SCAQMD CEQA Handbook). The CEQA Handbook also establishes an emission factor of 0.00042 pounds of PM_{10} per cubic foot of building space for demolition activities. If water or other soil stabilizers are used to control dust as required by SCAQMD Rule 403, the emissions can be reduced by 50 percent. The PM_{10} calculations presented below do not include the 50 percent reduction from watering, even though watering will take place.

Typical emission rates for construction equipment were obtained from the 1993 CEQA Air Quality Handbook. These emission factors are presented in terms of pounds of pollutant per hour of equipment operation. It should be noted that most of these emission factors were initially published in 1985 in the USEPA's AP-42 Compilation of Emission Factors. These have not been updated since their original publication. Several state and federal regulations have been enacted since this time that requires reduced emissions from construction equipment. The effect of these regulations is not included in the emission factors used to calculate construction equipment emissions presented below. The actual emissions from construction equipment, therefore, would likely be lower than presented below. However, the exact reduction is not known. It would be dependent on the age of the specific equipment used at the construction site. As time passes, older equipment will be replaced with newer equipment manufactured with the lower emission requirements. Therefore, construction occurring farther in the future would likely be reduced by a greater amount versus near term construction.

Emission rates for employee vehicle trips and heavy truck operations were from EMFAC2002. EMFAC2002 is a computer program generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile.

Terminal Addition Area Excavation and Grading

Construction of the terminal addition would require approximately 7.4 acres of existing pavement to be removed along with dirt to a depth of approximately 2.5 feet. This material would be hauled off the site by approximately 300 daily truck trips. At this time it is not known where the material would be hauled. Asphalt and concrete would likely be transported to another portion of the Airport for future recycling. Dirt would be hauled to the nearest available

site accepting fill. As a worst-case assumption the pollutant emissions calculations assume a 25-mile one-way trip length for each haul truck. To calculate emissions during the heaviest excavation and grading activities, it was assumed that two loaders, a scraper, a water truck and a miscellaneous piece of equipment were operating 10 hours per day. It was assumed that there would be 20 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle would be 11 miles. According to Sean Donnelly, a project manager for construction-related activities at JWA, excavation and grading of the terminal addition area would be expected to occur over a two- to three-week period.

Using the estimates presented above, the peak construction emissions for the terminal addition were calculated and are presented in Table 3.4-4. The data used to calculate the emissions are shown in Appendix E.

TABLE 3.4-4
AIR POLLUTANT EMISSIONS DURING EXCAVATION AND GRADING OF TERMINAL AREA IMPROVEMENTS

Source	Pollutant Emissions (Lbs/Day)				
	CO	ROG	NO_X	PM_{10}	SO_X
Grading Activity	0.0	0.0	0.0	195.9	0.0
Truck Loading	0.0	0.0	0.0	3.4	0.0
Construction Equipment	35.3	8.1	96.3	6.8	11.5
Dirt Export Trucks	89.8	34.3	355.9	13.6	9.9
Employee Travel	7.7	0.5	1.0	0.1	0.0
Total Emissions	**132.8**	**42.9**	**453.1**	**219.7**	**21.5**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

The data presented in Table 3.4-4 shows that NO_X and PM_{10} pollutant emissions associated with the excavation and grading of the terminal area improvements are projected to be greater than the significance thresholds established by the SCAQMD in the CEQA Air Quality Handbook. The primary source of the PM_{10} is the grading activity and the primary source of NO_X emissions is from the trucks exporting dirt. Excavation and grading of the terminal addition area would result in a significant air quality impact and mitigation is required and presented in Section 3.4.6 of this SEIR.

New Parking Structure and Roadway Area Excavation and Grading

Construction of the new parking structure and roadway would require approximately 11.9 acres of existing pavement to be removed along with dirt to a depth of approximately 2.5 feet. This material would be hauled off the site by approximately 300 daily truck trips. At this time it is not known where the material will be hauled. Asphalt and concrete would likely be transported to another portion of the Airport for future recycling. Dirt will be hauled to the nearest available site accepting fill. As a worst-case assumption the pollutant emissions calculations assume a 25-mile one-way trip length for each haul truck. To calculate emissions during the heaviest excavation and grading activities, it was assumed that two loaders, a scraper, a water truck and a miscellaneous piece of equipment were operating 10 hours per day. It was assumed that there would be 20 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle would be 11 miles. It is expected that the excavation and grading of the new parking structure and roadway area would occur over a three to four week period.

TABLE 3.4-10
SUMMARY OF CONSTRUCTION AIR POLLUTANT EMISSIONS

Construction Component	Pollutant Emissions (lbs/day)				
	CO	ROG	NO_X	PM_{10}	SO_X
Excavation & Grading					
Parking Structure & Road	132.8	42.9	453.1	337.9	21.5
New Terminal	132.8	42.9	453.1	219.7	21.5
Ramp and Apron Reconfiguration	132.8	42.9	453.1	242.9	21.5
Right Turn Lane	29.5	7.4	77.5	8.2	5.0
Total	**428.0**	**136.3**	**1,436.9**	**808.7**	**69.5**
Concrete Pour					
Parking Structure & Road	32.3	4.4	66.2	3.9	3.6
Ramp and Apron Reconfiguration	32.3	4.4	66.2	3.9	3.6
Total	**64.6**	**8.8**	**132.4**	**7.8**	**7.2**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Long-Term Impacts

Air quality impacts associated with the operation of the Settlement Amendment Implementation Plan were assessed in Final Program EIR 582 or Addendum 582-1. The proposed construction activities addressed in this SEIR would not alter the operational air quality impacts discussed in Final Program EIR 582.

3.4.5 MITIGATION MEASURES

Implementation of the following measures is recommended to mitigate significant short-term air quality impacts to the greatest extent feasible. The first set of measures contains general measures to reduce the potential impacts of pollutants emitted during construction. The second set of measures is directed towards minimizing particulate emissions. The third set of measures is directed toward minimizing emissions from construction equipment.

General Measures

MM 3.4a All of the mitigation measures discussed below shall be included in the Specifications and/or Construction Drawings for each component of the project.

MM 3.4b A publicly visible sign shall be posted with the telephone number and name of a contractor's representative to contact regarding dust complaints. This person shall respond and take any necessary corrective action within 24-hours. All complaints and resolutions shall be coordinated with the John Wayne Airport Environmental Compliance Monitoring Program (ECMP).

MM 3.4c The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary to prevent the transport of dust offsite. This person will coordinate these measures with the John Wayne Airport Environmental Compliance Monitoring Program (ECMP).

MM 3.4d All construction equipment operations shall be suspended during second stage smog alerts.

Particulate Emission (PM10) Control Measures

MM 3.4e *Comply with SCAQMD Rules 402 and 403.* During construction of the Proposed Project, the County and its contractors will be required to comply with regional rules, which would assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires that air pollutant emissions should not create a nuisance off-site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Two options are presented in Rule 403; monitoring of particulate concentrations or active control. Monitoring involves a sampling network around the project with no additional control measures unless specified concentrations are exceeded. The active control option does not require any monitoring, but requires that a list of measures be implemented starting with the first day of construction.

Rule 403 requires that "A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation." Rule 403 also requires that the construction activities "shall not cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined by simultaneous sampling, as the difference between upwind and down wind sample." A project is exempt from the monitoring requirement "if the dust control actions, as specified in Table 2 are implemented on a routine basis for each applicable fugitive dust source type." Table 2 from Rule 403 is presented below as Table 3.4-11. Under high wind conditions (*i.e.*, when wind gusts exceed 25 miles per hour) additional control measures are required, and "the required control measures for high wind conditions are implemented for each applicable fugitive dust source type, as specified in Table 1." Table 1 from Rule 403 is presented below as Table 3.4-12. Monitoring of particulate concentrations does not reduce fugitive dust emissions; therefore, to minimize fugitive dust emissions the construction activities will utilize the measures presented in Tables 3.4-11 and 3.4-12 (Tables 1 and 2 in Rule 403) rather than the monitoring option of SCAQMD Rule 403.

Further, Rule 403 requires that the project shall "prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations." Alternatively, the project can "take at least one of the actions listed in Table 3." Table 3 from Rule 403 is presented below as Table 3.4-13. In addition, the project would be required to "prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease." As discussed in Section 3.5 of this SEIR, Water Quality, contractors shall be required to select best management practices to minimize off-site migration or tracking of contaminants.

TABLE 3.4-11
FUGITIVE DUST CONTROL ACTIONS FOR EXEMPTION TO MONITORING
(RULE 403 TABLE 2)

Source Category	Control Actions
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the USEPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR (1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the USEPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the USEPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.
Earth-moving: Construction cut areas and mining operations:	(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c) Apply chemical stabilizers within five working days of grading completion; OR (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas
Inactive disturbed surface areas	(3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.
Unpaved Roads	(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations; OR (4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR•(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a) Apply chemical stabilizers; OR (5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR (5c) Install temporary coverings; OR (5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extends, at a minimum, to the top of the pile.
All Categories	(6a) Any other control measures approved by the Executive Officer and the USEPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3.4-12
BEST AVAILABLE CONTROL MEASURES FOR HIGH WIND CONDITIONS
(RULE 403 TABLE 1)

Source Category	Control Measures
Earth-moving	Cease all active operations; OR Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed Surface areas	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR Apply chemical stabilizers prior to wind event; OR Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR Take the actions specified in Table 2, Item (3c); OR Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	Apply chemical stabilizers prior to wind event; OR Apply water twice per hour during active operation; OR Stop all vehicular traffic.
Open storage piles	Apply water twice per hour; OR Install temporary coverings.
Paved road track-out	Cover all haul vehicles; OR Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	Any other control measures approved by the Executive Officer and the USEPA as equivalent to the methods specified in Table 1 may be used.

TABLE 3.4-13
TRACK OUT CONTROL OPTIONS

(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the USEPA as equivalent to the methods specified in Table 3 may be used.

Construction Equipment Emission Control

The generation of ROG, NO_x and VOC emissions is almost entirely due to engine combustion in construction equipment and employee commuting. The measures below address these emissions.

MM 3.4f All diesel fuel brought on site for use by construction equipment shall be low sulfur diesel fuel. The use of low sulfur diesel fuel is required for stationary construction equipment by SCAQMD Rules 431.1 and 431.2. All stationary and mobile equipment that is fueled on site will utilize low sulfur diesel fuel. The Airport cannot reasonably control the type of fuel in vehicles brought on site, therefore there is no requirement that all vehicles use low sulfur diesel fuel. The Airport can control the type of fuel brought onsite for refueling. Clean diesel fueled vehicles are those that

comply with the final federal rule regarding on-road diesel emissions issued in December, 2000, 40 CFR Parts 69, 80, and 86.

MM 3.4g Further reduce construction equipment emissions by implementing the following measures to the greatest extent practicable. Some additional gains in emission control will be realized from the implementation of these measures.

- Maintain construction equipment engines consistent with manufacturers' recommendations.
- Utilize post-combustion controls in combustion engine construction equipment.
- Configure construction parking to minimize traffic interference.
- Schedule construction operations affecting traffic for off-peak hours.
- Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service
- Utilize existing power sources (i.e., power poles) when feasible. This measure would minimize the use of higher polluting gas or diesel generators.
- Minimize obstruction of through-traffic lanes. When feasible, construction should be planned so that lane closures on existing streets are kept to a minimum.
- Use low emission mobile construction equipment. To the greatest extent practicable CARB certified equipment should be used for construction activities. A fraction of all of the active construction equipment is CARB certified. Depending on regional construction activities some or all of the CARB certified construction equipment may be utilized on other projects. When available CARB certified construction equipment shall be utilized prior to non-CARB certified equipment.
- Consider the use of alternative diesel fuel formulations such as PuriNO_X™ and Amber 363 to the extent available.
- Encourage the use of low sulfur diesel fuel for vehicles not fueled on site including haul trucks. As discussed in MM 3.4f, the Airport cannot reasonably control the type of fuel in vehicles brought on-site.

3.4.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The analysis indicates that project emissions from construction activities would exceed the SCAQMD's thresholds of significance for NO_X, PM_{10} and, potentially ROG. The mitigation measures presented in Section 3.4.6 above would reduce emissions, but not to the point that they would fall under the SCAQMD's thresholds. Table 3.4-14 presents the estimated emissions with the implementation of the dust suppression measures identified. The numbers in parenthesis show the reduction in emissions with the dust suppression measures. Implementation of MM 3.4e will reduce fugitive PM_{10} emissions by approximately 50 percent. Accurate quantification of the emission reductions provided by the other mitigation measures is not possible and no emission reductions are shown due to these measures. NO_X and ROG

pollutant emissions would be reduced somewhat over what is shown in Table 3.4-14, but not below the thresholds.

Table 3.4-14 shows that PM_{10} emissions from the new terminal, ramp and apron reconfiguration excavation and grading, by themselves, would be below the threshold with mitigation. However, these activities occurring concurrently with each other, or with the parking structure and road excavation and grading would result in PM_{10} emissions in excess of the threshold. Emissions of NO_X for all three of these activities would exceed the threshold individually. Even with mitigation, emissions of NO_X and PM_{10} and potentially ROG during construction of the project would exceed the SCAQMD thresholds even after mitigation, and short-term construction air quality impacts would be significant and unavoidable.

TABLE 3.4-14
SUMMARY OF CONSTRUCTION AIR POLLUTANT EMISSIONS
WITH MITIGATION

	Pollutant Emissions (lbs/day)				
Construction Component	**CO**	**ROG**	**NO_X**	**PM_{10}**	**SO_X**
Excavation & Grading					
Parking Structure & Road	132.8 (0)	42.9 (0)	453.1 (0)	178.4 (-159.5)	21.5 (0)
New Terminal	132.8 (0)	42.9 (0)	453.1 (0)	119.3 (-100.4)	21.5 (0)
Ramp and Apron Reconfig.	132.8 (0)	42.9 (0)	453.1 (0)	130.9 (-112.0)	21.5 (0)
Total	**398.5 (0)**	**128.9 (0)**	**1,359.4 (0)**	**428.5**	**64.5 (0)**
Concrete Pour					
Parking Structure & Road	32.3 (0)	4.4 (0)	66.2 (0)	3.9 (0)	3.6 (0)
Ramp and Apron Reconfig.	32.3 (0)	4.4 (0)	66.2 (0)	3.9 (0)	3.6 (0)
Total	**861.5 (0)**	**266.4 (0)**	**2,851.1 (0)**	**436.3 (0)**	**136.2 (0)**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Numbers in parenthesis show change over unmitigated conditions. Note that reductions in ROG and NO_X emissions are not quantifiable and therefore, reductions are not shown.

Source: Mestre-Greve, 2004

3.5 WATER QUALITY AND DRAINAGE

Final Program EIR 582 discussed the water quality protection methods that are currently in place at JWA which would continue to serve any new facilities. In addition, Final Program EIR 582 discussed drainage facilities at JWA and the potential effect of Airport improvements on the existing drainage facilities. The following discussion summarizes impacts and mitigation measures identified in Final Program EIR 582 and Addendum 582-1 and addresses construction-related water quality and drainage impacts from the Proposed Project. The term "water quality" includes issues relating to surface and groundwater pollution, including siltation (*i.e.,* suspended solids) in surface water.

3.5.1 ENVIRONMENTAL SETTING/EXISTING CONDITIONS

Most of JWA is located on Newport Mesa, a non-marine terrace deposit of Upper Pleistocene age that marks the coastal terminus of the Tustin Plain. The northern 20 percent of JWA is in the Tustin Plain. Newport Mesa consists of slightly consolidated sand and gravel deposits with minor amounts of clay, and is up to several hundred feet thick. Bedrock is not exposed at the surface within the boundaries of JWA. Surface water runoff at JWA splits into a stormdrain conveyance system that drains to Upper Newport Bay via either the Delhi Channel from the west, or the San Diego Creek channel from the east. Alluvial materials underlie JWA; therefore, groundwater is also present beneath the site.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the JWA area (No. 06059C0046E, September 15, 1989) shows flood-prone areas of the Airport. Since that map was prepared in 1989, several improvements, including a peaking basin, have been built to reduce flooding and ponding conditions. As a result, a revised flood-prone area map was developed, and shows that flooding would continue to occur at the golf course, and that areas of localized *(i.e.,* less than one foot in depth) flooding would remain in the area north of JWA. However, these improvements removed the ponding areas on-site and improved the drainage facilities at JWA.

As described below, the airside portion (*i.e.,* airfield and aviation uses) of JWA operates under the State's General Industrial Storm Water NPDES Permit (Order No. 97-03-DWQ). The non-industrial areas of the airport (*i.e.,* terminal buildings, landscaping and parking lots/structures) come under the jurisdiction of Orange County's Municipal Permit.

Surface Water Quality

The Proposed Project is subject to regulation of surface water quality by the United States Environmental Protection Agency (USEPA); the State of California Water Resources Control Board (SWRCB); the California Regional Water Quality Control Board, Santa Ana Region (CRWQCB); and the County of Orange.

The federal Clean Water Act (CWA) is the key federal statute that establishes water quality requirements for the protection of national waters and local waters associated with creeks and drainages such as the San Diego Creek Watershed and Newport Bay. The CWA's two original objectives: (1) to eliminate the discharge of pollutants into the nation's waters and (2) to achieve water quality levels that are "fishable and swimmable" were expanded to include the objective of restoring and maintaining the chemical, physical and biological integrity of the Nation's waters. As such, the CWA requires each state to adopt water quality standards for all water bodies subject to the regulations in the CWA and consequently establish a National Pollutant Discharge Elimination System (NPDES) for the management of water quality from stormwater runoff and discharges.

The airside portion of JWA operates under the State's General Industrial Storm Water NPDES Permit (Order No. 97-03-DWQ). The General Industrial NPDES permit does not establish effluent limitations. Rather, it prohibits non-stormwater discharges and requires facilities to implement Best Management Practices (BMPs) to reduce or prevent pollutants associated with industrial activity in storm water discharges, in order to comply with the requirements of the General Permit. As part of the NPDES permit requirements, JWA has prepared and operates under the provisions of a Storm Water Pollution Prevention Plan (SWPPP) and a Monitoring Program Plan (MPP), which were submitted for review and comment to the State Water Resources Control Board. In furtherance of this SWPPP, JWA and its tenants upgraded the Airport's fueling and storm water pollution prevention facilities in 2000. The commercial fuel farm and hydrant fuel systems were upgraded to eliminate all direct discharges into the stormdrain system.

The SWPPP is designed to identify potential sources of storm water quality degradation at the facility, and to identify and implement work practices and management procedures to minimize impacts to storm water. All of the Airport fuelers and Fixed Based Operators (FBOs) are required to prepare and implement spill and emergency notification and response plans and procedures. These procedures include Mandatory Fueler Safety Training, which includes fuel spill notification, and clean up procedures. Likewise aircraft maintenance and hazardous materials handling procedures are required to be implemented to reduce the possibility of oil, coolant, and solvents from entering the stormdrain system. JWA's General Industrial NPDES permit does not allow for any discharge into the stormdrain system of non-storm water discharges that result from fire fighting or training. Flushing of fire hydrants is excluded from non-storm water discharge regulations. In addition, irrigation water and water used to establish erosion control landscaping are excluded from prohibition. All washing of aircraft or ground support equipment (GSE) must be conducted at approved wash racks or be conducted in such a manner as to prevent wash water from flushing into the stormdrain system.

Because there is no significant water flow onto JWA, and because runoff at JWA is contained in the stormdrain system, siltation of the stormdrain system is not a significant concern. Nevertheless, during the wet season, all stormdrain inlets in unpaved areas are sandbagged to prevent siltation of the stormdrain system. The peaking basin at the north end of JWA is used to control the flow of discharge water, rather than to reduce the suspended solids load of the discharge.

JWA submits an Annual Report to the RWQCB on its Industrial Permit compliance. The report contains inspection reports, storm water quality analytical results, and a description and evaluation of JWA's stormwater pollution preventive measures.

All airport contractors conducting work at JWA must prepare a site specific SWPPP unless they are conducting work solely within the confines of a building or structure and they have no construction lay down areas. The SWPPP would be incorporated into the design and planning of the proposed project. JWA's NPDES permits and SWPPP requirements do not establish effluent limitations, rather the permits and plan prohibit pollution or discharges of materials other than stormwater into the stormdrain system. JWA and its contractors are required to implement BMPs to reduce or prevent non-stormwater discharges or pollutants associated with construction from entering the stormdrain.

BMPs are defined as schedules of activities, prohibitions of practices, maintenance procedures or other management practices, treatment measures, operating procedures, and practices to control erosion, facility site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage. BMPs may include any type of pollution prevention and pollution control measures necessary to achieve compliance. The permits do not require the implementation of

specific BMPs. Rather, the project engineers and contractors are allowed to select or design site and project-specific BMPs.

JWA's SWPPP requires that contractors present to JWA a written SWPPP for the construction site which addresses how stormwater run-off will be contained, how zero discharge will be maintained, and how soil erosion and sedimentation of surface run-off will be prevented at the site. The "Construction Best Management Practices (BMPs) Handbook", produced by the California Stormwater Quality Task Force, can be used as a guideline in selecting BMPs for reducing pollutants in stormwater discharges from construction activities. BMPs could include, but are not limited to: using drip pans under construction equipment and trucks, lining work areas with plastic sheeting, creating sand bag barriers to contain/prevent runoff and spills, and creating on-site settlement basins and filters for potential runoff.

All contractors conducting work at JWA are required to select BMPs that cover the construction area, construction lay-down areas, haul routes, and off-site migration or tracking of contaminants such as mud. This includes keeping aircraft areas clean of mud and debris. The plan must minimize potential soil and water quality impacts including impacts resulting from total suspended solids (TSS), oil and grease, total petroleum hydrocarbons (TPH) or chemicals or materials used for construction. The plan must also include leak or spill cleanup. Should (a) project(s) result in one or more acres of soil disturbance, JWA will file a Notice of Intent (NOI) for the project(s) to be covered by the State General Permit to Discharge Storm Water Associated with Construction Activity.

The landside (non-industrial) areas of the Airport are under the jurisdiction of Orange County's Municipal Permit. On January 18, 2002, the Santa Ana Regional Water Quality Control Board (RWQCB) issued a municipal storm water NPDES permit to the County of Orange and the 25 incorporated cities within the Santa Ana region (Order No. R8-2002-0010 NPDES Permit No. CAS618030). This municipal storm water permit was an update to the previous permit (RWQCB Order No. 96-31). In 2003, JWA amended its parking lot and landscape maintenance contracts to reflect recent changes in municipal stormwater NPDES permit rules. Contractors are required to implement BMP procedures to reduce runoff and pollution into the stormdrain system. Under the new rules, parking lots and sidewalks at JWA are no longer allowed to be washed off into the stormdrains. Debris, dirt, trash, leaves, grass-cuttings, etc., must be swept-up and properly disposed off-site. A self-contained scrubbing machine is used to clean oil and grease from the parking lots. Wash water from this machine is disposed of into the industrial sewer system. The use of hazardous materials used for cleaning, pesticides, herbicides, fertilizers, or other hazardous materials is also tightly regulated and monitored through the requirements imposed by the municipal stormwater NPDES permit.

JWA is a member of a County Task force, which prepares and submits an Annual Report to the RWQCB. This report is an assessment of the Municipal Activities Program effectiveness. JWA submits data on BMPs implemented, BMP effectiveness and monitoring, documentation of training on the use of hazardous materials, pesticides, herbicides, and fertilizers, documentation on the quantity of fertilizers, herbicides, and fertilizers applied, and the status of required application permits.

3.5.1.2 Groundwater Quality

The general groundwater gradient throughout the airfield is relatively flat and locally influenced by intermittent clay lenses at the water table. Gradient at the old fuel farm (south end of the Airport) is generally westerly but has been historically variable ranging northwest and southwesterly. Likewise the gradient at the East Parking Structure migrates from north to northeast.

The surface elevation of the airfield tends to be higher in the northern end of JWA than in the southern. Likewise, the depth to groundwater at the old fuel farm is about 35 feet below land surface (bls) and the depth to groundwater at the northern end of the airfield is about 15 feet bls.

To prevent future soil and groundwater contamination at JWA, several procedures have been implemented as discussed in Final Program EIR 582, Section 3.10 (Hazardous Wastes and Hazardous Materials Use). All the existing tanks at JWA meet newly mandated leak protection and detection standards. Likewise oil-water separators, located at wash-racks near aircraft maintenance facilities, which were the source of much of the soil and water contamination in the past, are routinely cleaned and monitored. Hazardous materials use and disposal practices have also been improved along with the implementation of employee training programs.

Drainage

The existing stormdrain system at JWA includes two IWP clarifiers and six oil-water separators. Five of these are Petro Pack equipped and have associated alarm systems, and four are equipped with automatic storm water samplers and flow meters. This system provides coverage of all drainage areas where industrial activities are performed. All wash racks drain through oil-water separators into the industrial sewer. The Airport has also made several improvements to the stormdrain system and landscaping maintenance system improvements to reduce erosion.

3.5.2 Summary Of Impacts And Mitigation Measures Identified In Final Program Eir 582 And Addendum 582-1

Summary of Water Quality Impacts

Final Program EIR 582 and Addendum 582-1 determined that there would not be any significant water quality impacts associated with the proposed settlement amendment project. Although Final Program EIR 582 determined that there would be a minor increase in the amount of impermeable surfaces and resultant runoff volumes due to pavement required for the facility improvements, and that the increased number of flights would result in an increase in the amount of petrochemicals in the runoff associated with the aircraft and automobiles, Final Program EIR 582 concluded that existing facilities, such as the oil-water separators and petro-packs, would be able to accommodate the increased flow from the Airport. Additionally, the fueling and storm water pollution prevention facilities at the Airport were upgraded in 2000. Based on JWA's compliance with its NPDES permit and SWPPP, and the ability of existing facilities to accommodate the increased flow from the Airport, operational water quality impacts were determined to be less than significant. Final EIR 582 did not assess construction-related water quality impacts.

3.5.2.2 Previously Adopted Mitigation Measures

No significant operational water quality impacts were identified and no mitigation was required.

METHODOLOGY

The effects of the Proposed Project on surface and groundwater quality were assessed by comparing the existing site uses and operations with those of the Proposed Project. This was done by first establishing the existing conditions baseline, utilizing the water quality parameters currently required in the existing JWA NPDES permit. The estimated Proposed Project runoff water quality was then compared to these conditions, with impacts assessed based on the resultant increase or decrease in water quality.

3.5.3 THRESHOLDS OF SIGNIFICANCE

Consistent with the State CEQA Guidelines, a project may be deemed to have a significant impact related to water quality if it would:

- violate applicable water quality standards or waste discharge requirements,
- substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of a local groundwater table level,
- otherwise substantially degrade water quality.

Consistent with the State CEQA Guidelines, a project may be deemed to have a significant impact related to drainage if it would:

- substantially alter the existing drainage patter of the site or area, including the alteration of the course of a stream or river, in a manner which would result in:
    - substantial erosion or siltation on- or off-site,
    - a substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on- or off-site,
- create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

3.5.4 3.5.5 ANALYSIS OF PROJECT IMPACTS

Construction of the Proposed Project would involve demolition and removal of existing asphalt and concrete, and removal of a hangar. These construction activities would likely result in an incremental, short-term increase in erosion during the construction phase of the Proposed Project. Given the limited amount of exposed soil on the Airport, the amount of erosion would not be considered significant. The overall project would be constructed in stages and would not require that large areas be mass graded. The project area is already flat, fully graded and paved. Existing on-site structures would need to be properly demolished and debris properly removed from the site. Some excavation would be necessary for new structures and roadways. The various stages of the project would expose about 20 acres of soil to approximately a two-foot depth at any one time. All JWA construction projects that disturb any soil, or that may cause debris to wash into the stormdrain, are required to prepare a construction project SWPPP. For each of the project's components or stages that would disturb one acre or more of soil, JWA will file a NOI to be covered by the State's General Permit for Construction Activities.

Each construction SWPPP identifies Best Management Practices (BMPs) to be implemented and monitored by the environmental compliance manager at JWA during construction. These BMPs would include such measures as erosion control, dust control, sand bags at inlets, and silt fences to stop sources of pollution from entering the stormdrain system. As previously indicated, JWA has existing oil-water separators, sediment and flood control facilities in place that would be incorporated into preparation of the construction SWPPPs. With planning and implementation of these BMPs to specifications and compliance with each SWPPP, water quality impacts resulting from construction activities would be less than significant.

As previously indicated, the Orange County Stormwater NPDES was updated in January 2002. All activities at the Airport are under the Orange County Municipal Permit (OCMP) and compliance with the new permit is required. With compliance of the new OCMP, construction-related impacts to water quality would be less than significant.

Construction activities would also include short-term impacts associated with the use of construction equipment and handling of construction materials onsite. Proper maintenance of construction equipment is mandatory to prevent potential spills and leaks of gas, oil and other pollutants from the equipment discussed in Section 3.7 Hazardous Materials. The contractor would be required to select BMPs that cover the construction area, construction lay-down areas, haul routes, and off-site migration or tracking of contaminants such as mud. The plan must minimize potential soil and water quality impacts resulting from total suspended solids (TSS), oil and grease, total petroleum hydrocarbons (TPH), or chemicals or materials used for construction. The plan must also include leak or spill cleanup. The contractor would be prohibited from washing anything down into the stormdrains. Water and debris from saw-cutting activities, construction or paint wash water, or rinsates must be contained by the contractor and properly disposed off site. All trash and debris, used absorbent material, or excess materials must be removed from the site or removed from the site for proper off-site disposal.

Also, hazardous materials may be encountered during demolition. Proper handling of hazardous materials would also be required to prevent any pollutants from entering receiving waters during storm events. Proper use of equipment and handling of materials would be addressed in each of the relevant SWPPPs for the proposed project. Therefore, with implementation of the SWPPPs, potential impacts resulting from construction equipment and handling of construction materials onsite would be less than significant.

With implementation of construction BMPs and use of the existing oil-water separators, sediment and flood control facilities at the airport, as well as additional environmental control practices that would be implemented as part of the Proposed Project, contamination to surface and groundwater flowing offsite would be reduced or eliminated, resulting in no substantial degradation of water quality. Moreover, the proposed construction activities at JWA would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of a local groundwater table.

With respect to drainage, the existing stormdrain system at JWA has sufficient capacity to treat flows that would be associated with the proposed construction activities. The proposed construction activities at JWA would neither alter the existing drainage pattern of the site or area nor provide substantial additional sources of polluted runoff.

The Proposed Project would result in water quality impacts below a level of significance.

3.5.6 MITIGATION PROGRAM

SC 3.5a The Proposed Project shall comply with all relevant provisions of the OCMP.

SC 3.5b Prior to the commencement of construction, all contractors who are conducting construction activities solely within the confines of a building or structure shall submit a Stormwater Pollution Prevention Plan (SWPPP) for any onsite lay-down areas. Prior to commencement of construction the Deputy Airport Director, Facilities, or his designee, must approve the SWPPP.

SC 3.5c Prior to the approval of the project plans and specifications for any project involving demolition, sawcutting, removal of pavement or disturbance of soil, plans must be submitted to the Deputy Airport Director, Facilities or his designee for confirmation and approval that the plans are consistent with the Airport's drainage plan, stormwater drainage system, and Stormwater Pollution Prevention Plan (SWPPP) and National Pollutant Elimination System (NPDES) guidelines. Construction, demolition, or grading plans must include a SWPPP.

SC 3.5d At least 30 days prior to the planned commencement of construction for any project or group of projects that will disturb one acre or more of soil, the contractor shall submit for review and approval a project(s) specific Stormwater Pollution Prevention Plan (SWPPP) which covers the construction area, construction lay-down area, and haul routes, to the Deputy Airport Director, Facilities or his designee. JWA will then file a Notice of Intent (NOI) to be covered by the statewide General Stormwater Permit for construction activities.

SC 3.5e Prior to commencement of construction, all airport contractors who are required to prepare a Stormwater Pollution Prevention Plan (SWPPP) must receive approval of a final SWPPP for the project(s) from the Deputy Airport Director, Facilities or his designee.

SC 3.5f During construction, the JWA Environmental Compliance Monitoring Program (ECMP) team will inspect construction areas, construction lay-down areas and haul routes. The sites will be inspected to ensure that all BMPs are being performed and are in place, and will monitor the sites for possible sources of pollution, contamination, or off-site migration or tracking of contaminants such as mud.

3.5.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant water quality or drainage impacts would result from construction of the Proposed Project. JWA has established a framework for water quality and drainage through the implementation of standard conditions and BMPs for construction activities. Because all applicable SCs and BMPs would be required for implementation of the Proposed Project, no further mitigation is required.

3.6 AESTHETICS

Visual resources of concern in environmental analyses include the visual character of a Proposed Project, and the relation of the visual character to the project surroundings. This section describes the existing visual character of the project site and its surroundings, and describes views of the site from surrounding vantage points. Various viewsheds have been identified, and the potential visibility of the project site has been determined. The information presented in this section is based on field reconnaissance and a review of site and aerial photographs.

3.6.1 ENVIRONMENTAL SETTING/EXISTING CONDITIONS

JWA is surrounded by office/commercial development to the west and east, and framed by major arterial roadways and freeways. The Airport's northern side is bordered by I-405, with SR-55 to the west (with office commercial development between the Airport and SR-55). Campus Drive and MacArthur Boulevard border the east side, and SR-73/Bristol Street is aligned along the southern boundary. East of MacArthur Boulevard and Birch Street is additional office commercial development.

Following is a description of the existing visual character, views, and sensitive visual receptors associated with the Airport. The existing setting relative to aesthetics has not changed since preparation of Final Program EIR 582 and Addendum 582-1. Final Program EIR 582 also includes a discussion of goals and policies related to aesthetics from relevant planning programs, including the County of Orange General Plan, and the general plans of the cities of Newport Beach, Irvine, and Costa Mesa.

Existing Visual Character

Multi-story, steel frame, glass curtain tower buildings, as well as relatively low, cubistic structures of wood or reinforced concrete characterize the visual character of office/commercial areas along MacArthur Boulevard. In addition, there is a complement of smaller scale commercial buildings (e.g., restaurants and shops) with varying architectural styles. The diversity of architectural types is bridged by a relatively uniform landscape treatment throughout the area. Continuity is achieved through the use of similar plant materials and mounded landforms.

Commercial areas along Campus Drive are more uniform in style than the developments along MacArthur Boulevard. Low, Spanish-style colonial or California ranch type buildings with red tile roofs, inset windows, and redwood detailing predominate, either as single units or larger complexes.

The Main Street and Red Hill Avenue areas have a visual quality more usually associated with traditional light industrial development. Buildings are relatively low, precast concrete structures with visual interest provided through a variety of wall treatments, such as ribbing or exposed aggregate.

Several residential neighborhoods southwest of the Airport have a relatively private visual character because of curving streets that preclude long vistas or cul-de-sacs that contain the residential environment. While housing in these areas was mostly constructed in the 1960s, each area has a different architectural style. In the Pegasus area, large homes have Georgian and Orleans elements, while smaller homes have an early California influence. The Anniversary area contains more Gingerbread-type homes mixed with several ranch-style houses. The northern part of the neighborhood is older than the southern portion (primarily

1950s construction), but the architectural styles are similar and tend to reflect California ranch influences. The residences along Cypress Street vary in size, architectural style, and level of maintenance. A fenced horse trail is located on the west side of the street. Elaborate landscaping, larger homes, and a very high level of maintenance characterize the Galaxy area, located south of Santa Ana Heights in the City of Newport Beach.

The agriculturally zoned areas off Orchard Street have a more diverse visual character and greater mix of architectural styles. Homes range from large ranch structures to modest bungalows. Horse corrals, rustic fencing, narrow and deep lots, and lower density emphasizes its rural ambiance. Various styles of commercial structures (such as greenhouses, stables, warehouses, and kennels) can be seen in back and side yards along various blocks of this area.

Existing Views and Viewsheds

Views of the Airport are generally from the street and freeway system surrounding it; however, the Airport is not visible from SR-55, due to the office/commercial development and affiliated tall landscaping between the freeway and the Airport. The Airport itself is not visible from the residential and golf uses south of Bristol Street due to elevation differences; however, the aircraft activities from JWA (*i.e.,* takeoffs and landings) are visible and audible from these areas.

The major view of the Airport complex is from the adjacent roads, including Campus Drive, MacArthur Boulevard, Airport Way, and I-405. From the intersection of Campus Drive and MacArthur Boulevard, views of the parking structures, internal airport roadways, and landscaped berms predominate. The east parking structure, located between the terminal and MacArthur Boulevard, is a four-story, three-section light beige concrete structure. The mid-section of the first floor has been designed to provide a passenger waiting area and loading zone for taxis and ground transportation (*i.e.,* hotel and airport shuttle vans), while the mid-section of the basement floor accommodates the rental car return area. A landscaped area is located between the parking structure and internal access roads. Airport signing and light standards are unobtrusive and not a major visual element from off-site areas.

The median strip along Campus Drive is landscaped with grass and trees. This landscaping provides a slight visual buffer between the businesses on the east side of Campus Drive and the small aircraft and the structures on South Airport Way. These structures include a series of corrugated metal hangars surrounded by asphalt and chain-link security fences, two-story Newport Aviation Center buildings, air jet center, several small office/repair shop buildings, and Signature Flight Services office building. The buildings are generally not visible from a block's distance along the road, although the structures can be seen through the space below the tree canopies where there is no intermediate sized shrubbery. The warehouse-like appearance of many of these structures is a marked contrast to the style of commercial and industrial buildings on the other side of Campus Drive. From the intersection of Campus Drive and Bristol Street, a chain-link fence threaded with wooden slats and ivy limits views of the Airport.

From MacArthur Boulevard, it is possible to see the parking structures, as well as brief views of aircraft on the runways. Large landscaped berms on Airport property, as well as a landscaped median strip on MacArthur Boulevard, screen views of the Airport from businesses along MacArthur Boulevard.

More distant views of the Airport are available from other major roads in the vicinity, including North Bristol Street, Irvine Avenue, and I-405; however, a high bank largely eliminates views of the Airport site along North Bristol Street. From South Bristol Street, which is higher in elevation than North Bristol Street, the Airport view is mostly of vacant land and a few parked commercial planes. Driving north on Irvine Avenue, the view is mostly of the golf course, but it is possible to

see a few parked aircraft. From the portion of I-405 that traverses the Airport to the northeast, views of parked aircraft, runways, and arriving and departing jets predominate.

Only very limited views of the Airport are available from a number of streets in the Airport vicinity. Along Airway Avenue, Clinton Street, Airport Loop Drive, Red Hill Avenue, and Main Street, views of the Airport are blocked for the most part by one- and two-story office/ commercial buildings and surrounding landscaping. The control tower is visible intermittently through a few vacant lots along Airway Avenue. The Airport view from Jamboree Road is blocked by intervening development. Clear views of the Airport, however, are available from portions of office buildings along these routes, as well as from upper floors of high-rise office structures in the office parks bordering the Airport on the southeast.

Although the Airport site is visible from points along Eastbluff Drive, Backbay Drive, and Dover Shores, the distance is too far to permit identification of particular airport-related features such as parked aircraft, the control tower, or airport structures.

Existing Sensitive Receptors

The nearest uses sensitive to aesthetic impacts are south of SR-73/Bristol Street, consisting of a residential tract, the Santa Ana Country Club, and the Newport Beach Golf course. However, these receptors are considered to have only distant views of the airport area. Therefore, these residential areas are not considered to be sensitive visual receptors. On the north side of I-405 are office/commercial uses, as well as the long-term parking lot for JWA, neither of which are considered sensitive visual receptors.

3.6.2 SUMMARY OF IMPACTS AND MITIGATION MEASURES IDENTIFIED IN FINAL PROGRAM EIR 582 AND ADDENDUM FEIR 582-1

Summary of Aesthetic Impacts

Based on the project design information available at the time they were prepared, Final Program EIR 582 and Addendum 582-1 determined that there would be no significant visual impacts associated with the Proposed Project. Proposed facility improvements that may be constructed, including a new unit terminal, gates, parking structures and internal circulation, were determined to be consistent with the existing style and character of existing structures on the Airport and would not impact the community character or visual characteristics of the site. Final Program EIR 582 identified that views from MacArthur Boulevard and commercial/industrial uses along this roadway, as well as along the western edge of the Airport would be altered with the addition of new facilities; however, the view of JWA would continue to be highly urban in nature. Existing airport uses would continue to be prominent in the viewsheds from this area. The proposed strengthening of the area south of the existing south remain overnight (RON) space would alter views east of the parked aircraft during the evening and nighttime hours from Campus Drive, North Bristol Street, and the businesses west of JWA; however, the visual character of the Airport in this area would not be significantly changed.

Final Program EIR 582 concluded that motorists along I-405 would have brief views of the Airport; however, the character of the views would not be altered with implementation of the Proposed Project. It was also concluded that the improvements would not be visible from views from sensitive receptors, and there would be no obstruction of scenic views or vistas.

Previously Adopted Mitigation Measures

No significant aesthetic impacts were identified and no mitigation was required.

3.6.3 METHODOLOGY

The potential long-term visual impacts of the Proposed Project on the surrounding areas were assessed based on the existing visual characteristics of the site and the surrounding areas, compared to the potential visual characteristics of the development on JWA under the Proposed Project. Impacts were also assessed based on the existing visual characteristics on the JWA site and the distance from which land uses under the Proposed Project would be visible to nearby viewers.

3.6.4 THRESHOLDS OF SIGNIFICANCE

Consistent with the State CEQA GUIDELINES, a project may be deemed to have a significant impact related to visual resources if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway; and/or
- substantially degrade the existing visual character or quality of the site and its surroundings.

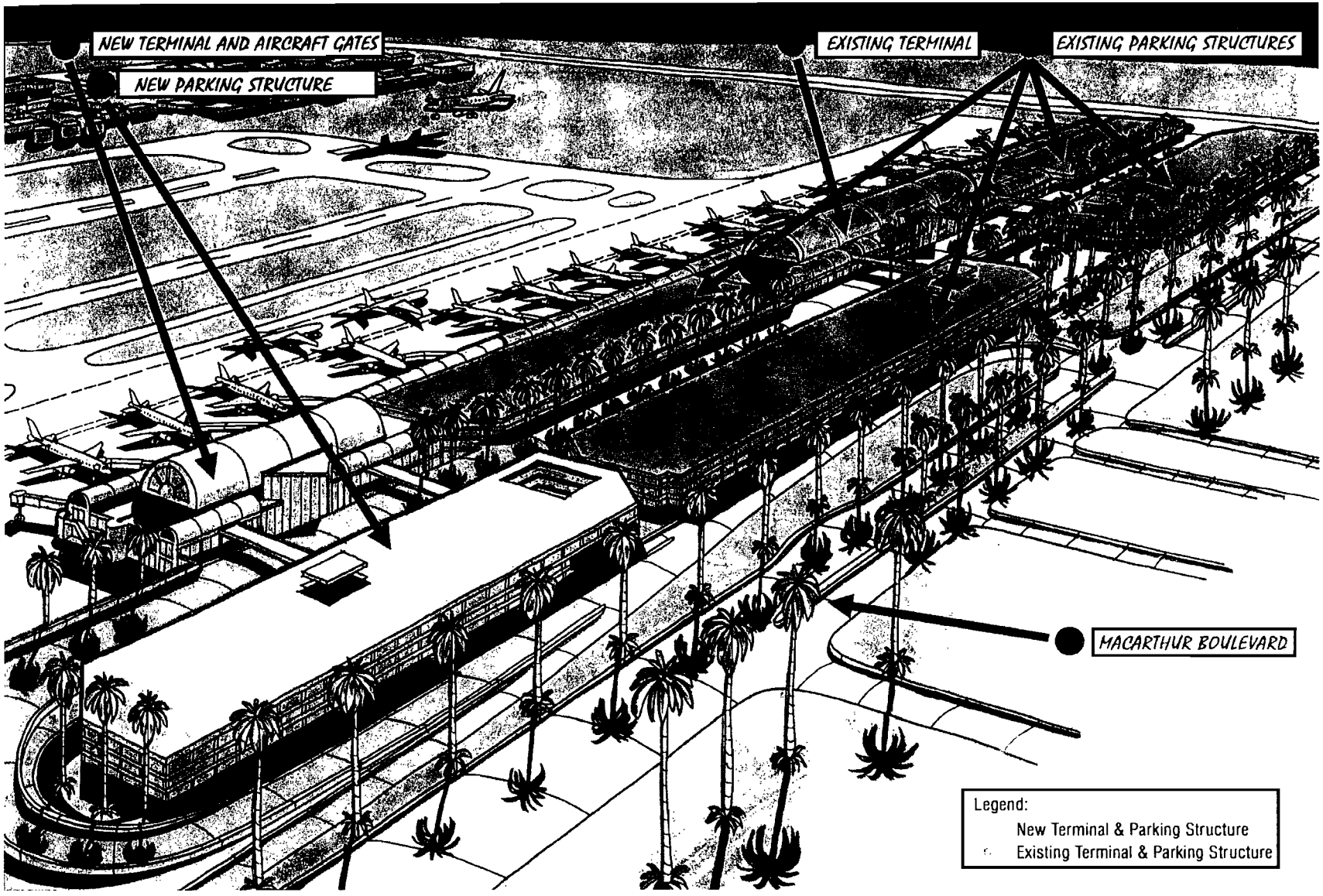
3.6.5 ANALYSIS OF PROJECT IMPACTS

The following primary components of the Proposed Project (described in Section 2.4) have the potential to affect the visual character of the project area: construction of a new terminal building and parking structure, replacement hangars and modifications to the internal circulation network. Exhibits 3.6-1 and 3.6-2 provide conceptual renderings of the Proposed Project, showing the relationship of the Proposed Project facilities to existing facilities.

The new terminal would be located south of the existing facility, and would be connected to it via a concourse approximately 360 feet in length. The height of the new terminal would be similar to the existing terminal. The proposed multi-story parking structure would be located south of the existing east parking structure. The new structures would be constructed of similar materials as the existing facilities and would have a similar architectural style and landscape concept. The new internal circulation system would function much in the same way as the existing system and would also have a similar visual character.

The analysis of aesthetic impacts presented in Final Program EIR 582 is accurate for the Proposed Project. The new terminal would be located behind the parking structures, internal roadways, and landscape features and would not be visible from businesses across MacArthur Boulevard. Rather, the view of JWA would continue to be highly urban in nature, with views consisting of the existing and proposed parking structures, on-site roadways, and landscaping.

The proposed improvements would be briefly visible from vehicles moving at freeway speeds traveling on I-405. However, the type of views from I-405 would not be altered. The improvements would also be visible from businesses bordering the western edge of the Airport property. However, the character of the improvements would be similar to existing structures currently visible from the freeway and western airport boundary, with addition of more aircraft being visible from those vantage points. There would not be substantial change to the visual quality of the viewshed and no aesthetic impacts would result.



Conceptual Rendering – Street Side

Exhibit 3.6-1

John Wayne Airport
Settlement Amendment Action Plan

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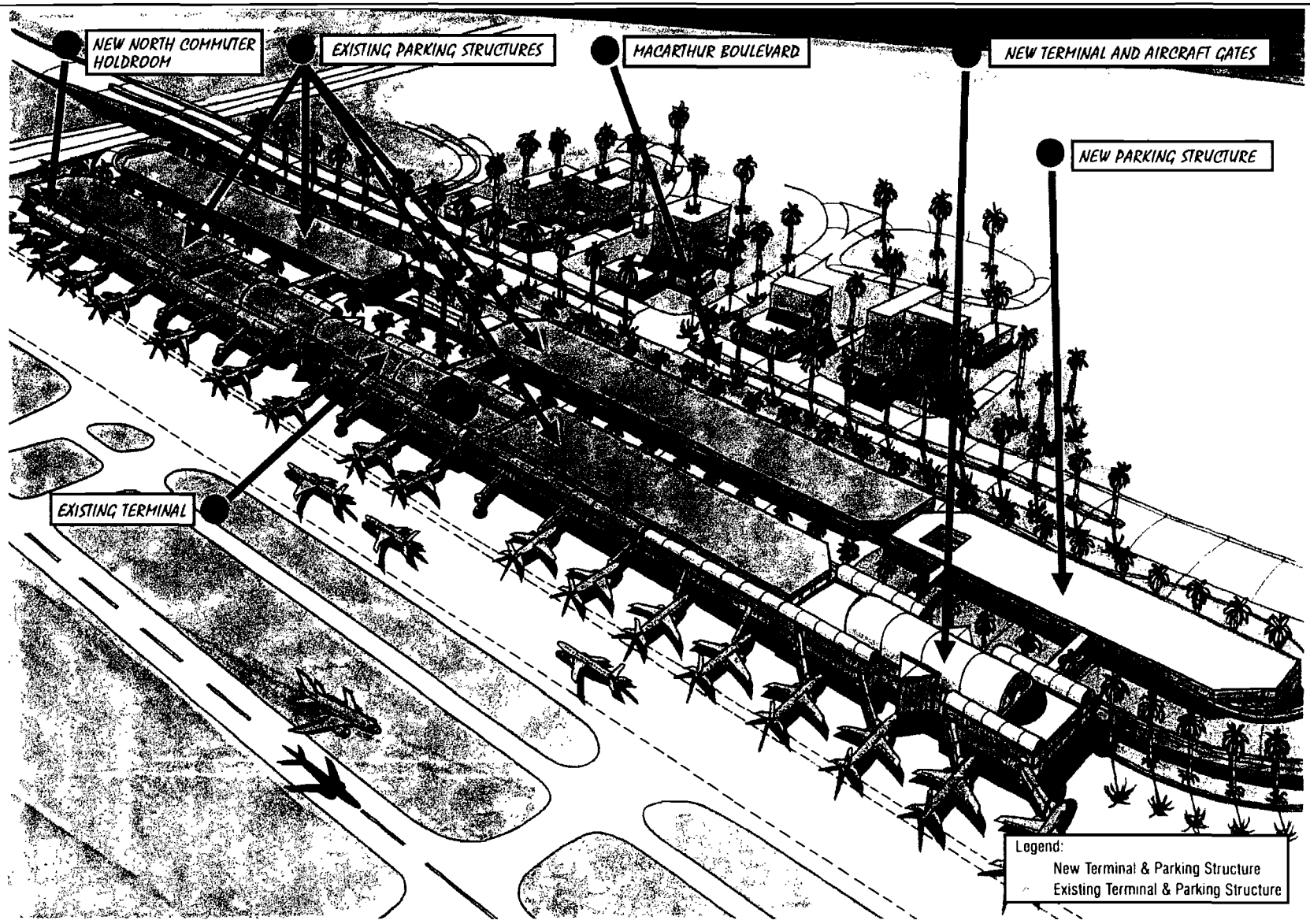

Conceptual Rendering - Terminal Side

Exhibit 3.6-2

John Wayne Airport
Settlement Amendment Action Plan

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The Proposed Project would also involve modifications to the existing apron area, including extension of this area to the south where air cargo operations currently occur. The air cargo operations would be moved further south to accommodate the new terminal building and facilities, but would still remain on the east side of the Airport. This would result in views of parked aircraft during the evening and nighttime hours from Campus Drive, North Bristol Street, and the businesses west of JWA. Modifications to the existing leasehold area would be visible primarily from Campus Drive; however, the general aesthetic character of these uses would remain the same. The paving of the area and use for RON aircraft and leasehold modifications would not substantially change the visual character of the Airport and would not degrade the visual quality of the area. This project component would not result in a significant aesthetic impact.

The addition of a right-turn lane at the intersection of Campus Drive/Bristol Street, and associated removal of the existing maintenance building would slightly alter views of this area. Existing uses with views of this area are primarily limited to commercial and light industrial uses in this area. Motorists along Bristol Street and Campus Drive are the primary viewer group. Because there would not be a substantial visual change, this project component would not result in substantial change to the visual quality of the viewshed, and would not be considered a significant aesthetic impact.

The proposed facility improvements at JWA, including the new terminal and parking structure would not block any scenic views or vistas. There are no scenic highways and no scenic resources in the area north of the existing terminal such as trees, rock outcroppings, or historic buildings that could be affected. Additionally, intervening roadways and topography block views of the Airport from the residential uses to the south, and no sensitive uses have direct views of this portion of the Airport.

3.6.6 MITIGATION MEASURES

No significant aesthetic impacts have been identified and no mitigation is required.

3.6.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Proposed Project would not result in significant aesthetic impacts.

3.7 HAZARDOUS WASTE AND HAZARDOUS MATERIALS USE

Final Program EIR 582 and the Addendum to Final Program EIR 582 addressed project related issues associated with hazardous waste and hazardous materials use and determined the Project would not result in significant hazardous materials or hazardous waste impacts. Consequently, Final Program EIR 582 concluded that no additional mitigation measures were warranted.

As discussed in Section 2.4, Project Description, modification of the lease holdings area on the east side of the Airport immediately south of the existing air carrier RON is a planned construction activity. Demolition and removal of the existing Signature GSE Maintenance Hangar as well as the asphalt and concrete in this area of the project site would be required. In addition, the existing Southern California Edison (SCE) substation at JWA would be removed as part of the project. This section summarizes the hazardous waste or materials use impacts that would result from related demolition, removal, and construction activities and describes necessary mitigation measures.

3.7.1 ENVIRONMENTAL SETTING/EXISTING CONDITIONS

Existing Hazardous Waste and Hazardous Materials Use

Many activities conducted currently and in the past at JWA involve the use, storage, and handling of potentially hazardous materials. Additionally, nearly all activities at JWA that involve the use or handling of hazardous materials generate hazardous waste. Final Program EIR 582 discusses the existing conditions at JWA with regard to hazardous materials and wastes that could potentially affect human health and/or the environment. This section discusses existing conditions only as they relate to the demolition and construction stage of the project, including the addition of the Signature GSE Maintenance Hangar.

Maintenance Activities

JWA maintenance building operations include the limited use of small quantities of paints, mineral spirits, batteries, cleaning solvents, and petroleum products

The Signature GSE Maintenance Hangar is being used to store and maintain aircraft, fueling and other aircraft GSE, and vehicles. A few 55-gallon or less drums or containers are used for oil, coolant or waste oil, or fuel. Small quantities (one to five-gallon cans) of oil, degreaser, paint, paint thinner, alcohol, acetone, varsol alcohol, transmission fluid, and gear oil are stored and used in the hangars. In the past solvents such as toluene and methyl ethyl keytone (MEK) were used onsite; however, recent trends have shifted to the use of more environmentally friendly cleaning materials such as Orange All.

On the commercial apron, airline operators use small quantities of oil, hydraulic, transmission and brake fluids, de-icing fluid, degreasers, lubricants, window cleaners, *etc.* These are mostly off-the-shelf items, and are in non-reportable quantities. Tire and battery changes and battery charging occur frequently on site.

In order to prevent future soil and groundwater contamination at JWA, several procedures have been implemented since 1990 as discussed in Final Program EIR 582, Section 3.10 (Hazardous Wastes and Hazardous Materials Use). All the existing tanks at JWA meet newly mandated leak protection and detection standards. Likewise oil-water separators, located at wash-racks near aircraft maintenance facilities, which were the source of much of the soil and water contamination in the past, are routinely cleaned and monitored. Hazardous materials use and

disposal practices have also been improved along with the implementation of employee training programs.

JWA sends the waste oil and solvent generated by its tie-down tenants out to be recycled. All waste generated by airport maintenance activities is also sent out for recycling or proper disposal. Commercial airlines, Signature and the other Fixed Based Operators (FBOs) contract individually with waste hauling companies for the collection of, recycling, or proper disposal of hazardous and California regulated waste.

There are a number of oil-water separators located throughout the airfield operated by the FBOs' commercial fuel farm operator and JWA. Wastewater and sludge from these facilities are taken off-site for recycling and disposal.

As a result of these new policies and procedures, there have been no known recent spills or leaks from maintenance activities at JWA that have contaminated soil or groundwater.

Hydrant Fueling System, Aircraft Refueler Operation

The existing hydrant fueling system is located beneath the commercial apron. The system became operational in 1991. Fuel is transported from the commercial fuel farm via a double-walled transfer piping system. The fuel hydrant pits, located at the jetways, are connected to a 6,000-gallon capture tank, which collects fuel spillage. This tank and all underground tanks and pipelines associated with the system are fully monitored and alarmed for leaks.

Commuter and air cargo aircraft are fueled via trucks. These trucks unload fuel into the aircraft parked north and south of the terminal. GSE are fueled on the apron by trucks.

If a spill occurs at the Airport, the ARFF Station is notified and called to the scene. Tanker truck and into-plane hydrant system operators are primarily responsible for clean-up and containment; however, ARFF personnel will intervene to prevent a fire or to prevent spilled fuel from entering the storm drain system. Small spills are cleaned up using absorbent pads and materials stored at the fuel farm and the commercial apron. In the event of a major spill, the OCFD Hazardous Materials Response Team is called to the scene. Clean-up and further containment is the responsibility of the FBOs, fuel farm, and into-plane operators who contract with various spill response companies.

Since 1991, there have been a number of small fuel spills that have occurred throughout the airfield. All of these spills have been contained and properly cleaned up and, therefore, have had no significant impact on the environment. There have also been four large spills, which have required clean-up and corrective action. As part of standard procedures, airport staff worked with Fire Department and fueling personnel to investigate the cause of all spills in order to recommend corrective actions to prevent future spills.

As a result of these new facility improvements and policies and procedures, there have been no known spills or leaks from fueling activities on or beneath the commercial apron that have contaminated soil or groundwater.

Hazardous Waste Practices

In December 1988, the airport administration conducted an investigation of the airport property for the purposes of a comprehensive assessment of known or potential discharges of hazardous materials to groundwater and/or soil at JWA. The report addressed known discharges that

occurred at the airport, underground facilities with the potential for discharges, and activities involving the use of hazardous materials that could result in discharges.

At the time of the 1988 Assessment, there were 42 underground storage tanks (USTs) in use at JWA. The majority of these tanks were clustered in the former main fuel farm located at the southeast end of the Airport. The other tanks were situated next to individual tenants. Of the 42 tanks formerly on the site, 36 were used for fuel storage, and six were used for waste oil. Records also indicated that several tanks formerly present on the site had been abandoned.

No underground fuel pipeline facilities traversed the Airport at any time. Pipelines identified during the course of the Assessment, likely to be associated with discharges at JWA, were generally limited to sewer and storm drain lines located along the eastern side of the Airport. Aircraft repair and maintenance activities at JWA have occurred primarily in this southeast area, which has had a number of infrastructure modifications over time.

Several clarifiers and washracks exist on the Airport site. A majority of the clarifiers and washracks were designed to capture runoff from the washing of aircraft; however, it was apparent that in the past other types of runoff, such as solvents and fuel, may have drained into clarifiers and washracks located near maintenance areas.

3.7.2 KNOWN DISCHARGES

Of the various sites evaluated during the 1988 Assessment and supplemented by the preparation of the 1999 SWPPP (discussed in Section 3.5, Water Quality), most did not pose a significant threat of environmental contamination. A number of small spills and oil stains were identified, the majority of which did not require remedial action. The most notable discharges identified included: a 60-gallon jet fuel spill (January 1987) at the fuel farm located at the southwest end of the airfield; leakage from a faulty 550-gallon clarifier/waste oil tank, which was removed in June 1987; a 750-gallon jet fuel oil spill (October 1986) at the fuel farm at the southwest end of the airfield; and leakage from a 550-gallon underground waste solvent tank and a clarifier at the former Mission Beechcraft/Martin Aviation facility, which were removed from the site in January 1988.

3.7.3 FURTHER INVESTIGATIONS AND REMEDIATION

As a result of findings from the 1988 Assessment Report and the upgrading of underground storage tank (UST) regulations, JWA and its tenants conducted extensive soil and groundwater investigations. Furthermore, all USTs, oil-water separators, related sewer lines, and the paved areas where aircraft had been stored, fueled, and maintained were investigated. Several USTs and oil-water separators and associated sewer lines were removed. Contaminated soil associated with these sites was either remediated on-site or removed.

Further, investigation and tank removal projects conducted at the old fuel farm revealed extensive soil and groundwater contamination resulting from overfilling of tanks. All of the old tanks and much of the contaminated soil were removed from the site. In addition, subsurface floating free product (*i.e.*, jet fuel) has been removed from the top of the groundwater beneath the former tanks. The contaminant plume from the historic fuel spillage in this area is confined to the Airport's property and does not appear to be spreading or dissolving into the groundwater. Ongoing monitoring of this project and all UST and contaminated site projects are being coordinated with and overseen by the County Health Care Agency and the RWQCB.

The JWA maintenance building, which is to be demolished and replaced by a new building located on the west side of the airfield was built in the late 1980s. While it is adjacent to the old

Fuel Farm, none of the soil or groundwater contamination associated with the fuel farm has impacted the demolition site. Furthermore, there have been no known spills or leaks at the facility that have contaminated the soil.

The site proposed for the relocation of this facility on the west side of the airport was purchased in the mid 1990s. Prior to the sale, a former restaurant was located on the site. As part of the property transfer, a hazardous material investigation was conducted in order to transfer a clean site to the airport. Since JWA has taken over the property, this site has been used as a construction lay down area. Small surface spills of construction materials and fuel have been cleaned-up and inspected by JWA and its geo-environmental consultants. There is no known soil contamination at the site.

One of the sites identified for further investigation was the Martin Aviation maintenance hangar, currently operated by Signature Flight Support. In 1995 and 1996, most of this hangar complex was demolished along with associated wash racks, sewer lines, storm drains, and aircraft parking areas. During the demolition of these facilities, pockets of soil contaminated with aircraft fuel and cleaning solvents were discovered. Most of this soil contamination went down to a depth of only five feet. However at one site, near a tank and drums used to store waste oil and solvents, contaminated soil went down to a depth of seventeen feet beneath the surface. At this location several soil borings and a ground water sample were taken to assess the potential for ground water contamination from the site. The results of this assessment determined that there was only slight contamination resulting from regional solvent spills in the area that were not associated with activities at JWA. Most of the contaminated soil was removed from the site to the satisfaction of the Regional Water Quality Control Board who required no further clean-up or investigative action.

As was stated previously, most of the maintenance-hangar complex was demolished in 1995 and 1996. However, one building extending the length of the southern boundary of the site remains in use. This building is currently referred to as the Signature GSE Maintenance Hangar and is being used to store and maintain aircraft, fueling and other aircraft GSE, and vehicles. During excavation of the wash rack immediately adjacent to the northwest wall of this building, hydrocarbon impacted soil was discovered to a depth of three to four feet. Site observations indicated that additional excavation and soil removal in this area would likely have compromised the structural integrity of this building. Due to the nature and apparent limited extent of hydrocarbon-impacted soil adjacent to and possibly beneath the building, it was decided to allow the soil to remain on-site since there was no apparent threat to groundwater integrity.

A new hangar is proposed to be constructed at the former Fire Station 27 site. In 1994, the underground storage tanks and fueling facility associated with this site were removed. Contaminated soil associated with these tanks was removed. The Orange County Health Care Agency issued a site closure letter for these tanks. In 2002 the fire station was demolished. No additional soil contamination was discovered.

In 1987, during the construction of the present terminal, parking structure and roadway, complex fuel and solvent contaminated soil was encountered. The source of the contamination was discovered to be from the former Mission Beechcraft/Martin Aviation facility. Subsequent investigations and clean-up activities have removed all the contaminated soil associated with this site. In 2003, the RWQCB issued a "No Further Action" letter to JWA for this site. Construction of a new parking structure and terminal roadway in the vicinity of this site is not expected to encounter contaminated soil. Likewise in 1994, the current south RON area was excavated and re-built. No contaminated soil was encountered during this reconstruction. There is no known contaminated soil at the south RON or north RON construction sites resultant from aircraft maintenance or fueling operations.

3.7.4 REGULATED MATERIALS

Historically, asbestos-containing pipe (ACP) was used extensively in the airport area for water pipes. During the widening of Campus Drive and other airport improvements conducted after 1988, several thousand feet of this pipe were discovered. The pipe was removed in accordance with applicable regulations. ACP was also used for electrical conduit on the airfield. Whenever new construction projects encounter ACP, it is removed in accordance with applicable regulations.

Furthermore, the former terminal, old tower, Fire Station 27, and several old aircraft maintenance buildings were discovered to have been constructed with asbestos concrete materials (ACM) and lead-based paint. JWA and its tenants investigated all of these structures prior to their demolition and removed all hazardous materials in accordance with applicable regulations. Risk assessments and hazardous materials investigations are standard procedures for the Airport's real estate, maintenance, and construction projects. Likewise prior to the purchase of the "Crab Cooker" restaurant site, JWA had the former owner remove all ACM and lead-based paint as part of the restaurant's demolition project.

The Signature GSE Maintenance Hangar was constructed around 1967. Therefore prior to demolition of this building, a study will need to be conducted for ACM and lead-based paint. If found, these materials would have to be removed in accordance with applicable regulations. These studies are part of the County's risk management and environmental impact procedures.

Southern California Edison Hazardous Waste Practices

The 66kV SCE substation currently located at JWA operates on clean oil, containing no Polychlorinated Biphenyls (PCBs). SCE would be responsible for relocating all aboveground equipment at the JWA substation. Most oil used at the substation is self-contained and, therefore, presents no risk of spillage. Any oil that is not self-contained would either be removed or moved with the equipment at the substation to prevent spillage.

3.7.5 SUMMARY OF IMPACTS AND MITIGATION MEASURES IDENTIFIED IN FINAL PROGRAM EIR 582 AND ADDENDUM 582-1

Final Program EIR 582 and Addendum 582-1 indicated that increased fueling activities for an increased number of passenger jet flights would lead to a potential increase in the likelihood of fuel spills at JWA. However, because the Airport has adopted procedures for handling fuel spills and implemented structural improvements to prevent them, the potential impacts associated with hazardous material would not be considered significant. No other activities associated with increased airport operations would result in substantial hazardous waste storage or use, or hazardous waste generation. At JWA, all hazardous materials are handled in full compliance with applicable codes. In addition, the Airport has obtained all necessary permits for the handling of hazardous wastes. Consequently, Final Program EIR 582 and Addendum 582-1 concluded that implementation of the settlement agreement amendment would not result in significant hazardous materials or hazardous waste impacts. Therefore, no mitigation measures were identified.

3.7.6 METHODOLOGY

The potential impacts of the Proposed Project related to hazardous materials and waste were based on available information for similar construction projects to identify potential adverse impacts related to hazardous materials and waste. Methods utilized to determine the existing conditions, as well as potential project impacts, included the following:

- documentation of the existing historic uses at JWA;
- JWA hazardous waste practices;
- SCE hazardous material use and containment practices;
- existing fuel storage facilities and activities; and
- known discharges, investigations, and remediation activities.

This information was obtained through consultation with Airport and SCE staff.

3.7.7 THRESHOLDS OF SIGNIFICANCE

Consistent with the State CEQA Guidelines, a project may be deemed to have a significant impact related to hazardous waste or materials use if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials,
- Create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment,
- Expose people to existing sources of health hazards,
- For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area,
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

3.7.8 ANALYSIS OF PROJECT IMPACTS

The Proposed Project, as discussed above and in Section 2.4, Project Description, would result in a variety of demolition, relocation, and construction activities. Based on the historic use of hazardous materials at the Airport, findings of the 1988 Assessment Report and 1999 SWPPP, and the fact that several on-site buildings and facilities were constructed prior to the 1980s, it is possible that hazardous materials such as contaminated soil, contaminated groundwater, asbestos-containing pipe, asbestos concrete materials, and lead-based paint would be found during demolition and relocation activities associated with the Proposed Project. These could result in short-term, potentially significant hazardous waste impacts.

Impact 3.7-1 **Asbestos and lead based paint.** Buildings and other improvements built before 1980, like the Signature GSE Maintenance Hangar, have the potential of containing asbestos-containing materials and lead-based paint. The demolition of these structures has the potential of introducing contaminants into the air, soil, or water if residue is not properly handled.

Impact 3.7-2 **Soil contamination.** There is the potential of contamination in the vicinity of the Signature GSE Maintenance Hangar.

Impact 3.7-3 **Water contamination.** There is the possibility of chemical contamination in the vicinity of the Signature GSE Maintenance Hangar.

Additional Hazardous Materials Impacts

During construction of the Proposed Project some hazardous materials would be brought on-site, used and stored throughout the project area and construction lay down areas.

Consequently, short-term potentially significant hazardous materials impacts could result from construction activities.

Impact 3.7-4 **Transport of hazardous materials on-site.** During construction activities, hazardous materials would be brought onto the Proposed Project site.

During construction, the existing SCE 66kV substation would be removed and a temporary back-up electrical power supply would be installed to prevent potential power outages at the Airport. One of the back-up electrical power supply options being considered would require the temporary use of two diesel-powered, trailer-mounted generators and on-site storage of up to 44,000 gallons of diesel fuel.

Impact 3.7-5 **Storage of hazardous materials on-site.** If the Airport chooses to temporarily use diesel-powered electrical generators while the SCE 66kV substation is being removed, up to 44,000 gallons of diesel fuel would be stored on-site.

Impact 3.7-6 **Potential diesel fuel spillage.** If the Airport chooses to temporarily use diesel-fueled electrical generators while the SCE 66kV substation is being removed, there exists a potential for diesel fuel spillage during fueling activities.

During connection of the new hydrant fueling system to the existing system, jet fuel spillage could occur. Consequently, short-term potentially significant hazardous materials impacts could result.

Impact 3.7-7 **Potential jet fuel spillages.** There is the possibility of jet fuel spillage during connection of the new hydrant fueling system to the existing.

During removal of the 66kV SCE substation, oil spillage could occur. Most of the oil is self-contained and presents no risk of spillage. Nevertheless, short-term potentially significant hazardous materials impacts could result from removal of the SCE substation.

Impact 3.7-8 **Potential oil spillages.** There is the possibility of oil spillage during removal of the 66kV SCE substation.

3.7.9 MITIGATION PROGRAM

Application of the following Standard Conditions, BMPs, and mitigation measures would reduce potential project-related impacts to a level considered less than significant.

Standard Conditions

SC 3.7a Prior to demolition and excavation of the Signature GSE Maintenance Hangar, JWA shall conduct a study of potential soil contamination at the site using hydrologic push sampling technology. The results of this study will be used to evaluate the risk associated with demolition and excavation. Prior to excavation and demolition, JWA will perform all recommended further investigations or remedial activities, as required.

SC 3.7b During demolition and excavation activities, JWA shall have a geoenvironmental consultant on-site to inspect and sample the soil for contaminants. If observations during demolition activities indicate that site soil is affected by contaminants, demolition work should be stopped in the area involved until an

analysis of the soil conditions can be performed and additional recommendations evaluated and performed as necessary.

SC 3.7c The Airport Director, or his designee, shall verify that every contractor that would be transporting or handling hazardous materials and/or wastes during project implementation has permits and licenses from all relative health and regulatory agencies to operate and properly manifest all hazardous or California regulated material.

SC 3.7d If a major spill occurs during any construction-related activity, the Airport Rescue and Fire Fighting (ARFF) Station shall be notified and called to the scene.

SC 3.7e The Airport shall require that any diesel fuel stored on-site for temporary back-up electrical generators is securely stored.

Best Management Practices

BMP 3.7a Consistent with its BMPs, SCE shall remove any oil that is not self-contained with the equipment at the substation to prevent spillage.

Mitigation Measures

MM 3.7-1 Prior to issuance of a demolition permit for the Signature GSE Maintenance Hangar, the building shall be screened for lead-based paint. If lead-based paint is identified, it shall be mitigated in accordance with all applicable federal, state and local regulatory requirements.

MM 3.7-2 Prior to demolition of the Signature GSE Maintenance Hangar the applicant shall test for asbestos containing materials. Should the building being demolished contain asbestos, the applicant shall comply with notification and asbestos removal procedures outlined in SCAQMD Rule 1403 to reduce asbestos related health risks.

Mitigations for Additional Hazardous Materials Impacts

Short-term construction-related impacts to surface and ground water are addressed in Section 3.5, Water Quality, and would be mitigated by the required SWPPP. No further mitigation is required.

3.7.10 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The potentially significant construction-related hazardous waste or hazardous materials impacts of the Proposed Project would be reduced to a level below significance with implementation of the above standard conditions, BMPs, and mitigation measures.

3.8 PUBLIC SERVICES AND UTILITIES

Final Program EIR 582 found that there would be no significant impact on utilities and services associated with airport expansion. It did, however, identify the need for further coordination with the Orange County Sanitation District during facilities planning. This, as well as construction-related impacts to public services and utilities, are discussed below. There are no changes in Fire Protection Services, Police Services, water service, and natural gas service; therefore, no additional discussion of these services is required in this Supplemental EIR. Additionally, the discussion on electrical services is focused on the relocation of the substation.

3.8.1 ENVIRONMENTAL SETTING/EXISTING CONDITIONS

Solid Waste

The County of Orange Integrated Waste Management Department (IWMD) provides solid waste service in the County. The County's solid waste capacity issue must be considered in terms of "refuse disposal capacity" which is the current and future space capacity at one or more landfill sites, and "pipeline capacity" which refers to the amount of daily permitted tonnage that may be disposed. The landfill permit establishes these capacities.

The California Integrated Waste Management Board requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP). To be approved, the CIWMP must demonstrate sufficient solid waste disposal capacity for at least fifteen years, or identify additional capacity outside of the county's jurisdiction. Orange County's CIWMP, approved in 1996, contains future solid waste disposal demand based on the County population projections adopted by the Board of Supervisors. The Orange County landfill system has capacity in excess of 15 years.

The County of Orange owns and operates three active landfills. The Frank R. Bowerman Landfill is the closest facility to JWA, and would likely by the solid waste facility receiving solid waste from JWA. Unincorporated areas in Orange County are under contract to the County's IWMD to commit all of their waste to the County landfill system (not to a particular facility) until the year 2007.

If the tonnage disposed at a landfill exceeds or threatens to exceed the permitted daily limit on a consistent daily basis, the permit of the affected landfill may need to be modified to increase the permitted daily limit. Recently, the Frank R. Bowerman and Olinda Alpha landfills have been receiving refuse at rates near the maximum limit. Consequently, a significant increase in solid waste requiring disposal in those landfills could require a modification of its permit. The IWMD has determined that a permit modification would require the preparation of an Environmental Impact Report pursuant to CEQA.

Rainbow Disposal provides solid waste disposal for JWA. Refuse is collected, and then brought to the Rainbow Disposal Material Recovery Facility (MRF) at 17121 Nichols in Huntington Beach, for recycling. The residual is sent to the Frank R. Bowerman Landfill.

Utilities

JWA currently leases a dedicated electrical substation from Southern California Edison that is served by a 66 kV line. The lease agreement provides the airport with a minimum eight-megawatt capacity. Based on current usage, the facility is approximately 50 percent utilized during peak usage. The substation can actually expand to provide ten-megawatt capacity; however, modifications would be required.

The Orange County Sanitation District (OCSD) provides wastewater treatment to the airport. The area appears tributary to two Sanitation District sewers: the 18-inch diameter, North Airport Diversion Sewer located in Business Center Drive, and the 12-inch diameter, South Airport Diversion Sewer, located in Campus Drive. The two sewer lines cross MacArthur Boulevard on the eastside of JWA in the area referred to as the Irvine Business Complex. JWA currently has a "will serve" letter from OCSD committing to service for 10.24 MAP.

3.8.2 THRESHOLDS OF SIGNIFICANCE

The Proposed Project would be considered to have a significant impact related to public services and utilities if it would:

- The disposal of project-related waste would result in a substantial reduction in the planned lifespan of a landfill.
- Result in the need for new or physically altered services or utilities facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for the public service and utility providers.
- Exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).
- Require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental impacts.
- Result in wastewater treatment requirements in excess of the ability of the existing wastewater treatment providers to serve in addition to the providers' existing commitments to wastewater treatment.

3.8.3 PROJECT IMPACTS

Solid Waste

Final Program EIR 582 noted that construction debris would need to be removed from the project site during the construction phase. Construction debris includes concrete materials, steel, asphalt, and vegetation removed from the south end of the short runway to provide for the RON area. Construction and demolition-generated waste is heavy, inert material. This would take up landfill capacity and potentially reduce the capacity of the landfill because the material does not decompose. This would be considered a significant impact. However, recycling the materials could reduce the demand on the landfill.

Electricity

JWA currently receives power from a 66kV Southern California Edison (SCE) substation dedicated solely to the airport. The existing SCE substation, located immediately south of the existing southwest parking structure, would be relocated or removed as part of the Proposed Project. Airport and SCE representatives have discussed a number of options to ensure there would be no interruption to electrical service at the airport as the substation is relocated. They are briefly summarized below:

1. Build a new electrical substation on-site while the existing on-site substation is intact and operational, remove existing equipment after the new generator is built

2. Transfer JWA to existing 12kV service in the airport area, dismantle and relocate existing equipment

3. Build a second 12kV line dedicated solely to JWA, tie into and use existing 12kV service as a back-up for emergencies

Each of the above options has associated short- and long-term costs and benefits that airport staff will evaluate prior to selecting a preferred option. There will not be any disruption to electrical service at the airport under any of the options. Furthermore, as discussed in Section 3.7, there will not be any hazardous materials issues associated with relocating the substation. Other potential indirect impacts (i.e., noise, air quality, and traffic,) associated with construction of any of these options would be within the range of impacts addressed as part of the larger terminal improvements project. The construction of the electrical facility would be done in conjunction with the terminal improvements because the relocation is required to build the terminal. Therefore, traffic assumptions for the terminal take into consideration trips that would be associated with the relocation of the substation. The type of construction equipment used would be the same as that being proposed for the terminal; therefore, the noise would not differ from those associated with the construction of the terminal facilities. The air emissions are related to construction trips and equipment; therefore, these impacts have also been included in the larger Settlement Agreement Implementation Plan.

Wastewater

Final Program EIR 582 identified the need for further coordination with the OCSD during facilities planning. OCSD issued the airport a "will serve" letter for a capacity of up to 10.24 MAP. With implementation of the settlement agreement, airport utilization is projected to increase to 10.3 MAP in the near term and to 10.8 MAP by 2011. Exceeding the sewer capacity assumed by the OCSD would have potential significant impacts on wastewater treatment facilities and could result in breakdowns in local wastewater conveyance facilities. Additional facilities improvements may be required to accommodate the new facility. Coordination with OCSD on potential improvements is necessary prior to exceeding the 10.24 MAP to ensure that sufficient capacity is available. JWA routinely monitors passenger counts as a requirement of its Access Plan. Prior to exceeding the current "will serve" threshold of 10.24 MAP, JWA would need to negotiate an agreement for additional wastewater capacity with the OCSD. Should additional facilities be required to provide that capacity, separate documentation would be required pursuant to CEQA. Given the requirements are not known at this time, potential impacts on wastewater facilities are assumed to be a significant impact.

3.8.4 MITIGATION MEASURES

The following actions are recommended to reduce solid waste and ensure additional wastewater capacity is available when required in the future.

MM 3.8a At the time of construction of improvements, the contractor specifications shall require the contractor to submit a recycling plan for all demolition debris, including all concrete, steel, and asphalt resulting from project demolition to minimize impacts to existing landfills. The contractor shall provide JWA with verification that the materials have been recycled.

MM 3.8b Prior to exceeding the current "will serve" threshold of 10.24 MAP, JWA shall negotiate an agreement for additional wastewater service with the Orange County Sanitation District.

3.8.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the implementation of MM 3.8a impacts associated with solid waste would be reduced to a level of less than significant. However, given that mitigation measure MM3.8b requires the negotiation of an agreement with OCSD and there are no assurances that an agreement will be reached, the potential impact on wastewater services would remain significant.

SECTION 4.0 SUMMARY OF MITIGATION MEASURES

The following Project Design Features (PDFs), standard conditions (SCs), best management practices (BMPs), and Mitigation Measures shall be incorporated into the Proposed Project to offset potential adverse impacts.

4.1 LAND USE

PDF 3.1a To minimize potential interruptions to on-going airport operations, the Airport Manager, or his designee, shall approve a Construction Staging Program prepared by the project contractor.

4.2 TRANSPORTATION AND CIRCULATION

PDF 3.2a Ground transportation access to/from all existing terminals and parking structures shall be maintained during each construction phase.

PDF 3.2b The ground transportation plan for each stage shall be designed so that it does not materially change the distribution of airport trips between the various access points serving the airport.

PDF 3.2c During each construction phase, adequate on-site roadway capacity shall be provided to serve the ground transportation demand for 10.3 MAP operation.

PDF 3.2d Ensure that airport trips at any of the access locations will not exceed the volumes used in the Final Program EIR 582 impact analysis. Furthermore, the transportation plan to be developed for each construction phase will provide for adequate internal circulation and will not encourage trips to use the surrounding street system in any manner that would cause impacts beyond those previously identified.

4.3 NOISE

The following County standard conditions address construction-related noise:

SC 3.3a Prior to the issuance of any construction notice to proceed (NTP), JWA shall require contractors to produce evidence that:

1) All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers, to the extent reasonably practicable.

2) All operations shall, to the extent feasible, comply with Orange County Codified Ordinance Division 6 (Noise Control), however, nighttime construction shall be exempted from the Ordinance.

3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

SC 3.3b Notations in the above format, appropriately numbered and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

MM 3.3a The County shall notify the Hilton, Atrium and Radisson hotels on MacArthur Boulevard near the Airport that nighttime construction activities at JWA could result in short-term noise impacts that might be heard from the hotels.

4.4 AIR QUALITY

MM 3.4a All of the mitigation measures discussed below shall be included in the Specifications and/or Construction Drawings for each component of the project.

MM 3.4b A publicly visible sign shall be posted with the telephone number and name of a contractors representative to contact regarding dust complaints. This person shall respond and take corrective action within 24-hours. All complaints and resolutions shall be coordinated with the John Wayne Airport Environmental Compliance Monitoring Program (ECMP).

MM 3.4c The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary to prevent the transport of dust offsite. This person will coordinate these measures with the John Wayne Airport Environmental Compliance Monitoring Program (ECMP).

MM 3.4d All construction equipment operations shall be suspended during second stage smog alerts.

MM 3.4e Compliance with SCAQMD Rules 402 and 403 shall be required. During construction of the Proposed Project, the County and its contractors will be required to comply with regional rules, which would assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires that air pollutant emissions not a nuisance off-site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Two options are presented in Rule 403; monitoring of particulate concentrations or active control. Monitoring involves a sampling network around the project with no additional control measures unless specified concentrations are exceeded. The active control option does not require any monitoring, but requires that a list of measures be implemented starting with the first day of construction.

MM 3.4f All diesel fuel brought on site for construction equipment shall be low sulfur diesel fuel. The use of low sulfur diesel fuel is required for stationary construction equipment by SCAQMD Rules 431.1 and 431.2. All stationary and mobile equipment that is fueled on site will utilize low sulfur diesel fuel. The Airport cannot reasonably control the type of fuel in vehicles brought on site, therefore, there is no requirement that all vehicles use low sulfur diesel fuel. The Airport can control the type of fuel brought onsite for refueling and shall require that diesel fueled delivery and service trucks coming to the site to serve leaseholders be clean diesel-fueled. Clean diesel-fueled vehicles are those that comply with the final federal rule regarding on-road diesel emissions issued in December, 2000, 40 CFR Parts 69, 80, and 86.

MM 3.4g Further reduce construction equipment emissions by implementing the following measures. Some additional gains in emission control will be realized from the implementation of these measures.

contractor shall submit for review and approval a project(s) specific Stormwater Pollution Prevention Plan (SWPPP) which covers the construction area, construction lay-down area, and haul routes, to the Deputy Airport Director, Facilities or his designee. JWA will then file a Notice of Intent (NOI) to be covered by the statewide General Stormwater Permit for construction activities.

SC 3.5e Prior to commencement of construction, all airport contractors who are required to prepare a Stormwater Pollution Prevention Plan (SWPPP) must receive approval of a final SWPPP for the project(s) from the Deputy Airport Director, Facilities or his designee.

SC 3.5f During construction, the JWA Environmental Compliance Monitoring Program (ECMP) team will inspect construction areas, construction lay-down areas and haul routes. The sites will be inspected to ensure that all BMPs are being performed and are in place, and will monitor the sites for possible sources of pollution, contamination, or off-site migration or tracking of contaminants such as mud.

4.6 HAZARDOUS MATERIALS

SC 3.7a Prior to demolition and excavation of the Signature Maintenance Hangar, JWA shall conduct a study of potential soil contamination at the site using hydrologic push sampling technology. The results of this study will be used to evaluate the risk associated with demolition and excavation. Prior to excavation and demolition, JWA will perform all recommended further investigations or remedial activities, as required.

SC 3.7b During demolition and excavation activities, JWA shall have a geo environmental consultant onsite to inspect and sample the soil for contaminants. If observations during demolition activities indicate that site soil is affected by contaminants, demolition work should be stopped in the area involved until an analysis of the soil conditions can be performed and additional recommendations evaluated and performed as necessary.

SC 3.7c The Airport Director, or his designee, shall verify that every contractor that would be transporting or handling hazardous materials and/or wastes during project implementation has permits and licenses from all relative health and regulatory agencies to operate and properly manifests all hazardous or California regulated material.

SC 3.7d If a major spill occurs during any construction-related activity, the Airport Rescue and Fire Fighting (ARFF) Station shall be notified and called to the scene.

SC 3.7e The Airport shall require that any diesel fuel stored on-site for temporary back-up electrical generators is securely stored.

BMP 3.7a Consistent with its BMPs, SCE shall remove any oil that is not self-contained with the equipment at the substation to prevent spillage.

MM 3.7-1 Prior to issuance of a demolition permit for the Signature Hangar, the building shall be screened for lead-based paint prior to demolition. If lead-based paint is identified, it shall be mitigated in accordance with all applicable federal, state and local regulatory requirements.

SECTION 5.0
PERSONS AND ORGANIZATIONS CONSULTED

5.1 PERSONS AND AGENCIES CONSULTED

REGIONAL AGENCIES

South Coast Air Quality Management District

Public Affairs Officer ..... Sam Atwood

LOCAL GOVERNMENT

County of Orange

John Wayne Airport

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Project Manager ..... Sean Donnelly
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SECTION 8.0 GLOSSARY

8.1 GLOSSARY

ADVERSE IMPACT: A term used to describe unfavorable, harmful, or detrimental environmental changes. Adverse impacts may be significant or not significant.

AIRSIDE: Facilities principally related to the airfield. Airside facilities often include the runway and taxiway system, runway safety areas, the runway approach area, and associated equipment such as airfield lighting and navigational aids.

BEST MANAGEMENT PRACTICE (BMP): A BMP is any program, technology, process, siting criteria, operational method, measure, or device which controls, prevents, removes, or reduces pollution.

CLASS A: Regulated passenger flights at JWA. Based on the Eighth Supplemental Stipulation, JWA is allowed to have up to Class A Average Daily Departures through December 31, 2015. See Appendix B for the allowed noise readings at the various noise monitoring stations for Class A flights.

CLASS E: Also known as Exempt Flights, the number of Class E flights are not regulated at JWA. They are the quietest of the commercial aircraft. See Appendix B for the allowed noise readings at the various noise monitoring stations for Class E flights.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL): A noise compatibility level established by California Administrative Code, Title 21, Section 5000. Represents a time-weighted 24-hour average noise level based on the A-weighted decibel. The CNEL includes an additional 5 dB adjustment to sounds occurring in the evening (7 p.m. to 10 p.m.) and a 10dB adjustment to sound occurring in the late evening and early morning between (10 p.m. and 7 a.m.).

DECIBEL (dB): A unit for expressing the relative intensity (loudness) of sounds. The decibel is the logarithm of the ratio of the intensity of a given sound to the faintest sound discernible by the human ear.

DRAINAGE: An area that collects and diverts rain water and urban runoff down slope.

ENVIRONMENT: The physical conditions which exist within an area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions.

ENVIRONMENTAL IMPACT REPORT: A detailed statement prepared under the California Environmental Quality Act (CEQA) describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects.

EROSION: The process by which material is removed from the earth's surface (including weathering, dissolution, abrasion, and transportation), most commonly by wind or water.

FEDERAL AVIATION ADMINISTRATION (FAA): The FAA is an agency of the United States Department of Transportation and is the principal agency responsible for implementing federal law regulating aviation activities in the United States.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): The federal agency under which the National Flood Insurance Program is administered.

FIXED BASE OPERATORS (FBO): An operator of an aviation facility at a fixed location with access to the airfield. An FBO can be a full service or limited use facility. A full service FBO sells fuel, provides hangar space, and offers a variety of services such as flight instruction, flight charters, and maintenance. A limited use FBO would not offer fuel, and would be limited to hangar space, maintenance, or other support uses such as instrumentation or engine repairs.

FLOOD: A general and temporary condition of partial or complete inundation of normally dry land areas from: (1) overflow of inland or tidal waters; (2) the unusual and rapid accumulation or runoff of surface waters from any source; (3) mudslides (i.e. mudflows) which are proximately caused by flood, and are akin to a river of liquid and flowing mud on the surface of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current; and (4) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding the cyclical levels which result in flood.

FLOOD INSURANCE RATE MAP (FIRM): Official map of a community on which the administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.

GENERAL PLAN: A compendium of city or county policies regarding long-term development, in the form of maps and accompanying text. A General Plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by a city council or board of supervisors.

GROUNDWATER: Water under the earth's surface, often confined to aquifers capable of supplying wells and springs.

HAZARDOUS MATERIAL: A material or form of energy that could cause injury or illness to persons, livestock or the natural environment.

HYDROLOGY: The study of the water cycle.

INTERSECTION CAPACITY UTILIZATION (ICU): The technique used to assess the operation of an intersection.

IMPACT: The effect, influence or imprint of an activity or the environment. Impacts include: direct or primary effects which are caused by the project and occur at the same time and place; indirect or secondary effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary 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.

IMPERVIOUS SURFACE: Ground surface that cannot be penetrated by water. Includes paved and compacted surfaces, as well as those covered by buildings.

LAND USE: The purpose or activity for which a piece of land or its building is designed, arranged, or intended, or for which it is occupied or maintained.

LAND USE PLAN: An adopted map depicting the approximate location of residential, commercial, public, semi-public, and private-uses, open space, and road systems with a statistical summary of areas and densities for these land uses.

LANDFILL: An area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile.

LEVEL OF CONCERN (LOC): The concentration of a potentially hazardous material in the air above which there may be serious irreversible health effects or death as a result of a single exposure for a relatively short period of time.

LEVEL OF SERVICE (LOS): A concept developed to quantify the degree of comfort afforded to drivers as they travel on a given roadway. The degree of comfort includes such elements as travel time, number of stops, total amount of stopped delay, etc. As defined in the Highway Capacity Manual, six grades are used to describe LOS, and are denoted A through F.

MITIGATION MEASURE: Action taken to reduce or eliminate environmental impacts. Mitigation includes: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.

NOTICE OF PREPARATION (NOP): A brief notice sent by a Lead Agency to notify responsible agencies, trustee agencies, and involved federal agencies that the Lead Agency plans to prepare an EIR for the project. The purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the EIR.

NPDES (National Pollutant Discharge Elimination System): NPDES is a national program for administering and regulating discharges to waterways according to the Clean Water Act, Section 401 and 402. In California, the State Water Resources Control Board and the nine Regional Water Quality Control Boards are responsible for administering the NPDES storm water program.

RISK OF UPSET: The risk associated with potential explosions, fires, or release of hazardous substances in the event of an accident or natural disaster.

SCAQMD: The agency responsible for protecting public health and welfare through the administration of federal and state air quality laws, regulations, and policies in the South Coast Air Basin.

SENSITIVE RECEPTORS: Locations where individuals especially sensitive to chemical exposure (such as children, the infirm, and the elderly) or are expected to be located on a regular basis. These sites include hospitals, daycare centers, and schools. Sensitive receptors were evaluated with residential exposure duration assumptions.

SINGLE EVENT NOISE EXPOSURE LEVEL (SENEL): SENEL is the single event aircraft noise descriptor commonly used in California as a result of regulatory requirements by the California

Department of Transportation, Division of Aeronautics. It is essentially identical to the equivalent federal descriptor known as "SEL."

SIGNIFICANT IMPACT: As defined by CEQA, a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. The lead agency will determine whether a project may have a significant effect on the environment based on substantial evidence in light of the whole record.

SOLID WASTE: Any non-hazardous garbage, refuse or sludge, which is primarily solid but may also include portions of liquid, semi-solid or contained gaseous material resulting from residential, industrial, commercial, agricultural, mining operations and community activities.

SURFACE WATER: Water in lakes, streams or rivers, as distinct from subsurface groundwater.

TOXIC AIR CONTAMINANT (TACs): Airborne chemical compounds determined by the U.S. EPA and the California EPA, including the Office of Environmental Health Hazard Assessment and the California Air Resources Board, to pose a potential threat to public health.

THRESHOLD OF SIGNIFICANCE: An impact criteria which determines whether a project causes a significant impact.

VIEWSHED: The surface area that is visible from a given viewpoint or series of viewpoints. It is also the area from which that viewpoint or series of viewpoints may be seen. The viewshed aids in identifying the views that could be affected by the proposed action.

VOLUME-TO-CAPACITY RATIO (V/C): The ratio between the volume and the capacity of a roadway. The V/C is based on a corresponding level of service.

VULNERABILITY ANALYSIS: A method of analysis which identifies areas in the community that may be affected or exposed, individuals in the community who may display enhanced sensitivity to certain specific hazardous materials, and what facilities, property, or environment may be susceptible to damage should a hazardous materials release occur.

VULNERABLE ZONE: An area surrounding a site of a potential accident that could experience concentrations of released hazardous materials at levels sufficient to cause adverse health effects.

ZONING: The division of a municipality into districts for the purpose of regulating land uses, types of buildings, required yards and setbacks, parking and other prerequisites to development. Zones are generally shown on a map and the text of the zoning ordinance contains requirements for each zoning category.

APPENDIX A

NOTICE OF PREPARATION AND COMMENTS RECEIVED IN RESPONSE TO NOTICE OF PREPARATION

John Wayne Airport Settlement Amendment Supplemental EIR

NOTICE OF PREPARATION AND SCOPING

Date: September 9, 2003

Project Title: John Wayne Airport Settlement Amendment Implementation Plan
Project Proponent/Lead Agency: County of Orange

On June 25, 2002, and December 10, 2002, the County of Orange ("County"), the City of Newport Beach ("City"), Stop Polluting Our Newport ("SPON"), and the Airport Working Group of Orange County, Inc. ("AWG") approved an agreement to modify the 1985 Settlement Stipulation ("settlement amendment") regarding the development and use of John Wayne Airport, Orange County (SNA) ("JWA"). The settlement amendment was also approved by the two citizens groups, which are signatories to the original 1985 Settlement Stipulation. The settlement amendment is memorialized in a stipulation that has been accepted through a confirming order of the United States District Court for the Central District of California, as an amendment to the existing 1985 Settlement Stipulation. The settlement amendment authorizes increases in operational capacity at JWA beginning in 2003, through December 31, 2015. The settlement amendment also permits important capacity increases and airport facilities improvements which would allow and support additional operational opportunities to the airlines, permitting them to provide additional and enhanced service to the air traveling public.

On May 22, 2001, the Board of Supervisors approved a Memorandum of Understanding ("MOU") between the County and the City pursuant to which the County would act as the lead agency (with the City designated as the responsible agency) in the preparation of an Environmental Impact Report ("EIR") that would support the County and City's approval of the settlement amendment. This EIR was designated as EIR No. 582 and was circulated for public review and comment pursuant to, and consistent with, the CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") (CAL. PUB. RES CODE §§21000, *et. seq.*), and the CEQA GUIDELINES (14 CAL. CODE REGS. §§15000, *et. seq.*) requirements. Final EIR 582 was certified by the Orange County Board of Supervisors ("Board") on June 25, 2002, as adequate and complete and containing all information required by CEQA, the implementing the CEQA GUIDELINES, and the County Local CEQA Procedures Manual. Findings, a Mitigation Monitoring and Reporting Plan, and Statement of Overriding Considerations ("Findings") were also adopted. On December 10, 2002, the Board accepted an Addendum to EIR 582 and adopted amended Findings consistent with modifications to the settlement amendment.

Final EIR 582 was prepared to address the potential environmental effects of the settlement amendment. The EIR identified potential facilities improvements; however, the impacts of the improvements were not evaluated at a construction level. The County has determined that it will prepare a Supplemental Environmental Impact Report ("SEIR") to address potential effects on the environment associated with the implementation of the facilities improvements authorized by the settlement amendment (the "Project"). The Project will evaluate airport facilities improvements, which would allow for and support the additional operational opportunities to the airlines. The document will be a supplement to Final EIR 582 prepared for the John Wayne Airport settlement amendment. The County is the lead agency for the project and will prepare the SEIR under the terms and requirements of CEQA and the CEQA GUIDELINES. The proposed Project is described more specifically below.

The purpose of this notice is: (1) to serve as the Notice of Preparation to potential "Responsible Agencies" as required by section 15082 of the CEQA GUIDELINES; and (2) to advise and solicit comments and suggestions regarding the preparation of the SEIR, environmental issues to be

addressed in the SEIR, and any related issues from interested parties other than potential "Responsible Agencies," including interested or affected members of the public. The County requests that any potential Responsible or Trustee Agency responding to this notice respond in a manner consistent with CEQA GUIDELINES section 15082(b).

Pursuant to CEQA section 21080.4, Responsible Agencies must submit any comments in response to this notice not later than thirty (30) days after receipt. The County will accept comments from others regarding this notice through the close of business, October 10, 2003.

ALL COMMENTS OR OTHER RESPONSES TO THIS NOTICE SHOULD BE SUBMITTED IN WRITING TO:

MR. ALAN MURPHY, (NOP Comments)
AIRPORT DIRECTOR
JOHN WAYNE AIRPORT
3160 AIRWAY AVENUE
COSTA MESA, CALIFORNIA 92626

IN ADDITION, pursuant to County adopted CEQA procedures, the County will accept responses to this notice by e-mail received through the close of business, October 10, 2003, if the comments: (1) contain less than 500 words; **and** (2) the e-mail comments do not contain any attachments. Any comments or responses to this notice containing more than 500 words, or which are accompanied by **any** attachments, must be delivered in writing to the address specified above, or they will not be considered as a valid response to this notice. E-mail responses to this notice may be sent to: **nopcomments@ocair.com.**

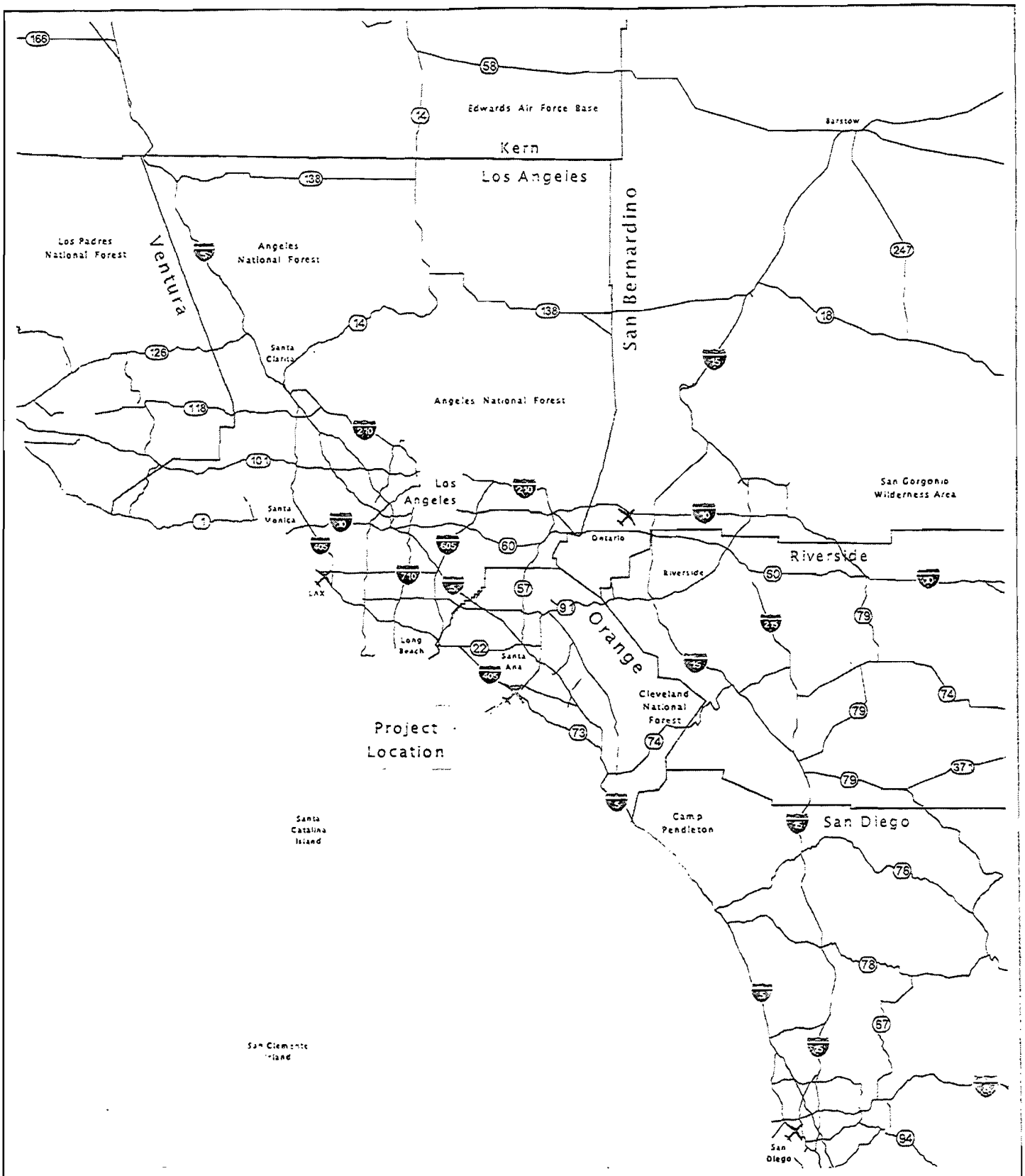
Project Location

The Project would be implemented at John Wayne Airport ("JWA") in an unincorporated area of Orange County. The total airport area is approximately 504 acres. The aviation activities at JWA are located on approximately 400 acres. The site is south of Interstate 405 (I-405), north of State Route 73 (SR-73), west of MacArthur Boulevard, and east of Red Hill Avenue. The project area is surrounded by the cities of Newport Beach, Irvine, and Costa Mesa, as well as several unincorporated County islands. A regional vicinity map and a site location map are provided as Exhibits 1 and 2, respectively.

Project Setting

The study area is generally urban in character. Surrounding uses include industrial, commercial, and residential uses. The residential area is predominately south and southwest of JWA. The commercial area is primarily east, west, and north of JWA. An extensive arterial highway and freeway system surrounds the airport providing access from several locations to JWA. In contrast to the urban development surrounding JWA, the Upper Newport Bay, located approximately 3,600 feet south of the airport, is an important natural area that provides habitat to many wildlife species. Exhibit 3 provides an aerial photograph of the airport and surrounding areas.

JWA is a regulated airport that serves both general aviation and scheduled commercial operations and activities. JWA is the only facility in Orange County that serves regularly scheduled commercial air carriers. In an effort to balance the environmental, political, social, and economic demands and concerns regarding operations at JWA, operations at the airport are subject to a number of operational regulations and restrictions. These regulations have included such restrictions as: (i) strict noise-based limitations on the type of aircraft which are permitted to use JWA, including both commercial and general aviation aircraft; (ii) a nighttime curfew on aircraft operations exceeding certain specified noise levels; and (iii) limitations on the number of average daily departures ("ADDs") which can occur at the facility, either directly or



Regional Location

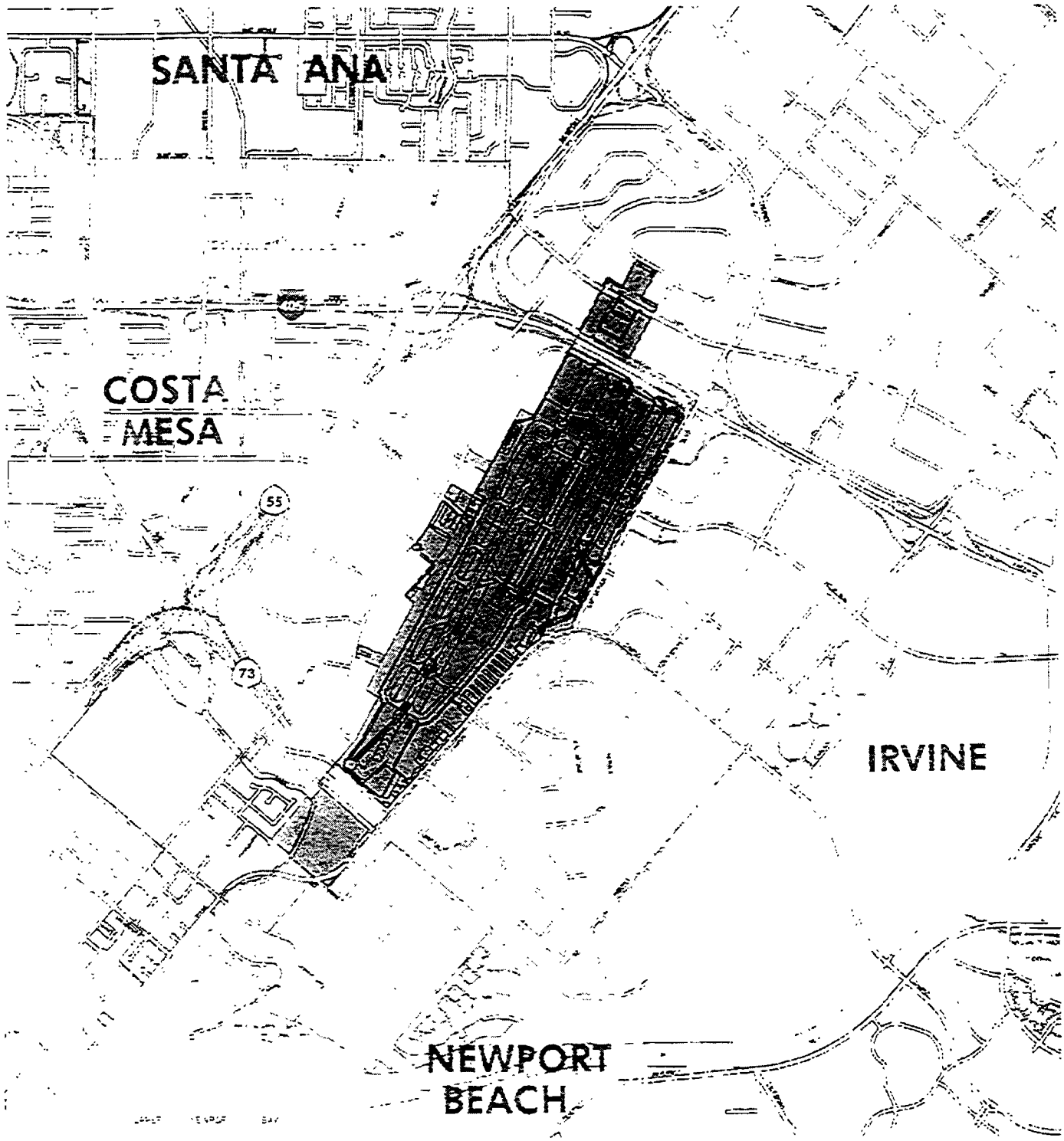
Exhibit 1

John Wayne Airport Settlement Amendment Implementation Plan

N W E S

10 0 10 20 Miles

S:/GIS_Exhibits/JWAj002_RL_082503.pdf



Local Vicinity

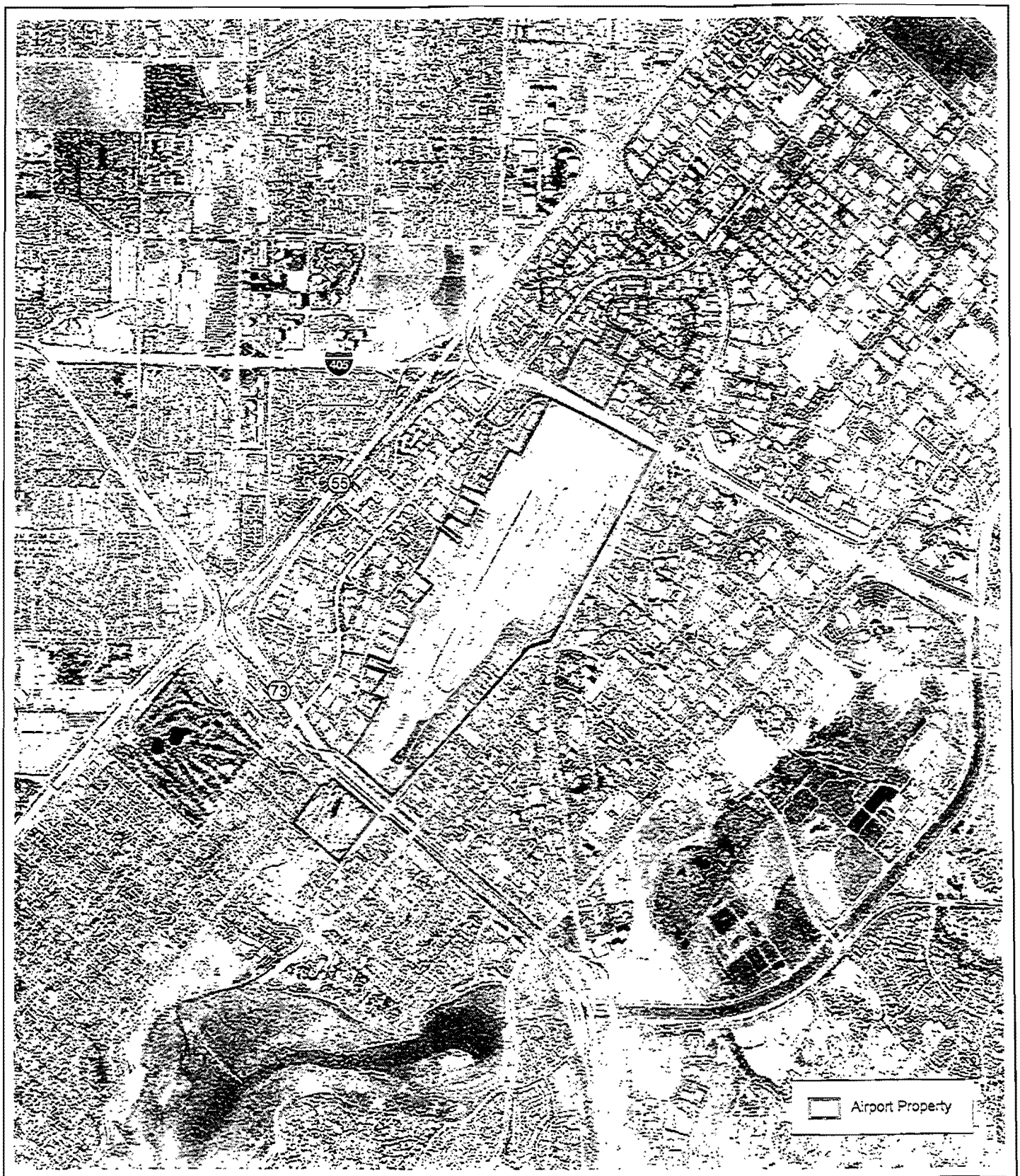
Exhibit 2

John Wayne Airport Settlement Amendment Implementation Plan

N
W
E
S

0.25 0 0.25 0.5 Miles

S:/GIS_Exhibits/JWA/002_LV_090503.pdf



Aerial Photograph

Exhibit 3

John Wayne Airport Settlement Amendment Implementation Plan

N
W
E
S

0.25 0 0.25 0.5 Miles

S:/GIS_Exhibits/JWAj002_AP_082503.pdf

- Defines all regulated passenger flights as Class A flights and eliminates the distinction between Class A and Class AA flights[1]. The definition/distinction for Class E aircraft is unaffected by the settlement amendment.

- Increases the number of regulated flights allocated to commercial passenger carriers at JWA from seventy-three (73) ADDs to eighty-five (85) ADDs beginning on January 1, 2003, through December 31, 2015.

- Increases the authorized passenger level served at JWA from 8.4 million annual passengers ("MAP") to 10.3 MAP, beginning January 1, 2003 through December 31, 2010, and further increases the authorized MAP level from 10.3 MAP to 10.8 MAP beginning on January 1, 2011.

- Continues to allow scheduled commercial operations by "Exempt Aircraft" (*i.e.*, Class E Aircraft), subject only to the authorized MAP levels.

- Provides a total of four (4) Class A ADDs cargo flights (for a total of eighty-nine (89) Class A ADDs flights) beginning on January 1, 2003, through December 31, 2015.

- Provides the passenger commercial carriers with the opportunity to use up to two (2) of the Class A ADDs cargo flights on a supplemental basis if there is no demand for these cargo flights by cargo air carriers.

- Increases the permitted number of passenger loading bridges at JWA from fourteen (14) to twenty (20) loading bridges beginning on January 1, 2003, and permits up to two (2) hardstand positions for aircraft arriving at JWA, under certain specified conditions. In addition, certain hardstand positions are permitted on a temporary basis during any construction in order to permit full utilization of the newly authorized capacity until construction of new facilities is completed.

Changes the following definition to read: "Commuter Air Carrier" or "Commuter Carrier" means any person who: (i) operates Regularly Scheduled Air Service into and out of JWA fop rthe purpose of carrying passengers, freight, cargo, or for any other commercial purpose; (ii) with Class E Aircraft regularly configured with seventy (70) or fewer passenger seats; and (iii) operating at gross take-off weights of not more than eighty-five thousand (85,000) pounds. For the purposes of the Plan, Commuter Air Carrier includes all Commuter Cargo Carriers.

Final EIR 582 was prepared to address the potential environmental effects of the settlement amendment. The Final EIR identified potential facilities improvements and operational impacts; however, the impacts associated with the improvements were not evaluated at a construction-level. The SEIR to EIR 582 will address the construction-related environmental impacts of the Project.

Use of a Supplemental EIR

Section 21166 of CEQA provides that when an EIR "has been prepared for a project pursuant to this division, no subsequent or supplemental EIR shall be required by the lead or responsible agencies unless one of these events occurs.

[1] The ADDs at JWA were divided into three (3) "classes" based on the noise characteristics of the aircraft on departure prior to the Eighth Supplemental Stipulation. The Class A flights were the noisiest. The next quietest class of ADDs was designated as Class AA. The quietest class is the Class E. The Class E flights do not have a maximum number of flights allowed because they are below the regulatory noise levels established in the EIR 508 (86.0 dB SENEL). However, the number of passengers on Class E flights does count toward the maximum of passengers allowed by the Settlement Agreement.

through a limit on the permitted number of annual commercial passengers. These local proprietor restrictions were adopted prior to the passage of the *Airport Noise and Capacity Act of 1990*, (ANCA) and are, therefore, "grandfathered" under the terms of that statute and its implementing regulations. On December 31, 2002, the County received an opinion from the Chief Counsel of the Federal Aviation Administration ("FAA") concurring that the settlement amendment is, among others, consistent with and does not violate any provision of existing federal law for which FAA has statutory or delegated enforcement or implementation responsibilities.

Project Background and Related History

In April 1985, the County, acting as the proprietor and operator of JWA, adopted a "Master Plan" for further development of physical facilities at JWA and an increase in previously imposed limits on certain aircraft operations which had been adopted by the County principally for purposes of controlling aircraft noise impacts in surrounding residential communities ("the 1985 Master Plan"). In connection with the consideration and adoption of the 1985 Master Plan, the County prepared, circulated, and certified County EIR 508.

In adopting the 1985 Master Plan, and as project mitigation under EIR 508, the County adopted, modified, or continued in effect various operational restrictions for JWA, including limits on operations during certain nighttime hours ("curfew"), maximum permitted single event noise levels at defined noise monitoring station locations, limitations on the number of annual ADDs by commercial airplane operators, and various other restrictions. These restrictions were (and have been) implemented by the County, among other means, by resolutions of the Board of Supervisors, amendments to County ordinances, and the adoption of a "Phase 1 Commercial Airline Access Plan and Regulation" (1985-1990) and a "Phase 2 Commercial Airline Access Plan and Regulation (1990–present) (the "Access Plan").

Following adoption of the 1985 Master Plan and the certification of EIR 508, litigation related to the Master Plan and EIR 508 was initiated by the County in the United States District Court for the Central District of California, and by the City of Newport Beach and two citizens groups, "Stop Polluting Our Newport" ("SPON") and the "Airport Working Group" ("AWG"), in the Orange County Superior Court ("the EIR 508 litigation"). In addition, in April 1985, there was then pending in the California Court of Appeals for the Fourth District an appeal by the County from an earlier trial court ruling made under CEQA in respect to an earlier "Master Plan" for JWA adopted by the County in 1981 ("the 1981 Master Plan"), and the related EIR (EIR 232).

In the summer of 1985, the County, the City, SPON and AWG reached a comprehensive agreement settling all pending actions and claims related to the 1985 Master Plan and EIR 508, and the pending appeal in the 1981 Master Plan/EIR 232 litigation. This agreement was memorialized in a series of stipulations signed and filed in the various courts in which those actions were then pending. The principal stipulation memorializing the substantive terms of the parties' settlement agreement was filed in the federal court action initiated by the County in respect of the 1985 Master Plan and EIR 508. The stipulation was accepted and confirmed by an order of the District Court, after hearing, in December 1985 ("the 1985 Settlement Agreement"). The original term of the 1985 Settlement Agreement required that it remain in effect through December 31, 2005, and the parties have continued to implement its provisions since it was approved by the District Court.

Since 1985, the settling parties have executed various stipulations making modifications to the 1985 Settlement Agreement. The most recent of these modifications is the Eighth Supplemental Stipulation approved by the District Court in February 2003 ("the settlement amendment"). The settlement amendment:

(1) Substantial changes are proposed in the project that require major revisions to the EIR.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions in the EIR.

(3) New information, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified as complete, becomes available.

This is reflected in Section 15162 of the CEQA GUIDELINES which states that a subsequent EIR is required if:

(1) substantial changes are proposed in the project that require major revisions to the previous EIR because of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) substantial changes have occurred with respect to the circumstances under which the project is undertaken, which will require major revisions to the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified as complete shows any of the following: (a) the project will have one or more significant effects not discussed in the previous EIR; (b) significant effects previously examined will be substantially more severe than shown in the previous EIR, (c) mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (d) mitigation measures or alternatives which are considerably different from those analyzed in the final EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15163 of the CEQA GUIDELINES allows a lead agency to prepare a supplement to an EIR when any of the conditions described in Section 15162 (stated above) would require the preparation of a subsequent EIR, but only minor additions or changes are necessary to make a previous EIR adequately apply to the project in the changed situation. Section 15163(b) further states, "the supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised" and "the supplement may be circulated by itself without recirculating the previous draft or final EIR".

The County has determined that a supplement to the Final EIR 582 is required to evaluate the potential construction-related impacts of the Project. Additionally, the SEIR determines if new or revised mitigation measures are required.

Description of the Proposed Project

The Project is the implementation of the facilities needed to accommodate the growth at the airport provided by the Eighth Supplemental Stipulation and the necessary security measures in the post-September 11, 2001 era. The number of flights, passenger limits, fleet mix and number of passenger loading bridges have not changed from the evaluation contained in Final EIR 582 and the Addendum to Final EIR 582. As a result, the amount of traffic and aircraft noise generated by the project would not change from the evaluation in Final EIR 582 and the

Addendum to EIR 582. However, the anticipated facilities needed to serve this demand has changed since EIR 582 was prepared because there is a better understanding of the measures required to comply with post-September 11, 2001 security requirements.

The following on-airport improvements are proposed as part of the settlement amendment Implementation Plan:

- Construction of a new terminal building south of the existing facility that would provide up to six (6) passenger-loading gates. The anticipated footprint of the facility would be approximately fifty percent (50%) of the footprint of the existing terminal. Terminal design would allow access to all passenger-loading gates from either the existing or proposed terminal building.

- Extension of the existing terminal to provide four (4) passenger departure gates and holdroom area for commuter flights at the north end of the existing terminal. Passenger access would be on the lower level and access to the aircraft would be directly to the aircraft on ground level.

- Extension of the hydrant fueling system to serve the passenger gates in the new terminal building.

- Construction of a new parking structure sufficient to accommodate the authorized passenger levels that will be served at JWA. The parking structure would be located south of the existing east parking structure in the area currently used for valet parking.

- Modification of the onsite roadway in front of the existing terminal to accommodate the new terminal and parking structure. This may involve the construction of temporary improvements to facilitate the phasing of construction.

- Expansion of the existing apron area to allow for the parking of up to thirty (30) Remain Over Night ("RON") aircraft. This would occur by extending the apron south of the current terminal where the air cargo operations currently occur. As a result, the air cargo operations would be moved further south, but remain on the east side of the airport.

- Modification of the facilities on the lease holdings on the east side of the airport. It is anticipated that this would include construction of a new hangar to replace a hangar that will be removed, and strengthening of an existing transient apron.

- Provision of an additional right-turn lane on southbound Campus Drive to Bristol Street North, as required by Mitigation Measure T-1 in Final EIR 582. This would require the relocation of the existing airport maintenance building from the southeast corner of the airport to an undeveloped parcel on the west side of the airport in the vicinity of the existing airport administration building.

- Modification of ancillary airfield components, such as relocation of helicopter landing pads, taxiway and taxilane improvements, and other changes required by project design.

The only off-airport improvements would be the improvements at the Campus Drive/Bristol North intersection. The traffic mitigation measure in Final EIR 582 identified the need for a third southbound right-turn lane at the Campus Drive/Bristol North intersection.

Anticipated Project Approvals

The County is the lead agency for the proposed Project. This Supplement to Final EIR 582 will serve as the environmental analysis permitting full consideration of implementation of the settlement amendment facilities improvements and related projects.

Anticipated Schedule

The Project schedule, as currently envisioned, anticipates a draft Supplement to Final EIR 582 to be available for public review in late 2003/early 2004. A 45-day public review period will be provided, after which responses to comments received will be prepared. A hearing before the Airport Commission is expected to be scheduled in Winter 2004, with the Board of Supervisors taking action on the project shortly thereafter. After detailed engineering and design, construction of improvements are anticipated to commence in mid-2005 and will take approximately eighteen (18) months to two and one half (2 ½) years to complete.

Probable Environmental Effects of the Proposed Project

Final EIR 582 identified, generally, the anticipated facility improvements and the general impacts anticipated with construction of the improvements that would be required to accommodate the increased number of flights and passengers for each of the scenarios evaluated in the document. Though the approved Project is within the range of alternatives evaluated, the construction impacts identified in Final EIR 582 were generalized impacts and did not quantify the impacts. The SEIR analysis will focus on the specific construction impacts. No further discussion of the operational impacts associated with the implementation of the settlement amendment is required. The following evaluation will be provided in the SEIR:

- Land Use—The SEIR 582 will address the potential impacts on existing airport uses associated with construction of the proposed improvements. The potential impacts would be associated with phasing of the construction; as well as any onsite impacts associated with the proposed facilities. No existing uses would be eliminated or substantially scaled back. The SEIR will evaluate the interface of the new terminal and related facilities with existing uses.

- Hydrology, Drainage, and Water Quality—The SEIR will address the potential impacts associated with construction activities. Final EIR 582 identified that the existing storm drain system, consisting of clarifiers and oil-water separators, has sufficient capacity to treat operational flows that would be associated with the proposed improvements. This information will be updated and construction impacts will be addressed.

- Air Quality—The SEIR will discuss and quantify air quality impacts related to construction activities. This will include emissions associated with building activities, demolition, and vehicles accessing the airport for construction activities. The proposed improvements would not alter the operational air quality impacts discussed in Final EIR 582.

- Transportation—The SEIR will discuss the internal circulation network with the proposed facility improvements and any temporary circulation improvements that would be required to ensure efficient traffic flow within the airport during construction. The proposed improvements would not alter the long-term off-airport circulation impacts discussed in Final EIR 582.

- Noise—The SEIR will evaluate construction-related noise impacts. The proposed improvements would not alter the operational noise impacts discussed in Final EIR 582.

- Aesthetics—The architectural style of the proposed improvements would be consistent with the existing visual character of the airport. A visual evaluation of the proposed improvements will be included in the SEIR to further document the views of the airport once improvements are implemented.

- Public Services and Utilities—The new facilities would result in an increased demand for public services and utilities. Final EIR 582 addressed the potential impacts associated with provision of fire protection, police services, solid waste, electricity, natural gas, water, and wastewater. This information will be updated and construction impacts will be addressed.

Conclusion

The County requests your careful review and consideration of this notice, and it invites any and all input and comments from interested agencies and persons regarding the preparation of the proposed SEIR.

Final EIR 582 and the Addendum to Final EIR 582 were prepared to address the potential environmental effects of the settlement amendment. The EIR identified potential facilities improvements; however, the impacts of the improvements were not evaluated at a construction-level of detail. The County has determined that it will prepare a SEIR to address potential effects on the environment associated with the implementation of the Project defined previously.

The following analysis takes into consideration the preparation of Final EIR 582 and the Addendum to Final EIR 582, and evaluates the adequacy of Final EIR 582 pursuant to Section 15162 of the CEQA Guidelines.

1. LAND USE & PLANNING. Would the Project:

a) Conflict with general plan designation or zoning?
b) Conflict with applicable environmental plans or policies of agencies with jurisdiction over the Project?
c) Disrupt or divide the physical arrangement of an established community (e.g. low income, minority)?

No Additional Analysis Required—As discussed in Final EIR 582, the Project would be consistent with the existing General Plans for the County of Orange and adjacent cities. The Project site is designated Public Facilities (Category 4) on the County of Orange General Plan and is within the A-1 District for zoning. The County exempted the airport from the zoning code requirements (Zone Code Section 7-9-20(i)). The Project would not conflict with applicable environmental plans. When the Master Plan for JWA was approved in 1985, land use compatibility was evaluated and a Land Use Compatibility Plan (LUCP) was adopted. The LUCP provided specific measures to mitigate impacts to land uses, including land use conversion, which would bring land uses into compliance with the thresholds established by the adopted General Plans. These measures have been substantially implemented. The growth assumed in the Eighth Supplemental Stipulation would not result in any inconsistencies with the General Plan or further displacements of existing land uses. No further evaluation of General Plan consistency or off-airport land use compatibility is necessary in the SEIR.

The Project would not disrupt any established community. All improvements would be conducted onsite, with the exception of the additional right-turn lane at Campus Drive/Bristol Street North. The only right-of-way required for that improvement would be taken from JWA.

d) Conflict with adjacent, existing, or planned land uses?

Construction-level Analysis Required—Final EIR 582 discussed construction of a new passenger terminal and parking structure. The new terminal was not expected to have significant impacts on existing airport uses; however, since this was not addressed at a construction level of detail, the SEIR will evaluate the interface of the new terminal with existing uses. There would be no change in the affects on adjacent or other offsite land uses because the points of entry for the airport will not change. As indicated above, the Project would not result in any conflict with planned (General Plan) land uses.

2. **AGRICULTURE. Would Project:**

   a) **Convert Farmlands listed as "Prime," "Unique," or of "Statewide Importance," as shown on the State Farmland Mapping and Monitoring Program, to non-agricultural use?**
   b) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?**

   No Additional Analysis Required—Discussion of agricultural lands was scoped out of Final EIR 582 because there are no farmlands listed as "Prime," "Unique," or of "Statewide Importance" on the 2000 Orange County Important Farmland Map prepared by the California Department of Conservation. The study area is generally designated as "Urban and Built-Up Land." No farmland exists in proximity to the Project. No part of the Project site or adjacent areas are subject to the Williamson Act. The Project would not result in pressures to convert farmlands to other uses. The SEIR will not address agricultural impacts.

3. **POPULATION & HOUSING. Would Project:**

   a) **Cumulatively exceed adopted regional or local population projections?**
   b) **Induce substantial growth in an area directly or indirectly through project in an undeveloped area or extension of major infrastructure?**
   c) **Displace existing housing affecting a substantial number of people?**

   No Additional Analysis Required—Based on the Initial Study prepared for the Notice of Preparation for EIR 582, the Project would not affect population and housing issues (i.e., existing or projected) because the Project would not result in changes in population projections, displace existing housing, or have substantial growth inducing impacts. There have been no changes in the Project that would change this determination. No further discussion of population and housing is proposed in the SEIR.

4. **GEOPHYSICAL. Would the Project result in or expose people to impacts involving:**

   a) **Local fault rupture?**
   b) **Seismicity: ground shaking or liquefaction?**
   c) **Erosion, changes in topography or unstable soil conditions from excavation, grading or fill?**
   d) **Subsidence of the land?**
   e) **Expansive soils?**

   No Additional Analysis Required—Final EIR 582 discussed the extension of and modification to provisions of the settlement agreement for JWA. It identified the improvements, consistent with those proposed, that would occur. No significant geophysical impacts associated with the proposed project were identified in Final EIR 582. The Initial Study prepared in conjunction with the Notice of Preparation for EIR 582, identified that potential constraints due to soil types and proximity to faults would be addressed through compliance with the Uniform Building Code, grading code, and other applicable regulations. No further evaluation of geophysical impacts will be provided in the SEIR.

   f) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**
   g) **Landslides or mudslides?**
   h) **Unique geologic or physical features?**

No Additional Analysis Required—JWA is served by the existing sewer system; therefore, having soils capable of supporting septic tanks would not be applicable to the Project. The Project site is flat and does not contain any unique geologic or physical features. Due to the topography, landslides or mudslides would not be a constraint for the Project. Because these issues were not applicable to the Project, they were not addressed in the Final EIR and no discussion in the SEIR is needed.

5. HYDROLOGY & DRAINAGE. Would the Project:

a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in manner which would result in:
- **i) substantial erosion or siltation on- or off-site?**
- **ii) a substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

b) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Construction-level Analysis Required—Final EIR 582 discussed the drainage facilities at JWA and the potential effect of the improvements on the existing facilities. The Project would not alter the drainage patterns or quantities. As identified in Final EIR 582, the construction of improvements would only result in a minor increase in impermeable surfaces. The existing storm drain system, consisting of clarifiers and oil-water separators, has sufficient capacity to treat operational flows that would be associated with the proposed improvements. This information will be updated and construction impacts will be addressed.

c) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

d) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?

No Additional Analysis Required—As discussed in Final EIR 582, improvements constructed at JWA, including a peaking basin, resulted in a revised flood-prone area map being developed. None of the airfield portion of the airport is currently located in the 100-year flood zone. This issue will not be addressed in the SEIR.

6. WATER QUALITY. Would the Project:

a) Violate any water quality standards or waste discharge requirements?

b) Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of a local groundwater table level?

c) Otherwise substantially degrade water quality?

Construction-level Analysis Required—Final EIR 582 discussed the water quality protection methods that are currently in place at JWA, which would continue to serve any new facilities. The airside portion (i.e., airfield and aviation uses) of JWA operates under the State's General Industrial Storm Water NPDES Permit (Order No. 97-03-DWQ). The non-industrial areas of the airport (i.e., terminal buildings, landscaping and parking lots/structures) come under the jurisdiction of Orange County's Municipal Permit. The SEIR will address the potential water quality issues associated with construction activities.

7. **TRANSPORTATION/CIRCULATION. Would the Project result in:**

a) **Increased vehicle trips or traffic congestion beyond adopted policies and/or forecasts?**
b) **Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?**
c) **Safety hazards from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?**
d) **Inadequate emergency access or access to nearby uses?**
e) **Insufficient parking capacity on-site or off-site?**
f) **Hazards or barriers for pedestrians or bicyclists?**
g) **Conflicts with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?**
h) **Rail, waterborne or air traffic impacts?**

Construction-level Analysis Required—Final EIR 582 discussed the circulation implications of the Project contained in the Eighth Supplemental Stipulation. Circulation impacts and mitigation measures were identified. Long-term offsite (off-JWA) circulation impacts would not differ from what was discussed in Final EIR 582 because the access points and number of trips generated by the Project would not change. However, the SEIR will consider potential impacts associated with construction activities and modifications to the internal circulation network required for the terminal and parking structure.

i) **Change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

No Additional Analysis Required—As discussed in Final EIR 582, the Project provided for in the Eighth Supplemental Stipulation will result in an increase in the number of flights from JWA, but it would not change the air traffic patterns. The increased number of flights would result in an incremental increase in the air traffic levels; however, based on the air safety analysis in Final EIR 582, this would not pose a safety risk. These issues were fully discussed in Final EIR 582. Construction of the improvements to support the approved flight and passenger levels would not result in a safety risk. No further evaluation in the SEIR is required.

6. **AIR QUALITY. Would the Project:**

a) **Exceed any SCAQMD standard or contribute to air quality deterioration beyond projections of SCAQMD?**
b) **Expose sensitive population groups to pollutants in excess of acceptable levels?**

Construction-level Analysis Required—Final EIR 582 discussed the air quality implications of the Project contained in the Eighth Supplemental Stipulation. Assumptions such as fleet mix, load factors, and the number of flights have not changed from the analysis in the Final EIR and the addendum to the Final EIR 582. As a result, the expected operational emissions from the Project would not be different from what is contained in the Final EIR. The Final EIR did identify that the construction of anticipated improvements would result in a significant short-term construction air quality impact; however, construction impacts were only addressed with a general discussion. The SEIR will include a quantitative construction air quality evaluation.

c) **Alter air movement, moisture, or temperature, or cause any change in climate?**
d) **Create objectionable odors affecting a substantial number of people?**

No Additional Analysis Required—The Initial Study prepared in conjunction with the NOP for Final EIR 582 identified that the Project would not result in the alteration of air movements, moisture, or temperature. The Project does not involve any substantial topographic changes that could alter localized air movements or operations that would have a substantial enough heat generation that temperature would be altered. The Project would also not be expected to generate objectionable odors affecting a substantial number of people. No further evaluation of odors or changes in air movements, moisture, or temperature will be included in the SEIR.

7. NOISE. Would the Project:

a) Increase existing noise levels?
b) Expose people to noise levels exceeding adopted County standards?
c) If located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels?

Construction-level Analysis Required—Final EIR 582 discussed the potential increase in cumulative noise levels (e.g., CNEL) off the airport as a result of increased flights and passenger levels assumed in the Eighth Supplemental Stipulation. As previously indicated the assumptions in fleet mix, load factors, passenger limits, and number of flights have not changed since the preparation of Final EIR 582 and the Addendum to Final EIR 582. As a result, there would not be a change in the noise character of the Project. However, the SEIR will address construction noise.

8. BIOLOGICAL RESOURCES. Would the Project impact:

a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals and birds)?
b) Locally designated species (e.g. heritage trees)?
c) Locally designated natural communities (e.g. oak forest, coastal habitat, etc.)?
d) Wetland habitat (e.g. marsh, riparian and vernal pool)?
e) Wildlife dispersal or migration corridors?
f) Adopted or proposed conservation plans and policies (e.g. Natural Community Conservation Plan or Resource Management Plan)?

No Additional Analysis Required—Final EIR 582 discussed potential biotic impacts associated with increased flights and MAP levels. No significant impacts were identified. The location on the airport where improvements are proposed are currently paved or highly disturbed. As a result, the SEIR will not include any further biological evaluation.

11. AESTHETICS. Would the Project:

a) Affect a scenic vista or view open to the public?
c) Substantially degrade the existing visual character or quality of the site and its surroundings?
d) Create light or glare beyond the physical limits of the Project site?

Construction-level Analysis Required—Final EIR 582 discussed the potential visual affect of modification to facilities at JWA. While no significant impact is anticipated because the Project would be similar in design to the existing airport terminal and parking structure, the SEIR will provide a visual impact assessment now that more detailed information is available.

b) **Affect a designated scenic highway?**

No Additional Analysis Required— The Initial Study prepared in conjunction with the NOP for Final EIR 582 identified that the Project is not within the proximity of a designated scenic highway. There would be no direct or indirect impacts on scenic highways. This issue will not be discussed in the SEIR.

12. CULTURAL/SCIENTIFIC RESOURCES, Would the Project:

a) **Disturb archaeo or paleo resources?**
b) **Affect historical resources?**
c) **Have the potential to cause a physical change which would affect unique ethnic cultural values?**

No Additional Analysis Required —The Initial Study prepared in conjunction with the NOP for Final EIR 582 identified that record search determined that there are no recorded prehistoric archaeological sites, historic sites, or California Historical Landmarks within the Project site or immediate vicinity. Because the airport site has been heavily disturbed due to construction activities, the Project would not have significant impacts on cultural resources. No further evaluation of cultural resources will be discussed in the SEIR.

13. RECREATION. Would Project:

a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**
b) **Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**
c) **Conflict with adopted recreational plans or policies?**

No Additional Analysis Required—The Initial Study prepared in conjunction with the Notice of Preparation for EIR 582, identified that the Project would not generate any increase in population or development that would result in increased usage of existing neighborhood and regional parks. There would not be any physical deterioration to existing recreation facilities due to the Project, as proposed. This issue will not be discussed in the SEIR.

The potential impacts on recreational facilities associated with increased operations at JWA were considered as a component of the land use and noise evaluation in Final EIR 582. The Project characteristics that would affect recreational facilities (noise and overflights) have not changed from the discussion in the Final EIR. No further discussion of this issue in the SEIR is necessary.

14. MINERAL RESOURCES. Would the Project:

a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
b) **Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Additional Analysis Required—The Initial Study prepared in conjunction with the Notice of Preparation for EIR 582, identified that based on information in the County of Orange General Plan Resources Element, the Project study area does not have significant existing or potential mineral or energy resources within its boundaries. The California

Division of Mines and Geology ("CDMG") has not identified any mineral resource on site. There would be no significant impacts to mineral resources from the proposed Project. The SEIR will not address impacts to mineral resources.

15. **HAZARDS. Would the Project:**

a) **Create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
b) **Create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**
c) **Exposure of people to existing sources of health hazards?**
d) **For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?**
e) **For a project within the vicinity of private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?**
f) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**
g) **Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

No Additional Analysis Required—Final EIR 582 discussed the use of hazardous materials associated with airport operations. Activities involving the use of hazardous materials at JWA are associated with fueling, maintenance, and repair of aircraft and airport related vehicles. Most of the materials used by JWA, the fire department, and the fixed base operators ("FBOs") are off-the-shelf items in non-reportable quantities. Any increased hazardous materials use would need to comply with the County guidelines, which have been established consistent with State and Federal regulations to ensure that the risk associated with the use and storage of the materials is minimal. The potential impacts, operations, and guidelines would not change with the proposed Project. Therefore, no further analysis of this issue is required in the SEIR.

16. **PUBLIC SERVICES. Would the Project result in need(s) for new/altered government facilities/services in:**

a) **Fire protection?**
b) **Police protection?**

No Additional Analysis Required—Final EIR 582 discussed the potential increased demand for emergency response services with the increase in flights and MAP. No substantial changes have occurred since the certification of Final EIR 582. No further evaluation of these services will be provided in the SEIR.

c) **Schools?**

No Additional Analysis Required—The Initial Study prepared in conjunction with the Notice of Preparation for EIR 582, identified that the Project would not result in the development of any residential units; therefore, the Project would not generate any additional students. The Project would not have any direct impact on school facilities. The SEIR will not contain a discussion on school impacts.

d) **Maintenance of public facilities, including roads?**
e) **Other government services?**

No Additional Analysis Required—Final EIR 582 discussed the additional flights associated with the Project may result in increased maintenance responsibilities for the County of Orange. These services are generally contracted out and paid for by the airport. The cost associated with the increased maintenance would be funded by the increased revenue associated with the higher level of service at the airport. The need for increased maintenance services would be a less than significant impact. This will not be addressed in the SEIR.

17. **UTILITIES & SERVICE SYSTEMS. Would the Project result in needs for new or substantial alterations in:**

a) **Power or natural gas?**
b) **Communications systems?**
a) **Local or regional water treatment or distribution facilities?**
d) **Sewer or septic tanks?**
b) **Solid waste disposal?**

Construction-level Analysis Required—Final EIR 582 discussed that the Project would result in an increase in demand for utilities and services. Final EIR 582 found that there would be no significant impact on utilities and services associated with the Project. The need for further coordination with the Orange County Sanitation District during facilities planning was identified. The SEIR will provide an update on the potential impact associated with construction on the public services and utilities.

MANDATORY FINDINGS

1. **Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

2. **Does the Project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?**

3. **Does the Project have possible environmental effects, which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

4. **Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?**

Though the impacts of the Project are not expected to be substantially different from the analysis contained in Final EIR 582, a Supplemental EIR is recommended to analyze the construction-level impacts with respect to implementation of the facilities improvements authorized by the settlement amendment, and in order to update the information contained in EIR 582, where appropriate.

NOTE: All referenced and/or incorporated documents may be reviewed by appointment only, at John Wayne Airport, 3160 Airway Avenue, Costa Mesa, California, unless otherwise specified. Call (949) 252-5273 to make an appointment to review documents, or to ask questions regarding this NOP.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

ALAN, LUAN, LARRY JUAN DAVID K.

Notice of Preparation

RECEIVED
OCT 16 2003
JWA

RECEIVED
OC
JWA

September 9, 2003

To: Reviewing Agencies

Re: John Wayne Airport Settlement Amendment Implementation Plan
SCH# 2003091046

Attached for your review and comment is the Notice of Preparation (NOP) for the John Wayne Airport Settlement Amendment Implementation Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Alan Murphy
Orange County, John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

for

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2003091046
Project Title John Wayne Airport Settlement Amendment Implementation Plan
Lead Agency Orange County

Type NOP Notice of Preparation

Description Implementation of the facilities needed to accommodate the growth at the airport provided by the Eighth Supplemental Stipulation and the necessary security measures in the post-September 11, 2001 era.

Lead Agency Contact

Name Alan Murphy
Agency Orange County, John Wayne Airport
Phone 949-252-5170 **Fax**
email
Address 3160 Airway Avenue
City Costa Mesa **State** CA **Zip** 92626

Project Location

County Orange
City
Region
Cross Streets
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports John Wayne
Railways
Waterways
Schools
Land Use Airport Land Use, Public Land Use Designation, A-1 Agriculture Zoning

Project Issues Aesthetic/Visual; Air Quality; Flood Plain/Flooding; Drainage/Absorption; Public Services; Sewer Capacity; Traffic/Circulation; Water Quality; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Reclamation Board; Department of Fish and Game, Region 5; Native American Heritage Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 12; Air Resources Board, Airport Projects; State Water Resources Control Board, Division of Water Quality; Regional Water Quality Control Board, Region 8

Date Received 09/09/2003 **Start of Review** 09/09/2003 **End of Review** 10/08/2003

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Orange

SCH# 2003091046

Resources Agency

- [■] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** Suzi Betzler
- [ ] **California Coastal Commission** Elizabeth A. Fuchs
- [ ] **Colorado River Board** Gerald R. Zimmerman
- [ ] **Dept. of Conservation** Roseanne Taylor
- [ ] **California Energy Commission** Environmental Office
- [ ] **Dept. of Forestry & Fire Protection** Allen Robertson
- [ ] **Office of Historic Preservation** Hans Kreutzberg
- [■] **Dept of Parks & Recreation** B. Noah Tilghman Environmental Stewardship Section
- [X] **Reclamation Board** Lori Buford
- [ ] **Santa Monica Mountains Conservancy** Paul Edelman
- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve McAdam
- [ ] **Dept. of Water Resources** Resources Agency Nadell Gayou

Fish and Game

- [ ] **Dept. of Fish & Game** Scott Flint Environmental Services Division
- [ ] **Dept. of Fish & Game 1** Donald Koch Region 1
- [ ] **Dept. of Fi** **Game 2** Banky Curtis Regio
- [ ] **Dept. of Fish & Game 3** Robert Floerke Region 3
- [ ] **Dept. of Fish & Game 4** William Laudermilk Region 4
- [■] **Dept. of Fish & Game 5** Don Chadwick Region 5, Habitat Conservation Program
- [ ] **Dept. of Fish & Game 6** Gabrina Gatchel Region 6, Habitat Conservation Program
- [ ] **Dept. of Fish & Game 6 I/M** Tammy Allen Region 6, Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M** Tom Napoli Marine Region

Other Departments

- [ ] **Food & Agriculture** Steve Shaffer Dept. of Food and Agriculture
- [ ] **Dept. of General Services** Robert Sleppy Environmental Services Section
- [ ] **Dept. of Health Services** Wayne Hubbard Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Debby Eddy
- [ ] **Office of Emergency Services** John Rowden, Manager
- [ ] **Governor's Office of Planning & Research** State Clearinghouse

_____

- [■] **Native American Heritage Comm.** Debbie Treadway
- [ ] **Public Utilities Commission** Ken Lewis
- [ ] **State Lands Commission** Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)** Lyn Barnett

Business, Trans & Housing

- [X] **Caltrans - Division of Aeronautics** Sandy Hesnard
- [ ] **Caltrans - Planning** Ron Helgeson
- [X] **California Highway Patrol** Lt. Julie Page Office of Special Projects
- [ ] **Housing & Community Development** Cathy Creswell Housing Policy Division

Dept. of Transportation

- [ ] **Dept. of Transportation 1** Mike Eagan District 1
- [ ] **Dept. of Transportation 2** Don Anderson District 2
- [ ] **Dept. of Transportation 3** Jeff Pulverman District 3
- [ ] **Dept. of Transportation 4** Tim Sable District 4
- [ ] **Dept. of Transportation 5** David Murray District 5
- [ ] **Dept. of Transportation 6** Marc Birnbaum District 6
- [ ] **Dept. of Transportation 7** Stephen J. Buswell District 7
- [ ] **Dept. of Transportation 8** Linda Grimes, District 8
- [ ] **Dept. of Transportation 9** Gayle Rosander District 9
- [ ] **Dept. of Transportation 10** Tom Dumas District 10
- [ ] **Dept. of Transportation 11** Bill Figge District 11
- [■] **Dept. of Transportation 12** Bob Joseph District 12

Cal EPA

Air Resources Board

- [X] Airport Projects Jim Lerner
- [ ] Transportation Projects Kurt Karperos
- [ ] Industrial Projects Mike Tollstrup

- [ ] **California Integrated Waste Management Board** Sue O'Leary
- [ ] **State Water Resources Control Board** Jim Hockenberry Division of Financial Assistance
- [X] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Mike Falkenstein Division of Water Rights
- [ ] **Dept. of Toxic Substances Control** CEQA Tracking Center

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [ ] **RWQCB 4** Jonathan Bishop Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [X] **RWQCB 8** Santa Ana Region (8)
- [ ] **RWQCB 9** San Diego Region (9)

- [ ] **Other** _____

_____

_____

South Coast
Air Quality Management District
21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

September 24, 2003

Mr. Alan Murphy
Airport Director
John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

Dear Mr. Murphy:

Notice of Preparation of a Draft Supplemental Environmental Impact Report for John Wayne Airport Settlement Amendment Implementation Plan

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The AQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft Environmental Impact Report (EIR).

Air Quality Analysis

The AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The AQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the AQMD's Subscription Services Department by calling (909) 396-3720.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction and operations should be considered. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the evaluation. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the AQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additionally, AQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

AQMD rules and relevant air quality reports and data are available by calling the AQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the AQMD's World Wide Web Homepage (http://www.aqmd.gov).

The AQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Charles Blankson, Ph.D., Air Quality Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely,

Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development and Area Sources

SS:CB:li

ORC030916-03LI
Control Number

DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

CALIFORNIA CONSERVATION

DIVISION OF OIL, GAS, & GEOTHERMAL RESOURCES

5816 Corporate Ave.
SUITE 200
CYPRESS
CALIFORNIA
96030-4731

PHONE
714/816-6847

FAX
714/816-6853

INTERNET
consrv.ca.gov

GR AVIS
GOVERNOR

September 17, 2003

RECEIVED
SEP 18 03
JWA

Mr. Alan Murphy, (NOP Comments)
Airport Director
John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Dear Mr. Murphy:

Subject: Notice Of Preparation and Scoping (NOP) for the John Wayne Airport Settlement Amendment Implementation Plan, County of Orange

The Department of Conservation's (Department) Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above referenced project. The Division supervises the drilling, maintenance, and plugging and abandonment of oil, gas, and geothermal wells in California. The Department offers the following comments for your consideration.

The proposed project is located beyond the administrative boundaries of any oil or gas field. There are no known oil, gas, or injection wells within the boundaries of the project. However, if excavation or grading operations uncover a previously unrecorded well, remedial plugging operations may be required. If such a discovery occurs, the Division district office in Cypress must be notified to obtain information on the requirements for and approval to perform remedial operations.

Thank you for the opportunity to comment on the NOP. If you have questions on our comments, or require technical assistance or information, please feel free to contact me at the Cypress district office: 5816 Corporate Avenue, Suite 200, Cypress, CA 90630-4731; phone (714) 816-6847.

Yours truly,

Paul Frost

Paul Frost
Associate Oil & Gas Engineer

Costa Mesa Sanitary District

... an Independent Special District

September 17, 2003

RECEIVED

SEP 2 2 2003

JWA

Mr. Alan Murphy
Airport Director
John Wayne Airport
3160 Airway Ave.
Costa Mesa, CA 92626

RE: JOHN WAYNE AIRPORT SETTLEMENT AMENDMENT IMPLEMENTATION PLAN

Dear Alan:

Thank you for the opportunity to comment on the Notice of Preparation and Scoping for the JWA Settlement Amendment Implementation Plan.

The Costa Mesa Sanitary District provides sanitary sewer service for the following properties owned by the County of Orange:

1. Newport Beach Golf Course
2. Old Fire Station on West side of Airport
3. FAA Control Tower on West side of Airport
4. 3180 Airway Ave.

The proposed project is an expansion of the airport and will cause an increase in sewer flows. However, the increases from the above mentioned parcels should be negligible and, therefore, no impact is anticipated from the proposed project on the District's local sewers.

The Notice of Preparation should be sent to the Orange County Sanitation District for comment as they serve the majority of the airport and own the regional treatment plants.

Sincerely,

RH

Robin B. Hamers
Manager/District Engineer

cc. Board
Staff

Phone
(714) 754-5043

Fax
(714) 432-1436

Mailing Address
P. O. Box 1200
Costa Mesa, CA
92628-1200

Street Address
77 Fair Drive
Costa Mesa, CA
92626-6520

CITY OF LAKE FOREST

September 23, 2003

Mr. Alan Murphy
Airport Director
John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

Subject: NOP Comments- John Wayne Airport Settlement Amendment Implementation Plan SEIR

Dear Mr. Murphy:

Thank you for the opportunity to comment on the Notice of Preparation for the John Wayne Airport Settlement Amendment Implementation Plan SEIR. The City of Lake Forest has no comments at this time. We look forward to reviewing the Draft SEIR when it becomes available. Please send a copy of the Draft SEIR to:

Gayle Ackerman, AICP
Development Services Director
City of Lake Forest
23161 Lake Center Drive, Suite 100
Lake Forest, CA 92630

Sincerely,
CITY OF LAKE FOREST

Cheryl Kuta

Cheryl Kuta, AICP
Associate Planner

cc Gayle Ackerman, AICP, Development Services Director

23161 Lake Center Drive, Suite 100
Lake Forest, CA 92630
(949) 461-3400
City Hall Fax: (949) 461-3511
Building/Planning/Public Works Fax: (949) 461-3512

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3337 MICHELSON DRIVE, SUITE 380
IRVINE, CA 92612-8894
PHONE (949) 724-2255

October 8, 2003 ***FAX and SEND***

IGR/CEQA
NOP/SEIR (FEIR 582)
SCH#2003091046
Log# 955C
SR55,I-405,I-5,SR73

Alan Murphy
Orange County, John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

Subject: John Wayne Airport Settlement Amendment Implementation Plan

Dear Mr. Murphy:

Thank you for the opportunity to review and comment on the **Notice of Preparation (NOP)** for the **John Wayne Airport Settlement Amendment Implementation Plan Draft Supplemental Environmental Impact Report (EIR).** The proposed project is implementation of the facilities needed to accommodate the growth at the airport provided by the Eighth Supplemental Stipulation and the necessary security measures in the post-September 11, 2001 era. The SEIR analysis will focus on the specific construction impacts of FEIR 582. The project would be implemented at John Wayne Airport in an unincorporated area of Orange County.

Caltrans District 12 is a responsible agency and has the following comments:

TRANSPORTATION/TRAFFIC

1. Caltrans District 12 has commented on the DEIR (FEIR #582) for this project. There were serious concerns regarding the traffic impacts of the project to State Transportation Facilities and mitigation for those impacts was requested. Our previous comment letters (attached) requested that a traffic study be conducted to determine the impacts of the project and propose fair share mitigation. In our February 26, 2002 letter we indicated that our comments and concerns were not adequately addressed in the Response to Comments. Caltrans requests that John Wayne Airport take this opportunity in the SEIR to address the previously stated concerns and complete a traffic impact study as outlined in the attached document "*Guide for the Preparation of Traffic Impact Studies*" to adequately determine the impacts of this project.

2. As stated in the NOP, this project may potentially have significant construction-related impacts with respect to traffic/circulation. The SEIR needs to address traffic/circulation impacts on Caltrans facilities at I-5, SR-55, SR-73, and I-405.

ENVIRONMENTAL

1. The SEIR should include updated information that may not have previously been required (e.g. Environmental Justice) and the supplemental information to show that the technical studies of the Final Environmental Impact Report (FEIR) are still valid. Also include the location to view the original FEIR.

2. All entities other than Caltrans forces working within State Right-of-way must obtain a Caltrans Encroachment Permit(s) prior to commencement of work. A fee may apply. Allow 2 to 4 weeks for a complete submittal to be reviewed and for a permit to be issued. This project may require Caltrans Encroachment Permit(s) for Traffic Control during construction. Also, the excessive truck traffic hauling dirt, which might impact freeway operations, would require a Caltrans Encroachment Permit.

3. If any project work (e.g. street widening, emergency access improvements, sewer connections, sound walls, stormdrain construction, street connections, etc.) occurs in the vicinity of the Caltrans Right-of-way, an encroachment permit would be required and environmental concerns must be addressed to satisfy all current environmental regulations (See Attachment: *Environmental Review Requirements for Encroachment Permits*). Please coordinate with Caltrans for street and transportation improvements on or near the Caltrans Right-of-way.

4. Any runoff draining into Caltrans Right-of-way from construction operations, or from the resulting project, must fully conform to the current discharge requirements of the Regional Water Quality Control Board to avoid impacting water quality. Measures must be incorporated to contain all vehicle loads and avoid any tracking of materials, which may fall or blow onto Caltrans roadways or facilities.

5. All work within the State Right-of-way must conform to Caltrans Standard Plans and Standard Specifications for Water Pollution Control, including production of a Water Pollution Control Program (WPCP) or Storm Water Pollution Prevention Plan (SWPPP) as required. The applicant must provide the Permits branch with a copy of the SWPPP or WPCP, including Best Management Practices (BMPs) to be implemented for construction activities impacting the Caltrans Right-of-way, as required by the National Pollution Discharge Elimination System (NPDES) Statewide Storm Water Permit for General Construction Activities. The applicant must follow the requirements as described in the attached Water Pollution Control Provisions (See Attachment: *Water Pollution Control Provisions).*

6. No surface runoff is allowed to cross Caltrans Right-of-way lines.

7. Post-project runoff quantity should be less than or equal to the pre-project condition with respect to the State Transportation drainage facilities.

8. The results of the construction-level analysis and hydrology plans should be submitted to Caltrans for review.

Please continue to keep us informed of projects that may potentially impact our State Transportation Facilities. If you have any questions or comments, please contact Lynne Gear at (949) 724-2241.

Sincerely,

ROBERT F. JOSEPH
Chief, IGR/Community Planning Branch
District 12

Attachments (3)
Caltrans District 12 Comment Letters (3)
CT(TIS) GUIDE FOR PREPARATION OF TRAFFIC IMPACT STUDIES, JAN 01

cc: Terri Pencovic, HDQTRS
Terry Roberts, OPR
Leslie Manderscheid, Environmental Planning
Gail Farber, Deputy District Director of Planning
Roger Kao, Hydraulics
Mory Mohtashami, Permits

ENVIRONMENTAL REVIEW REQUIREMENTS FOR ENCROACHMENT PERMITS

Any Party, outside of Caltrans, that does work on a State Highway or Interstate Highway in California needs to apply for an encroachment permit. To acquire any encroachment permit, environmental concerns must be addressed. Environmental review of encroachment permit applications may take 3 weeks if the application is complete or longer if the application is incomplete. For soil disturbing activities (e.g. geotechnical borings, grading, usage of unpaved roads from which dirt and other materials may be tracked onto the State/Interstate highways, etc.), compliance with Water Quality and Cultural Resources Provisions are emphasized. Surveys may/ may not be soil-disturbing activities, depending on the site and survey method.

A complete application for environmental review includes the following:

1. If an environmental document (CE, EIR/EIS, ND, etc.) has been completed for the project, copy of the final, approved document must be submitted with the application.

2. **Water Quality Provision:** All work within the State Right of Way must conform to Caltrans Standard Plans and Standard Specifications for Water Pollution Control including production of a Water Pollution Control Program or Storm Water Pollution Prevention Plan as required. The applicant must provide Encroachments with a copy of the Storm Water Pollution Prevention Plan (SWPPP) including Best Management Practices (BMPs) to be implemented for construction activities impacting Caltrans Right of Way, prepared for this as required by the NPDES Statewide Storm Water Permit for General Construction Activities. If no SWPPP has been prepared for this project, then the applicant must follow the requirements described in the attached Water Pollution Control Provisions (please see attachment).

3. **Cultural Resources Provisions:** If not included in the environmental document, before permit approval and project construction, the encroachment permit applicant must complete a *Cultural Resource Assessment* pursuant to Caltrans Environmental Handbook, Volume 2, Appendix B-1, and Exhibit 1, as amended. The Cultural Resources Assessment ascertains the presence or absence of cultural resources within a one-mile radius of the project area and evaluates the impact to any historical/cultural resource. Cultural Resources include "those resources significant in American history, architecture, archaeology, and culture, including Native American Resources" (Caltrans Environmental Handbook, Volume 2, Chapter1, as amended)]. The Cultural Resource Assessment must include:
   a) a clear project description and map indicating project work, staging areas, site access, etc.;
   b) a Record Search conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. For information call (714) 278-5395;
   c) proof of Native American consultation. Consultation involves contacting the Native American Heritage Commission (NAHC), requesting a search of their Sacred Lands File, and following the recommendations provided by the NAHC. For information call (916) 653-4082;
   d) documentation of any historic properties (e.g. prehistoric and historic sites, buildings, structures, objects, or districts listed on, eligible for, or potentially eligible for listing on the National Register of Historic Places) within a one mile radius of the project area;
   e) and a survey by qualified archaeologist for all areas that have not been previously researched.

   The SCCIC and NAHC have an approximate turn around time of 2 weeks.

4. **Biological Resources Provisions:** Work conducted within Caltrans Right of Way should have the appropriate plant and wildlife surveys completed by a qualified biologist. If the information is not included in the environmental document, Environmental Planning requests that the applicant submit a copy of the biological study, survey, or technical report by a qualified biologist that provides details on the existing vegetation and wildlife at the project site and any vegetation that is to be removed during project activities. Official lists and databases should also be consulted for sensitive species such as the California Natural Diversity Database and lists provided by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Any impacts that affect waterways and drainages and/or open space during construction, or that occur indirectly as a result of the project must be coordinated with the appropriate resource agencies. As guidance, we ask that the applicant include:
   a) clear description of project activities and the project site
   b) completed environmental significance checklist (not just yes and no answers, but a description should be given as to the reason for the response),
   c) staging/storage areas noted on project plans,
   d) proposed time of year for work and duration of activities (with information available),
   e) any proposed mitigation (if applicable to the project),
   f) and a record of any prior resource agency correspondence (if applicable to the project).

ATTACHMENT
CALTRANS DISTRICT 12
ENCROACHMENT PERMIT

WATER POLLUTION CONTROL PROVISIONS

Any runoff draining into Caltrans Right of Way must fully conform to the current discharge requirements of the Regional Water Quality Control Board (RWQCB) to avoid impacting water quality. Permittee shall fully conform to the requirements of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Storm Water Permit, Order No. 99-06-DWQ, NPDES No. CAS000003, adopted by the State Water Resources Control Board (SWRCB) on July 15, 1999, in addition to the BMPs specified in the Caltrans Storm Water Management Plan (SWMP). When applicable, the Permittee will also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 99-08-DWQ, NPDES No. CAS000002, and any subsequent General Permit in effect at the time of issuance of this Encroachment Permit. These permits regulate storm water and non-storm water discharges associated with year-round construction activities.

Please note that project activities should pay extra attention to storm water pollution control during the "Rainy Season" (October 1st – May 1st) and follow the Water Pollution Control BMPs to minimize impact to receiving waters. Measures must be incorporated to contain all vehicle loads and avoid any tracking of materials, which may fall or blow onto Caltrans Right of Way.

For all projects resulting in 0.4 hectares (1 acre) or more of soil disturbance or otherwise subject to the NPDES program, the Contractor will develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) conforming to the requirements of the Caltrans Specification Section 7-1.01G "Water Pollution Control", the Department's Statewide NPDES Permit, the General NPDES Permit for Construction Activities, and the Storm Water Quality Handbooks "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual", and "Construction Site Best Management Practices (BMPs) Manual" effective November 2000, and subsequent revisions. In addition, the SWPPP must conform to the requirements of the SWRCB Resolution No. 2001-046, the Sampling and Analytical Procedures (SAP) Plan.

For all projects resulting in less than 0.4 hectares (1 acre) of soil disturbance or not otherwise subject to the requirements of the NPDES program, the Contractor shall develop, implement, and maintain a Water Pollution Control Program (WPCP) conforming to the requirements of the Department's Specifications Section 7-1-.01G (Water Pollution Control), and the Storm Water Quality Handbooks: "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" and "Construction Site Best Management Practices (BMPs) Manual" effective March 2003, and subsequent revisions.

Copies of the Permits and the Construction Contractor's Guide and Specifications of the Caltrans Storm Water Quality Handbook may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520. Copies of the Permits and Handbook are also available for review at Caltrans District 12, 3347 Michelson Drive, Suite 100, Irvine, California 92612, Telephone: (949) 724-2260. Electronic copies can be found at http://www.dot.ca.gov/hq/construc/stormwater.html

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3337 MICHELSON DRIVE, SUITE 380
IRVINE, CA 92612-8894

February 26, 2002 ***FAX and SEND***

Alan Murphy, Airport Director
John Wayne-Orange County Airport
3160 Airport Way
Costa Mesa, CA 92626

IGR/CEQA
SCH# 2001011068
DEIR/RTC
Log # 955B
SR-55,73;I-405,5

Dear Mr. Murphy:

Subject: John Wayne Airport Settlement Agreement DEIR/*Response To Comments*

Thank you for the opportunity to review and comment on the ***Response To Comments*** for the **Draft Environmental Impact Report (DEIR) - John Wayne Airport Settlement Agreement Amendment**. The proposed project is an amendment to the Settlement Agreement that consists of 3 scenarios, 2 additional alternatives, and a no project alternative for John Wayne Airport Expansion. The project site is located at John Wayne Airport in Orange County.

Caltrans District 12 is a responsible agency and has the following comments on the *Response To Comments* document dated January 2002:

- The responses did not fully address issues stated in our letter dated January 7, 2002. Caltrans District 12 continues to have serious concerns about the methodology utilized to evaluate the impact of the proposed project on the freeway system. In our opinion, the environmental document underestimated the overall traffic impacts on the state facilities and hence lacks the appropriate mitigation measures.

We would be happy to meet with you and discuss our specific concerns regarding the above referenced comments. Should you have any questions, please do not hesitate to contact me at (949) 724-2255.

Please continue to keep us informed of projects that may impact our State Transportation System. If you have any questions or comments, please contact Lynne Gear at (949) 724-2241.

Sincerely,

Robert F. Joseph, Chief
Advance Planning Branch

cc: Ron Helgeson, HDQTRS
Terry Roberts, OPR

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3347 Michelson Drive Suite 100
Irvine, CA. 92612-0661

September 21, 2001

Alan Murphy, Airport Director
John Wayne-Orange County Airport
3160 Airport Way
Costa Mesa, CA 92626

File: IGR/CEQA
SCH#: 2001081068
Log #: 955
SR-55, 405

Subject: Notice of Preparation for the Extension of Agreement between the County of Orange, the City of Newport Beach, et al., Regarding Development and Operations at John Wayne Airport

Dear Mr. Murphy;

Thank you for the opportunity to review and comment on the **Notice of Preparation for the Extension of Agreement for development and operations at John Wayne Airport draft EIR**. The project site is located in the city of Costa Mesa.

Caltrans District 12 is a responsible agency on this project and has no comments at this time. However, should this agreement change to increase operations or expand activities at the airport, new traffic impacts to State Routes 73, 405 or 55 could result. If this occurs, Caltrans would require two new studies to be developed: (1) a new traffic study; and (2) a detailed analysis of the impacts to the local and regional transportation system.

Please continue to keep us informed of this project and other future developments. We appreciate opportunities to partner with local governments regarding any project that could potentially impact our transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Becky Shumway at (949) 440-4461.

Sincerely,

Robert F. Joseph, Chief
Advanced Planning Branch

cc: Terry Roberts, OPR
Ron Helgeson, HDQRTRS Planning

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3337 MICHELSON DRIVE, SUITE 380
IRVINE, CA 92612-8894

January 7, 2002 ***FAX and SEND***

Alan Murphy, Airport Director
John Wayne-Orange County Airport
3160 Airport Way
Costa Mesa, CA 92626

IGR/CEQA
SCH# 2001011068
DEIR
Log # 955A
SR-55,73;I-405,5

Dear Mr. Murphy:

Subject: John Wayne Airport Settlement Agreement DEIR

Thank you for the opportunity to review and comment on the **Draft Environmental Impact Report (DEIR) for the John Wayne Airport Settlement Agreement Amendment**. The proposed project is an amendment to the Settlement Agreement that consists of 3 scenarios, 2 additional alternatives, and a no project alternative for John Wayne Airport Expansion. The project site is located at John Wayne Airport in Orange County.

Caltrans District 12 is a responsible agency and has the following comments:

- The TOPs program is not funded or programmed and should not be used as a mitigation measure for congestion impacts due to the proposed project. As such TOPs should not be viewed as a replacement for the need for infrastructure improvements resulting from project impacts.
- There appears to be an inconsistency in trip movement (Table 3.2.5) and trip distribution (Exhibit 3.2.7). This is especially apparent for trip movement in the SW direction (I-405 South, SR-73 South, etc.).
- Caltrans requests clarification of the projected volumes under all scenarios and alternative "D" compared to the existing volume. Based on the existing MAP compared to the MAPs for all the scenarios and alternative "D", it appears that the proposed volumes under these scenarios and alternative are very low.
- Freeway mainline segment N/B and S/B of SR-73 west of SR-55 and SR-55 north of I-405 are significantly impacted in scenario 1 and are not addressed in Table 4-28. Please clarify and provide mitigation to Caltrans for review and comment prior to certification of the EIR.

- Freeway ramps at SR-73 at Campus/Irvine at S/B-off and N/B-on must be addressed in Table 4-29. Caltrans requests that mitigation be identified and provided to Caltrans for review and comment prior to certification of the EIR.
- In Table 4-32, *Freeway mainline with committed improvements* – a LOS "F" is indicated for SR-55 north of I-405 S/B in the PM Peak Hour. The proposed mitigation at this location is not adequate. Please clarify and provide additional mitigation to Caltrans for review and comment prior to certification of the EIR.
- Please indicate why Alternative "E" calculations are not included in the Appendix section of the report.
- A multi-modal and regional approach to mitigating the project impacts should be considered. For example rail, shuttle, and public transportation options in addition to freeway and arterial improvements should be included, in addition to routine roadway improvements.
- Generally speaking, among the alternatives, the 'No Project" alternative would have the least of adverse traffic impacts to the State Transportation System. Of the proposed project scenarios *and* alternatives considered it appears that "Alternative E" would have the least adverse traffic impacts to the State Transportation System and of the proposed project scenarios - "Scenario 1" would have the least adverse traffic impacts to the State Transportation System.

Please continue to keep us informed of projects that may impact our State Transportation System. If you have any questions or comments, please contact Lynne Gear at (949) 724-2241.

Sincerely,

Robert F. Joseph, Chief
Advance Planning Branch

cc: Ron Helgeson, HDQTRS
Terry Roberts, OPR
Saied Hashemi, Traffic Operations
Raouf Moussa, Traffic Operations
Firooz Hamedani, System Planning

CALTRANS DISTRICT 12
3337 Michelson Drive, Suite [redacted]380
Irvine, CA 92612

[redacted]

FACSIMILE TRANSMISSION

TO:

NAME	DATE
Alan Murphy	10-8-03
COMPANY/BRANCH JWA / OC	FAX NO. 949-252-5278

FROM:

NAME	PHONE NO.
Lynne Gear	949-724-2211
BRANCH planning	FAX NO.

REFERENCE:

SUBJECT
JWA Settlement Agreement NOP/SEIR

MESSAGE:

FAX and SEND

NOTE:
Document attachment "Guide for the Preparation of Traffic Studies" will follow in mail copy.

☐ FAX ONLY - USE AS ORIGINAL ● ORIGINAL TO FOLLOW PAGE: 1 OF 10

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3337 MICHELSON DRIVE, SUITE 380
IRVINE, CA 92612-8894
PHONE (949) 724-2255

Flex your power!
Be energy efficient!

October 8, 2003 ***FAX and SEND***

IGR/CEQA
NOP/SEIR (FEIR 582)
SCH#2003091046
Log# 955C
SR55,I-405,I-5,SR73

Alan Murphy
Orange County, John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

Subject: John Wayne Airport Settlement Amendment Implementation Plan

Dear Mr. Murphy:

Thank you for the opportunity to review and comment on the **Notice of Preparation (NOP)** for the **John Wayne Airport Settlement Amendment Implementation Plan Draft Supplemental Environmental Impact Report (EIR).** The proposed project is implementation of the facilities needed to accommodate the growth at the airport provided by the Eighth Supplemental Stipulation and the necessary security measures in the post-September 11, 2001 era. The SEIR analysis will focus on the specific construction impacts of FEIR 582. The project would be implemented at John Wayne Airport in an unincorporated area of Orange County.

Caltrans District 12 is a responsible agency and has the following comments:

TRANSPORTATION/TRAFFIC

1. Caltrans District 12 has commented on the DEIR (FEIR #582) for this project. There were serious concerns regarding the traffic impacts of the project to State Transportation Facilities and mitigation for those impacts was requested. Our previous comment letters (attached) requested that a traffic study be conducted to determine the impacts of the project and propose fair share mitigation. In our February 26, 2002 letter we indicated that our comments and concerns were not adequately addressed in the Response to Comments. Caltrans requests that John Wayne Airport take this opportunity in the SEIR to address the previously stated concerns and complete a traffic impact study as outlined in the attached document "*Guide for the Preparation of Traffic Impact Studies*" to adequately determine the impacts of this project.

2. As stated in the NOP, this project may potentially have significant construction-related impacts with respect to traffic/circulation. The SEIR needs to address traffic/circulation impacts on Caltrans facilities at I-5, SR-55, SR-73, and I-405.

ENVIRONMENTAL

1. The SEIR should include updated information that may not have previously been required (e.g. Environmental Justice) and the supplemental information to show that the technical studies of the Final Environmental Impact Report (FEIR) are still valid. Also include the location to view the original FEIR.

2. All entities other than Caltrans forces working within State Right-of-way must obtain a Caltrans Encroachment Permit(s) prior to commencement of work. A fee may apply. Allow 2 to 4 weeks for a complete submittal to be reviewed and for a permit to be issued. This project may require Caltrans Encroachment Permit(s) for Traffic Control during construction. Also, the excessive truck traffic hauling dirt, which might impact freeway operations, would require a Caltrans Encroachment Permit.

3. If any project work (e.g. street widening, emergency access improvements, sewer connections, sound walls, stormdrain construction, street connections, etc.) occurs in the vicinity of the Caltrans Right-of-way, an encroachment permit would be required and environmental concerns must be addressed to satisfy all current environmental regulations (See Attachment: *Environmental Review Requirements for Encroachment Permits*). Please coordinate with Caltrans for street and transportation improvements on or near the Caltrans Right-of-way.

4. Any runoff draining into Caltrans Right-of-way from construction operations, or from the resulting project, must fully conform to the current discharge requirements of the Regional Water Quality Control Board to avoid impacting water quality. Measures must be incorporated to contain all vehicle loads and avoid any tracking of materials, which may fall or blow onto Caltrans roadways or facilities.

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6. No surface runoff is allowed to cross Caltrans Right-of-way lines.

7. Post-project runoff quantity should be less than or equal to the pre-project condition with respect to the State Transportation drainage facilities.

8. The results of the construction-level analysis and hydrology plans should be submitted to Caltrans for review.

Please continue to keep us informed of projects that may potentially impact our State Transportation Facilities. If you have any questions or comments, please contact Lynne Gear at (949) 724-2241.

Sincerely,

ROBERT F. JOSEPH
Chief, IGR/Community Planning Branch
District 12

Attachments (3)
Caltrans District 12 Comment Letters (3)
CT(TIS) GUIDE FOR PREPARATION OF TRAFFIC IMPACT STUDIES, JAN 01

cc: Terri Pencovic, HDQTRS
Terry Roberts, OPR
Leslie Manderscheid, Environmental Planning
Gail Farber, Deputy District Director of Planning
Roger Kao, Hydraulics
Mory Mohtashami, Permits

- Freeway ramps at SR-73 at Campus/Irvine at S/B-off and N/B-on must be addressed in Table 4-29. Caltrans requests that mitigation be identified and

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, *Governor*

DEPARTMENT OF TRANSPORTATION

DISTRICT 12

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY GRAY DAVIS, *Govern*

DEPARTMENT OF TRANSPORTATION

DISTRICT 12
3347 Michelson Drive Suite 100
Irvine, CA. 92612-0661

September 21, 2001

Alan Murphy, Airport Director
John Wayne-Orange County Airport
3160 Airport Way
Costa Mesa, CA 92626

File: IGR/CEQA
SCH#: 2001081068
Log #: 955
SR-55, 405

Subject: Notice of Preparation for the Extension of Agreement between the County of Orange, the City of Newport Beach, et al., Regarding Development and Operations at John Wayne Airport

Dear Mr. Murphy;

Thank you for the opportunity to review and comment on the **Notice of Preparation for the Extension of Agreement for development and operations at John Wayne Airport draft EIR**. The project site is located in the city of Costa Mesa.

Caltrans District 12 is a responsible agency on this project and has no comments at this time. However, should this agreement change to increase operations or expand activities at the airport, new traffic impacts to State Routes 73, 405 or 55 could result. If this occurs, Caltrans would require two new studies to be developed: (1) a new traffic study; and (2) a detailed analysis of the impacts to the local and regional transportation system.

Please continue to keep us informed of this project and other future developments. We appreciate opportunities to partner with local governments regarding any project that could potentially impact our transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Becky Shumway at (949) 440-4461.

Sincerely,

Robert F. Joseph, Chief
Advanced Planning Branch

cc: Terry Roberts, OPR
Ron Helgeson, HDQRTRS Planning

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3337 MICHELSON DRIVE, SUITE 380
IRVINE, CA 92612-8894

February 26, 2002 ***FAX and SEND***

Alan Murphy, Airport Director
John Wayne-Orange County Airport
3160 Airport Way
Costa Mesa, CA 92626

IGR/CEQA
SCH# 2001011068
DEIR/RTC
Log # 955B
SR-55,73;I-405,5

Dear Mr. Murphy:

Subject: John Wayne Airport Settlement Agreement DEIR/*Response To Comments*

Thank you for the opportunity to review and comment on the ***Response To Comments*** for the **Draft Environmental Impact Report (DEIR) - John Wayne Airport Settlement Agreement Amendment** The proposed project is an amendment to the Settlement Agreement that consists of 3 scenarios, 2 additional alternatives, and a no project alternative for John Wayne Airport Expansion. The project site is located at John Wayne Airport in Orange County.

Caltrans District 12 is a responsible agency and has the following comments on the *Response To Comments* document dated January 2002:

- The responses did not fully address issues stated in our letter dated January 7, 2002. Caltrans District 12 continues to have serious concerns about the methodology utilized to evaluate the impact of the proposed project on the freeway system. In our opinion, the environmental document underestimated the overall traffic impacts on the state facilities and hence lacks the appropriate mitigation measures.

We would be happy to meet with you and discuss our specific concerns regarding the above referenced comments. Should you have any questions, please do not hesitate to contact me at (949) 724-2255.

Please continue to keep us informed of projects that may impact our State Transportation System. If you have any questions or comments, please contact Lynne Gear at (949) 724-2241.

Sincerely,

Robert F. Joseph

Robert F. Joseph, Chief
Advance Planning Branch

cc: Ron Helgeson, HDQTRS
Terry Roberts, OPR

CITY OF RANCHO SANTA MARGARITA

October 8, 2003

Mr. Alan Murphy, Airport Director
John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

SUBJECT: John Wayne Airport Settlement Amendment Implementation Plan Notice of Preparation

Dear Mr. Murphy:

The City of Rancho Santa Margarita appreciates the opportunity to comment on the Notice of Preparation (NOP) and Scoping for the John Wayne Airport Settlement Amendment Implementation Plan. At this time the City has no comments on the NOP.

Please keep the City informed about the status of the project by forwarding any future studies, public notices, meeting notices, and environmental review documents to the City as part of the public review process. The Rancho Santa Margarita City Council is interested in this project and its effects on the City and Orange County. If you have any questions, please contact me at (949) 635-1800.

Sincerely,

Kathleen Haton
Planning Director

30211 Avenida de las Banderas, Suite 101 • Rancho Santa Margarita • California 92688
Phone: (949) 635-1800 • Fax: (949) 635-1840 • www.cityofrsm.org

3) Since the certification of EIR 582-1, the plans for the closed El Toro base have changed. Any new circumstances regarding traffic analysis should be discussed and potential impacts identified.

4) The project description in the SEIR should state the square footage of the proposed building and the number of parking spaces to be constructed. Proposed modifications to the airport roadways should also be clarified and their impact on surrounding circulation analyzed.

5) EIR 582 described several impacted freeway intersections in the vicinity of the airport, and stated that the project would contribute funding to improve these. Given state budget constraints, the EIR should verify that Caltrans remains committed to constructing such improvements. If circumstances have changed, new mitigation may have to be considered.

6) We believe that the analysis in EIR 582 concluding that project related noise will not have a significant impact on wildlife in the Upper Newport Bay Ecological Reserve needs to be reexamined. Exhibit 3.6-1 shows that scenario 2, corresponding to 10.8 MAP, extends the 65 CNEL contour into an area not historically impacted by this noise level. It also shows the 60 CNEL contour extending southward approximately 1000 feet, over more acreage of Newport Bay. This fails to support – and in fact contradicts – the conclusion that noise impacts to wildlife are not significant.

7) Additionally, we disagree with the findings of EIR 582 regarding noise impacts on humans. The EIR states on page 3.3-12 that a direct link between noise and non-auditory health impacts remains to be found. Yet it states that noise impact on outdoor activities will be significant. We note that Table 3.3-16 in Appendix F (Noise Technical Report) shows that land uses exposed to project noise levels between 60 and 75 CNEL will dramatically increase for scenario 2 (10.8 MAP). Schools will increase from 2 to 4, churches from 4 to 6, and residences from 522 to 805. Several studies done since the EIR was certified should be consulted. These are: "A prospective study of some effects of Aircraft Noise on Cognitive Performance in Schoolchildren" by Staffan Hygge Gary Evans and Monica Bullinger, as well as "The Psychological Cost of Aircraft Noise for Children" by the same authors.

8) A comment by the County on EIR 582 indicates that the airport stormwater runoff flows to the Delhi Channel and thus into Upper

Newport Bay. Since stormwater pollution has been the subject of many recent studies in Orange County, the SEIR should discuss potential impacts in the light of most recent findings.

In conclusion, our group is concerned that the mitigation strategy historically used by proponents of airport growth is to convert the existing land uses to office and commercial use, which are not as noise-sensitive. We wish to ensure that the Orange County citizens under the flight path of JWA will not suffer continued impacts. We look forward to reviewing the EIR when it becomes available.

Sincerely,

MELINDA SEELY
President

Rogers, Nicolle

From: Burnham, Bob [bburnham@city.newport-beach.ca.us]
Sent: Friday, October 10, 2003 4:44 PM
To: 'amurphy@ocair.com'; 'nrogers@ocair.com'
Subject: CNBNOTCOMM101003

<<CNBNOTCOMM101003.doc>> for your reading pleasure.

October 10, 2003

Mr. Alan Murphy
Airport Director
John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

Re: Comments of the City of Newport Beach
Notice of Preparation
Supplemental Environmental Impact Report (SEIR)
JWA Settlement Amendment Implementation Plan

Dear Mr. Murphy:

The City of Newport Beach submits these comments in response to the Notice of Preparation (NOP) for the Supplemental Environmental Impact Report (SEIR) you intend to prepare for the John Wayne Airport JWA Settlement Amendment Implementation Plan. As a party to the Settlement Agreement we are submitting these comments more in the spirit of a partner than a commentator. We hope these comments are helpful to you as you implement the recent Settlement Agreement amendments.

Initially, we offer the suggestion that you postpone preparation of any environmental document until you have more specific information on the improvements that will be constructed to implement the Settlement Agreement amendments. The NOP does not provide the reader with the much more than very general parameters relative to the size and location of the improvements. You may be in a better position to determine whether to prepare a Supplement to an EIR[1] or a Subsequent EIR once you have completed the "detailed engineering and design" work that is scheduled to be complete late in 2004. Our thinking in this regard is underscored by the comment on Page 6 of the NOP that "the anticipated facilities needed to serve this demand has changed since EIR 582."

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[1] The CEQA Guidelines – and specifically Section 15163 – describe the environmental document as a Supplement to an EIR rather than a "Supplemental EIR."

The NOP references two components of the project that involve terminology we think should be clarified in the SEIR. First, the NOP states that the existing apron will be expanded to allow for "up to thirty (30) Remain Over Night (RON) aircraft." We understand, based on conversations with you, that the "30" RON spaces include gated and non-gated positions. Second, the NOP describes "passenger loading gates" for six commercial air carrier aircraft and four "passenger departure gates" for commuter aircraft. We suggest that you use the term passenger loading bridges to describe the six commercial air carrier "gates" to be constructed southerly of the existing terminal.

We generally agree with the "scoping" component of the NOP but have two comments. First, there is the potential (albeit very limited) for the changes to internal circulation to translate into changes in how drivers enter and/or leave the airport. Accordingly, you may want to temper the statement that proposed improvements to internal circulation "would not alter the long-term off-airport circulation...." Second, the air quality analysis of the project should include an evaluation of "hot spots" resulting from any construction that would result in significant short term traffic congestion resulting from restrictions on access to or from local streets.

As you know, the operation of construction equipment can have severe short-term air quality impacts. SCAQMD has sponsored research, passed regulations (*e.g.*, Rule 403), and published guidelines that identify best management practices for controlling fugitive dusts at construction sites. The *Rule 403 Implementation Handbook* contains a comprehensive list of such measures. We have enclosed a summary of mitigation measures that you may want to consider implementing during construction.

Robert Burnham

SUMMARY OF AIR QUALITY IMPACTS AND MITIGATION MEASURES

SUMMARY OF POSSIBLE IMPACTS

Earth-moving equipment is usually diesel-powered and as such emits substantial amounts of diesel PM10 (particulate matter with an aerodynamic diameter of less than or equal to 10 microns, a known carcinogen), CO, NOx, and ROG (reactive organic compounds). These can cause or contribute to violations of state and federal ambient air quality standards and result in significant public health impacts. Fugitive dust is also a problem with construction and can lead to violations of standards for PM 10 and PM 2.5.

MITIGATION MEASURES

SCAQMD has sponsored research, passed regulations (*e.g.*, Rule 403),[2] and published guidelines that identify best management practices for controlling fugitive dusts at construction sites. The *Rule 403 Implementation Handbook*[3] contains a comprehensive list of such measures.

Note that even if all appropriate measures are implemented, there may still be significant adverse impacts, depending on the construction project. Some illustrative standard measures are:

FUGITIVE DUST

- Hydroseed or apply soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more)
- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site
- Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas

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[2] South Coast Air Quality Management District ("SCAQMD"), Revised Final Staff Report for Proposed Amended Rule 403—Fugitive Dust and Proposed Rule 1186—PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations, February 14, 1997.

[3] South Coast Air Quality Management District ("SCAQMD"), Rule 403 Implementation Handbook, January 1999.

- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph

- Limit the area subject to excavation, grading and other construction activity at any one time

Some additional measures included in various agencies' guidelines that should be considered for adoption here are listed below:

- For backfilling during earthmoving operations, water backfill material or apply dust palliative to maintain material moisture or to form crust when not actively handling; cover or enclose backfill material when not actively handling; mix backfill soil with water prior to moving; dedicate water truck or large hose to backfilling equipment and apply water as needed; water to form crust on soil immediately following backfilling; and empty loader bucket slowly; minimize drop height from loader bucket. (CCHD)[4]
- During clearing and grubbing, pre-wet surface soils where equipment will be operated; for areas without continuing construction, maintain live perennial vegetation and desert pavement; stabilize surface soil with dust palliative unless immediate construction is to continue; and use water or dust palliative to form crust on soil immediately following clearing/grubbing. (CCHD)
- While clearing forms, use single stage pours where allowed; use water spray to clear forms; use sweeping and water spray to clear forms; use industrial shop vacuum to clear forms; and avoid use of high pressure air to blow soil and debris from the form. (CCHD)
- During cut and fill activities, pre-water with sprinklers or wobblers to allow time for penetration; pre-water with water trucks or water pulls to allow time for penetration; dig a test hole to depth of cut to determine if soils are moist at depth and continue to pre-water if not moist to depth of cut; use water truck/pull to water soils to depth of cut prior to subsequent cuts; and apply water or dust palliative to form crust on soil following fill and compaction. (CCHD)

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[4] The following acronyms are used in this listing of mitigation measures: ADEQ = Arizona Department of Environmental Quality; BCAQMD = Butte County Air Quality Management District; CCHD = Clark County (Nevada) Health Department; MBUAPCD = Monterey Bay Unified Air Pollution Control District; SBCAPCD = Santa Barbara County Air Pollution Control District; SJVUAPCD = San Joaquin Valley Unified Air Pollution Control District; SLOCAPCD = San Luis Obispo County Air Pollution Control District.

- For large tracts of disturbed land, prevent access by fencing, ditches, vegetation, berms, or other barrier; install perimeter wind barriers 3 to 5 feet high with low porosity; plant perimeter vegetation early; and for long-term stabilization, stabilize disturbed soil with dust palliative or vegetation or pave or apply surface rock. (CCHD)
- In staging areas, limit size of area; apply water to surface soils where support equipment and vehicles are operated; limit vehicle speeds to 15 mph; and limit ingress and egress points. (CCHD)
- For stockpiles, maintain at optimum moisture content; remove material from downwind side; avoid steep sides or faces; and stabilize material following stockpile-related activity. (CCHD)
- To prevent trackout, pave construction roadways as early as possible; install gravel pads; install wheel shakers or wheel washers, and limit site access. (CCHD)
- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained. (BAAQMD, SJVUAPCD, Rule 403 Handbook, ADEQ)
- Where feasible, use bed liners in bottom-dumping haul vehicles. (Rule 403 Handbook)
- Grade each phase separately, timed to coincide with construction phase or grade entire project, but apply chemical stabilizers or ground cover to graded areas where construction phase begins more than 60 days after grading phase ends. (Rule 403 Handbook)
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (BAAQMD) *(The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.).* (SJVUAPCD)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. (SJVUAPCD, ADEQ)
- During initial grading, earth moving, or site preparation, projects 5 acres or greater may be required to construct a paved (or dust palliative treated) apron, at least 100 ft in length, onto the project site from the adjacent site if applicable. (BCAQMD)

- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hrs. (BCAQMD, MBUAPCD, CCHD)
- Prior to final occupancy, the applicant demonstrates that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions. (BCAQMD)
- Gravel pads must be installed at all access points to prevent tracking of mud on to public roads. (SBCAPCD)
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. (SBCAPCD, SLOCAPCD)
- Prior to land use clearance, the applicant shall include, as a note on a separate informational sheet to be recorded with map, these dust control requirements. All requirements shall be shown on grading and building plans. (SBCAPCD, SLOCAPCD)
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. (SLOCAPCD)
- Barriers with 50% or less porosity located adjacent to roadways to reduce windblown material leaving a site. (Rule 403 Handbook)
- Limit fugitive dust sources to 20% opacity. (ADEQ)
- Require a dust control plan for earthmoving operations. (ADEQ)

All of these measures are feasible and various combinations of them are routinely required elsewhere to reduce fugitive dust/PM10 emissions.

DIESEL EXHAUST

Diesel exhaust emissions include NOx, ROG, CO, and PM10. Diesel exhaust PM10 can cause significant cancer risks. The following sections summarize four widely used measures to mitigate construction exhaust emissions: (1) ultra low sulfur diesel; (2) alternative diesel formulations; (3) California Air Resources Board ("CARB")-certified construction equipment; and (4) post-combustion controls. They are all unquestionably feasible, and should be required.

Examples of mitigation programs incorporating these measures are the construction exhaust mitigation program for the NASA Ames Development

Plan[5] and for the Stanford University Community Plan[6]. The City of San Diego required that exhaust emissions from equipment used to construct the Padres Ballpark and ancillary projects be reduced by 95% using a range of measures, including alternative fuels and post-combustion controls. SMAQMD and the U.S. EPA also routinely require mitigation for construction exhaust emissions.

1. Ultra Low-Sulfur Diesel

The U.S. EPA and CARB have adopted stringent fuel regulations that limit the sulfur content of on-road diesel fuel to 500 ppm at the present. This limit will be lowered to 15 ppm in June 2006. However, some California refineries, including the nearby Equilon Refinery, in Martinez, already comply and could supply 15 ppm diesel fuel for Project construction.

CARB diesel, which is not required for off-road equipment, and 15-ppm sulfur, ultra-low-sulfur diesel, are currently used in vehicle fleets and have been widely required as CEQA mitigation. These fuels not only reduce sulfur, but also NOx, CO, and PM10 and could be adopted here to further reduce construction exhaust emissions, especially significant NOx emissions.

The California Energy Commission ("CEC") has required the use of ultra low sulfur fuel where available. The CEC follows a CEQA-equivalent process in licensing of new power plants larger than 50 MW. Ultra-low-sulfur diesel was required in the recently decided cases of the Three Mountain Power Project,[7] the Huntington Beach Generating Station Retool Project,[8] and others.

Other agencies have also required the use of low-sulfur diesel fuels in construction equipment as CEQA mitigation. The El Toro Reuse IS/MND[9] requires the exclusive use of 15 ppm diesel in "all on-site construction equipment and all construction material delivery trucks." The Port of Oakland Berths 55-58 FEIR[10] required the use of CARB low-sulfur diesel.

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[5] NASA Ames Research Center, NASA Ames Development Plan, Draft Programmatic EIS, November 2001.

[6] Santa Clara County, DEIR Stanford University Draft Community Plan and General Use Permit Application, June 23, 2000.

[7] California Energy Commission, Commission Decision, Three Mountain Power Plant Project, May 2001, Condition AQ-26, p. 142.

[8] California Energy Commission, Commission Decision, Huntington Beach Generating Station Retool Project, May 2001, Condition AQ-C2, p. 30.

[9] County of Orange, Draft Environmental Impact Report No. 573 for the Civilian Reuse of MCAS El Toro and the Airport System Master Plan for John Wayne Airport and Proposed Orange County International Airport, Draft Supplemental Analysis, April 2001.

[10] Port of Oakland, Berths 55-58 Project DEIR, December 11, 1998.

2. Alternative Diesel Formulations

PuriNOx™ is an alternative diesel formulation that was verified by CARB on January 31, 2001[11] as achieving a 14% reduction in NOx and a 63% reduction in PM10 compared to CARB diesel. It can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.[12]

This fuel has been successfully used in heavy-duty off-road and on-road equipment, including by the County of Sacramento at the Keifer Landfill and North Transfer station, in off-road construction equipment at very large residential construction projects in Sacramento, in truck fleets operated by Pacific Cement in San Francisco and Ramos Oil in Dixon, in yard hostlers at the Port of Long Beach, and in off-road equipment operated by Hanson Aggregate in San Francisco.

The fuel has been required as mitigation for construction exhaust emission impacts. The NASA Ames Development Plan DEIS requires "where reasonable and feasible, use alternative diesel fuels. The CARB has verified reductions of NOx by almost 15%, and particulate matter by almost 63%, from use of alternative diesel fuels," describing PuriNOx.

3. CARB-Certified Construction Equipment

Both the U.S. EPA and CARB have established emission limits on new off-road engines. CARB-certified off-road engines are engines that are 3 years old or less at the time of use and which comply with these new low emission limits. This equipment is widely available in the construction fleet.

Construction exhaust emissions of all criteria pollutants could be substantially reduced by requiring the use of at least 20% CARB-certified off-road engines in the mix of construction equipment operating on-site, or alternatively, setting a NOx, ROG, and/or PM10 emission reduction goal for the construction fleet. This measure has been required by the SMAQMD and other agencies to mitigate construction emissions.

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[11] Letter from Dean C. Simeroth, Chief, Criteria Pollutants Branch, to Thomas J. Sheahan, Lubrizol, January 31, 2001.

[12] Personal communication, Phyllis Fox with Hep Hepner, Ramos Oil Co. (916-371-3289, ext. 242) and Bill Hagstrand, Lubrizol (440-347-6592), March 19-21, 2001.

A similar measure has been adopted by the Texas Natural Resource Conservation Commission ("TNRCC") for the Dallas/Fort Worth and Houston-Galveston areas. (Rennie et al. 2001.[13]) The Arizona Department of Environmental Quality ("ADEQ") has also recommended this measure to address the air quality problems in the Phoenix area. (ADEQ 11/9/00, pp. 19-24.)

4. Post-Combustion Controls

Post-combustion controls are devices that are installed downstream of the engine on the tailpipe to treat the exhaust. These devices are now widely used on construction equipment and are capable of removing over 90% of the PM10, CO, and VOCs from engine exhaust, depending on the specific device, sulfur content of the fuel, and specific engine. The most common and widely used post-combustion control devices are particulate traps (*i.e.*, soot filters), oxidation catalysts, and combinations thereof. The many variants of these devices have recently been identified, evaluated, and comprehensively reviewed by CARB[14] and others.[15]

These devices are commonly required as mitigation for construction emissions. The Massachusetts Turnpike Authority ("MTA") implemented a voluntary program in the fall of 1998 which resulted in retrofitting 70 pieces of construction equipment with oxidation catalysts (Kasprak et al. 2001[16]) at the "Big Dig," the massive, 5-year, $10 billion-plus Central Artery/Tunnel Project in Boston's North End and one of the largest infrastructure construction projects in the county.

These controls have also been widely required to mitigate construction emissions in California. The CEC follows a CEQA-equivalent process in licensing of new power plants larger than 50 MW, has required these devices on many projects. The Sunrise Power Project was recently constructed using

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[13] S.G. Rennie, L. Fiffick, D. Huckabay, and B. Ubanwa, Heavy Duty Diesel Engines Retrofit Programs as a Part of Houston SIP, Proceedings of the Air &Waste Management Association's 94th Annual Conference & Exhibition, June 24-28, 2001.

[14] California Air Resources Board (CARB), Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, October 2000; CARB, Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines, October 2000.

[15] Manufacturers of Emission Controls Association, Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-Duty Engines to Achieve Low Emission Levels, Final Report, June 1999.

[16] Alex Kasprak, Guido Schattanek, and Ping K. Wan, Emission Reduction Retrofit Program for Construction Equipment of the Central Artery/Tunnel Project, Proceedings of the Air & Waste Management Association's 94th Annual Conference & Exhibition, June 24-28, 2001. Also see: www.epa.gov/OMS/retrofit/documents/bigdig_case_01.htm.

this equipment.[17] No problems were encountered. Several other 500+MW power plants have been licensed and most are currently under construction successfully using these controls, including High Desert,[18] Elk Hills,[19] Pastoria,[20] Western Midway-Sunset,[21] Mountain View,[22] and Contra Costa Unit 8,[23] among others. All of these decisions are posted at www.energy.ca.gov under the name of the individual facility. Post-combustion controls have also been required as conventional CEQA mitigation in EIRs, including the Stanford University General Use Permit Application IS/MND, the City of San Diego in the Padres Ballpark FEIR, and the Port of Oakland's Vision 2000 FEIR.

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[17] California Energy Commission, Commission Decision, Sunrise Power Project, December 2000, Condition AQ-C3, p. 120.

[18] California Energy Commission, Commission Decision, High Desert Power Project, May 2000, Condition AQ-3(o), p. 107.

[19] California Energy Commission, Commission Decision, Elk Hills Power Project, December 2000, Condition AQ-C2(3), p. 123.

[20] California Energy Commission, Commission Decision, Pastoria Energy Facility, December 2000, Condition AQ-C3, p. 108.

[21] California Energy Commission, Commission Decision, Western Midway Sunset Power Project, March 2001, Condition AQ-C2, p. 114.

[22] California Energy Commission, Commission Decision, Mountain View Power Project, March 2001, Condition AQ-C2, p. 34.

[23] California Energy Commission, Commission Decision, Contra Costa Unit 8 Power Project, May 2001, Condition AQC-2, p. 12.

APPENDIX B

SETTLEMENT AGREEMENT

John Wayne Airport Settlement Amendment Supplemental EIR

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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

COUNTY OF ORANGE,

Plaintiff,

v.

AIR CALIFORNIA, *et al.*,

Defendants.

CITY OF NEWPORT BEACH,

Counterclaimant,

v.

COUNTY OF ORANGE; ORANGE COUNTY BOARD OF SUPERVISORS; and DOES 1 through 1,000, Inclusive,

Counterdefendants.

AND RELATED COUNTERCLAIMS.

No. CV 85-1542 TJH (MCx)

EIGHTH SUPPLEMENTAL STIPULATION BY THE COUNTY OF ORANGE, CALIFORNIA, THE CITY OF NEWPORT BEACH, STOP POLLUTING OUR NEWPORT, AND THE AIRPORT WORKING GROUP OF ORANGE COUNTY, INC., AMENDING THE TERMS AND CONDITIONS OF THE PREVIOUS STIPULATIONS OF THOSE PARTIES AND REQUESTING A MODIFICATION OF AN EXECUTORY JUDGMENT OF THE COURT

AND

[PROPOSED] ORDER

I. BASIS FOR THE "1985 SETTLEMENT AGREEMENT"

1. In November 1985, the County of Orange and the Orange County Board of Supervisors ("Board") (collectively, the "County"), the City of Newport Beach ("City"), Stop Polluting Our Newport ("SPON"), and the Airport Working Group of Orange County, Inc. ("AWG") (City, SPON and AWG are sometimes collectively referred to as "the City"), by their respective counsel of record, entered into a stipulation to implement the settlement of the longstanding dispute between the County and the City concerning the development and operation of John Wayne Airport, Orange County (SNA) ("JWA") ("the 1985 Settlement Agreement"). The parties are sometimes collectively referred to in this Eighth Supplemental Stipulation ("Amended Stipulation") as the "Settling Parties". On December 15, 1985, the United States District Court entered a final judgment ("the confirming judgment") pursuant to the 1985 Settlement Agreement. The confirming judgment: (1) adjudicated that Environmental Impact Report 508/Environmental Impact Statement ("EIR 508/EIS") was legally adequate for the "EIR 508/EIS Project" (as that term is hereafter defined) under the California Environmental Quality Act ("CEQA"), the National Environmental Policy Act ("NEPA"), and all relevant state and federal implementing regulations; (2) adjudicated that all other claims, controversies and/or counterclaims were dismissed without prejudice; and (3) contained specific provisions for enforcement of the 1985 Settlement Agreement.

2. The compromise settlement reached by the Settling Parties reflected, under all of the circumstances, the individual judgments of the Settling Parties regarding an appropriate or acceptable balance between demand for air travel services in Orange County and any adverse environmental effects associated with the operation of JWA. The Settling Parties acknowledge that, without the 1985 Settlement Agreement and confirming judgment, protracted litigation would have continued and created an ongoing risk of impeding or preventing the County's development of

JWA, and its ability to create additional access opportunities for commercial operators desiring to use JWA.

3. Other provisions of the Settling Parties' agreement included actions that were generally described in, but not implemented directly through, the 1985 Settlement Agreement. Those provisions included actions undertaken by the County in adopting and implementing Resolution Nos. 85-1231, 85-1232 and 85-1233 (all adopted on August 27, 1985) concerning certification of EIR 508/EIS, adoption of additional mitigation measures and additional airport site studies in Orange County, and the parties' dismissal of other litigation concerning JWA.

4. In reaching the 1985 Settlement Agreement, the Settling Parties considered operational and other factors applicable to JWA that are not applicable to any other airport. The 1985 Settlement Stipulation is site specific to JWA, premised upon its unique history, operational characteristics and limitations. Specifically, the essential character of JWA as an airport facility, both operationally and environmentally, is defined by the significant and substantial physical and environmental constraints affecting public use of the facility, including, but not limited to, the extremely confined airport area that includes a total of approximately five hundred and four (504) acres, less than four hundred (400) acres of which are available for airfield operations, an extensive highway and local street system that surrounds the area, and residential and commercial areas located generally to the southeast, south, west, southwest, and north of the airport area, and commercial areas to the east of the airport area.

5. Regularly scheduled commercial service was first initiated at JWA in 1967, and since the late 1960s, the County has regulated the use and operation of JWA by a variety of means in an effort to control and reduce any adverse environmental impacts caused by aircraft operations to and from JWA. These regulations have included such restrictions as: (i) strict noise-based limitations on the type of aircraft which are permitted to use JWA, including both commercial and

general aviation aircraft; (ii) a nighttime "curfew" on aircraft operations exceeding certain specified noise levels; and (iii) limitations on the number of average daily commercial departures which can occur at the facility, either directly or through a limit on the permitted number of annual commercial passengers. Even prior to 1985, the controlled nature of the airport's operation, arising from a wide range of political, environmental, social and economic considerations, had become institutionalized to the extent that the regulated nature of the airport was a definitional component of its character as an air transportation facility.

6. The 1985 Settlement Agreement and confirming judgment were not intended to, and did not: (i) create any rights in favor of any persons other than the Settling Parties; or (ii) make the Settling Parties (other than the County) or any other person, parties to, or third party beneficiaries of, any contractual agreement between the County, as airport proprietor of JWA, and the United States of America (or any of its agencies).

II. BASIS OF AMENDMENTS TO THE TERMS AND CONDITIONS OF THE 1985 SETTLEMENT AGREEMENT

7. On December 5, 2000, the Board, by a unanimous vote, directed the County Executive Officer ("CEO") to work with the City to study the potential of extending certain restrictions at JWA beyond December 31, 2005. The Board agendized this matter on December 5, 2000, as a result of a request by the City to review the possibility of amending the 1985 Settlement Agreement to extend beyond 2005, and the desire of the County for amendments to certain terms and conditions of the 1985 Settlement Agreement, that would increase airport capacity and not adversely affect safe airport operations.

8. On May 22, 2001, the Board approved a Memorandum of Understanding ("MOU") between the County and the City pursuant to which the County would act as lead agency (with the

City designated a responsible agency) in the preparation of an Environmental Impact Report ("EIR") that would support County and City approval of one, or a combination, of the three project case scenarios identified in the EIR regarding amendments to the terms and conditions of the 1985 Settlement Agreement concerning restrictions at JWA. This EIR was designated as EIR 582 and was circulated for public review and comment pursuant to, and consistent with, CEQA and CEQA GUIDELINES requirements.

9. Final EIR 582 was found complete and adequate under CEQA by the Board of Supervisors on February 26, 2002. On June 25, 2002, the Board:

(a) Certified Final EIR 582 as adequate and complete and as containing all information required by CEQA, the CEQA GUIDELINES, and the County Local CEQA Procedures Manual;

(b) Adopted the statutorily required Findings, Mitigation Monitoring and Reporting Plan and Statement of Overriding Considerations ("Findings") consistent with CEQA and CEQA GUIDELINES requirements; and

(c) Authorized execution of an Amended Stipulation after its approval and execution by the City, SPON and AWG.

On or about June 25, 2002, the City, SPON and AWG each approved amendments to the Settlement Agreement consistent with Scenario 1.

10. The three project case scenarios ("Scenarios") evaluated in EIR 582 proposed modifications to some of the provisions of the 1985 Settlement Agreement, including an increase in permitted operational and facility capacity and an extension of the term of the agreement. In order to permit the Board and the City to determine the final terms of any amendments to the 1985 Settlement Agreement, the three Scenarios were each evaluated in the EIR to an equivalent level of detail that would permit the County and the City to adopt amendments to the 1985 Settlement

Agreement consistent with all or a portion of any Scenario. Each of the three Scenarios proposed for the County's and the City's consideration assumed modifications to the terms of the 1985 Settlement Agreement prior to December 31, 2005. Each of the three Scenarios contemplated modifications that would increase noise regulated departures and passenger service levels.

11. Subsequent to June 25, 2002, the airlines serving (or interested in serving) JWA requested certain capacity opportunities beyond those authorized by the Settling Parties on June 25, 2002. As a result of those discussions, the Settling Parties approved modifications to the Amended Stipulation ("Modified Amended Stipulation") that were substantially responsive to the airlines' requests.

12. On December 10, 2002, the Board:

(a) Accepted Addendum 582-1 to Final EIR 582 and approved the related amendments to the Findings consistent with this Modified Amended Stipulation as required by CEQA and CEQA GUIDELINES requirements;

(b) Approved modifications to the Amended Stipulation as reflected in the terms and conditions of this Modified Amended Stipulation; and

(c) Authorized execution of this Modified Amended Stipulation after its approval and execution by the City, SPON and AWG, and subject to the Airport Director receiving a letter from the Federal Aviation Administration ("FAA") which, in the opinion of Counsel, is substantially consistent, and in concurrence, with the Airport Director's letter to the FAA Chief Counsel dated December 3, 2002, stating that the modified Amended Stipulation is consistent with federal law. A copy of the Airport Director's December 3, 2002, letter to the FAA is attached to this Stipulation as Exhibit A.

13. On December 10, 2002, the City accepted Addendum 582-1 to Final EIR 582,

adopted amendments to the findings made by the City on June 25, 2002, consistent with the action taken by the County as lead agency, and authorized execution of this Amended Stipulation subject to certain conditions, including receipt of the FAA Chief Counsel opinion letter referenced above. On or about December 10, 2002, SPON and AWG each authorized execution of this Amended Stipulation subject to conditions similar to those specified by the City and the County.

14. All conditions to the execution of this Amended Stipulation by each of the Settling Parties have been satisfied including the issuance and receipt of the FAA Chief Counsel opinion letter, a copy of which is attached as Exhibit B to this Stipulation.

15. The goals and objectives of the County, as the lead agency, the project proponent and the airport proprietor, in preparing EIR 582 and entering into this Amended Stipulation, included:

(a) Recognizing that aviation noise management is crucial to the continued increase in airport capacity;

(b) Modifying some restrictions on aircraft operations at JWA under the 1985 Settlement Agreement in a manner that would provide increased air transportation opportunities to the air traveling public using JWA without any adverse effect on aircraft safety;

(c) Continuing the County's historical protection of the environmental interests and concerns of persons residing in the vicinity of JWA; and

(d) Maintaining a reasonable balance between air service and local environmental impacts of that service in a manner that controls and minimizes the County's risk of noise damage claims that otherwise might be made against the County.

These objectives are consistent with a long-standing and adopted policy of the County to operate JWA in a manner that provides the maximum air transportation opportunities at JWA, while ensuring that airport operations do not unreasonably result in adverse environmental effects on surrounding communities.

16. Subject to the approval of the Court by entry of a Modified Final Judgment consistent with this Amended Stipulation ("the Modified Final Judgment"), this Amended Stipulation contains all of the obligations of the Settling Parties. The County shall have no obligation to the City, SPON or AWG, nor shall there be any restriction on the discretion of the County in its capacity as airport proprietor of JWA, except as that obligation or restriction is expressly stated in this Amended Stipulation.

17. This Amended Stipulation continues the essential terms and conditions of the 1985 Settlement Agreement regarding the County's development and operation of JWA, with certain capacity enhancing modifications, including:

(a) Defining all regulated passenger flights as Class A flights and eliminating the Class AA Aircraft definition/distinction, effective upon execution of the Modified Final Judgment by the Court. The definition/distinction for Class E Aircraft is preserved unaffected by this Amended Stipulation;

(b) Increasing the number of regulated flights allocated to passenger Commercial Carriers at JWA from seventy-three (73) ADDs to eighty-five (85) ADDs, beginning on January 1, 2003, through December 31, 2015;

(c) Increasing the MAP level served at the Airport from 8.4 MAP to 10.3 MAP, beginning on January 1, 2003, through December 31, 2010, and increasing the MAP level served at the Airport from 10.3 MAP to 10.8 MAP, beginning on January 1, 2011, through December 31, 2015;

(d) Continuing to allow the permitted number of operations by "Exempt Aircraft" (*i.e.*, Class E Aircraft) to be unlimited, except that the combined number of passengers served by Commuter Aircraft, Class E Aircraft and Class A Aircraft in regularly scheduled commercial service will not exceed 10.3 MAP, beginning on January 1, 2003, through December 31, 2010, and 10.8 MAP, beginning January 1, 2011, through December 31, 2015;

(e) Increasing the number of cargo flights from JWA from two (2) Class A ADD cargo flights to a total of four (4) Class A ADD cargo flights, for a total of eighty-nine (89) Class A ADD flights, beginning on January 1, 2003, through December 31, 2015;

(f) Providing the passenger commercial carriers with the opportunity to use up to two (2) of the Class A ADD cargo flights if there is no demand for these cargo flights by cargo air carriers; and

(g) Increasing the permitted number of commercial passenger loading bridges at JWA from fourteen (14) loading bridges to twenty (20) loading bridges, through December 31, 2015, and providing up to two (2) hardstand positions for aircraft arriving at the Airport.

III. DEFINITIONS

For purposes of this Amended Stipulation and the proposed Modified Final Judgment, the terms below are defined as follows:

18. "ADD" means "average daily departure," which is computed for purposes of the Plan on an annual basis, from April 1 of each year during which the Plan is in effect, to March 31 of the following year. One ADD authorizes any person requiring ADDs for its operations at JWA

to operate 365 (or 366 in any "leap year") Authorized Departures during each Plan Year, subject to the definitions, provisions, conditions and limitations of this Amended Stipulation and implementing regulations of the County. "ADD" includes all Class A departures, except emergency or mercy flights, departures resulting from mechanical failures, emergency or weather diversions to JWA necessary to reposition an aircraft into its normal scheduling rotation, the repositioning of aircraft to another airport in connection with a published change in the previous schedule of operations of the airline, test or demonstration flights authorized in advance by the airport director, or charter flights by persons not engaged in regularly scheduled commercial service at JWA.

19. "Class A Aircraft" means aircraft which: (i) operate at gross takeoff weights at JWA not greater than the Maximum Permitted Gross Takeoff Weight for the individual aircraft main landing gear configuration, as set forth in the text of Section 2.30 of the Phase 2 Access Plan, as amended through July 1, 1999; and which (ii) generate actual energy averaged SENEL levels averaged during each Noise Compliance Period, as measured at the Departure Monitoring Stations which are not greater than the values:

NOISE MONITORING STATION	ENERGY AVERAGED DECIBELS
NMS1S:	101.8 dB SENEL
NMS2S:	101.1 dB SENEL
NMS3S:	100.7 dB SENEL
NMS4S:	94.1 dB SENEL
NMS5S:	94.6 dB SENEL
NMS6S:	96.1 dB SENEL
NMS7S:	93.0 dB SENEL

In determining whether an aircraft is a Class A aircraft, its noise performance at the Departure Monitoring Stations shall be determined at each individual station, and the aircraft must meet each of the monitoring station criteria, without "trade-offs," in order to qualify as a Class A

aircraft.

20. "Class E Aircraft" means aircraft which: (i) operate at gross takeoff weights at JWA not greater than the Maximum Permitted Gross Takeoff Weight for the individual aircraft main landing gear configuration, as set forth in the text of Section 2.30 of the Phase 2 Access Plan, as amended through July 1, 1999; and which (ii) generate actual energy averaged SENEL levels, averaged during each Noise Compliance Period, as measured at the Departure Monitoring Stations, which are not greater than the values:

NOISE MONITORING STATION	ENERGY AVERAGED DECIBELS
NMS1S:	93.5 dB SENEL
NMS2S:	93.0 dB SENEL
NMS3S:	89.7 dB SENEL
NMS4S:	86.0 dB SENEL
NMS5S:	86.6 dB SENEL
NMS6S:	86.6 dB SENEL
NMS7S:	86.0 dB SENEL

In determining whether an aircraft is a Class E Aircraft, its noise performance at the Departure Monitoring Stations shall be determined at each individual noise monitoring station, and the aircraft must meet each of the noise monitoring station criteria, without "trade-offs," in order to qualify as a Class E Aircraft.

21. "Commercial Air Carrier" or "Air Carrier" means any person other than a Commuter Air Carrier or Commuter Cargo Carrier who operates Regularly Scheduled Air Service into and out of JWA for the purpose of carrying passengers, freight, cargo, or for any other commercial purpose. For purposes of the Plan, Commercial Air Carrier includes all Commercial Cargo Carriers.

22. "Commercial Cargo Carrier" means any person which is an Air Carrier, but which conducts its operations at JWA solely for the purpose of carrying Commercial Cargo with aircraft

regularly configured with zero (0) passenger seats available to the general public, and which does not offer passenger service to the public in connection with its operations at JWA.

23. "Commuter Air Carrier" or "Commuter Carrier" means any person who: (i) operates Regularly Scheduled Air Service into and out of JWA for the purpose of carrying passengers, freight, cargo, or for any other commercial purpose; (ii) with Class E Aircraft regularly configured with not more than seventy (70) passenger seats; and (iii) operating at gross take-off weights of not more than ninety thousand (90,000) pounds. For the purposes of the Plan, Commuter Air Carrier includes all Commuter Cargo Carriers.

24. "Commuter Cargo Carrier" means any person which is a Commuter Air Carrier, but which conducts its operations at JWA solely for the purpose of carrying Commercial Cargo with aircraft regularly configured with zero (0) passenger seats available to the general public, and which does not offer passenger service to the public in connection with its operations at JWA.

25. "Departure Monitoring Stations" means JWA noise monitoring stations NMS1S, NMS2S, NMS3S, NMS4S, NMS5S, NMS6S and NMS7S.

26. "EIR 582 Project" means the flight, passenger and gate increases and the facility improvements authorized by this Amended Stipulation together with the mitigation measures adopted by the Board pursuant to Resolution No. 02-186, as amended by County Resolution No 02-381, adopted on December 10, 2002. The Settling Parties agree that implementation of the EIR 582 Project may result in modifications to the Airport that are generally described in Exhibit 2-4 to EIR 582. The Settling Parties also agree that Exhibit 2-4 is only a conceptual plan and that further study by the County will likely require modifications to, or increases in, the areas depicted for commercial or cargo aircraft facilities or operations.

27. "MAP" means million annual passengers, consisting of the sum of actual deplaning and enplaning passengers served by all Commercial and Commuter Air Carriers at JWA during each Plan Year, except that it does not include passengers excluded from such calculations under

by the County to Commercial Passenger Air Carriers for any Plan Year in which the demand fo such flights by Commercial Cargo Air Carriers is less than four (4) ADDs.

41. Beginning on January 1, 2003, through December 31, 2010, JWA shall serv no more than 10.3 MAP during any Plan Year. Beginning on January 1, 2011, through Decembe 31, 2015, JWA shall serve no more than 10.8 MAP during any Plan Year.

B. FACILITY CONSTRAINTS

42. Prior to December 31, 2002, there shall be a maximum of fourteen (14 loading bridges in use at JWA. Each loading bridge may serve no more than one (1) flight at time.

43. Beginning January 1, 2003, through December 31, 2015, there may be maximum of twenty (20) loading bridges in use at JWA. Each loading bridge may serve no mor than one (1) flight at a time.

44. During the term of this Amended Stipulation (through December 31, 2015 all air carrier aircraft regularly configured with ninety (90) or more passenger seats shall load an unload passengers only through the loading bridges in use at JWA, except that:

(a) Prior to January 1, 2006, air carrier aircraft regularly configured wit ninety (90) or more passenger seats may load and unload passenge by stairway or other means not involving the use of loading bridge (hardstands) as (i) the Airport Director reasonably deems necessar to accommodate commercial aircraft operations authorized by thi Amended Stipulation, and (ii) only to the extent that the total of th loading bridges and the number of "hardstands" does not excee twenty (20);

(b) Through December 31, 2015, arriving air carrier aircraft regularl configured with ninety (90) or more passenger seats may unloa passengers by stairway or other means not involving the use

loading bridges (hardstands) as (i) the Airport Director or his designee reasonably deems necessary to accommodate arriving commercial aircraft operations, and (ii) only to the extent that the total of the number of "arriving" "hardstand" positions does not exceed two (2) positions;

(c) Air Carrier aircraft regularly configured with ninety (90) or more passenger seats may load and unload passengers by stairway or other means not involving the use of loading bridges as the Airport Director reasonably deems necessary to accommodate commercial aircraft operations authorized by this Amended Stipulation during periods when construction and maintenance activities at or on the commercial terminal, terminal apron or proximate taxiways temporarily precludes or impairs the use of any loading bridges;

(d) Air Carrier aircraft regularly configured with ninety (90) or more passenger seats may load and unload passengers by stairway or other means not involving the use of loading bridges as the Airport Director reasonably deems necessary to accommodate temporarily commercial aircraft operations authorized by this Amended Stipulation during any airport or airfield emergency condition which precludes or impairs the regular use of any loading bridges; and

(e) Air Carrier aircraft regularly configured with ninety (90) or more passenger seats may load and unload passengers by stairway or other means not involving the use of loading bridges as the Airport Director reasonably deems necessary to accommodate commercial aircraft operations authorized by this Amended Stipulation during any period where compliance with safety or security directives of any federal agency with lawful jurisdiction over airport operations o

activities [including, but not necessarily limited to, the Federal Aviation Administration ("FAA") and the Transportation Security Agency ("TSA")], imposes or adopts any safety or security directive or requirement affecting the airport which impairs the full and effective utilization of the loading bridges at the airport.

C. OTHER STIPULATED PROVISIONS

45. The existing curfew regulations and hours for JWA, contained in County Ordinance 3505, and the provisions of paragraph 4, at page 62, of Board of Supervisors' Resolution 85-255 (February 26, 1985), reducing the curfew exemption threshold to 86.0 dB SENEL, shall remain in effect for no less than five (5) years past the end of the Project Period. Nothing in this paragraph precludes or prevents the JWA Airport Director, his designated representative, or some other person designated by the Board, from exercising reasonable discretion in authorizing a regularly scheduled departure or landing during the curfew hours where: (1) such arrival or departure was scheduled to occur outside of the curfew hours; and (2) the arrival or departure has been delayed because of mechanical problems, weather or air traffic control delays, or other reasons beyond the control of the operator. In addition, this paragraph does not prohibit authorization of bona fide emergency or mercy flights during the curfew hours by aircraft that would otherwise be regulated by the curfew provisions and limitations.

46. In mitigation of the EIR 508/EIS Project, and for other reasons, the County has adopted a "General Aviation Noise Ordinance" ("GANO") (County Ordinance 3505). One principal policy objective of the GANO is to exclude from operations at JWA general aviation aircraft that generate noise levels greater than the noise levels permitted for aircraft used by Commercial Air Carriers. During the Project Period, the County shall maintain in effect an ordinance that meets this basic policy objective. Nothing in this Amended Stipulation precludes

the County from amending the GANO to enhance or facilitate its reasonable achievement of its principal purpose, or the effective enforcement of its provisions.

47. During the Project Period, the City, SPON, AWG, their agents, attorneys, officers, elected officials and employees agree that they will not challenge, impede or contest, by or in connection with litigation, or any adjudicatory administrative proceedings, or other action, the funding, implementation or operation of the EIR 582 Project, or any facilities that are reasonably related to implementation of the EIR 582 Project at JWA, by the County and the United States; nor will they urge other persons to do so, or cooperate in any such efforts by other parties except as may be expressly required by law. Nothing in this paragraph prohibits the Settling Parties from submitting comments or presenting testimony regarding any future environmental documentation prepared by the County with respect to implementation of the EIR 582 Project.

48. The Settling Parties recognize that it is in the best interests of each of them and in furtherance of the interests, health, welfare and safety of the citizens of Orange County that any potential disputes, controversies or claims with respect to the growth and expansion of JWA through the Project Period be resolved in accordance with the terms and conditions of this Amended Stipulation and the Modified Final Judgment. This Amended Stipulation does not constitute an admission of the sufficiency or insufficiency of any claims, allegations, assertions, contentions or positions of any other party, or the sufficiency or insufficiency of the defenses of any such claims, allegations, contentions or positions.

49. Upon execution of this Amended Stipulation, the Settling Parties, their agents, officers, directors, elected officials and employees each agree to release, acquit and forever discharge each other, their heirs, employees, officials, directors, supervisors, consultants and successors-in-interest from any and all claims, actions, lawsuits, causes of action, liabilities, demands, damages, costs, attorneys' fees and expenses which may arise from or concern the

subject matter of this Amended Stipulation, including, but not limited to, the legal adequacy of EIR 582, the legal adequacy of the terms and conditions for the modification of the 1985 Settlement Agreement and confirming judgment, and/or the legal adequacy of any of the amendments to the Plan through the Project Period. Nothing in this release shall limit in any way the ability of any Settling Party to enforce the terms, conditions and provisions of this Amended Stipulation and the Modified Final Judgment.

50. All Settling Parties to this Amended Stipulation specifically acknowledge that they have been informed by their legal counsel of the provisions of section 1542 of the CALIFORNIA CIVIL CODE, and they expressly waive and relinquish any rights or benefits available to them under this statute, except as provided in this Amended Stipulation. CALIFORNIA CIVIL CODE §1542 provides:

> A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor.

Notwithstanding section 1542 of the CALIFORNIA CIVIL CODE, or any other statute or rule of law of similar effect, this Amended Stipulation shall be given its full force and effect according to each and all of its express terms and provisions, including those related to any unknown or unsuspected claims, liabilities, demands or causes of action. All parties to this Amended Stipulation have been advised specifically by their legal counsel of the effect of this waiver, and they expressly acknowledge that they understand the significance and consequence of this express waiver of CALIFORNIA CIVIL CODE §1542. This waiver is not a mere recital, but rather forms a material part of the consideration for this Amended Stipulation.

51. During the Project Period, the Settling Parties agree that they will jointly defend, using their best efforts, any pending or future litigation, administrative investigation

administrative adjudication, or any similar or related enforcement action or claim against the County related to, or arising from, this Amended Stipulation, or the agreement(s) embodied in this Amended Stipulation, the EIR 582 Project at JWA, or the County's regulations or actions in implementation of, or enforcing limitations upon, the Project. If SPON does not have adequate funds to retain legal counsel, SPON shall be deemed to satisfy the requirements of this paragraph if SPON cooperates with the other Settling Parties in the litigation or administrative proceeding if, and to the extent, requested by the other Settling Parties.

52. During the Project Period, the City (but not SPON or AWG) agrees that it will, at its own expense, reimburse the County for all reasonable attorneys' fees and costs incurred by the County in defending any pending or future litigation, administrative investigation, administrative adjudication, or any similar or related enforcement action or claim against the County challenging: the legality of this Amended Stipulation or the agreement embodied in this Amended Stipulation, the EIR 582 Project (including any Addendum to EIR 582), the authority of the County to approve or use any facilities generally consistent with, and reasonably related to implementation of the EIR 582 Project at JWA, or the County's regulations in implementation of or enforcing limitations upon, the Project. The City's obligations pursuant to this paragraph do not extend to any litigation or enforcement action initiated against the County by any other Settling Party alleging a breach by the County of this Amended Stipulation. Reasonable costs include, but are not limited to, the costs of retaining experts or consultants to provide legal counsel, the costs of preparing documents for introduction in any litigation, administrative investigation, administrative adjudication, or any similar or related enforcement action or claim, or to assist legal counsel, the costs of reproducing any document, and reasonable expenses such as transportation, meals, lodging and communication incurred in attending meetings or proceedings related to litigation or administrative proceedings. The County shall be obligated to defend, using its best efforts, any

FOR THE CITY:	City of Newport Beach P.O. Box 1768 Newport Beach, CA 92658-8915
FOR SPON:	Roy B. Woolsey 113 Via Venezia Newport Beach, CA 92663-5516
FOR AWG:	Barbara E. Lichman Chevalier, Allen & Lichman 2603 Main Street, Suite 1000 Irvine, CA 92714

Any party may, at any time during the Project Period, change the person designated to receive notices under this Amended Stipulation by giving written notice of the change to the other parties.

V. ENFORCEMENT OF THE JUDGMENT

55. If a dispute arises concerning the interpretation of, or a Settling Party's compliance with, the Modified Final Judgment, and if no exigent circumstances require immediate court proceedings, any Settling Party interested in the interpretation or compliance shall provide written notice of the dispute to the other Settling Parties. Within twenty-one (21) days of the sending of such notice, the parties shall meet in person (or by their authorized representatives) and attempt in good faith to resolve the dispute.

56. If a dispute has not been resolved within thirty-five (35) days after the sending of written notice, or if exigent circumstances require immediate court proceedings, any Settling Party may initiate enforcement proceedings in this action. A Settling Party seeking to compel another Settling Party to obey the Modified Final Judgment must file a Motion to Enforce Judgment. The Settling Parties agree not to resort to, request, or initiate proceedings involving the contempt powers of the Court in connection with a Motion to Enforce Judgment.

57. If the Court determines that a Settling Party is not complying with the Modified

litigation, administrative challenge or enforcement proceeding related to this Amended Stipulation. In recognition of the County's obligation to defend using its best efforts, the County shall have full discretion to select counsel, experts or other professionals to represent or advise it in respect of any such matters. The City shall reimburse the County for all reasonable litigation or administrative attorneys' fees or costs within thirty (30) days after an invoice is submitted to the City for reimbursement. The rights and obligations set forth in this paragraph shall survive the termination or expiration of this Amended Stipulation.

53. The Settling Parties acknowledge that the County intends, in the near future, to develop amendments to the current Plan and/or other airport regulations relative, among other issues, to the manner in which the County allocates Class A ADDs and exempt aircraft operating opportunities within the MAP level agreed to in this Amended Stipulation. The development and implementation of amendments to the Plan was contemplated by, and is considered an element of all of the Scenarios evaluated in EIR 582, and the parties agree that no additional or further environmental documentation is required under CEQA or NEPA to allow the County to develop or implement the amendments.

54. Any notices given under this Amended Stipulation shall be addressed to the parties as follows:

FOR THE COUNTY:

Richard Oviedo
Deputy County Counsel
John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

with a copy to:

Michael Scott Gatzke
Lori D. Ballance
Gatzke Dillon & Ballance LLP
1921 Palomar Oaks Way, Suite 200
Carlsbad, CA 92008

Final Judgment, the Court shall issue an order, in the nature of specific performance of the Modified Final Judgment, requiring the defaulting party to comply with the Modified Final Judgment within a reasonable period of time. If the defaulting party fails to comply with the order, any other Settling Party may then seek enforcement under any authorized processes of the Court.

VI. TERM OF AGREEMENT

58. This Amended Stipulation is contingent upon the Court's entry of the Modified Final Judgment such that the obligations, duties and rights of the parties are only those that are contained within this Amended Stipulation amending the terms and conditions of the 1985 Settlement Agreement. If the Modified Final Judgment is not entered, this Amended Stipulation shall be null and void, and shall not be admissible for any purpose. Unless the Modified Final Judgment is vacated at an earlier date in the manner described in paragraphs 59 through 63, this Amended Stipulation and Modified Final Judgment shall remain in full force and effect during the Project Period.

59. The City, SPON and/or AWG may, after consultation with one another, file a Motion to Vacate Judgment if, in any action that they have not initiated:

(a) Any trial court enters a final judgment that determines that the limits on the number of: (i) Regulated Class A ADDs; (ii) MAP levels; or (iii) facilities improvements contained in this Amended Stipulation or the curfew provisions of paragraphs 45 and 46 of this Amended Stipulation are unenforceable for any reason, and any of these stipulated limitations are exceeded;

(b) Any trial court issues a preliminary injunction that has the effect of precluding implementation or enforcement of the limits on the number of Regulated Class A ADDs, MAP levels or facilities improvements

contained in this Amended Stipulation or the curfew provisions of paragraphs 45 and 46 of this Amended Stipulation based upon a finding of a probability of making at trial any of the determinations described in subparagraph (a) above, and such preliminary injunction remains in effect for a period of one (1) year or more, and any of these stipulated limitations are exceeded; or

(c) Any appellate court issues a decision or order that makes any of the determinations described in subparagraphs (a) or (b) above, or affirms a trial court ruling based upon such a determination, and any of these stipulated limitations are exceeded.

60. The County may file a Motion to Vacate Judgment if:

(a) The City, SPON or AWG fail to comply with the provisions of paragraph 47 of this Amended Stipulation;

(b) A trial or appellate court issues an order that has the effect of prohibiting the County from implementing or enforcing any of the operational restrictions or facilities limitations required by this Amended Stipulation; or

(c) The FAA, or any successor agency, withholds federal grant funds from the County, or declines to permit the County to impose or use passenger facility charges at JWA based on a determination by the FAA that the adoption or implementation of all or a portion of this Amended Stipulation is illegal or unconstitutional as a matter of federal law, and (i) the FAA has issued an order or other determination to that effect which is subject to judicial review; and (ii) the County has, using reasonable efforts, been unable to secure a judicial order overruling or vacating the FAA order or other

determination.

This provision shall not apply to activities expressly permitted by paragraph 47 of this Amended Stipulation.

61. Pursuant to Rule 60(b) of the FEDERAL RULES OF CIVIL PROCEDURE, the Court shall, after consideration of a motion to vacate judgment, enter an order vacating the Modified Final Judgment if the Court determines that any of the conditions described in paragraphs 59 or 60 have occurred. Once vacated, the Modified Final Judgment and this Amended Stipulation shall be null and void, unenforceable and inadmissible for any purpose, and the Settling Parties will, pursuant to paragraph 62, be deemed to be in the same position that they occupied before the Modified Final Judgment and this Amended Stipulation were executed and approved, and the Settling Parties shall have the full scope of their legislative and administrative prerogatives.

62. If the Modified Final Judgment is vacated before December 31, 2005, the Settling Parties agree that the original 1985 Settlement Agreement, the original Confirming Judgment and the seven (7) subsequent amendments to the 1985 Settlement Agreement shall remain in full force and effect through December 31, 2005, if, for any reason, all or a portion of this Amended Stipulation is determined to be invalid and the Modified Final Judgment is vacated.

63. For the period after December 31, 2005, if any of the events described in paragraphs 59 or 60 occur during the Project Period, this Amended Stipulation and the Modified Final Judgment shall remain in full force and effect with respect to those terms and conditions or portions thereof that are not affected by the event(s) unless the court has granted a motion to vacate judgment pursuant to paragraphs 59 and 60.

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VII. MODIFICATION

64. The limitations on Regulated Class A ADDs, MAP levels and facilities provided for in this Amended Stipulation, the provisions of paragraphs 45 and 46 of this Amended Stipulation, and the agreements of the City, SPON and AWG not to contest or impede implementation of the EIR 582 Project (paragraph 47 of this Amended Stipulation), are fundamental and essential aspects of this Amended Stipulation, and were agreed upon with full recognition of the possibility that economic, demographic, technological, operational or legal changes not currently contemplated could occur during the Project Period. It was in recognition of these essential aspects of this Amended Stipulation, and the inability to accurately predict certain future conditions that the Settling Parties have agreed to the specific and express provisions of paragraph 59 of this Amended Stipulation. The Settling Parties further acknowledge that this Amended Stipulation provides for the Settling Parties to perform undertakings at different times, and that the performance of certain of the undertakings, once accomplished, could not be undone. Accordingly, except as provided herein, the Settling Parties expressly waive any potential right to seek to modify or vacate the terms of this Amended Stipulation or the Modified Final Judgment, except by written mutual agreement.

Attorneys for Plaintiff and Counterdefendants, the County of Orange and the Orange County Board of Supervisors

Michael Scott Gatzke
Lori D. Ballance
Gatzke Dillon & Ballance LLP

Dated: 2/13/03

By: _____
Michael Scott Gatzke

County Counsel, County of Orange

Date: 2/13/03

By: _____
Richard Oviedo
Deputy County Counsel

Attorneys for Defendant, Counterclaimant and Crossdefendant, the City of Newport Beach

Robert H. Burnham
City Attorney of Newport Beach

Dated: 2/12/03

By: _____
Robert H. Burnham

Attorneys for Defendant, Counterclaimant and Crossdefendant, Stop Polluting Our Newport (SPON)

Roy B. Woolsey

Dated: 2/12/03

By: _____
Roy B. Woolsey

Attorneys for Defendant, Counterclaimant and Crossdefendant, Airport Working Group (AWG)

Barbara E. Lichman
Chevalier, Allen & Lichman

Dated: 2/12/03

By: _____
Barbara E. Lichman

MODIFIED FINAL JUDGMENT

1. In 1985, the County of Orange, the City of Newport Beach, Stop Polluting Our Newport, and the Airport Working Group ("Settling Parties") entered into a Stipulation for Entry of Final Judgment by Certain Settling Parties, settling all pending actions and claims related to the 1985 Master Plan of John Wayne Airport ("JWA") and related actions ("the 1985 Settlement Agreement"). On December 13, 1985, this Court entered Final Judgment on Stipulation for Entry of Judgment by Certain Settling Parties which accepted the stipulation of the Settling Parties and incorporated certain portions of their stipulation into that judgment. The principal terms of the 1985 Settlement Agreement relate to restrictions and limitations on aircraft operations and commercial passenger facilities.

2. In the intervening years, by stipulations of the Settling Parties, orders of the Court have been entered to reflect certain modifications in the agreement of the Settling Parties which were contained in stipulations presented to and approved by the Court. None of these modifications further restricted operations or facilities as compared to the 1985 Settlement Agreement.

3. The Settling Parties have now presented to the Court an Eighth Supplemental Stipulation by the County of Orange, California, the City of Newport Beach, Stop Polluting Our Newport, and the Airport Working Group of Orange County, Inc., Amending the Terms and Conditions of the Previous Stipulations of those Parties ("Amended Stipulation") and Requesting a Modification of an Executory Judgment of the Court and [Proposed] Order.

IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

A. The Amended Stipulation contains many of the terms of the 1985 Settlement Agreement and the seven (7) previous stipulations of the Settling Parties and for clarity and ease of reference the Amended Stipulation is deemed to contain all of the agreements and obligations of the Settling Parties.

B. The provisions of paragraphs 17 through 46 and 55 through 63 of the Amended Stipulation are hereby incorporated as part of this Modified Final Judgment.

C. The Settling Parties shall each bear their own costs and attorneys' fees in connection with the entry of this Modified Final Judgment.

IT IS SO ORDERED.

Dated: Feb. 25, 2003

TERRY J. HATTER, JR.

The Honorable Terry J. Hatter, Jr.
United States District Judge

N WAYNE
IRPORT
County, California
L. Murphy
t Director

Airway Avenue
Mesa, CA
6-4608
52.5171
252.5178 fax
ocair.com

December 3, 2002

David G. Leitch
Chief Counsel
Federal Aviation Administration
AGC 200
800 Independence Avenue, SW
Washington, D.C. 20591

Re: *John Wayne Airport: County of Orange Request for Legal Opinion Regarding Amendments to a 1985 "Settlement Agreement" Relating to Aircraft Operations at SNA*

Dear Mr. Leitch :

The County of Orange, California ("County") is the owner and operator of John Wayne Airport, Orange County (SNA) ("JWA" or "the airport"). The County intends to implement certain modifications to a pre-existing "settlement agreement" which was originally entered into in 1985and included various noise based restrictions and regulations on aircraft operations at JWA. On June 25, 2002, the parties to that agreement took action agreeing to settlement agreement modifications that authorized increases in operational capacity at JWA beginning in 2003 (the "settlement amendment"). The settlement amendment also permits important capacity increases and airport facilities improvements which would allow and support additional operational opportunities to the airlines, permitting them to provide additional and enhanced service to the air traveling public. The amendment would have no effect on airport or aircraft safety. Further, in recent discussions between the County and airlines serving (or interested in serving) JWA, the airlines have requested certain capacity opportunities beyond those authorized by the parties on June 25, 2002. As a result, the settling parties are currently scheduled to consider approving next Tuesday, December 10, 2002, modifications to the settlement amendment which would be substantially responsive to those requests, subject to our receipt of the opinion from FAA requested by this letter.

The 1985 settlement agreement was embodied in a federal court stipulation for judgment, and the amendments to the settlement agreement would be similarly reflected in a filed stipulation that, with the consent of the federal court, would modify the original 1985 judgment permitting the additional operational capacity and improvements contemplated by the settlement amendment. We have enclosed with this letter a draft of the amended stipulation which reflects not only the amendments authorized by the actions of the parties on June 25, 2002, but which also reflects the additional capacity requested by the airlines, which the parties are prepared to authorize once we have received the requested concurring opinion from FAA.

REQUESTED OPINION

In order to obtain the consent of the other settling parties to the proposed modifications to the settlement amendment, the County requests an opinion of the Chief Counsel of FAA concurring in the following points:

1. Within the meaning of, and for all purposes related to Section 9304 of ANCA, the Aviation Noise and Capacity Act of 1990 (49 U.S.C. § 47524) and Section 161.3(a) of the Federal Aviation Regulations (14 C.F.R. § 161.3(a)), the 1985 Settlement Agreement is an airport regulation that contains airport noise and access restrictions (such as the provisions related to limits on noise-regulated departures, passenger service levels and nighttime operations) in effect as of October 1, 1990. In other words, the airport noise and access restrictions contained in the 1985 Settlement Agreement are permissible pursuant to the provisions of ANCA and Part 161.

2. Within the meaning of, and for all purposes related to Section 9304(a)(2)(C)(iii) of ANCA (49 U.S.C. § 47524(d)(3)) and Section 161.7(b)(3) of the Federal Aviation Regulations (14 C.F.R. § 161.7(b)(3)), the 1985 Settlement Agreement is an "intergovernmental agreement including airport noise or access restrictions" (such as the provisions related to limits on noise-regulated departures, passenger service levels and nighttime operations) that was "in effect on November 5, 1990." In other words, the airport noise and access restrictions contained in the 1985 Settlement Agreement are permissible pursuant to the provisions of ANCA and FAR Part 161 relating to intergovernmental agreements.

3. Pursuant to Section 9304(a)(2)(C)(iv) of ANCA (49 U.S.C. § 47524(d)(4)) and Sections 161.3(b) and 161.7(b)(4) of the Federal Aviation Regulations (14 C.F.R. §§ 161.3(b) and 161.7(b)(4)), "a subsequent amendment of an airport noise or access agreement or restriction in effect on November 5, 1990, that does not reduce or limit aircraft operations or affect aircraft safety" is permitted by ANCA and Part 161. The seven prior amendments of the 1985 JWA Settlement Agreement and the modified Amended Settlement Agreement, including the provisions related to limits on noise-regulated departures, passenger service levels and nighttime operations, are each subsequent amendments that are permitted pursuant to the sections quoted above because they do not, in comparison to the analogous provisions of the 1985 JWA Settlement Agreement, reduce or limit aircraft operations or affect aircraft safety.

4. A subsequent amendment of an airport noise or access agreement or restriction in effect on November 5, 1990, that does not reduce or limit aircraft operations or affect aircraft safety can be approved and implemented by the County pursuant to Section 105(b)(1) of the Airline Deregulation Act of 1978 (49 U.S.C. § 41713(b)(3)) in

accordance with its powers and rights as proprietor of JWA. The modified Amended Settlement Agreement is such a subsequent amendment.

5. Implementation of the provisions of the modified Amended Settlement Agreement:

   (a) Is not inconsistent with any of the County's "sponsor assurances" or other covenants or obligations under any airport grant agreement entered into by the County and FAA pursuant to any Federal law or regulation;

   (b) Will not adversely affect any application for Federal grant funds submitted in the future by the County for eligible projects at JWA; and

   (c) Will not adversely affect any application submitted in the future by the County to impose or use passenger facility charges with respect to eligible projects at JWA.

6. The modified Amended Settlement Agreement is consistent with and does not violate any provision of existing federal law for which FAA has statutory or delegated enforcement or implementation responsibilities.

We are aware of the substantial and important national issues that FAA is addressing on a continuing basis. We are also aware that our request that we receive your response, if at all possible, by December 10, 2002, in order to allow the County and the other parties to take their scheduled action to approve the settlement amendment modifications proposed by the airlines is extraordinary.

SETTLEMENT AGREEMENT AMENDMENTS

Settlement Agreement Amendments

On June 25, 2002, the parties to the 1985 Settlement Agreement (the County, the City of Newport Beach ["City"], Stop Polluting Our Newport ["SPON"] and the Airport Working Group of Orange County, Inc. ["AWG"]) approved amendments to the agreement. Those amendments *did not impose any restrictions on airport use at JWA beyond those in effect under the 1985 Settlement Agreement.* However, the amendments *did* provide important access and capacity enhancements which will allow JWA to serve substantially more passengers and air cargo than permitted under the 1985 Settlement Agreement. In general terms, some of the more significant amendments include: (a) authorizing, as early as January 1, 2003, increases in the permitted level of noise regulated commercial air carrier departures (from 73 ADD to 89 ADD – inclusive

of 4 all-cargo ADD)[1] ; (b) effective January 1, 2003, authorizing increases in the permitted passenger service level from 8.4 million annual passengers ("MAP") to 9.8 MAP; and (c) authorizing immediate construction to increase the number of permitted passenger loading bridges from 14 to 18 bridges. The amendments also extend the term of the settlement stipulation between the parties to December 31, 2015.

The Amendments were the outgrowth of an extensive public information program designed, in part, to obtain widespread community support for increases in flights, passengers and loading bridges in consideration of an extension of the term of the Settlement Agreement. Approval of the Amendments, including the capacity enhancements, was supported by every city impacted by operations at JWA and every "pro-airport" and "anti-airport" city that was actively involved in the El Toro reuse planning. The Orange County Congressional delegation and Orange County representatives in the State Legislature are unanimous in their support for the Amendments.

Air Carrier Requested Modifications to the Settlement Amendment

In August 2002, the County solicited input from airport users and the public on a wide range of issues relating to allocation of the new capacity authorized by the settlement amendment and related modifications to the *Phase 2 Access Plan*, by which the County has regulated capacity allocations and use since 1985. Written comments were submitted by all ten (10) incumbent air carriers and two (2) potential new entrant airlines in September 2002. The County also offered to meet with individual airlines, any airline trade organization, and the JWA Airport Airline Affairs Committee ("AAAC") representing airlines serving JWA, at their convenience to discuss any issues of significance to them. A number of such meetings have occurred, including a continuing series of meetings with the AAAC.

The County has held a number of helpful meetings with FAA staff during 2002 in order to advise the agency of the status of the County's process, and to discuss with them potential issues of importance to the agency. At the request of FAA staff, we provided the agency with extensive

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[1] In this respect, the City, AWG and SPON agreed to an important capacity enhancement which significantly improves the flexibility of the air carriers in using their noise regulated operating capacity at JWA. As part of the 1985 Master Plan project (approved by the Board of Supervisors on February 26, 1985) and as subsequently agreed to in the 1985 settlement agreement, the 73 regulated ADDs were divided into two classes: "Class A ADDs" and "Class AA ADDs"). These "classes" were differentiated and defined based upon aircraft noise levels. The permitted Class A single event noise levels are higher than the Class AA permitted noise levels. All other factors remaining equal, this means that the Class A flight can operate with a greater passenger load to more distant markets. Of the 73 regulated ADDs permitted under the current settlement agreement, a maximum of 39 may be allocated as Class A ADDs, and 34 must be allocated as Class AA ADDs. In the settlement amendment, the parties have eliminated the Class AA distinction, and all of the regulated ADDs permitted under the amendment are defined as Class A ADDs.

historical information regarding the unique history of JWA noise regulations and the settlement amendment process. We remain willing to provide any other information you may find helpful to your consideration of this request. Finally, we have periodically met with and briefed the members of the Orange County delegation and other members of Congress regarding the status of the settlement amendment process.

The AAAC has requested modifications to the settlement amendments to increase passenger service levels and permitted loading bridges beyond those originally agreed to by the parties on June 25, 2002. These include increasing the number of gates from eighteen (18) to twenty (20), increasing flexibility in using stair loading when necessary and some flexibility in passenger carrier use of authorized cargo ADDs when there is not full demand for the cargo ADDs from all-cargo carriers, and an increase in authorized passengers from 9.8 to 10.8 MAP. The City, AWG and SPON are each willing to agree to, and expeditiously proceed to implement, these modifications and the capacity enhancing provisions of the amendments on or before January 1, 2003, provided the County receives FAA's written concurrence on the questions presented in this letter so that they can have the comfort of knowing that they will be able to receive the benefit of their "bargain" without FAA opposition or legal challenge. The County both understands and supports this request.[2]

Additional Discussion

The County and the other settling parties, of course, believe that the 1985 Settlement Agreement clearly qualifies under the "general grandfathering" provisions of ANCA, as well as the "intergovernmental agreement" statutory exception of 49 U.S.C.A. §47524(d)(4). Even prior to the 1985 agreement, and concurrent with the initiation of commercial operations at JWA, the County has regulated maximum permitted noise and flight levels in an attempt to balance the needs of the Orange County community for reasonable air service opportunities with the legitimate environmental interests of communities located in the immediate vicinity of JWA. In fact, the regulated nature of airport operations has been a defining characteristic of the facility since the 1960's. The history and circumstances at JWA are, we believe, truly unique. We are aware of only two other airports which have adopted "slot" restrictions similar to the County's ADD limitations: South Lake Tahoe Airport and Long Beach Municipal Airport. Both operate under special ANCA statutory exceptions. Since adoption of the limitations at South Lake Tahoe Airport, due principally to lack of sufficient demand, commercial service has been

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[2] In addition to our desire to receive your response by December 10, 2002, so the County and the City can take action on their scheduled regular agendas to approve the settlement amendment modifications, under the County's Phase 2 Access Plan, capacity is allocated to the carriers beginning on April 1 of each year to be used through March 31 of the succeeding year. Normally, the County attempts to complete the allocation process 60 to 90 days in advance of April 1 in order to allow the air carriers time to make any necessary schedule changes. In order to complete the process of allocating the new capacity by April 1 of 2003, it is important that we receive FAA's response to this letter at the earliest possible date.

intermittent, at best and, so far as we are aware, there is no scheduled commercial service at that airport at the present time. The history of the adoption and final form of the Long Beach regulations is, as FAA is aware, also unique, but Long Beach is not presently proposing a regulatory increase in the number of operations permitted under its regulations and, until just recently, had not experienced sufficient demand from air carriers to even fully allocate the "slots" presently authorized by its regulations.

It seems equally clear to us that, since the settlement amendment (June 25, 2002) and the settlement amendment modifications (proposed for action on December 10, 2002) only increase capacity and do not adversely affect airport or aircraft safety, the settlement amendment and settlement amendment modifications are entitled to the same "grandfathered" status under the plain language of 49 U.S.C.A. §47524(d)(4) and are exempt from further compliance with ANCA or FAR Part 161.

Finally, the County also believes that the amendment is plainly non-discriminatory, fair and reasonable on its face within the meaning of the County's sponsor assurances in its airport grant agreements with the FAA. In this respect, we do wish to make clear that the opinion requested by this letter would, at least at this stage of the process, relate only to the terms of the settlement amendment. Issues relating to questions regarding the *allocation* of the new capacity authorized by the settlement amendment are presently being addressed by the County in the context of possible amendments to the *Phase 2 Access Plan*. Since the County has not yet made final decisions regarding its intended means of allocation, we recognize that FAA cannot yet comment on those allocation issues. We do intend, however, to continue to solicit input from FAA staff as that process proceeds to ensure that the County satisfies its goals, and those of the FAA, in ensuring that the allocation methodology is fair, reasonable and not unjustly discriminatory. On October 28, 1985, the then Chief Counsel of FAA provided a letter to us, on behalf of the County, concluding that the 1985 settlement agreement was not unjustly discriminatory and did not otherwise violate the County's AIP sponsor assurances, but reserved the right to comment further on any implementing allocation process. The County understands that the FAA may wish to reserve judgment on the allocation process until it is completed in this instance as well.

CONCLUSION

The significant improvements that have occurred in aircraft noise reduction technology since 1980, and the cooperation of the local communities affected by or concerned with the environmental effects of airport operations, has permitted the County to significantly increase air service opportunities at JWA. From an outdated and facilities strained airport which served a total of two commercial carriers with a maximum of 41 permitted flights per day in 1980, JWA has been able to grow to a modern airport which presently accommodates 10 commercial air

carriers and three commuter airlines operating as many as 130 daily flights.[3] This has been accomplished at an airport that operates on a total of less than 500 acres and one (5700 foot) runway suitable for air carrier operations. The settlement amendment modifications represents the latest effort by the County, the City and the citizens of Orange County to further recognize the important contributions that the aviation industry has made to noise reduction, and the local environmental benefits which have resulted from their aircraft investments and their cooperation for the past 17 years in successfully implementing the 1985 Settlement Agreement.

All of the settling parties, including the County, recognize and are respectful of the legitimate federal interest in aviation matters; and the cooperation, assistance and guidance which the County has received from FAA staff during that period has been of critical importance to the County's success in increasing airline service at JWA. Once again, FAA's assistance in that process is critically important, and we hope that the agency will be able to provide us with the requested opinion letter at an early date so that we can proceed to the allocation and operation of the capacity enhancements afforded by the settlement amendment and settlement amendment modifications.

Again, if we can answer any questions, or provide you with any additional information, please contact us at your convenience.

Sincerely,

Alan L. Murphy
Airport Director

cc: Assistant Airport Director
Deputy Director, Public Affairs
Deputy Director, Operations
Deputy Director, Finance and Administration
Deputy Director, Facilities
Deputy Director, Business Development
Manager, Access and Noise
Access and Noise Office
County Counsel
Airport Special Counsel

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[3] There have, since 1980, been a number of other air carriers and commuter airlines which have served JWA but left the airport due to mergers, bankruptcy or business decisions by the individual carriers.

U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W
Washington, D.C. 20591

DEC 31 2002

Mr. Alan Murphy
Airport Director
John Wayne Airport
3160 Airway Avenue
Costa Mesa, CA 92626

Re: John Wayne Airport (JWA) 1985 JWA Settlement Agreement Proposed Amendments

Dear Mr. Murphy:

This is in response to your December 3, 2002 letter to David G. Leitch, Chief Counsel, Federal Aviation Administration ("FAA"), on behalf of the County of Orange, California ("County"), in which you request the Office of the Chief Counsel's views concerning the consistency of certain proposed amendments to the 1985 John Wayne Airport ("JWA") Settlement Agreement ("the 1985 Settlement Agreement")[1] with the Airport Noise and Capacity Act of 1990 ("ANCA"), recodified at 49 U.S.C. §§ 47521-47533."[2]

In this letter, we conclude that the proposed amendments to the 1985 Settlement Agreement ("the proposed amendments" or "the modified Amended Settlement Agreement"), a copy of which was attached to your December 3 letter, are exempt from ANCA since the amendments would not "reduce or limit aircraft operations or affect aircraft safety." 49 U.S.C. § 47524(d)(4). We also advise that the FAA will not act to

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[1] The 1985 JWA Settlement Agreement is embodied in a Stipulation For Entry of Judgment by Certain Settling Parties filed with the United States District Court, Central District of California in Case No. CV 85-1542 TJH (MCx) and approved by the Honorable Terry J. Hatter, Jr. on December 12, 1985. The settling parties included the County of Orange, California, the City of Newport Beach, California, the Airport Working Group, and Stop Polluting Our Newport.

[2] We understand, from JWA's August 15, 2002 letter, that the proposed amendments to the 1985 Settlement Agreement will be implemented through amendments to the John Wayne Airport Phase 2 Commercial Airline Access Plan and Regulation ("the Phase 2 Access Plan"). To the extent that the proposed amendments to the 1985 Settlement Agreement also apply to the Phase 2 Access Plan, this letter applies to both documents.

prevent adoption and approval of the terms of the modified Amended Settlement Agreement, either under any transfer or grant agreements, or under the Federal Aviation Act of 1958, as amended ("FAA Act"), and that adoption and approval itself will not adversely affect future County grant applications under the Airport and Airway Improvement Act of 1982, as amended ("AAIA") or applications to impose or collect passenger facility charges under 49 U.S.C. § 40117.

The County's December 3, 2002, letter, and prior letters of August 15, 2002, September 6, 2002, September 26, 2002, and November 18, 2002, have provided helpful information concerning the nature and history of noise and access regulations at JWA, the type and extent of aviation facilities and operations at JWA, and the 1985 JWA Settlement Agreement and Phase 2 Access Plan as well as prior and proposed amendments. These letters also point out how the airport is unique in many respects among commercial airports in the United States and describe the terms and conditions of the seven prior amendments[3] of the 1985 Settlement Agreement and the proposed amendments.

The proposed amendments and amended court stipulation, as described in the documents you have provided, would continue the essential terms and conditions of the 1985 Settlement Agreement regarding the County's development and operation of JWA, with certain capacity enhancing modifications, including:

- Defining all regulated passenger flights as Class A flights and eliminating the Class AA Aircraft definition/distinction, effective upon execution of a modified final judgment by the court. The definition/distinction for Class E Aircraft is preserved unaffected in the Amended Stipulation;
- Increasing the number of regulated flights allocated to passenger commercial carriers at JWA from 73 average daily departures (ADDs) to 85 ADDs, beginning on January 1, 2003, through December 31, 2015;
- Increasing the level in millions of annual passengers ("MAP") served at the Airport from 8.4 MAP to 10.3 MAP, beginning on January 1, 2003, through December 31,

[3] The prior seven amendments to the settlement agreement were implemented for three different categories of changes: all-cargo operations (to increase in average daily departures ("ADDs") to accommodate cargo flights), FAA Advisory Circular AC-91-53A (to increase the safety of departure procedures at JWA), and noise monitoring system upgrades (due to physical relocation of some monitors and improved technology). Most of the seven amendments relate to an extension of the cargo operating capacity since these operations required approval on an annual or bi-annual basis.

2010, and increasing the MAP level served at the Airport from 10.3 MAP to 10.8 MAP, beginning on January 1, 2011, through December 31, 2015;

- Continuing to allow the permitted number of operations by Class E Aircraft to be unlimited, except that the combined number of passengers served by commuter aircraft, Class E Aircraft and Class A Aircraft in regularly scheduled commercial service will not exceed 10.3 MAP, beginning on January 1, 2003, through December 31, 2010, and 10.8 MAP, beginning January 1, 2011, through December 31, 2015;
- Increasing the number of cargo flights from JWA from two Class A ADD cargo flights to a total of four Class A ADD cargo flights, for a total of 89 Class A ADD flights, beginning on January 1, 2003, through December 31, 2015;
- Providing the passenger commercial carriers with the opportunity to use up to two of the Class A ADD cargo flights if there is no demand for these cargo flights by cargo air carriers; and
- Increasing the permitted number of commercial passenger loading bridges at JWA from 14 loading bridges to 20 loading bridges, through December 31, 2015, and providing up to two hardstand positions[4] for aircraft arriving at the Airport.

We understand that none of these changes would reduce or limit aircraft operations from the airport's current levels or affect aircraft safety.

Under Federal law, sponsors of federally-funded airports like the County must comply with the national program for review of airport noise and access restrictions under ANCA before implementing restrictions on operations by Stage 2 and Stage 3 aircraft. Airport noise and access restrictions on operations by Stage 2 aircraft that were proposed on or before October 1, 1990, and by Stage 3 aircraft that were in effect on or before October 1, 1990 are "grandfathered" under ANCA and are therefore not subject to its requirements. 49 U.S.C. §§ 47524(b), 47524(c)(1); 14 C.F.R. § 161.3(a). In addition, certain restrictions are exempt from ANCA, including "a subsequent amendment[5] to an airport noise or access agreement or restriction in effect on November 5, 1990, that does not reduce or limit aircraft operations or affect aircraft safety." 49 U.S.C. § 47524(d)(4); 14 C.F.R. § 161.7(b)(4).

Since JWA had a settlement agreement containing noise and access restrictions in place prior to October 1, 1990, the restrictions in the original 1985 Settlement Agreement and Phase 2 Access Plan are grandfathered under ANCA. 49 U.S.C. §§ 47524(b), 47524(c)(1); 14 C.F.R. § 161.3(a). Additionally, each of the seven prior amendments to the 1985 Settlement Agreement was "a subsequent amendment to an airport noise or access agreement or restriction in effect on November 5, 1990, that does not reduce or limit aircraft operations or affect aircraft safety" and is therefore exempt from ANCA and Part 161. 49 U.S.C. § 47524(d)(4); 14 C.F.R. § 161.7(b)(4).

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[4] *i.e.*, stair-loading an aircraft on the tarmac when a gate and jetway are not available.

[5] Although the plain language of §47524(d)(4) states "a" subsequent amendment (and thus could be read to authorize only one amendment per airport), we interpret "a" to mean "any." *See Black's Law Dictionary* 1 (6th ed. 1999), "[t]he word "a" has varying meanings and uses. "A" means "one" or "any ...."

The proposed amendments would extend the terms of the 1985 Settlement Agreement by ten years to December 31, 2015. Both the 1985 Settlement Agreement and the Phase 2 Access Plan note that the limitations on operations and terminal size, among other limitations, "shall end on December 31, 2005," or are in effect for "the period from February 26, 1985 to December 31, 2005." *See* Resolution Nos. 85-1233, 85-255, 90-1161; Settlement Agreement ¶¶ 20, 27, 29-36, 38. The proposed amendments would extend this expiration date to December 31, 2015. Compared to the current restrictions, the proposed amendments would liberalize air carrier access to JWA.

To determine whether ANCA applies to Orange County's proposal to both relax and extend existing restrictions requires interpretation of 49 U.S.C. § 47524(d)(4). The first inquiry in statutory interpretation is whether a statute speaks clearly and unambiguously to a subject. If so, then the clearly-expressed intent of Congress must be given effect. *Chevron USA v. Natural Resources Defense Council*, 467 U.S. 837, 842-43 (1984). Section 47524(d)(4) does not explicitly address restrictions in local agreements that have termination clauses and that will continue as part of ongoing mitigation programs under existing state environmental laws as new agreements are developed. Moreover, since ANCA was adopted as part of omnibus Federal budget legislation, its legislative history is sparse and does not provide clear congressional guidance on how restrictions that include expiration dates should be interpreted. Under these circumstances, the FAA has discretion to "fill[] the statutory gap 'in a way that is reasonable in light of the legislature's revealed design.'" *Lopez v. Davis*, 531 U.S. 230, 242 (2001). As the FAA is the administrative agency charged to administer ANCA, its interpretation of the statute will be accorded deference, provided the interpretation is "based on a permissible construction of the statute." *Yellow Transportation, Inc. v. Michigan*, 123 S. Ct. 371, 377 (2002), *quoting Chevron, supra,* 467 U.S. at 843. Under the present circumstances, including contemporaneous evidence reflecting the intent and understanding of the County about continued regulation of access at JWA, it is reasonable for the FAA to conclude that the proposed amendments to the 1985 Settlement Agreement to extend the expiration date and relax the existing restrictions on air carrier access do not "reduce or limit aircraft operations" within the meaning of 49 U.S.C. § 47524(d)(4).

For the past 11 years, the FAA has consistently interpreted ANCA to require airports seeking to qualify for exemption under the intergovernmental agreement provisions of ANCA, 49 U.S.C. § 47524(d)(3), to provide evidence that the sought-after restrictions were in effect, in existence, or contemplated at the time of the intergovernmental agreement. Our interpretation of § 47524(d)(4) in these circumstances is consistent with this prior interpretation of a comparable exemption. This is a reasonable interpretation of the statutory language that the FAA was delegated to administer.

As explained in detail below, the County adopted the current airport noise and access restrictions in the Phase 2 Access Plan as binding mitigation measures for the 1985 Master Plan project pursuant to the California Environmental Quality Act ("CEQA"). The County is proposing to extend and relax the current restrictions on air carrier access

at JWA. Where, as here, airport noise and access restrictions fulfill ongoing requirements under state environmental law, it is reasonable to determine the applicability of ANCA to proposed amendments in comparison to continuation of the status quo.

To discern the intent and understanding of the Orange County Board of Supervisors ("County Board" or "Board") regarding the effect of the current expiration date on continuing access regulation at JWA after 2005, we examined the contemporaneous legislative history of noise and access restrictions at JWA, as reflected in various County resolutions and other documents provided to the FAA by representatives of the County. We also reviewed the County's letters to the FAA and the relevant law and regulations.

The following statement in the County Board's resolution certifying the EIR for the 1985 Master Plan project is pertinent in our examination of the history of the settlement agreement:

> Any project proposed for JWA must be evaluated in the context of the airport's unique regulatory character and history. JWA is, and has been for many years, a 'controlled' airport facility where operations levels (particularly by commercial operators) are determined not by the available physical facilities, nor the level of 'market demand' for air carrier service, but by the number of ADDs permitted by the County. Based not only on the EIR itself, but on the years of controversy, public hearings, staff reports and other information presented both to this Board and prior Boards on airport related issues, we find that any planning or policy evaluation of JWA which ignores its unique history and operational characteristics must inevitably be misleading.

Resolution No. 85-255 at 8-9.

The legislative history of noise and access restrictions at JWA demonstrates that when the County Board approved the 1985 Master Plan project and adopted the access plans (including the Phase 2 Access Plan) to implement the two phases of the Master Plan (in accordance with the 1985 Settlement Agreement), the County Board clearly contemplated and intended that access restrictions at JWA would continue after 2005. The Board also understood that any further relaxation of these restrictions would require action by the Board, including compliance with CEQA (as the County Board has done for the proposed amendments in Environmental Impact Report ("EIR") 582). Based on information provided by representatives of the County, including the letters dated September 6 and September 26, 2002, we understand that the County Board has an ongoing obligation under CEQA to mitigate the significant adverse impacts of the 1985 Master Plan project, and that this obligation is not affected by the expiration date in the 1985 Settlement Agreement and the Phase 2 Access Plan. In the resolution adopting the Phase 2 Access Plan, the County Board stated that the restrictions in that plan (and its predecessor access plan for Phase 1 of the 1985 Master Plan project) constitute "the single most significant operational mitigation measure" for the project. Resolution No. 90-1161 at 3.

In certifying the final EIR for the 1985 Master Plan project (EIR 508), the Board addressed public comments contending that the project would "inevitably' lead to further future increases in authorized levels of ADDs because of 'substantial pressure' on the Board—or future Boards—to increase operations because of a continuing growth of unmet air-traffic demand in Orange County." Resolution No. 85-255 at 10. The County Board responded to these comments as follows:

> We cannot speculate on what future Boards of Supervisors may do if they consider future projects of [sic] JWA. Certainly, they will have to comply with CEQA as it then exists. It is, however, by no means clear to us that further increases in ADDs before or after 2005 will even be considered, let alone approved by future Boards.

Id. In the Phase 2 Access Plan, the County Board made clear its intent to amend the Plan "when and as necessary (in the sole and exclusive exercise of the Board's legislative discretion) to effect or maintain the regulatory, environmental and service level goals, policies and objectives of the County in its management and operation of JWA." Phase 2 Access Plan, ¶ 1.7. Evidence of these "goals, policies and objectives" includes the following:

- In certifying the final EIR for the 1985 Master Plan project, the County Board stated that implementation of the project, as mitigated, was "essential to adequately serve the existing and future air traveling public at JWA, and to strike an appropriate, responsible and desirable balance between the community's need for reasonable air transportation services, and the consequences or potential consequences of related airport operations." Resolution No. 85-255 at 5.

- When the Board adopted the Access Plan for the first phase of the 1985 Master Plan project, it "reaffirm[ed] again its consistent and long-standing policies, goals and intent to strike a reasonable balance between the air transportation needs of the citizens of Orange County, and the need to impose reasonable restraints and regulations on the operation of JWA." Resolution No. 85-259 at 4-5.

- In the resolution approving the Phase 2 Access Plan, the Board stated that "the County's ability to continue to effectively regulate the development and use of JWA within the environmental parameters previously established by this Board necessitate the immediate adoption of the [sic] this Phase 2 Access Plan in order to protect the best interests of the County, its constituents and the air travelling public . . . ." Resolution No. 90-1161 at 5-6.

The County legislative history shows that the expiration dates in access plans were not intended to discontinue regulation of access; expired plans at JWA have consistently been

either extended or replaced by subsequent plans, up to and including the current Phase 2 Access Plan. *See, e.g.*, Resolution Nos. 85-259, pp. 1-3, and 90-1161 at 3. As part of the 1985 Settlement Agreement, the County Board agreed to lower the maximum MAP in Phase 2 of the Master Plan project to 8.4 MAP and reduce the number of Class A ADDs. In doing so, the County Board found that a reduction in the planned expansion of the terminal and related facilities was "appropriate and economically prudent to create a facility designed to serve the ultimate maximum project service level of 8.4 MAP, *and no more* . . . ." Resolution No. 85-1233 at 5 (emphasis added); *see also id.* at 7 (stating that Phase 2 "refers to the increase in authorized Class A ADD to 73 occurring upon completion of the new facilities, approximately in the year 1990"). Similarly, in adopting the Phase 2 Access Plan the County Board stated:

> [T]he 1985 Master Plan and the associated EIR 508/EIS also contemplated as part of the master plan project an increase in the maximum number of permitted commercial flights by regularly scheduled commercial air carriers *in order to support the increased passenger handling capacity improvements contemplated by the 1985 Master Plan* . . . .

Resolution No. 90-1161 at 2 (emphasis added). Thus, the County Board consciously tied the permitted number of commercial flights at JWA in Phase 2 of the 1985 Master Plan project to the approved capacity of the terminal facilities, showing that the Board did not contemplate unrestricted access to the airport after 2005 without a commensurate expansion of terminal capacity.

The 1985 Settlement Agreement provides additional support for this position. It allows any party to move to vacate it and the restrictions it contains if it is held unenforceable for any reason. 1985 Settlement Agreement, ¶ 50. It further specifies that "the parties will be deemed to be in the same situation that they occupied" prior to its execution. *Id.* at ¶ 52. Perhaps the strongest point is that the agreement allows the parties to modify its terms "by mutual agreement." *Id.* at ¶ 53. The modified Amended Settlement Agreement that extends and relaxes restrictions until 2015 is "by mutual agreement" of the parties.

In light of the above analysis, we conclude that the proposed extension of the 2005 expiration date in the 1985 Settlement Agreement to 2015 would not "reduce or limit aircraft operations" for purposes of §47524(d)(4), and that the proposed amendments are exempt from ANCA under that section. We base this conclusion on the unique history and circumstances of noise and access regulation at JWA, as reflected in the documentation provided by the County. For example, the County has continually regulated and enforced maximum permitted noise levels, permitted hours of operation, and maximum number of commercial operations since the inception of commercial service at JWA in 1967. This history supports our finding that the County did not intend for airport restrictions to terminate at the end of the period provided for in 1990. The increased limits introduced by Phase 2 in 1990 were in fact tied to the completion of a terminal expansion project. In addition, the County rejected the alternative of meeting all

passenger and traffic demands in 2005 (*i.e.*, eliminating all restraints at JWA when it adopted the access plan).

As you know, airport access restrictions are also subject to other applicable Federal law in addition to ANCA, including the Airport Improvement Program ("AIP") grant assurances prescribed by 49 U.S.C. §47101, *et seq*. Compliance with the provisions of ANCA does not ensure compliance with other Federal law.

Note that our decision, as indicated above, not to prevent the adoption or approval of the modified Amended Settlement Agreement is based in part on the fact that throughout the process of developing the settlement amendments, the County conducted a significant public process that encouraged and facilitated input from airport users and the public, including the local community and commercial airlines serving JWA, and those desiring to do so, on issues relating to the new capacity authorized by the June 25, 2002 agreement between the County Board, the City of Newport Beach ("City"), Stop Polluting Our Newport ("SPON") and the Airport Working Group ("AWG").

Our decision is also based on the unique history and circumstances of noise and access regulation at JWA. The original 1985 Settlement Agreement reflects the fact that the County faced extensive litigation as far back as 1968 by individual property owners (including noise damage lawsuits by residents of Santa Ana Heights and Newport Beach), the City, and citizen groups challenging the expansion and operation of JWA. During the 1980's as well, the County had also been a defendant in federal court in various suits initiated by air carriers concerning the County's noise and access restrictions. In order to avoid potentially inconsistent and conflicting rulings and obligations, the County initiated an action in federal court resulting in the 1985 Settlement Agreement.

Concerning the application of 49 U.S.C. § 47526, the FAA can also advise that it is satisfied that JWA is not imposing an airport noise or access restriction not in compliance with ANCA or Part 161. As a result, JWA may receive money under the AIP grant program, and impose a passenger facility charge under 49 U.S.C. § 40117. In addition, the FAA will not act to prevent the County's adoption and approval of the proposed amendments as they do not currently present an issue of noncompliance under the County's grant assurances. Thus, that adoption and approval itself would also not adversely affect any applications for AIP grant funds submitted in the future by the County.

The opinions expressed above are not intended, and should not be construed, to apply to any other airport. Also, there are related issues that are not addressed by this letter, in particular the County's intended means of allocating the new capacity authorized by the modified Amended Settlement Agreement. This letter is not intended, and should not be construed, as expressing an opinion on the legality under Federal law, including the AAIA and the County's grant assurances, and the FAA Act, of the allocation methodology or the resulting air carrier allocations that may be proposed or implemented by the County under the modified Amended Settlement Agreement. The FAA looks

forward to continue working with the County to ensure that Phase 2 Access Plan amendments and any future allocation of airport capacity fully comply with Federal law.

I appreciate the considerable time and effort that representatives of the County have spent in meeting with representatives of the FAA and responding to our inquiries.

Sincerely,

James W. Whitlow
Deputy Chief Counsel
Office of the Chief Counsel

APPENDIX C

TRAFFIC TECHNICAL REPORT

John Wayne Airport Settlement Amendment Supplemental EIR

JWA SETTLEMENT AMENDMENT IMPLEMENTATION PLAN

SEIR Traffic Report

May 2004

AUSTIN-FOUST ASSOCIATES, INC.

DRAFT

JWA SETTLEMENT AMENDMENT IMPLEMENTATION PLAN SEIR TRAFFIC REPORT

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May 26, 2004

CONTENTS

TABLES

JWA SETTLEMENT AMENDMENT IMPLEMENTATION PLAN SEIR TRAFFIC REPORT

This report presents ground transportation findings for the John Wayne Airport (JWA) Settlement Amendment Implementation Plan. It provides the technical information for the Traffic and Circulation section of the Supplemental Environmental Impact Report (SEIR).

1.0 BACKGROUND AND SCOPE

The JWA Settlement Amendment authorizes increases in operational capacity at JWA through year 2015. At the same time, it permits capacity increases and airport facility improvements in support of increased operational opportunities for the airlines and an increase in the number of air passengers served.

External traffic impacts of the Settlement Amendment were addressed as part of EIR 582, which was certified by the Orange County Board of Supervisors in June 2002. However, the impacts of construction traffic were not evaluated, and hence, a determination is made here as to whether construction traffic would cause additional external impacts compared to those identified in EIR 582.

To assist in designing adequate ground transportation capacity for the Implementation Plan itself, a detailed data collection effort was carried out in August 2003. The information that was collected included traffic counts for all vehicles entering and leaving the airport. These 2003 counts update the corresponding information collected in 2001 for use in EIR 582, and were used to also update the forecasts for buildout of the Implementation Plan. Accordingly, comparisons are made here between the new information and the data used in EIR 582 to verify that the new information does not change those previous traffic impact findings.

2.0 ASSUMPTIONS AND METHODOLOGY

The traffic analysis addresses an increase in passenger activity from around 8.5 million annual air passengers (MAP) in 2003, to 10.8 MAP under the Settlement Amendment. A "design day" is selected for analysis purposes, and represents an average of the weekdays during the highest month (August). Within the design day, two peak hours are defined. The AM peak hour (7:30 AM to 8:30 AM) corresponds to the peak hour of the surrounding roadway system. Similarly for the PM peak hour (5:00 PM to 6:00 PM).

3.0 YEAR 2001 BASELINE COMPARISON

The traffic analysis for EIR 582 made certain findings with respect to the external traffic impacts associated with serving 10.8 million annual passengers (MAP). The baseline for that analysis was year 2001 conditions and future projections for 10.8 were made using that baseline. A comparison is made here with 2003 conditions and this information is first used to verify the validity of the 2001 baseline. A comparison is then made between the updated 10.8 MAP forecasts prepared here and those contained in EIR 582, again to verify the validity of the data used in the EIR 582 traffic impact analysis.

Table 1 compares the airport trip generation data from EIR 582 with that compiled for this analysis. The first two sets of comparison data show volumes for August 2001 and August 2003 respectively. The first represents design day volumes for 7.7 MAP in 2001 and the second represents volumes for 8.5 MAP in 2003. The next two sets of comparison data show the equivalent projections for 10.8 MAP, the first set being those used in EIR 582 and the second set being the projections prepared in this analysis. Some comments on each of these comparisons follows:

Existing Traffic – The 2003 ADT volumes versus the corresponding 2001 volumes show an increase of eight percent, reflecting some of the increase in MAP during this time period. However, the peak hour volumes do not show any increase, and in most cases show a decrease. This largely reflects the changes in arrival passenger patterns that have occurred due to the passenger security checks, with arrivals being spread out into off-peak times. Other changes affecting the lower peak hour volumes include changes in aircraft operations, type of aircraft, load factors and associated changes in passenger arrival and departure patterns.

Future Traffic – As can be seen, the 10.8 MAP ground transportation projections based on the recent count data are lower than those produced using the 2001 baseline. This is particularly the case for the estimated trips during the two peak hours. It is assumed that the security measures for check-in will continue into the future, hence the future peak hour traffic patterns will reflect those observed in 2003 rather than those prevailing in August 2001 when such security measures were not in place.

Based on this comparison, it can be concluded that information presented here and being used for the Implementation Plan does not invalidate the traffic analysis findings in EIR 582, and in fact implies lower external impacts than reported in that document.

Table 1

JWA EXISTING AND PROJECTED TRIP GENERATION SUMMARY

SOURCE	MAP	AM PEAK* IN	AM PEAK* OUT	AM PEAK* TOTAL	PM PEAK** IN	PM PEAK** OUT	PM PEAK** TOTAL	ADT
2003 AND 2001 BASELINES								
Aug. 2001 (EIR 582)	7.7	1,240	1,138	2,378	1,875	1,879	3,754	47,474
Aug. 2003	8.5	1,240	1,090	2,330	1,720	1,830	3,550	51,300
Increase (%)	16%	0	-4%	-2%	-8%	-3%	-5%	8%
10.8 MILLION ANNUAL PASSENGERS								
Projected (EIR 582)	10.8	1,740	1,599	3,339	2,631	2,637	5,268	66,612
Current Projection	10.8	1,590	1,400	2,990	2,200	2,340	4,540	65,700
Difference		-150	-199	-349	-431	-297	-728	-912

* 7:30 AM to 8:30 AM
** 5:00 PM to 6:00 PM

ADT – Average daily traffic (total vehicles entering and leaving the airport over a 24 hour period for the design day)

4.0 CONSTRUCTION TRAFFIC IMPACTS

This section describes future traffic to and from the airport that will be generated by construction activities, and then discusses the associated impacts.

4.1 Construction Traffic

Estimates were made of the amount of construction traffic that would be generated by implementation of the physical facilities for the Settlement Amendment Plan. The derivation focused on each of the major construction components (terminal area, new parking structure, and taxiway/apron reconfiguration), and estimated the construction traffic generated by each. Recognizing that construction activity varies over the period of construction, the estimates represent the highest volumes that would be anticipated to occur on any given day.

The construction traffic estimates are based on an evaluation of construction activity types and use representative vehicular trip rates associated with those activities to derive the construction related trips. The following are the derivations for each construction component:

- **Terminal area excavation and grading** – The terminal addition would require an estimated 7.4 acres of existing pavement to be removed, along with an underlying soil layer. The maximum level of activity for this excavation and grading is estimated at 300 daily trucks operating over a ten-hour period during the day. Associated with this would be around 20 worker vehicles traveling to and from the airport.

- **New parking structure and roadway area excavation and grading** – Construction of the new parking structure and roadway would require that approximately 12 acres of existing pavement be removed, along with an underlying layer of soil. The material would be hauled off the site with a maximum activity level of 300 daily truck trips. Associated worker trips are estimated at 30 vehicles per day.

- **Taxiway and apron reconfiguration area excavation and grading** – The construction of the taxiway and apron reconfiguration would require approximately 8.3 acres of existing pavement to be removed, along with an underlying layer of soil. The material would be hauled off the site with a maximum activity level of 300 daily truck trips. Associated worker trips would be around 20 vehicles per day.

In addition, the new parking structure would require a cement pouring operation that is planned to occur during night time hours when the airport is not operating. Up to a maximum of 36 cement trucks will bring cement in for this night time operation.

The following table summarizes the estimates for the maximum daily construction traffic:

MAXIMUM DAILY CONSTRUCTION TRAFFIC			
Component	**Duration**	**Daily Trucks Loaded**	**Worker Vehicles**
Parking Structure*	10 Hours	300	20
Terminal Expansion	10 Hours	300	30
Ramp Improvements	10 Hours	300	20
* Excluding evening cement pours			

Hence, assuming as a worst case that the maximum truck activities occur for each component on the same day, a total of 900 trucks would enter and leave the airport for construction activities. In addition, it is estimated that around 70 construction worker vehicles would travel to the site. A total of 100 worker vehicles traveling to and from the site was used for traffic analysis purposes to account for other on-site construction related activities.

4.2 Construction Traffic Impacts

The analysis of construction traffic impacts uses a passenger demand level of 10.3 MAP as the basis for impact determination. This is the estimated maximum passenger demand that could be served prior to additional terminal and parking spaces being operational. Table 2 summarizes the overall passenger demands for 10.3 MAP including comparison figures for 8.5 MAP (year 2003) and 10.8 MAP (Implementation Plan buildout).

To evaluate the impacts of the construction traffic, the estimated truck trips and construction worker trips are added to the airport generated trips and the combined totals compared to the traffic generation used in the EIR 582 traffic analysis. The comparison is made for the AM peak hour (7:30 to 8:30), the PM peak hour (5:00 to 6:00) and for the total daily trips. To derive the peak hour volumes, the truck operations summarized above were assumed to operate at a constant frequency throughout the 10 hour operation period, giving 90 trucks entering and leaving during each of the peak hours.

The results of the construction traffic impacts are summarized in Table 3. Note that the trucks have been factored by a passenger car equivalent (PCE) of 3.0 to account for their equivalent impacts in

Table 2

GROUND TRANSPORTATION DEMAND SUMMARY

	2003 (8.5 MAP)	INTERIM (10.3 MAP)	FUTURE (10.8 MAP)
AIR PASSENGERS			
Total Annual Passengers	8,500,000	10,300,000	10,800,000
Peak Month Passengers	850,400	1,038,100	1,091,000
Design Day Peak Month (DDPM) Passengers	28,200	34,400	36,100
VEHICLES			
Design Day Vehicles (DDV) Entering and Exiting	51,300	62,500	65,700
Design Day AM Peak Hour Vehicles Entering and Exiting	2,330	2,840	2,990
Design Day PM Peak Hour Vehicles Entering and Exiting	3,550	4,320	4,540

Note: AM peak hour: 7:30 – 8:30
PM peak hour: 5:00 – 6:00

Table 3

CONSTRUCTION TRUCK TRAFFIC SUMMARY

COMPONENT	HOURLY TRUCKS LOADED	DAILY TRUCKS LOADED	DURATION	AM PEAK HOUR IN	AM PEAK HOUR OUT	AM PEAK HOUR TOTAL	PM PEAK HOUR IN	PM PEAK HOUR OUT	PM PEAK HOUR TOTAL	ADT
CONSTRUCTION TRAFFIC (HEAVY TRUCKS)										
Parking Lot Addition	30	300	13 days	30	30	60	30	30	60	600
Terminal Expansion	30	300	7 days	30	30	60	30	30	60	600
Ramp Improvements	30	300	6 days	30	30	60	30	30	60	600
	90	900		90	90	180	90	90	180	1800
CONSTRUCTION WORKERS			1 year	--	--	--	--	--	--	200
TOTAL AIRPORT TRIPS INCLUDING CONSTRUCTION TRAFFIC										
10.3 MAP Estimate				1,492	1,348	2,840	2,127	2,193	4,320	62,500
Trucks*				270	270	540	270	270	540	5,400
Workers				--	--	--	--	--	--	200
Total				1,762	1,618	3,380	2,397	2,463	4,860	68,100
COMPARISON WITH EIR 582										
EIR 582 Totals				1,740	1,599	3,339	2,631	2,637	5,268	66,612
10.3 MAP Projection plus construction traffic				1,762	1,618	3,380	2,397	2,463	4,860	68,100
Increase				22	19	41	-234	-174	-408	1,488

* Using 3.0 passenger car equivalents

Note: AM peak hour is 7:30 to 8:30 AM and PM peak hour is 5:00 – 6:00 PM.

intersection capacity analyses (i.e., the 90 entering trucks during the peak hour are shown in this table as 270 PCE's).

Addition of these construction traffic volumes to the projections for 10.3 MAP shows that the original volumes for EIR 582 are exceeded on an ADT basis (by around two percent), and are essentially the same for the AM peak hour. The PM peak hour is actually lower then the corresponding volume from EIR 582. Since the peak hour traffic was the basis for the impact analysis in EIR 582, then the addition of construction traffic does not change the findings of that impact analysis.

5.0 CONSTRUCTION PHASING

The new terminal building and parking structure will be constructed in phases, and associated with each phase will be a ground transportation plan to serve on-site traffic while that phase is under construction. For this SEIR document, the following principals embodied in that phasing plan should be noted:

1. Ground transportation access to/from all existing terminals and parking structures will be maintained during each construction phase.

2. The ground transportation plan for each phase is designed so that it does not materially change the distribution of airport trips between the various access points serving the airport.

3. During each construction phase, adequate on-site roadway capacity will be provided to serve the ground transportation demand for 10.3 MAP operation.

The second principal is important in that it ensures that airport trips at any of the access locations will not exceed the volumes used in the EIR 582 impact analysis. Furthermore, the transportation plan for each phase will provide for adequate internal circulation and will not encourage trips to use the surrounding street system in any manner that would cause impacts beyond those previously identified.

APPENDIX D

NOISE TECHNICAL REPORT
John Wayne Airport Settlement Amendment Supplemental EIR

SUPPLEMENT TO
DRAFT ENVIRONMENTAL IMPACT REPORT NO. 582
CONSTRUCTION OF NEW TERMINAL, PARKING STRUCTURE, ETC. JOHN WAYNE AIRPORT

APPENDIX D
TECHNICAL REPORT: NOISE ANALYSIS

April 20, 2004

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Table of Contents

1.0 INTRODUCTION

The purpose of this report is to address the potential noise impacts associated with the construction of the new passenger terminal, parking structure and associated facilities pursuant to the previously approved modifications to the 1985 Settlement Agreement. The noise impacts of these modifications to the Settlement Agreement were thoroughly addressed in Final Program EIR 582 and Addendum 582-1, "Extension Of Agreement Between The County Of Orange, The City Of Newport Beach, Et Al, Regarding Development And Operation Of John Wayne Airport." The reader should refer to that document for a complete discussion of noise issues. The focus of the analysis presented here is the noise impact of construction activity associated with the new terminal, parking structure and road improvements that will be completed as part of the project.

2.0 ORGANIZATION

This report is divided into 3 major sections including the introduction and this section on organization. The main analysis is presented in Section 3. Section 3.1 includes a description of existing noise levels. Section 3.2 presents background information on sound, noise, how noise affects people and the methodology used in the analysis. Section 3.3 describes the Threshold of Significance used in this analysis. Section 3.4 describes the project case noise.

This Technical Appendix includes a description of the existing conditions and future conditions. As such this appendix contains detailed background information, methodology, assumptions and analysis. The Technical Appendix is the reference source for the EIR and should be used for detailed review of the project impacts.

3.0 NOISE

3.1 EXISTING NOISE ENVIRONMENT

3.1.1 Existing John Wayne Airport Noise

John Wayne Airport (JWA) serves both general aviation and scheduled commercial passenger airline and cargo operations. As noted earlier in this EIR, the use of JWA is heavily regulated as a result of its limited area and facilities, environmental sensitivity of the local area, and because of a long history of airport related litigation extending back at least to 1969.

JWA has accumulated extensive data from its noise monitoring system and other studies and other data sources relating to aircraft operations and noise levels. This permits unusually precise modeling and prediction of noise levels. Radar track plots and sophisticated use of noise levels measured at the noise monitoring stations has produced very accurate depictions of flight tracks. The noise levels of all commercial aircraft operations and many general aviation operations are recorded at 10 permanent noise monitoring stations around the airport. Both CNEL and SENEL are monitored and calculated for each day and each aircraft. In accordance with the California Airport Noise standards and regulations, a detailed report is compiled every

three months summarizing this information ("Quarterly Report"). Each year an annual CNEL contour for JWA is in the quarterly report. Noise complaint data is also routinely recorded and analyzed. The aircraft operational data, noise measurements and contours for JWA are among the most accurate of any in the world. Noise Abatement Quarterly Reports are obtainable from the JWA Noise and Access Office.

3.2 BACKGROUND INFORMATION AND METHODOLOGY

3.2.1 Introduction

This section presents background information on the characteristics of noise and summarizes the methodologies used to study the noise environment. This section will give the reader an understanding of the metrics and methodologies used to assess noise impacts. This section is divided as follows:

- *Properties of sound that are important for technically describing sound*
- *Acoustic factors influencing human subjective response to sound.*
- *Potential disturbances to humans and health effects due to sound.*
- *Sound rating scales used in this study*
- *Summary of noise assessment criteria*

3.2.2 Characteristics of Sound

Sound Level and Frequency. Sound can be technically described in terms of the sound pressure (amplitude) and frequency (similar to pitch). Sound pressure is a direct measure of the magnitude of a sound without consideration for other factors that may influence its perception.

The range of sound pressures that occur in the environment is so large that it is convenient to express these pressures as sound pressure levels on a logarithmic scale which compresses the wide range of sound pressures to a more usable range of numbers. The standard unit of measurement of sound is the Decibel (dB) which describes the pressure of a sound relative to a reference pressure.

The frequency (pitch) of a sound is expressed as Hertz (Hz) or cycles per second. The normal audible frequency for young adults is 20 Hz to 20,000 Hz. Community noise, including aircraft and motor vehicles, typically ranges between 50 Hz and 5,000 Hz. The human ear is not equally sensitive to all frequencies, with some frequencies judged to be louder for a given signal than others. As a result of this, various methods of frequency weighting have been developed. The most common weighting is the A-weighted noise curve (dBA). The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. In the A-weighted decibel, everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Most community noise analyses are based upon the A-weighted decibel scale. Examples of various sound environments, expressed in dBA, are presented in Exhibit 3-1.

Propagation of Noise. Outdoor sound levels decrease as the distance from the source increases, and as a result of wave divergence, atmospheric absorption and ground attenuation. Sound radiating from a source in a homogeneous and undisturbed manner travels in spherical waves. As the sound wave travels away from the source, the sound energy is dispersed over a greater area decreasing the sound power of the wave. Spherical spreading of the sound wave reduces the noise level at a rate of 6 dB per doubling of the distance.

dB(A)	OVER-ALL LEVEL Sound Pressure Level Reference: 0.0002 Microbars	COMMUNITY (Outdoor)	HOME OR INDUSTRY	LOUDNESS Human Judgement of Different SoundLevels
130		Military Jet Aircraft Take-Off With After-burner From Aircraft Carrier @ 50 Ft (130)	Oxygen Torch (121)	120 dB(A) 32 Times as Loud
120 110	UNCOMFORTABLY LOUD	Concord Takeoff (113)*	Riveting Machine (110) Rock-N-Roll Band (108-114)	110 dB(A) 16 Times as Loud
100		Boeing 747-200 Takeoff (101)*		100 dB(A) 8 Times as Loud
90	VERY LOUD	Power Mower (96) DC-10-30 Takeoff (96)* Motorcycle @25 Ft (90)	Newspaper Press (97)	90 dB(A) 4 Times as Loud
80		Car Wash @ 20 Ft. (89) Boeing 727 w/ Hushkit Takeoff (96)* Diesel Truck, 40 MPH @ 50 Ft (84) Diesel Train, 45 MPH @ 100 Ft (83) High Urban Ambient Sound (80)	Food Blender (88) Milling Machine (85) Garbage Disposal (80)	80 dB(A) 2 Times as Loud
70	MODERATELY LOUD	Passenger Car, 65 MPH @ 25 Ft (77) Freeway @ 50 Ft From Pavement) Edge, 10:00 AM (76 +or- 6) Boeing 757 Takeoff (76)*	Living Room Music (76) TV-Audio, Vacuum Cleaner	70 dB(A)
60		Propeller Airplane Takeoff (67)* Air Conditioning Unit @ 100 Ft (60)	Cash Register @ 10 Ft (65-70) Electric Typewriter @ 10 Ft. (64) Dishwasher (Rinse) @ 10 Ft (60) Conversation (60)	60 dB(A) 1/2 as Loud
50	QUIET	Large Transformers @ 100 Ft (50)		50 dB(A) 1/4 as Loud
40		Bird Calls (44) Lower Limit Urban Ambient Sound (40)		40 dB(A) 1/8 as Loud
20	JUST AUDIBLE	Desert at Night (dB[A] Scale Interrupted)		
10	THRESHOLD OF HEARING			

Numbers in Parentheses are the A-Scale Weighted Sound Levels for that Noise Event

****Aircraft takeoff noise measured 6,500 meters from beginning of takeoff roll***

SOURCE: Leo L. Beranek "Noise and Vibration Control," 1971
*Aircraft Levels From FAA Advisory Circular AC-36-3G

Exhibit 3-1
Examples of Various Sound Levels

John Wayne Airport Construction EIR

Atmospheric absorption also influences the levels received by the observer. The greater the distance traveled, the greater the influence of the atmosphere and the resultant fluctuations. Atmospheric absorption becomes important at distances of greater than 1000 feet. The degree of absorption varies depending on the frequency of the sound as well as the humidity and temperature of the air. For example, atmospheric absorption is lowest (i.e., sound carries farther) at high humidity and high temperatures. Turbulence and gradients of wind, temperature and humidity also play a significant role in determining the degree of attenuation. Certain conditions, such as inversions, can channel or focus the sound waves resulting in higher noise levels than would result from simple spherical spreading. Absorption effects in the atmosphere vary with frequency. The higher frequencies are more readily absorbed than the lower frequencies. Over large distances, the lower frequencies become the dominant sound as the higher frequencies are attenuated.

Duration of Sound. Annoyance from a noise event increases with increased duration of the noise event, i.e., the longer the noise event, the more annoying it is. The "*effective duration*" of a sound is the time between when a sound rises above the background sound level until it drops back below the background level. Psycho-acoustic studies have determined the relationship between duration and annoyance and the amount a sound must be reduced to be judged equally annoying for increased duration. Duration is an important factor in describing sound in a community setting.

The relationship between duration and noise level is the basis of the equivalent energy principal of sound exposure. Reducing the acoustic energy of a sound by one half results in a 3 dB reduction. Doubling the duration of the sound increases the total energy of the event by 3 dB. This equivalent energy principal is based upon the premise that the potential for a noise to impact a person is dependent on the total acoustical energy content of the noise. [1] Defined in subsequent sections of this study, noise metrics such as CNEL, DNL, LEQ and SENEL are all based upon the equal energy principle.

Change in Noise. The concept of change in ambient sound levels can be understood with an explanation of the hearing mechanism's reaction to sound. The human ear is a far better detector of relative differences in sound levels than absolute values of levels. Under controlled laboratory conditions, listening to a steady unwavering pure tone sound that can be changed to slightly different sound levels, a person can just barely detect a sound level change of approximately one decibel for sounds in the mid-frequency region. When ordinary noises are heard, a young healthy ear can detect changes of two to three decibels. A five decibel change is readily noticeable while a 10 decibel change is judged by most people as a doubling or a halving of the loudness of the sound. It is typical in environmental documents to consider a 3 dB change as potentially discernable.

Masking Effect. The ability of one sound to limit a listener from hearing another sound is known as the masking effect. The presence of one sound effectively raises the threshold of audibility for the hearing of a second sound. For a signal to be heard, it must exceed the threshold of hearing for that particular individual and exceed the masking threshold for the background noise.

The masking characteristics of sound depend on many factors including the spectral (frequency) characteristics of the two sounds, the sound pressure levels and the relative start time of the sounds. Masking effect is greatest when the frequencies of the two sounds are similar or when low frequency sounds mask higher frequency sounds. High frequency sounds do not easily mask low frequency sounds.

3.2.3 Factors Influencing Human Response to Sound

Many factors influence sound perception and annoyance. This includes not only physical characteristics of the sound but also secondary influences such as sociological and external factors. Molino, in the *Handbook of Noise Control* [2] describes human response to sound in terms of both acoustic and non-acoustic factors. These factors are summarized in Table 3-1.

Sound rating scales are developed in reaction to the factors affecting human response to sound. Nearly all of these factors are relevant in describing how sounds are perceived in the community. Many non-acoustic parameters play a prominent role in affecting individual response to noise. Background sound, an additional acoustic factor not specifically listed, is also important in describing sound in rural settings. Fields, [3]in his analysis of the effects of personal and situational variables on noise annoyance, has identified a clear association of reported annoyance and various other individual perceptions or beliefs. In particular, Fields stated:

"There is therefore firm evidence that noise annoyance is associated with : (1) the fear of an aircraft crashing or of danger from nearby surface transportation; (2) the belief that aircraft noise could be prevented or reduced by designers, pilots or authorities related to airlines; and (3) an expressed sensitivity to noise generally."

Thus, it is important to recognize that various non-acoustic factors, such as the ones described above, as well as acoustic factors, contribute to the response to noise by specific individuals.

Table 3-1
Factors that Affect Individual Annoyance to Noise

Primary Acoustic Factors
- Sound Level
- Frequency
- Duration

Secondary Acoustic Factors
- Spectral Complexity
- Fluctuations in Sound Level
- Fluctuations in Frequency
- Rise-time of the Noise
- Localization of Noise Source

Non-acoustic Factors
- Physiology
- Adaptation and Past Experience
- How the Listener's Activity Affects Annoyance
- Predictability of When a Noise will Occur
- Is the Noise Necessary?
- Individual Differences and Personality

Source: C. Harris, 1979

any time period, but is typically measured for 15 minutes, 1 hour or 24-hours. Leq for a one-hour period is used by the Federal Highway Administration for assessing highway noise impacts.

- **Community Noise Equivalent Level (CNEL).** CNEL is a 24-hour, time-weighted energy average noise level based on the A-weighted decibel and the SENEL metric. It is a measure of the overall noise experienced during an entire day. The term "time-weighted" refers to the penalties attached to noise events occurring during certain sensitive time periods. In the CNEL methodology, noise events occurring between the hours of 7 pm and 10 pm are "penalized" by approximately 5 dB. This penalty accounts for the greater potential for noise to cause communication interference during these hours, as well as typically lower ambient noise levels during these hours. This has the effect of treating each evening noise event for purposes of calculating CNEL values as if each event was, in effect, three events. Noise that takes place during the night (10 pm to 7 am) is penalized by 10 dB. This penalty was selected to attempt to account for the higher sensitivity to noise in the nighttime (primarily because of potential sleep disturbance effect) and the expected further decrease in background noise levels that typically occur in the nighttime. In practical terms, this means that each nighttime noise event is effectively treated as if it were ten noise events. CNEL is used by local planning agencies in their General Plan Noise Elements for land use compatibility planning.

Supplemental Metrics

- **Percent Noise Level (Ln).** To account for intermittent or fluctuating noise, another method to characterize noise is the Percent Noise Level (Ln). The Percent Noise Level is the level exceeded n% of the time during the measurement period. It is usually measured in the A-weighted decibel, but can be an expression of any noise rating scale. Percent Noise Levels are another method of characterizing ambient noise where, for example, L90 is the noise level exceeded 90 percent of the time, L50 is the level exceeded 50 percent, and L10 is the level exceeded 10 percent of the time. L90 represents the background or minimum noise level, L50 represents the median noise level, and L10 the peak or intrusive noise levels. Percent noise level is commonly used in community noise ordinances which regulate noise from mechanical equipment, entertainment noise sources and the like. It is not normally used for transportation noise regulation.

3.2.5 Effects of Noise On Humans

Noise, often described as unwanted sound, is known to have several adverse effects on humans. From these known adverse effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people such as hearing loss, communication interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed in the following narrative:

- Hearing Loss is generally not a concern in community noise problems, even very near a major airport or a major freeway. The potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry, very noisy

work environments with long term exposure, or certain very loud recreational activities such as target shooting, motorcycle or car racing, etc. The federal Occupational Safety and Health Administration (OSHA) identifies a noise exposure limit of 90 dBA for 8 hours per day to protect from hearing loss (higher limits are allowed for shorter duration exposures).

- Communication Interference is one of the primary concerns in environmental noise problems. Communication interference includes speech interference and interference with activities such as watching television. Normal conversational speech is in the range of 60 to 65 dBA, and any noise in this range or louder may interfere with speech to some extent. There are specific methods of describing speech interference as a function of distance between speaker and listener and voice level. The "Time Above" metric is used in this analysis to quantify the project potential to create speech interference. The reader should refer to Section 3.2.4 for a more detailed description of the TA metric, and to Section 3.4.7 of the technical report, Appendix E, for a summary of the results of this analysis.

- Sleep Interference is a major noise concern in noise assessment and, of course, is most critical during nighttime hours. Sleep disturbance is one of the major causes of annoyance due to community noise. Noise can make it difficult to fall asleep, create momentary disturbances of natural sleep patterns by causing shifts from deep to lighter stages and cause awakening. Noise may even cause awakening which a person may or may not be able to recall.

  Extensive research has been conducted on the effect of noise on sleep disturbance. Recommended values for desired sound levels in residential bedroom space range from 25 to 45 dBA, with 35 to 40 dBA being the norm. Some years ago (1981) The National Association of Noise Control Officials [4] published data on the probability of sleep disturbance with various single event noise levels. Based on laboratory experiments conducted in the 1970's, this data indicated noise exposure, at 75 dBA interior noise level event will cause noise induced awakening in 30 percent of the cases.

  However, recent research from England [5] has shown that the probability for sleep disturbance is less than what had been reported in earlier research. These recent field studies, conducted during the 1990's and using new sophisticated techniques, indicate that awakenings can be expected at a much lower rate than had been expected based on earlier laboratory studies. This research conducted with the test subjects sleeping in their own homes rather than an artificial and unfamiliar laboratory environment, showed that once a person was asleep, it is much more unlikely that they will be awakened by a noise than had been indicated by the 1970's laboratory studies. The significant difference in the recent English study is the use in that study of actual in-home sleep disturbance patterns, as opposed to the laboratory sleep data that had been the historic basis for predicting sleep disturbance.

- Physiological Responses are those measurable effects of noise on people which are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent is not known to which these physiological responses cause harm or are a sign of harm.

  Health effects from noise have been studied around the world for nearly thirty years. Scientists have attempted to determine whether high noise levels can adversely affect human health-apart from auditory damage-which is amply understood. These research efforts have covered a broad range of potential impacts from cardiovascular response to

fetal weight and mortality. Yet while a relationship between noise and health effects seems plausible, it has yet to be convincingly demonstrated--that is, shown in a manner that can be repeated by other researchers while yielding similar results.

While noise caused annoyance and sleep/speech interference have been acknowledged, noise related health effects, if they exist, are associated with a wide variety of other environmental stressors. Isolating the effects of aircraft noise alone as a source of long term physiological change has proved to be almost impossible. In a review of 30 studies conducted worldwide between 1993 and 1998, [6] a team of international researchers concluded that, while some findings suggest that noise can affect health, improved research concepts and methods are needed to verify or discredit such a relationship. They called for more study of the numerous environmental and behavioral factors than can confound, mediate or moderate survey findings.

- Annoyance is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability. The level of annoyance, of course, depends on the characteristics of the noise (i.e.; loudness, frequency, time, and duration), and how much activity interference (e.g. speech interference and sleep interference) results from the noise. However, the level of annoyance is also a function of the attitude of the receiver. Personal sensitivity to noise varies widely. It has been estimated that 2 to 10 percent of the population is highly susceptible to annoyance from any noise not of their own making, while approximately 20 percent are unaffected by noise. Attitudes are affected by the relationship between the person and the noise source (Is it our dog barking or the neighbor's dog?). Whether we believe that someone is trying to abate the noise will also affect our level of annoyance.

  Annoyance levels have been correlated in numerous community attitude surveys to cumulative noise levels and descriptors such as CNEL and DNL. One of the survey curves is the well-known Schultz curve, developed by Theodore Schultz[7]. Based upon a synthesis of numerous noise/community attitude studies, it displays the percent of a populace that can be expected to be annoyed by various DNL (CNEL in California) values for residential land use with outdoor activity areas. At 65 dB DNL the Schultz curve predicts approximately 14% of the exposed population reporting themselves to be "highly annoyed." At 60 dB DNL this decreases to approximately 8% of the population. As a general predictor of long-term community response and attitudes to a noise environment, the updated Schultz curve is widely accepted by acoustic professionals throughout the world.

3.2.6 Noise/Land Use Compatibility Guidelines

This section presents information regarding noise and land use criteria useful in the evaluation of noise impacts. Agencies including the EPA, the Department of Defense, the State of California, the County of Orange and most cities have developed or suggested general noise/land use compatibility criteria. A summary of some of the more pertinent regulations and

guidelines are presented in Section 3.2.5 of the noise technical report, which is attached to and incorporated as Appendix E to this Draft EIR.

County of Orange

The General Plan Noise Element of the County of Orange establishes noise/land use planning criteria for the unincorporated areas of the County. These noise guidelines and standards cover roadway noise, rail noise, and airport noise including military and civilian airports. The County has adopted noise standards for various land uses in terms of CNEL and Leq. These standards are reproduced here as Table 3-2 and 3-3. For residential land uses the County has established a maximum exterior noise level standard of 65 dB CNEL for private outdoor living areas and an interior standard of 45 dB CNEL. The County of Orange uses the 60 dB CNEL contour as a threshold for review of projects in order to screen projects and ensure that the 65 dB CNEL exterior and 45 dB CNEL interior criteria are met. In other words, projects located within the 60 dB CNEL contour are required to submit detailed acoustical studies ensuring compliance with the County noise standards.

Additionally, the County of Orange provides insurance that the 45 dB CNEL interior noise limit for habitable rooms of residential units is met with windows open or windows closed (not necessarily both). Specifically, homes with windows closed will provide at least a 20 dB outdoor to indoor noise reduction (based on typical pre-1981 construction practice and Uniform Building Code requirements, newer homes provide additional noise reduction). Homes with windows open will provide a 12 dB outdoor to indoor noise reduction (largely independent of date of construction). The County, therefore, requires that new homes with exterior noise exposure greater than 57 dB CNEL (45 dB plus 12 dB) provide some means of mechanical ventilation in order to ensure that residents are able to close windows and obtain fresh air at a rate specified in the Uniform Building Code. New homes subject to this requirement are typically air-conditioned or supplied with a fresh air switch as part of the forced air heating unit.

The County of Orange has historically restricted night operations at John Wayne Airport. Air carriers are not permitted to depart JWA before 7 am (8 am on Sundays) or after 10 pm.
Air carriers are not permitted to arrive at JWA before 7 am (8 am on Sundays) or after 11 pm. General aviation aircraft are permitted to operate at night only if they meet strict night time noise limits (less than 86 dB SENEL at any departure noise monitoring station). These night restrictions predate both the 1985 Settlement Agreement and the Phase 2 Access Plan. The Phase 2 Access Plan at John Wayne Airport [8] implements, in part, the 1985 Master Plan, its airport related mitigation measures, and the 1985 Settlement Agreement. The Orange County General Aviation Noise Ordinance (GANO) [9] establishes noise limits and other restrictions for aircraft operating at John Wayne Airport.

General Plans of Adjacent Cities

The following paragraphs discuss the noise policies of cities adjacent to John Wayne Airport:

> Newport Beach – The City of Newport Beach has established 65 and 45 CNEL as the outdoor and indoor noise compatibility criteria for residential land uses. See Table 1 and Table 2 of the "City of Newport Beach Noise Element," October 10, 1994. These tables

Orange County Compatibility Matrix for Land Uses and Community Noise Equivalent Levels (CNEL) and Equivalent Noise Levels (Leq)

TYPES OF USE	65+ decibels CNEL	60 to 65 decibels CNEL
Residential	3a b e	2a e
Commercial	2c	2c
Employment	2c	2c
Open Space		
Local	2c	2c
Community	2c	2c
Regional	2c	2c
Educational Facilities		
School (K through 12)	2c d e	2c d e
Preschool, college, other	2c d e	2c d e
Places of Worship	2c d e	2c d e
Hospitals		
General	2a c d e	2a c d e
Convalescent	2a c d e	2a c d e
Group Quarters	1a b c e	2a c e
Hotels/Motels	2a c	2a c
Accessory Uses		
Executive Apartments	1a b e	2a e
Caretakers	1a b c e	2a c e

Table 3-2
County of Orange Land Use Compatibility Criteria

Orange County Compatibility Matrix for Land Uses and Community Noise Equivalent Levels (CNEL) and Equivalent Noise Levels (Leq) - Explanations and Definitions

ACTION REQUIRED TO ENSURE COMPATIBILITY
BETWEEN LAND USE AND NOISE FROM EXTERNAL SOURCES

1 - Allowed if interior and exterior community noise levels can be mitigated.

2 - Allowed if interior levels can be mitigated.

3 - New residential uses are prohibited in areas within the 65-decibel CNEL contour from any airport or air station; allowed in other areas if interior and exterior community noise levels can be mitigated. The prohibition against new residential development excludes limited "infill" development within an established neighborhood.

STANDARDS REQUIRED FOR COMPATIBILITY OF LAND USE AND NOISE

a = Interior Standard: CNEL of less than 45-decibels (habitable rooms only)

b = Exterior Standard: CNEL of less than 65-decibels from any source in outdoor living areas.

c = Interior Standard: Leq(h) = 45 to 65 decibels interior noise level, depending on interior use.

TYPICAL USE	Leq(h)*
Private Office, Church Sanctuary, College Preschool, Schools (Grade K-12), Board Room, Conference Room, etc.	45
General Office, Reception, Clerical, etc.	50
Other Schools and Colleges	52
Bank Lobby, Retail Store, Restaurant, Typing Pool, etc.	55
Manufacturing, Kitchen, Warehousing, etc.	65

d = Exterior Standard: Leq(h) of less than 65- decibels in outdoor living areas.

e = Interior Standard: As approved by the Board of Supervisors for sound events of short duration such as aircraft flyovers or individual passing railroad trains.

* h = Time duration of usage in hours.

Table 3-3
County of Orange Land Use Compatibility Criteria

also present noise land use compatibility guidelines and noise standards for a variety of land use types.

Costa Mesa – The Noise Element of the 1990 General Plan, dated March 1992 contains Objective II-c which includes policy number 101; "Discourage sensitive land uses from locating in the 65 CNEL noise contour of the John Wayne Airport. Should it be deemed by the City as appropriate and/or necessary for a sensitive land use to locate in the 65 CNEL noise contour, ensure that appropriate interior noise levels are met and that minimal outdoor activities are allowed."

Irvine - The General Plan Noise Elements of the City of Irvine contains noise/land use compatibility guidelines consistent with those in use by the County of Orange, i.e., 65 dB CNEL for noise sensitive outdoor areas and 45 dB CNEL for indoor areas of residential uses. Note that the City of Irvine has adopted a single event noise standard that applies to the interior of residential units located within a 60 dB CNEL contour. That requirement is that the Maximum Noise Level for the 10th percentile of the noise events shall not exceed 65 dBA, i.e., only the loudest 10 percent of noise events may exceed 65 dBA (City of Irvine General Plan, Section F, Noise Element, August 10, 1993 and April 11, 1995). This requirement, however, does not relate to or affect aircraft noise events, since any such regulation would be outside the scope of any city's regulatory authority. The requirement applies only to the structural design of the home to meet this standard.

3.3 THRESHOLDS OF SIGNIFICANCE

Because the proposed project does not involve aircraft operations, significance criteria relative to aviation noise, and supplemental metrics and other measures (SENEL, number of flights, and change in the number of night operations) are not relevant to this analysis. Following is the construction-related threshold of significance for construction noise.

The County of Orange and the City of Irvine have established noise ordinance noise limits. Both use the same noise limits. Compliance with the municipal noise ordinance is used as the threshold of significance. The limits are presented in Table 3-5.

3.3.1 Construction Noise

Generally, construction noise impacts are regulated by the County under its existing noise ordinances and standard mitigation measures. Generally, in Orange County a project-caused construction noise is deemed not significant if the hours of construction are limited to those identified in the County of Orange Standard Noise Mitigation Measures and the County of Orange Noise Ordinance (or, where the construction occurs in another jurisdiction, the applicable ordinance in that jurisdiction). If construction occurs outside the hours permitted by the County (or other) regulations, the impact is considered significant if the noise levels produced by the construction activity exceed the noise limits permitted during those hours by the County of Orange Noise Ordinance.

3.4 SHORT TERM CONSTRUCTION NOISE IMPACTS

Construction noise can create a potential short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and

portable generators can reach high levels. The specific improvements proposed for the project include some demolition work where existing pavement exists and structures will be built, as well as normal construction activity associated with the construction of the parking structure, the new terminal, associated facilities and the right turn lane improvement (Campus southbound to Bristol westbound). This will include grading, paving, setting of forms, framing, concrete pouring, and associated finish work.

The highest noise generating activities will include construction on the main terminal to add additional gates and construction of additional parking facilities. None of these activities will occur in the near vicinity of any noise sensitive land uses. The closest noise sensitive land uses to the terminal and parking garage construction project is limited to the hotels across MacArthur Boulevard from the existing terminal. The closest noise sensitive land uses to the Campus Drive right turn lane improvement include the homes across Bristol known as the Anniversary Tract (located south of the strip commercial on the south side of Bristol). For purposes of this environmental analysis, construction noise levels are estimated at the closest noise sensitive use for each of these areas.

Examples of construction noise at 50 feet are presented in Exhibit 3-2. The peak noise level for most of the equipment that will be used during the construction is 70 to 95 dBA at a distance of 50 feet. At 200 feet, the peak construction noise levels range from 58 to 83 dBA. At 400 feet the peak noise levels range from 52 to 77 dBA.

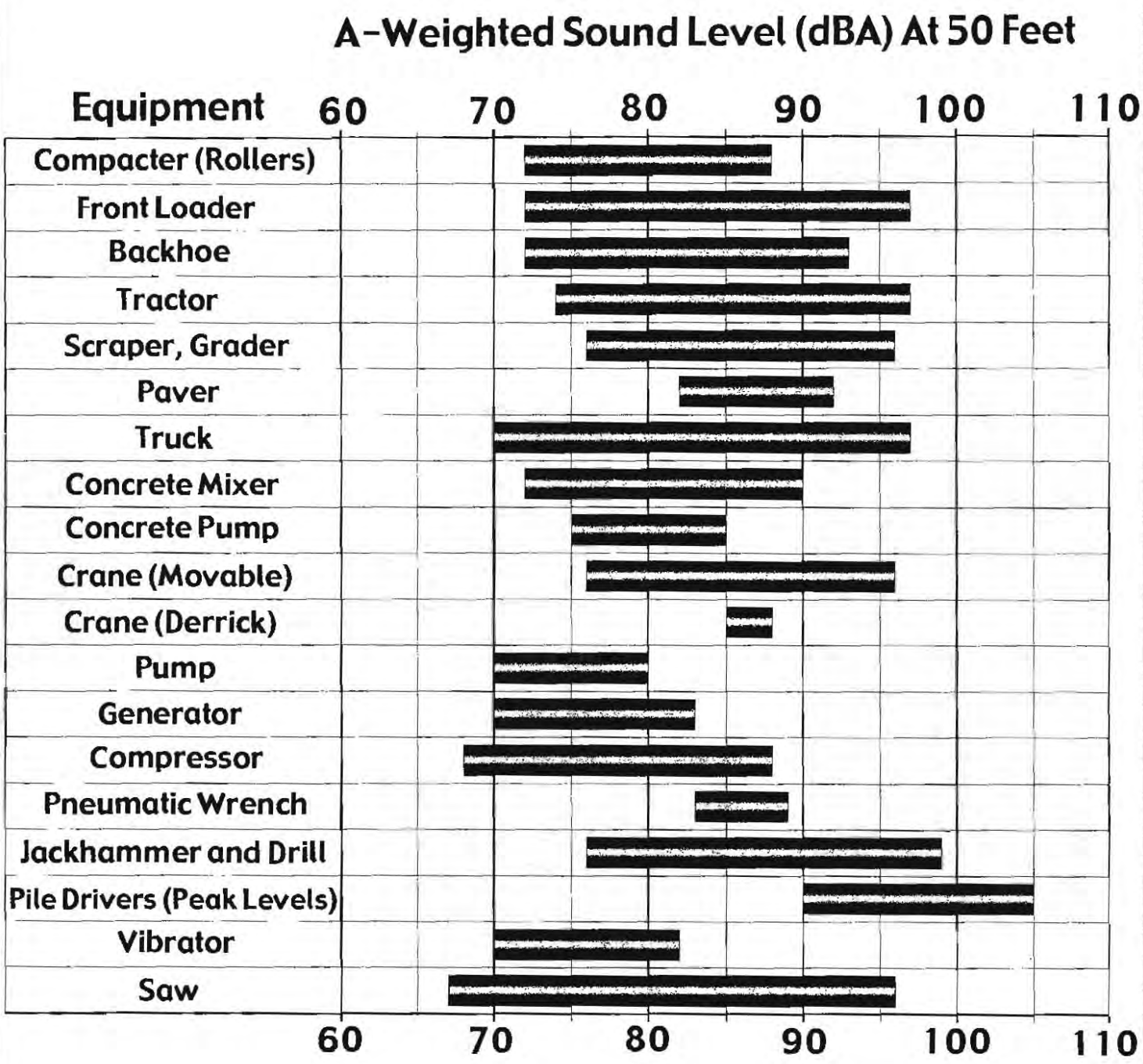
Using the data shown in Exhibit 3-2 the noise levels at the closest residential areas can be estimated. The hotel across MacArthur Boulevard from the airport is located approximately 450 feet the nearest new construction. The residential area in the Anniversary Tract across Bristol from the Campus Drive right turn improvement project is located approximately 1,450 feet from the nearest construction area. Table 3-4 shows the maximum noise levels associated with the noisiest construction equipment that may be associated with the project. Note that noise data for this construction equipment is reported as a range of noise levels, but the data shown here are the maximums from that range of data (see Exhibit 3-2). Table 3-5 also shows how loud the construction equipment may be at the two receptor locations 450 and 1,450 feet from the equipment.

Table 3-4
Maximum Construction Noise Levels At Receptors

	Maximum Noise Level, dBA		
Equipment	at 50 feet	at Hotel(1)	at Residential(2)
Front Loader	97	77.9	67.8
Jackhammer	99	79.9	69.8
Concrete Mixer	90	70.9	60.8
Crane	96	76.9	66.8

Notes: (1) distance of 450 feet, (2) distance of 1450 feet.

The County of Orange has adopted a comprehensive noise ordinance. The noise limits contained within the noise ordinance are written in terms of the amount of time (exposure) that a given noise level occurs. The Orange County Noise Ordinance noise limits are provided in Table 3-5. Note that the City of Irvine uses the same noise limits within its noise ordinance.



Source: "Handbook of Noise control," by Cyril Harris, 1979

Exhibit 3-2
Typical Construction Noise Levels

Table 3-5
Orange County Noise Ordinance Noise Limits

Exposure In 1 Hour	Daytime	Nighttime
Less than 30 minutes	55	50
Less than 15 minutes	60	55
Less than 5 minutes	65	60
Less than 1 minute	70	65
Anytime	75	70

(If ambient noise level exceed limit, the ambient becomes the limit).

For construction noise, the noise limit that is most limiting is generally the "anytime" exposure which requires that the noise level not exceed 75 dBA at any time during the day and 70 dBA at any time during the night. The County of Orange and all municipalities exempt construction noise from the noise ordinance limits provided that the construction takes place during certain established hours of the day. This project may involve night construction in order to minimize traffic flow disruptions during the day. As such the following analysis assumes that construction may take place during the daytime or nighttime hours.

A comparison of Table 3-4 and Table 3-5 shows that the project will not exceed noise ordinance limits for the maximum noise exposure at the nearest residential area for day or night construction at the residential area across Bristol (from noise associated with the right turn improvement project). Noise exposure limits for the shorter exposures are not likely to be an issue because traffic noise on Bristol is likely to mask the construction noise associated with normal truck and tractor movements.

A comparison of Table 3-4 and Table 3-5 shows that the construction activities associated with the Proposed Project will exceed noise ordinance limits for the maximum noise exposure at the nearest hotels for both day and night construction. Noise exposure limits for the shorter exposures are not likely to be an issue because traffic noise on MacArthur Boulevard would mask the construction noise associated with normal truck and tractor movements. Daytime construction is exempt from the ordinance.

The nearest lane of MacArthur Boulevard is approximately 225 feet from the Hilton and the Atrium hotels. At this distance, an automobile pass by would produce a maximum noise level of 65 dBA at the hotel, while a heavy truck would produce a maximum noise level of 80 dBA. The truck noise maximum is essentially identical in loudness to the loudest construction equipment noise estimated in Table 3-4. It should be noted that the noise levels shown in 3-4 are based on the highest noise level of the range of noise level shown for each piece of construction equipment identified in Exhibit 3-2. The average noise level for each piece of equipment is 8 to 10 dB less than the highest level of the range shown. While it is not possible to identify the construction noise level more precisely without knowing the exact piece of equipment that will be used, the data in Table 3-4 are worst case. Actual construction-related noise would most likely be less than the worst case estimates presented in Table 3-4.

Daytime construction is exempt from the ordinance. Nighttime construction would exceed noise ordinance limits. However, because the construction activity is not a permanent noise but represents a temporary impact, and because hotels located near JWA are transient lodging

facilities already exposed to high traffic noise levels from MacArthur Boulevard and normal aircraft activity at JWA, this impact is not considered significant.

Building requirements in both the County and the City of Irvine require that hotel structures be designed and built to accommodate aircraft noise exposure from JWA and roadway noise exposure from MacArthur Boulevard. The sound attenuation that currently exists at the adjacent hotels may be adequate to mitigate nighttime construction noise from the project site. The hotels nearest the Airport (*i.e.*, the Hilton Hotel and Atrium Hotel) are within the City of Irvine and City of Newport Beach.

The City of Irvine General Plan Noise Element specifies that exterior noise level limits for hotels apply only to the "recreation area" associated with the hotel (footnote 2 of Figure F-1 of the General Plan Noise Element). The application of exterior noise levels to the limited recreation area is done to reflect that hotel uses may be located in busy commercial areas near freeways and only these specific areas of the hotel need meet the noise limit. However, the Irvine General Plan Noise Element goes further and exempts hotels near airports from any exterior noise limit. Specifically, Figure F-1 footnote 6 of the Irvine Noise element indicates that the exterior noise level limits for hotels do not apply to areas affected by aircraft noise. This reflects the fact that hotels are often located at or near airports to meet lodging demands associated with airport uses. Additionally, the City's Noise Element defines a hotel as a commercial/ industrial use (Table F-2, Land Use Compatibility, Irvine General Plan). The Noise Ordinance permits higher noise levels for commercial land uses than those permitted for residential land uses.

3.5 REFERENCES

[1] Environmental Protection Agency, "Information on Levels on Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," U.S. Environmental Protection Agency, Office of Noise Abatement and Control, March 1974.

[2] Harris, Cyril M., "Handbook of Noise Control," Second Edition, McGraw-Hill Book Co., 1979.

[3] James M. Fields, Federal Aviation Administration and NASA Langley Research Center, "Effect of Personal and Situational Variables on Noise Annoyance: With Special Reference to Implications for En Route Noise," DOT/FAA/EE-92/03, August 1992.

[4] National Association of Noise Control Officials, "Noise Effects Handbook," New York, 1981.

[5] 1992 British + Horne JA, Pankhurst FL, Reyner LA, Hume K, Diamond ID, "A Field Study Of Sleep Disturbance: Effects Of Aircraft Noise And Other Factors On 5,742 Nights Of Actimetrically Monitored Sleep In A Large Subject Sample. Sleep 1994 Mar; 17(2): 146-59

[6] Lercher P, Stansfield S. A., Thompson S.J., Non Auditory Health Effects of Noise; Review of the 1993-1998 Period, Noise Effects-98 conference Proceedings, p. 213. 1998.

[7] Federal Interagency Committee on Aircraft Noise (FICAN). (The full FICAN report can be found on the Internet at www.fican.org.)

[8] John Wayne Airport, Orange County, "Phase 2 Commercial Airline Access Plan and Regulation," October 1, 1990 - December 31, 2005.

[9] John Wayne Airport, County of Orange, "General Aviation Noise Ordinance," Article 3, Section 2-1-30, July 1, 1985.

APPENDIX E

AIR QUALITY TECHNICAL REPORT

John Wayne Airport Settlement Amendment Supplemental EIR

Air Quality Assessment For:

JOHN WAYNE AIRPORT
AMENDED SETTLEMENT AGREEMENT IMPLEMENTATION PROJECT
COUNTY OF ORANGE

JOHN WAYNE AIRPORT
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Costa Mesa, CA 92626

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3.2.4 Sound Rating Scales

The description, analysis, and reporting of community sound levels is made difficult by the complexity of human response to sound and myriad sound-rating scales and metrics developed to describe acoustic effects. Various rating scales are designed to approximate the human subjective assessment to the "loudness" or "noisiness" of a sound. Noise metrics have been developed to account for additional parameters such as duration and cumulative effect of multiple events. In addition, by their very nature, cumulative metrics are designed to describe "annoyance" and other reactions to a noise environment on a community-wide basis. This approach to measuring and describing a noise environment allows human variability in response to noise of noise source to be accounted for statistically.

Noise metrics are categorized as single event metrics and cumulative metrics. Single event metrics describe the noise from individual events. Cumulative metrics describe the noise in terms of the total noise exposure throughout the day. Noise metrics used in this study are summarized below:

Single Event Metrics

- **Frequency Weighted Metrics (dBA).** In order to simplify the measurement and computation of sound loudness levels, frequency weighted networks have obtained wide acceptance. The A-weighting (dBA) scale has become the most prominent of these scales and is widely used in community noise analysis. Its advantages are that it has shown good correlation with community response and is easily measured. The metrics used in this study are all based upon the dBA scale.

- **Maximum Noise Level.** The highest noise level reached during a noise event is, not surprisingly, called the "Maximum Noise Level," or Lmax. For example, as an aircraft approaches, the sound of the aircraft begins to rise above ambient noise levels. The closer the aircraft gets to the person on the ground experiencing the noise event, the louder it is until the aircraft is at its closest point directly overhead. Then, as the aircraft passes, the noise level decreases until the sound level again settles to ambient levels

- **Single Event Noise Exposure Level (SENEL) or Sound Exposure Level (SEL).** This metric is essentially equivalent to the Sound Exposure (SEL) metric. It is computed from the A-weighted sound level during the event. The SENEL metric not only takes into account the maximum noise level of the event (as does dBA), but also takes into account the duration of the noise event.

Cumulative Metrics

Cumulative noise metrics assess community response to noise by including in the metric calculation the loudness of individual noise events, the duration of each noise event, the total number of noise events, and the time of day these events occur, into one single number rating scale.

- **Equivalent Noise Level (Leq).** Leq is the sound level corresponding to a steady-state A-weighted sound level containing the same total energy as several SEL events during a given sample period. Leq is the "energy" average noise level during the time period of the sample. It is based on the observation that the potential for noise annoyance is dependent on the total acoustical energy content of the noise. Leq can be measured for

Table Of Contents

1.0 Existing Air Quality

1.1 Project Description

In 2002, the County of Orange approved an extension of the 1985 Settlement Agreement that restricts and limits operations and John Wayne Airport. The extension contained amendments to the 1985 agreement. The environmental impacts of the Settlement Agreement Extension Amendments were assessed in Environmental Impact Report No. 582. A complete analysis of the air quality impacts associated with the operation of the airport under the Settlement Agreement Extension Amendments was performed in EIR No. 582. However, at the time of preparation of the EIR there were no specific construction projects identified and therefore, no specific analysis of the potential air quality impacts from construction activities that would result due approval of the Settlement Agreement Amendments was provided. The EIR reported that it was likely that construction activities could generate emissions in excess of the thresholds of significance and that an analysis would be performed when construction projects were defined.

The following on-airport improvements are proposed as part of the Amended Settlement Agreement Implementation Project:

1. **Terminal Additions:** Construction of a new terminal building south of the existing facility that would provide up to six passenger-loading gates. Construction of an extension of the existing terminal to provide four passenger departure gates and holdroom area for commuter flights at the north end of the existing terminal. Construction of an extension of the hydrant fueling system to serve the passenger gates in the new terminal building.

2 **Parking Structure and & Roadway Modifications:** Construction of a new parking structure providing approximately 3,000 parking spaces south of the existing east parking structure. Modification of the onsite roadway system in front of the existing terminal to accommodate the new terminal and parking structure. This may involve the construction of temporary improvements to facilitate the phasing of construction.

3. **Taxi-Way and Apron Reconfiguration:** Expansion of the existing apron area to allow for the parking of up to approximately 30 Remaining Over Night (RON) commercial air carrier aircraft. This would occur by extending the apron south of the current terminal.

4. **Miscellaneous Componants:** Modification of the facilities on the lease holdings on the westside of the airport. It is anticipated that this would include construction of a hanger, demolition of a hanger, and pavement of general aviation apron area. Provision of an additional right-turn lane on southbound Campus Drive to Bristol Street North. Relocation of the airport maintenance building from the southwest corner of the airport to an undeveloped parcel the eastside of the airport in the vicinity of the fuel tanks. Ancillary airfield modifications, such as relocation of helicopter landing pads, and other minor modifications required by project design.

This air quality assessment will analyze the potential air quality impacts associated with construction of the airport improvements described above. Air pollutant emissions resulting from construction activities will be estimated and compared to significance thresholds. Mitigation measures to lower air pollutant emissions during construction are also presented.

1.2 Climate

The climate in and around the project area, as with all of Southern California, is controlled largely by the strength and position of the subtropical high pressure cell over the Pacific Ocean. It maintains moderate temperatures and comfortable humidity, and limits precipitation to a few storms during the winter "wet" season. Temperatures are normally mild, excepting the summer months, which commonly bring substantially higher temperatures. In all portions of the basin, temperatures well above 100 degrees F. have been recorded in recent years. The annual average temperature in the basin is approximately 62 degrees F.

Winds in the project area are usually driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night the wind generally slows and reverses direction traveling towards the sea. Wind direction will be altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one wind pattern to the other, the dominant wind direction rotates into the south and causes a minor wind direction maximum from the south. The frequency of calm winds (less than 2 miles per hour) is less than 10 percent. Therefore, there is little stagnation in the project vicinity, especially during busy daytime traffic hours.

Southern California frequently has temperature inversions which inhibit the dispersion of pollutants. Inversions may be either ground based or elevated. Ground based inversions, sometimes referred to as radiation inversions, are most severe during clear, cold, early winter mornings. Under conditions of a ground based inversion, very little mixing or turbulence occurs, and high concentrations of primary pollutants may occur in the vicinity of major roadways. Elevated inversions can be generated by a variety of meteorological phenomena. Elevated inversions act as a lid or upper boundary and restrict vertical mixing. Below the elevated inversion dispersion is not restricted. Mixing heights for elevated inversions are lower in the summer and more persistent. This low summer inversion puts a lid over the SCAB and is responsible for the high levels of ozone observed during summer months in the air basin.

1.3 Air Quality Management

The proposed project is located in the South Coast Air Basin (SCAB) and, jurisdictionally, is the responsibility of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD sets and enforces regulations for stationary sources in the basin and develops and implements Transportation Control Measures. The CARB is charged with controlling motor vehicle emissions. CARB establishes legal emission rates for new vehicles and is responsible for the vehicle inspection program. Other important agencies in the air quality management for the basin include the U.S. Environmental Protection Agency (EPA) and the Southern California Association of Governments (SCAG). The EPA implements the provisions of the federal Clean Air Act. This Act establishes ambient air quality standards that are applicable nationwide. In areas that are not achieving the standards, the Clean Air Act requires that plans be developed and implemented to meet the standards. The EPA oversees the efforts in this air basin and insures that appropriate plans are being developed and implemented. The primary agencies responsible for writing the plan are SCAG and the SCAQMD, and the plan is called the Air Quality Management Plan (AQMP). SCAG prepares the transportation component of the AQMP.

SCAQMD and SCAG, in coordination with local governments and the private sector, have developed the Air Quality Management Plan (AQMP) for the air basin. The AQMP is the most important air management document for the basin because it provides the blueprint for meeting state and federal ambient air quality standards. The 1997 AQMP was adopted locally on November 8, 1996, by the governing board of the SCAQMD. CARB amended the Ozone portion of the 1997 AQMP in 1999 as part of the California State Implementation Plan. The 1997 AQMP with the 1999 Amendments was adopted by the EPA in December of 1999. State law mandates the revision of the AQMP at least every three years, and federal law specifies dates certain for developing attainment plans for criteria pollutants. The 1997 AQMP with the 1999 Amendments supersedes the 1994 AQMP revision that was adopted locally by the SCAQMD in November 1996. The 1997 revision to the AQMP was adopted in response to the requirements set forth in the California Clean Air Act (CCAA) and the 1990 amendments to the Federal Clean Air Act (CAA). SCAQMD and SCAG have published a new 2003 AQMP. The SCAQMD board voted to adopt the 2003 AQMD in August 2003 and CARB approved the 2003 AQMP in October 2003. However, EPA must approve the AQMP before it becomes the applicable AQMP. It is not known when the EPA will approve the AQMP. Until that time the 1997 AQMP with the 1999 amendments is the current operative AQMP.

The SCAB has been designated by the U.S. Environmental Protection Agency (EPA) as a non-attainment area for ozone, carbon monoxide, and suspended particulates. Nitrogen dioxide in the SCAB has met the federal standards for the third year in a row, and therefore, is qualified for redesignation to attainment. A maintenance plan for nitrogen dioxide is included in the 1997 AQMP. The CCAA mandates the implementation of the program that will achieve the California Ambient Air Quality Standards (CAAQS) and the CAA mandates the implementation of new air quality performance standards.

EPA has designated SCAB as extreme non-attainment for 1-hour ozone, and serious non-attainment for PM10 and CO. Attainment of all federal PM10 health standards is to be achieved

by December 31, 2006, and ozone standards are to be achieved by November 15, 2010. For CO, the deadline was to be December 31, 2000 however the basin was granted an extension. The SCAB has not had more than one violation of the federal CO standard in the past two years. Therefore, the SCAB has met the criteria for CO attainment. However, SCAB is still formally designated as a non-attainment area for CO until USEPA redesignates it as an attainment area. SCAQMD plans to submit a proposed maintenance plan to the USEPA in late fall/early winter 2003.

In 1997, the EPA established an 8-hour standard for ozone and standards for particulate matter less than 2.5 microns in diameter (PM2.5). In 1999, a federal court ruling (American Trucking Associations, Inc., et al., v. United States Environmental Protection Agency) blocked implementation of these standards. In February 2001, the United States Supreme Court upheld the standards but remanded some issues back to the Circuit Court. In March 2002, the Circuit Court upheld the standards. Establishment of a PM2.5 standard was just the first step in the assessment and reduction of PM2.5 levels. Tools need to be developed to accurately estimate PM2.5 and precursor emissions, their dispersion and atmospheric interactions, and the resulting concentrations. Uncertainty brought by the court challenge delayed development of the tools to estimate PM2.5 emissions and concentrations, especially at a project level. The focus at this time is establishment of a PM2.5 measurement network to determine which areas are in attainment of the standard and which are not and how substantial the concentrations are in areas of nonattainment. At this time, adequate tools are not available to perform a detailed assessment of PM2.5 emissions and impacts at the project level. Further, there are no good sources for the significance thresholds for PM2.5 emissions. Until tools and methodologies are developed to assess the impacts of projects on PM2.5 concentrations the analysis of PM10 will need to be used as an indicator of potential PM2.5 impacts.

EPA is scheduled to promulgate air quality designations for the new 8-hour ozone standard by April 15, 2004. At this time, it is not known when EPA plans to begin implementation of the new PM2.5 standards.

On June 20, 2002, the CARB revised the PM10 annual average standard to 20 μg/m3 and establish an annual average standard for PM2.5 of 12 μg/m3. These standards were approved by the Office of Administrative Law in June of 2003 and are now effective. However, as discussed above there are not adequate tools to assess PM2.5 impacts and PM10 emissions must be used as an indicator of potential PM2.5 impacts. SCAQMD has not altered the recommended significance thresholds or analysis techniques based on these revised standards.

The overall control strategy for the AQMP is to meet applicable state and federal requirements and to demonstrate attainment with ambient air quality standards. The 1997 AQMP uses two tiers of emission reduction measures; (1) short- and intermediate-term measures, and (2) long-term measures.

Short- and intermediate-term measures propose the application of available technologies and management practices between 1994 and the year 2005. These measures rely on known technologies and proposed actions to be taken by several agencies that currently have statutory authority to implement such measures. Short- and intermediate-term measures in the 1997

AQMP include 35 stationary source, 7 on-road, 6 off-road, 1 transportation control and indirect source, 5 advanced transportation technology, and 1 further study measures. All of these measures are proposed to be implemented between 1995 and 2005. These measures rely on both traditional command and control and on alternative approaches to implement technological solutions and control measures.

To ultimately achieve ambient air quality standards, additional emission reductions will be necessary beyond the implementation of short- and intermediate-term measures. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 1997 and 2010. These long-term measures rely on further development and refinement of known low- and zero-emission control technologies for both mobile and stationary sources, along with technological breakthroughs.

1.4 Monitored Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates for the SCAB have been made for existing emissions ("1997 Air Quality Management Plan", October 1996). The data indicate that mobile sources are the major source of regional emissions. Motor vehicles (i.e., on-road mobile sources) account for approximately 51 percent of volatile organic compounds (VOC), 63 percent of nitrogen oxide (NOx) emissions, and approximately 78 percent of carbon monoxide (CO) emissions.

Air quality data for this area is collected at the Costa Mesa monitoring station. The data collected at this station is considered representative of the air quality experienced in the vicinity of the project. The air pollutants measured at the Costa Mesa station include ozone, carbon monoxide (CO) and, nitrogen dioxide (NO_2). The monitored air quality data from 1999 to 2002 for all of these pollutants are shown in Table 1. The nearest station that monitors particulate matter (PM10 and PM2.5)is the Mission Viejo monitoring Station. The monitored air quality data from 1999 to 2002 for particulates shown in Table 2. Tables 1 and 2 also present the Federal and State air quality standards.

Table 1
Air Quality Levels Measured at Costa Mesa Monitoring Station

Pollutant	California Standard	National Standard	Year	% Msrd.[1]	Max. Level	Days State Standard Exceeded	Days National Standard Exceeded
Ozone	0.09 ppm	0.12 ppm	2002	99	0.087	0	0
	for 1 hr.	for 1 hr.	2001	100	0.098	1	0
			2000	100	0.102	1	0
			1999	92	0.098	1	0
Ozone	none	0.08 ppm	2002	99	0.070	n/a	0
		for 8 hr.	2001	100	0.073	n/a	0
			2000	100	0.086	n/a	1
			1999	92	0.075	n/a	0
CO	20 ppm	35 ppm	2002				
	for 1 hour	for 1 hour	2001	99	6.2	0	0
			2000	99	7.8	0	0
			1999	98	7.9	0	0
CO	9.0 ppm	9 ppm	2002	87	4.3	0	0
	for 8 hour	for 8 hour	2001	99	4.6	0	0
			2000	99	6.3	0	0
			1999	98	6.4	0	0
NO2	0.25 PPM	None	2002	99	0.106	0	0
(1-Hour)	for 1 hour		2001	100	0.082	0	0
			2000	100	0.107	0	0
			1999	95	0.123	0	0
NO2	None	0.053 ppm	2002	99	0.018	n/a	no
(AAM[2])		AAM[2]	2001	100	0.017	n/a	no
			2000	100	0.020	n/a	no
			1999	95	0.020	n/a	no
SO2	0.04 ppm	0.14 ppm	2002	99	0.011	0	0
(24 Hour)	24 Hr.	for 24 hr.	2001	87	0.005	0	0
			2000	100	0.006	0	0
			1999	100	0.005	0	0
SO2	None	0.030 ppm	2002	99	0.002	n/a	no
(AAM[2])		AAM[2]	2001	87	0.001	n/a	no
			2000	100	0.002	n/a	no
			1999	100	0.002	n/a	no

Note: Particulates (PM10 & PM2.5) were not measured at Costa Mesa Station. Data shown is for Mission Viejo station below.

1. Percent of year where high pollutant levels were expected that measurements were made
2. Annual Arithmetic Mean

Table 2
Air Quality Levels Measured at Mission Viejo Monitoring Station

Pollutant	California Standard	National Standard	Year	% Msrd.[1]	Max. Level	Days State Standard Exceeded	Days National Standard Exceeded
Particulates	50 ug/m3	150 ug/m3	2002	--	80	5/18	0
PM10[4]	for 24 hr.	for 24 hr.	2001	94	60	3/18	0
(24 Hour)			2000	98	98	2/12	0
			1999	68	56	1/6	0
Particulates	20 ug/m3	50 ug/m3	2002	--	28/31	yes	no
PM10[5]	AGM[3]	AAM[2]	2001	94	24/26	yes	no
(Annual)			2000	98	25/27	yes	no
			1999	68	27/21	yes	no
Particulates	None	65 ug/m3	2002	100	58.5	n/a	0
PM2.5		for 24 hr.	2001	99	53.4	n/a	0
(24 Hour)			2000	100	94.7	n/a	1
			1999	--	56.6	n/a	0
Particulates	12 ug/m3	15 ug/m3	2002	100	15.5	yes	yes
PM2.5	AAM[2]	AAM[2]	2001	99	15.8	yes	yes
(Annual)			2000	100	14.7	yes	no
			1999	--	17.0	yes	yes

1. Percent of year where high pollutant levels were expected that measurements were made
2. Annual Arithmetic Mean
3. Annual Geometric Mean
4. First number shown in Days State Standard Exceeded column are the actual number of days measured that state standard was exceeded. The second number shows the number of days the standard would be expected to be exceeded if measurments were taken every day.
5. Levels Shown for Annual PM10 are AGM/AAM

The monitoring data presented in Tables 1 and 2 show that ozone and particulate matter (PM10 and PM2.5) are the air pollutants of primary concern in the project area.

The state 24-hour concentration standards for PM10 have been exceeded at the Mission Viejo monitoring station between 6 and 18 days over the past four years. The federal standard for PM10 was not exceeded. The state annual average standard has been exceeded for the past four years but the federal standard has not. The federal 24-hour standard for PM2.5 was exceeded only once in the past four years, in 2000. The annual average PM2.5 concentration has exceeded both the state and federal standards for the past four years. Particulate levels in the area are due to natural sources, grading operations and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well

through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths.

The state 1-hour ozone standard was exceeded 1 day in 1999, 2000 and 2001 and was not exceeded in 2002. The federal 1-hour standard has not been exceeded in the past four years and the 8 hour standard has only been exceeded once in 2002. The data from the past four years show a slight downward trend in maximum ozone concentrations.

Ozone is a secondary pollutant; it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon monoxide (CO) is another important pollutant that is due mainly to motor vehicles. Currently, CO levels in the project region are in compliance with the state and federal 1-hour and 8-hour standards. High levels of CO commonly occur near major roadways and freeways. CO may potentially be a continual problem in the future for areas next to freeways and other major roadways.

The monitored data shown in Tables 1 and 2 show that other than ozone, PM10 and PM2.5 exceedances as mentioned above, no state or federal standards were exceeded for the remaining criteria pollutants.

2.0 Potential Air Quality Impacts

Air quality impacts are usually divided into short term and long term. Short-term impacts are usually the result of construction or grading operations. Long-term impacts are associated with the built out condition of the proposed project.

2.1 Thresholds of Significance

2.1.1 Regional Air Quality

In their "1993 CEQA Air Quality Handbook" the SCAQMD has established significance thresholds to assess the regional impact of project related air pollutant emissions. Table 3 presents the significance thresholds for short-term construction emissions. Construction activities with daily emission rates below these thresholds are considered to have a less than significant effect on regional air quality throughout the South Coast Air Basin.

Table 3
SCAQMD Regional Pollutant Emission Thresholds of Significance

	Pollutant Emissions (lbs/day)				
	CO	ROG	NOx	PM10	SOx
Construction	*550*	*75*	*100*	*150*	*150*

2.1.2 Local Air Quality

In October 2003, the SCAQMD Board adopted a methodology and significance thresholds to assess localized air quality impacts from on-site emissions. The adoption resolution calls for a nine-month phase-in period of the Localized Significance Thresholds (LSTs). During the phase-in period, the SCAQMD will conduct a pilot program with cities and local contractors to assess any potential implementation issues. In May 2004, the SCAQMD will review the LST pilot program and make revisions as necessary. The LST will then be incorporated into the SCAQMD CEQA Handbook in July 2004.

Because of the preliminary nature of the LST, and the possibility that the significance thresholds will be revised to reflect various implementation issues, the preliminary criteria will not be used to assess the impacts of this project. The analysis presented below provides a determination that the project would significantly impact both local and regional air quality. All reasonable and feasible mitigation measures to reduce pollutant emissions during construction are recommended for adoption in connection with project approval in Section 3.1. These measures will reduce construction air quality impacts to the greatest extent feasible.

2.2 Short Term Impacts

Temporary impacts will result from project construction activities. Air pollutants will be emitted by construction equipment and fugitive dust will be generated during excavation of the existing facilities and grading of the sites. The greatest amount of air pollutants will be generated during excavation and grading. Currently, the timing of all of the improvements proposed by the project has not been determined. They may or may not occur concurrently. As a worst-case assumption it will be assumed that all components will be constructed concurrently. At this time the specific details of construction activities required to implement the project have not been determined. Estimates of construction activities used to calculate construction emissions were developed in a meeting with Dave Helmreich and Dick Smith of JWA. The estimates were developed with the intent of depicting the greatest potential amount of activity that would be required for the construction and therefore, the highest levels of pollutant emissions.

The primary components that will generate substantial emissions are excavation and grading of the Terminal Addition area, Parking Structure and Roadway Area, Taxi-Way and Apron Configuration area, and a New Right Turn Lane from Campus to Bristol. These emissions include removal of pavement and dirt as required. Emissions from building demolition are not included. Two of the buildings that will be removed by the project are metal hangers and their demolition will not generate considerable levels of pollutants. The third building is the maintenance building and that will be demolished as a part of the Right Turn Lane addition. Due to the size of this building, emissions during demolition will be less than during excavation and grading as analyzed below. The emissions from all four of these components are discussed separately below. The combined emissions from all four components is then presented.

2.2.1 Emission Rates

Construction activities for large development projects are estimated by the U.S. Environmental Protection Agency. The emission factor for disturbed soil is 26.4 pounds of PM10 per day per acre, or 0.40 tons of PM10 per month per acre (SCAQMD CEQA Handbook). The CEQA Handbook also establishes an emission factor of 0.00042 pounds of PM10 per cubic foot of building space for demolition activities. If water or other soil stabilizers are used to control dust as required by SCAQMD Rule 403, the emissions can be reduced by 50 percent. The PM10 calculations presented below do not include the 50% reduction from watering.

Typical emission rates for construction equipment were obtained from the 1993 CEQA Air Quality Handbook. These emission factors are presented in terms of pounds of pollutant per hour of equipment operation. It should be noted that most of these emission factors were initially published in 1985 in the EPA's AP-42 Compilation of Emission Factors. These have not been updated since their original publication. Several state and federal regulations have been enacted since this time that require reduced emissions from construction equipment. The effect of these regulations is not included in the emission factors used to calculate construction equipment emissions presented below. The actual emissions from construction equipment, therefore, will likely be lower than presented below. However, the exact reduction is not known. It would be dependent on the age of the specific equipment used at the construction site. As time passes, older equipment will be replaced with newer equipment manufactured with the lower

emission requirements. Therefore, construction occurring farther in the future would likely be reduced by a greater amount versus near term construction.

Emission rates for employee vehicle trips and heavy truck operations were from EMFAC2002. EMFAC2002 is a computer program generated by the California Air Resources Board that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile.

2.2.2 Terminal Addition Area Excavation & Grading

Construction of the Terminal Addition will require approximately 7.4 acres of existing pavement to be removed along with dirt to a depth of approximately 2.5 feet. This material will be hauled off the site by approximately 300 daily truck trips. At this time it is not known where the material will be hauled. Asphalt and concrete will likely be transported to another portion of the airport for future recycling. Dirt will be hauled to the nearest available site accepting fill. As a worst-case assumption the pollutant emissions calculations assume a 25 mile one-way trip length for each haul truck. To calculate emissions during the heaviest excavation and grading activities, it was assumed that two loaders, a scraper, a water truck and a miscellaneous piece of equipment were operating 10 hours per day. It was assumed that there would be 20 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 11 miles. It is expected that the excavation and grading of the Terminal Addition area to occur over a two to three week period.

Using the estimates presented above the peak construction emissions for the Terminal Addition were calculated and presented in Table 4. The data used to calculate the emissions are shown in the appendix.

Table 4
Air Pollutant Emissions During Excavation & Grading of Terminal Addition

	Pollutant Emissions (lbs/day)				
Source	**CO**	**ROG**	**NO_x**	**PM10**	**SO_x**
Grading Activity	0.0	0.0	0.0	195.9	0.0
Truck Loading	0.0	0.0	0.0	3.4	0.0
Construction Equipment	35.3	8.1	96.3	6.8	11.5
Dirt Export Trucks	89.8	34.3	355.9	13.6	9.9
Employee Travel	7.7	0.5	1.0	0.1	0.0
Total Emissions	**132.8**	**42.9**	**453.1**	**219.7**	**21.5**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Note: Values in columns may not add exactly to total due to rounding.

The data presented in Table 4 shows that NO_x and PM10 pollutant emissions associated with the excavation and grading of the Terminal Addition are projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. The primary source of the PM10 is the grading activity and the primary source of NO_x emissions is from the trucks exporting dirt. Excavation and Grading of the Terminal Addition area result in a significant air quality impact and mitigation is required and presented in Section 3.1.

2.2.3 New Parking Structure & Roadway Area Excavation & Grading

Construction of the New Parking Structure and Roadway will require approximately 11.9 acres of existing pavement to be removed along with dirt to a depth of approximately 2.5 feet. This material will be hauled off the site by approximately 300 daily truck trips. At this time it is not known where the material will be hauled. Asphalt and concrete will likely be transported to another portion of the airport for future recycling. Dirt will be hauled to the nearest available site accepting fill. As a worst-case assumption the pollutant emissions calculations assume a 25 mile one-way trip length for each haul truck. To calculate emissions during the heaviest excavation and grading activities, it was assumed that two loaders, a scraper, a water truck and a miscellaneous piece of equipment were operating 10 hours per day. It was assumed that there would be 20 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 11 miles. It is expected that the excavation and grading of the New Parking Structure and Roadway area to occur over a three to four week period.

Using the estimates presented above the peak emissions for the construction of the New Parking Structure and Roadway were calculated and presented in Table 5. The data used to calculate the emissions are shown in the appendix.

Table 5
Air Pollutant Emissions During Excavation & Grading of New Parking Structure & Roadway Area

	Pollutant Emissions (lbs/day)				
Source	CO	ROG	NO_x	PM10	SO_x
Grading Activity	0.0	0.0	0.0	314.2	0.0
Truck Loading	0.0	0.0	0.0	3.4	0.0
Construction Equipment	35.3	8.1	96.3	6.8	11.5
Dirt Export Trucks	89.8	34.3	355.9	13.6	9.9
Employee Travel	7.7	0.5	1.0	0.1	0.0
Total Emissions	**132.8**	**42.9**	**453.1**	**337.9**	**21.5**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Note: Values in columns may not add exactly to total due to rounding.

The data presented in Table 5 shows that NO_x and PM10 pollutant emissions associated with the excavation and grading of the Parking Structure and New Roadway area are projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. The primary source of the PM10 is the grading activity and the primary source of NO_x emissions is from the trucks exporting dirt. Excavation and Grading of the Terminal Addition area result in a significant air quality impact and mitigation is required and presented in Section 3.1.

2.2.4 New Parking Structure Cement Pour

The new Parking Structure will require a substantial amount of cement to be trucked into the site. Due to traffic considerations, these pours will happen during the nighttime hours when the airport is not operating. Approximately 36 cement trucks will bring in cement each night over a six-month period. As a worst-case assumption the pollutant emissions calculations assume a 20 mile one-way trip length for each cement truck. It was assumed that three miscellaneous pieces

of equipment were operating 6 hours per day for the pour. It was assumed that there would be 30 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 11 miles.

Using the estimates presented above the emissions during the cement pouring for the New Parking Structure were calculated and presented in Table 6. The data used to calculate the emissions are shown in the appendix.

Table 6
Air Pollutant Emissions During Cement Pour for the New Parking Structure

	Pollutant Emissions (lbs/day)				
Source	CO	ROG	NO_x	PM10	SO_x
Construction Equipment	12.2	0.3	30.6	2.5	2.6
Cement Trucks	8.6	3.3	34.2	1.3	1.0
Employee Travel	11.5	0.8	1.5	0.1	0.1
Total Emissions	**32.3**	**4.4**	**66.2**	**3.9**	**3.6**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Note: Values in columns may not add exactly to total due to rounding.

The data presented in Table 5 shows that pollutant emissions associated with the cement pour for the New Parking Structure are not projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. If the pour occurs during a period with no other substantial construction activities occurring at the airport it will not result in a significant impact. However, if the pour occurs concurrently with the other activities analyzed here it could result in a significant air quality impact. This is examined in Section 2.2.8.

2.2.5 Taxi-Way and Apron Reconfiguration Area Excavation & Grading

Construction of the Taxi-Way and Apron Reconfiguration will require approximately 8.3 acres of existing pavement to be removed along with dirt to a depth of approximately 2 feet. This material will be hauled off the site by approximately 300 daily truck trips. At this time it is not known where the material will be hauled. Asphalt and concrete will likely be transported to another portion of the airport for future recycling. Dirt will be hauled to the nearest available site accepting fill. As a worst-case assumption the pollutant emissions calculations assume a 25 mile one-way trip length for each haul truck. To calculate emissions during the heaviest excavation and grading activities, it was assumed that two loaders, a scraper, a water truck and a miscellaneous piece of equipment were operating 10 hours per day. It was assumed that there would be 20 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 11 miles. It is expected that the excavation and grading of the Taxi-Way and Apron Reconfiguration area to occur over a two to three week period.

Using the estimates presented above the peak emissions for the construction of the Taxi-Way and Apron Reconfiguration were calculated and presented in Table 7. The data used to calculate the emissions are shown in the appendix.

Table 7
Air Pollutant Emissions During Excavation & Grading of the Taxi-Way and Apron Reconfiguration Area

	Pollutant Emissions (lbs/day)				
Source	CO	ROG	NO_x	PM10	SO_x
Grading Activity	0.0	0.0	0.0	219.1	0.0
Truck Loading	0.0	0.0	0.0	3.4	0.0
Construction Equipment	35.3	8.1	96.3	6.8	11.5
Dirt Export Trucks	89.8	34.3	355.9	13.6	9.9
Employee Travel	7.7	0.5	1.0	0.1	0.0
Total Emissions	**132.8**	**42.9**	**453.1**	**242.9**	**21.5**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Note: Values in columns may not add exactly to total due to rounding.

The data presented in Table 7 shows that NO_x and PM10 pollutant emissions associated with the excavation and grading of the Taxi-Way and Apron Reconfiguration area are projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. The primary source of the PM10 is the grading activity and the primary source of NO_x emissions is from the trucks exporting dirt. Excavation and Grading of the Excavation and Grading of the Taxi-Way and Apron Reconfiguration area result in a significant air quality impact and mitigation is required and presented in Section 3.1.

2.2.6 Taxi-Way and Apron Reconfiguration Cement Pour

The Taxi-Way and Apron Reconfiguration will require a substantial amount of cement to be trucked into the site. Due to traffic considerations, these pours will happen during the nighttime hours when the airport is not operating. Approximately 36 cement trucks will bring in cement each night over a six-month period. As a worst-case assumption the pollutant emissions calculations assume a 20 mile one-way trip length for each cement truck. It was assumed that three miscellaneous pieces of equipment were operating 6 hours per day for the pour. It was assumed that there would be 30 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 11 miles.

Using the estimates presented above the emissions during the cement pouring for the Taxi-Way and Apron Reconfiguration were calculated and presented in Table 8. The data used to calculate the emissions are shown in the appendix.

Table 8
Air Pollutant Emissions During Cement Pour for the Taxi-Way and Apron Reconfiguration

	Pollutant Emissions (lbs/day)				
Source	CO	ROG	NO_x	PM10	SO_x
Construction Equipment	12.2	0.3	30.6	2.5	2.6
Cement Trucks	8.6	3.3	34.2	1.3	1.0
Employee Travel	11.5	0.8	1.5	0.1	0.1
Total Emissions	**32.3**	**4.4**	**66.2**	**3.9**	**3.6**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Note: Values in columns may not add exactly to total due to rounding.

The data presented in Table 8 shows that pollutant emissions associated with the cement pour for the Taxi-Way and Apron Reconfiguration are not projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. If the pour occurs during a period with no other substantial construction activities occurring at the airport it will not result in a significant impact. However, if the pour occurs concurrently with the other activities analyzed here it could result in a significant air quality impact. This is examined in Section 2.2.8.

2.2.7 Campus to Bristol Right Turn Lane Excavation & Grading

Construction of the Campus to Bristol Right Turn Lane will require approximately 0.17 acres of existing pavement to be removed along with dirt to a depth of approximately 2 feet. This material will be hauled off the site by approximately 45 truck trips on a single day. At this time it is not known where the material will be hauled. Asphalt and concrete will likely be transported to another portion of the airport for future recycling. Dirt will be hauled to the nearest available site accepting fill. As a worst-case assumption the pollutant emissions calculations assume a 25 mile one-way trip length for each haul truck. To calculate emissions during the heaviest excavation and grading activities, it was assumed that a loader, a water truck and a miscellaneous piece of equipment were operating 8 hours per day. It was assumed that there would be 15 worker vehicles traveling to and from the site each day and the average trip length for each worker vehicle is 11 miles.

Using the estimates presented above the peak emissions for the construction of the Campus to Bristol Right Turn lane were calculated and presented in Table 9. The data used to calculate the emissions are shown in the appendix.

Table 9
Air Pollutant Emissions During Excavation & Grading of the Campus to Bristol Right Turn Lane

	Pollutant Emissions (lbs/day)				
Source	CO	ROG	NO_x	PM10	SO_x
Grading Activity	0.0	0.0	0.0	4.5	0.0
Truck Loading	0.0	0.0	0.0	0.5	0.0
Construction Equipment	10.3	1.9	23.3	1.1	3.4
Dirt Export Trucks	13.5	5.1	53.4	2.0	1.5
Employee Travel	5.7	0.4	0.7	0.0	0.0
Total Emissions	**29.5**	**7.4**	**77.5**	**8.2**	**5.0**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Note: Values in columns may not add exactly to total due to rounding.

The data presented in Table 9 shows that pollutant emissions associated with the excavation and grading of the Campus to Bristol Right Turn Lane are not projected to be greater than the Significance Thresholds established by the SCAQMD in the CEQA Air Quality Handbook. If the excavation and grading occurs during a period with no other substantial construction activities occurring at the airport it will not result in a significant impact. However, if the excavation and grading occurs concurrently with the other activities analyzed here it could result in a significant air quality impact. This is examined in Section 2.2.8.

2.2.8 Combined Emissions

Table 10 shows the total worst-case daily emissions for each of the five project construction components discussed above. As discussed above NO_X and PM10 emissions from the first three components listed in Table 3 exceed the SCAQMD Thresholds. Emissions from the last three components do not exceed the thresholds. However, if any of the three components that do not exceed the threshold occurs concurrently with another, the resulting emissions will exceed the NO_X threshold of significance and result in a significant air quality impact. Further, if any two of the major excavation and grading activities (i.e. Parking Structure and Road, New Terminal, or Ramp and Apron Reconfiguration) occur concurrently emissions will exceed the ROG threshold. Mitigation specified in Section 3.1 shall be implemented for all phases of construction to minimize impacts to the greatest extent possible.

Table 10
Summary of Construction Air Pollutant Emissions

	Pollutant Emissions (lbs/day)				
Construction Component	**CO**	**ROG**	**NOx**	**PM10**	**SOx**
Excavation & Grading					
Parking Structure & Road	132.8	42.9	453.1	337.9	21.5
New Terminal	132.8	42.9	453.1	219.7	21.5
Ramp and Apron Reconfig.	132.8	42.9	453.1	242.9	21.5
Right Turn Lane	29.5	7.4	77.5	8.2	5.0
Total	**428.0**	**136.3**	**1,436.9**	**808.7**	**69.5**
Cement Pour					
Parking Structure & Road	32.3	4.4	66.2	3.9	3.6
Ramp and Apron Reconfig.	32.3	4.4	66.2	3.9	3.6
Total	**64.6**	**8.8**	**132.4**	**7.8**	**7.2**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Note: Values in columns may not add exactly to total due to rounding.

2.3 Long Term Impacts

Air quality impacts associated with the implementation of the Settlement Agreement Amendments were assessed in EIR No. 582. The proposed improvements would not alter the operational air quality impacts discussed in EIR No. 582.

3.0 Mitigation Measures

3.1 Short-Term Impacts

The analysis presented in Section 2.2 showed that construction activities would generate emissions that exceed the thresholds of significance and result in significant air quality impacts. Implementation of following measures is proposed to mitigate the air quality impacts to the greatest extent feasible.

The first set of measures are general measures to reduce the potential impacts of pollutants emitted during construction. The second set of measures are directed towards minimizing particulate emissions. The third set of measures are directed toward minimizing emissions from construction equipment.

3.1.1 General Measures

AQ-1: All of the mitigation measures discussed below shall be included in the Specifications and/or Construction Drawings for each component of the project.

AQ-2: A publicly visible sign shall be posted with the telephone number and name of a contractors representative to contact regarding dust complaints. This person shall respond and take corrective action within 24-hours. All complaints and resolutions shall be coordinated with the John Wayne Airport Environmental Compliance Monitoring Program.

AQ-3: The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary to prevent the transport of dust offsite. This person will coordinate these measures with the John Wayne Airport Environmental Compliance Monitoring Program.

AQ-4: All construction equipment operations shall be suspended during second stage smog alerts.

3.1.2 Particulate Emission (PM-10) Control Measures

AQ-5: Comply with SCAQMD Rules 402 and 403. During construction of the Proposed Project, the County of Orange and its contractors will be required to comply with regional rules, which would assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires that air pollutant emissions not a nuisance off-site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Two options are presented in Rule 403; monitoring of particulate concentrations or active control. Monitoring involves a sampling network around the project with no additional control measures unless specified concentrations are exceeded. The active control option does not require any monitoring, but requires that a list of measures be implemented starting with the first day of construction.

Rule 403 requires that "A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation." Rule 403 also requires that the construction activities "shall not cause or allow PM10 levels exceed 50 micrograms per cubic meter when determined by simultaneous sampling, as the difference between upwind and down wind sample." A project is exempt from the monitoring requirement "if the dust control actions, as specified in Table 2 are implemented on a routine basis for each applicable fugitive dust source type." Table 2 from Rule 403 is presented below as Table 11. Under high wind conditions (i.e. when wind gusts exceed 25 miles per hour) additional control measures are required, and "the required control measures for high wind conditions are implemented for each applicable fugitive dust source type, as specified in Table 1." Table 1 from Rule 403 is presented below as Table 12. Monitoring of particulate concentrations does not reduce fugitive dust emissions; therefore, to minimize fugitive dust emissions the construction activities will utilize the measures presented in Tables 11 and 12 (Tables 1 and 2 in Rule 403) rather than the monitoring option of SCAQMD Rule 403. This potentially results in a much higher reduction of particulate emissions than if the air monitoring option contained in Rule 403 was employed.

Further, Rule 403 requires that that the project shall "prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations." Alternatively the project can "take at least one of the actions listed in Table 3." Table 3 from Rule 403 is presented below as Table 13. In addition, the project would be required to "prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease." The Storm Water Pollution Prevention Plan also contain measures that will limit material track out.

Table 11
Fugitive Dust Control Actions for Exemption to Monitoring (Rule 403 Table 2)

Source Category		Control Actions
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR (4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

Table 12
Best Available Control Measures for High Wind Conditions (Rule 403 Table 1)

Source Category	Control Measures	
Earth-moving	(1A)	Cease all active operations; OR
	(2A)	Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B)	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR
	(1B)	Apply chemical stabilizers prior to wind event; OR
	(2B)	Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR
	(3B)	Take the actions specified in Table 2, Item (3c); OR
	(4B)	Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C)	Apply chemical stabilizers prior to wind event; OR
	(2C)	Apply water twice per hour during active operation; OR
	(3C)	Stop all vehicular traffic.
Open storage piles	(1D)	Apply water twice per hour; OR
	(2D)	Install temporary coverings.
Paved road track-out	(1E)	Cover all haul vehicles; OR
	(2E)	Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 1 may be used.

Table 13
Track Out Control Options

(1) Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

(2) Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.

(3) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

3.1.3 Construction Equipment Emission Control

The generation of ROG, NO_x and VOC emissions is almost entirely due to engine combustion in construction equipment and employee commuting. The measures below address these emissions.

AQ-6: All diesel fuel brought on site for construction equipment shall be low sulfur diesel fuel. The use of low sulfur diesel fuel is required for stationary construction equipment by SCAQMD Rules 431.1 and 431.2. All stationary and mobile equipment that is fueled on site will utilize low sulfur diesel fuel. The airport cannot reasonably control the type of fuel in vehicles brought on site therefore there is no requirement that all vehicles use low sulfur diesel fuel. The airport can control the type of fuel brought onsite for refueling and this will be required to be low sulfur diesel fuel.

AQ-7: Further reduce construction equipment emissions by implementing the following measures to the greatest extent practicable. Some additional gains in emission control will be realized from the implementation of these measures.

- Maintain construction equipment engines consistent with manufacturers recommendations.
- Utilize post-combustion controls in combustion engine construction equipment.
- Configure construction parking to minimize traffic interference.
- Schedule construction operations affecting traffic for off-peak hours.
- Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service
- Utilize existing power sources (i.e., power poles) when feasible. This measure would minimize the use of higher polluting gas or diesel generators.
- Minimize obstruction of through-traffic lanes. When feasible, construction should be planned so that lane closures on existing streets are kept to a minimum.
- Use low emission mobile construction equipment. To the greatest extent practicable CARB certified equipment should be used for construction activities. A fraction of all of the active construction equipment is CARB certified. Depending on regional construction activities some or all of the CARB certified construction equipment may be utilized on other projects. When available CARB certified construction equipment shall be utilized prior to non-CARB certified equipment.
- Consider the use of alternative diesel fuel formulations such as PuriNOx™ and Amber 363 to the extent available.
- Encourage the use of low sulfur diesel fuel for vehicles not fueled on site including haul trucks. As discussed in AQ-6 the airport cannot reasonably control the type of fuel in vehicles brought on site.

4.0 Level of Significance after Mitigation

4.1 Short Term Impacts

The analysis indicates that project emissions from construction activities will exceed the SCAQMD's Thresholds of Significance for NO_X, PM10 and, potentially ROG. Mitigation will reduce emissions, but not to the point that they will fall under the SCAQMD's thresholds. Table 14 presents the emissions with the implementation of the dust suppression measures presented in Section 3.1.2. The numbers in parenthesis show the reduction in emissions with the dust suppression measures. Implementation of Mitigation Measure AQ-5 will reduce fugitive PM10 emissions by approximately 50 percent. Accurate quantification of the emission reductions provided by the other mitigation measures is not possible and no emission reductions are shown due to these measures. However, NO_x and ROG pollutant emissions would be reduced somewhat over what is shown in Table 14 but not below the thresholds.

Table 14 shows that PM10 emissions from the New Terminal and Ramp and Apron Reconfiguration excavation and grading, by themselves, will be below the threshold with mitigation. However, these activities occurring concurrently with each other, or with the Parking Structure & Road excavation and grading would result in PM10 emissions in excess of the threshold. Emissions of NO_x for all three of these activities would exceed the threshold individually. Even with mitigation, emissions of NO_X and PM10 and potentially ROG during construction of the project will exceed the SCAQMD thresholds even after mitigation, and short-term construction air quality impacts will be significant.

Table 14
Summary of Construction Air Pollutant Emissions with Mitigation

	Pollutant Emissions (lbs/day)				
Construction Component	**CO**	**ROG**	**NOx**	**PM10**	**SOx**
Excavation & Grading					
Parking Structure & Road	132.8 (0)	42.9 (0)	453.1 (0)	178.4 (-159.5)	21.5 (0)
New Terminal	132.8 (0)	42.9 (0)	453.1 (0)	119.3 (-100.4)	21.5 (0)
Ramp and Apron Reconfig.	132.8 (0)	42.9 (0)	453.1 (0)	130.9 (-112.0)	21.5 (0)
Right Turn Lane	29.5 (0)	7.4 (0)	77.5 (0)	5.6 (-2.6)	5.0 (0)
Total	**428.0 (0)**	**136.3 (0)**	**1,436.9 (0)**	**434.1**	**69.5 (0)**
Cement Pour					
Parking Structure & Road	32.3 (0)	4.4 (0)	66.2 (0)	3.9 (0)	3.6 (0)
Ramp and Apron Reconfig.	32.3 (0)	4.4 (0)	66.2 (0)	3.9 (0)	3.6 (0)
Total	**920.5 (0)**	**281.2 (0)**	**3,006.1 (0)**	**441.9 (0)**	**146.2 (0)**
SCQAMD Thresholds	*550*	*75*	*100*	*150*	*150*

Numbers in parenthesis show change over unmitigated conditions. Note that reductions in ROG and NO_x emissions are not quantifiable and therefore, reductions are not shown.
Values in columns may not add exactly to total due to rounding.

APPENDICES

Construction Emissions Calculation Worksheets

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Terminal Excavation & Grading
Unmitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***20***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	7.65	0.54	0.99	0.05	0.05

Truck Emissions

Number Daily Truck Round Trips: ***300***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	89.83	34.30	355.86	13.56	9.92

Particulate Emissions from Grading Activities

Input Data	
Project Size (in acres):	***7.42***
Assumptions	
PM10 Emissions (in lbs/day/acre):	26.40
Watering Reduction:	0%
Results	
Emissions (tons/day):	0.10
Emissions (pounds/day):	196

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***4536.0***
Moisture Content (%):	6.0%
Mean Wind Speed (mph):	12
Assumptions	
PM10 Emissions (in lbs/ton):	7.51E-04
Results	
Emissions (tons/day):	1.70E-03
Emissions (pounds/day):	3.406

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***10***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
1	Scraper	*1*	12.50	2.70	38.40	4.60	4.10
2	Loader	*2*	11.44	4.60	38.00	0.60	3.40
17	Water Truck	*1*	4.65	0.65	2.89	0.17	2.60
7	Miscellaneous	*1*	6.75	0.15	17.00	1.40	1.43
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
			CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./			35.335	8.101	96.291	6.765	11.530

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**132.82**	**42.95**	**453.14**	**219.67**	**21.50**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Parking Structure/Road Excavation & Grading
Unmitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***20***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	7.65	0.54	0.99	0.05	0.05

Truck Emissions

Number Daily Truck Round Trips: ***300***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	89.83	34.30	355.86	13.56	9.92

Particulate Emissions from Grading Activities

Input Data	
Project Size (in acres):	***11.9***
Assumptions	
PM10 Emissions (in lbs/day/acre):	26.40
Watering Reduction:	0%
Results	
Emissions (tons/day):	0.16
Emissions (pounds/day):	314

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***4536.0***
Moisture Content (%):	6.0%
Mean Wind Speed (mph):	12
Assumptions	
PM10 Emissions (in lbs/ton):	7.51E-04
Results	
Emissions (tons/day):	1.70E-03
Emissions (pounds/day):	3.406

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***10***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
1	Scraper	*1*	12.50	2.70	38.40	4.60	4.10
2	Loader	*2*	11.44	4.60	38.00	0.60	3.40
17	Water Truck	*1*	4.65	0.65	2.89	0.17	2.60
7	Miscellaneous	*1*	6.75	0.15	17.00	1.40	1.43
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00

	CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./	35.335	8.101	96.291	6.765	11.530

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**132.82**	**42.95**	**453.14**	**337.94**	**21.50**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Parking Strucutre Cement Pour
Unmitigated & Mitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***30***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	11.48	0.82	1.48	0.08	0.07

Truck Emissions

Number Daily Truck Round Trips: ***36***
Average One Way Trip Length: ***20.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	8.62	3.29	34.16	1.30	0.95

Emissions from Grading Equipment

Hours/Day of Activity: ***6***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
7	Miscellaneous	***3***	12.15	0.27	30.60	2.52	2.57
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00

	CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./	12.150	0.270	30.600	2.520	2.574

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**32.26**	**4.38**	**66.25**	**3.90**	**3.60**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Ramp Excavation & Grading
Unmitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***20***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	7.65	0.54	0.99	0.05	0.05

Truck Emissions

Number Daily Truck Round Trips: ***300***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	89.83	34.30	355.86	13.56	9.92

Particulate Emissions from Grading Activities

Input Data	
Project Size (in acres):	***8.3***
Assumptions	
PM10 Emissions (in lbs/day/acre):	26.40
Watering Reduction:	0%
Results	
Emissions (tons/day):	0.11
Emissions (pounds/day):	219

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***4536.0***
Moisture Content (%):	6.0%
Mean Wind Speed (mph):	12
Assumptions	
PM10 Emissions (in lbs/ton):	7.51E-04
Results	
Emissions (tons/day):	1.70E-03
Emissions (pounds/day):	3.406

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***10***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
1	Scraper	*1*	12.50	2.70	38.40	4.60	4.10
2	Loader	*2*	11.44	4.60	38.00	0.60	3.40
17	Water Truck	*1*	4.65	0.65	2.89	0.17	2.60
7	Miscellaneous	*1*	6.75	0.15	17.00	1.40	1.43
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
			CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./			35.335	8.101	96.291	6.765	11.530

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**132.82**	**42.95**	**453.14**	**242.90**	**21.50**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Ramp Cement Pour
Unmitigated & Mitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***30***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	11.48	0.82	1.48	0.08	0.07

Truck Emissions

Number Daily Truck Round Trips: ***36***
Average One Way Trip Length: ***20.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	8.62	3.29	34.16	1.30	0.95

Emissions from Grading Equipment

Hours/Day of Activity: ***6***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
7	Miscellaneous	***3***	12.15	0.27	30.60	2.52	2.57
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00

	CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./	12.150	0.270	30.600	2.520	2.574

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**32.26**	**4.38**	**66.25**	**3.90**	**3.60**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Turn Lane Addition Grading
Unmitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***15***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	5.74	0.41	0.74	0.04	0.04

Truck Emissions

Number Daily Truck Round Trips: ***45***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	13.48	5.15	53.38	2.03	1.49

Particulate Emissions from Grading Activities

Input Data	
Project Size (in acres):	***0.17***
Assumptions	
PM10 Emissions (in lbs/day/acre):	26.40
Watering Reduction:	0%
Results	
Emissions (tons/day):	0.00
Emissions (pounds/day):	4

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***680.4***
Moisture Content (%):	6.0%
Mean Wind Speed (mph):	12
Assumptions	
PM10 Emissions (in lbs/ton):	7.51E-04
Results	
Emissions (tons/day):	2.55E-04
Emissions (pounds/day):	0.511

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***6***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
2	Loader	*1*	3.43	1.38	11.40	0.18	1.02
17	Water Truck	*1*	2.79	0.39	1.73	0.10	1.56
7	Miscellaneous	*1*	4.05	0.09	10.20	0.84	0.86
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
			CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./			10.269	1.861	23.335	1.119	3.438

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**29.49**	7.41	**77.46**	**8.19**	**4.96**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Terminal Excavation & Grading
Mitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***20***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	7.65	0.54	0.99	0.05	0.05

Truck Emissions

Number Daily Truck Round Trips: ***300***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	89.83	34.30	355.86	13.56	9.92

Particulate Emissions from Grading Activities

Input Data	
Project Size (in acres):	***7.42***
Assumptions	
PM10 Emissions (in lbs/day/acre):	26.40
Watering Reduction:	50%
Results	
Emissions (tons/day):	0.05
Emissions (pounds/day):	98

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***4536.0***
Moisture Content (%):	15.0%
Mean Wind Speed (mph):	12
Assumptions	
PM10 Emissions (in lbs/ton):	2.08E-04
Results	
Emissions (tons/day):	4.72E-04
Emissions (pounds/day):	0.944

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***10***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
1	Scraper	*1*	12.50	2.70	38.40	4.60	4.10
2	Loader	*2*	11.44	4.60	38.00	0.60	3.40
17	Water Truck	*1*	4.65	0.65	2.89	0.17	2.60
7	Miscellaneous	*1*	6.75	0.15	17.00	1.40	1.43
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
			CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./			35.335	8.101	96.291	6.765	11.530

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**132.82**	**42.95**	**453.14**	**119.26**	**21.50**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Parking Structure/Road Excavation & Grading Mitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***20***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	7.65	0.54	0.99	0.05	0.05

Truck Emissions

Number Daily Truck Round Trips: ***300***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	89.83	34.30	355.86	13.56	9.92

Particulate Emissions from Grading Activities

Input Data	
Project Size (in acres):	***11.9***
Assumptions	
PM10 Emissions (in lbs/day/acre):	26.40
Watering Reduction:	50%
Results	
Emissions (tons/day):	0.08
Emissions (pounds/day):	157

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***4536.0***
Moisture Content (%):	15.0%
Mean Wind Speed (mph):	12
Assumptions	
PM10 Emissions (in lbs/ton):	2.08E-04
Results	
Emissions (tons/day):	4.72E-04
Emissions (pounds/day):	0.944

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***10***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
1	Scraper	***1***	12.50	2.70	38.40	4.60	4.10
2	Loader	***2***	11.44	4.60	38.00	0.60	3.40
17	Water Truck	***1***	4.65	0.65	2.89	0.17	2.60
7	Miscellaneous	***1***	6.75	0.15	17.00	1.40	1.43
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
			CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./			35.335	8.101	96.291	6.765	11.530

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**132.82**	**42.95**	**453.14**	**178.40**	**21.50**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Ramp Excavation & Grading
Mitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***20***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	7.65	0.54	0.99	0.05	0.05

Truck Emissions

Number Daily Truck Round Trips: ***300***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	89.83	34.30	355.86	13.56	9.92

Particulate Emissions from Grading Activities

Input Data	
Project Size (in acres):	***8.3***
Assumptions	
PM10 Emissions (in lbs/day/acre):	26.40
Watering Reduction:	50%
Results	
Emissions (tons/day):	0.05
Emissions (pounds/day):	110

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***4536.0***
Moisture Content (%):	15.0%
Mean Wind Speed (mph):	12
Assumptions	
PM10 Emissions (in lbs/ton):	2.08E-04
Results	
Emissions (tons/day):	4.72E-04
Emissions (pounds/day):	0.944

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***10***

Enter number of pieces for each type of equipment:			Daily Emissions (lbs./day)				
ID	Type	No.	CO	ROG	NOx	PM10	SOx
1	Scraper	*1*	12.50	2.70	38.40	4.60	4.10
2	Loader	*2*	11.44	4.60	38.00	0.60	3.40
17	Water Truck	*1*	4.65	0.65	2.89	0.17	2.60
7	Miscellaneous	*1*	6.75	0.15	17.00	1.40	1.43
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
			CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./			35.335	8.101	96.291	6.765	11.530

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**132.82**	**42.95**	**453.14**	**130.88**	**21.50**

CONSTRUCTION EMISSIONS
Includes 1993 CEQA AQ Handbook Data

Project: John Wayne Airport Settlement Implementation Plan
Case Turn Lane Addition Grading
Mitigated

Construction Employee Travel Emissions

Number of Employees on Construction Site: ***15***
Average Trip Length for Employee Travel to Site: ***11***

	CO	ROG	NOx	PM10	SOx
Employee Travel Emissions (lbs./dy	5.74	0.41	0.74	0.04	0.04

Truck Emissions

Number Daily Truck Round Trips: ***45***
Average One Way Trip Length: ***25.0***

	CO	ROG	NOx	PM10	SOx
Truck Emissions (lbs./dy)	13.48	5.15	53.38	2.03	1.49

Particulate Emissions from Grading Activities

Input Data
Project Size (in acres): ***0.17***

Assumptions
PM10 Emissions (in lbs/day/acre): 26.40
Watering Reduction: 50%

Results
Emissions (tons/day): 0.00
Emissions (pounds/day): 2

Source: Page 9-3 of 1993 CEQA Handbook

Particulate Emissions from Material Handling

Input Data	**Dirt**
Materials (tons/day):	***680.4***
Moisture Content (%):	15.0%
Mean Wind Speed (mph):	12

Assumptions
PM10 Emissions (in lbs/ton): 2.08E-04

Results
Emissions (tons/day): 7.08E-05
Emissions (pounds/day): 0.142

Source: Table 9-9-G (page A9-101) of 1993 CEQA Handb

Emissions from Grading Equipment

Hours/Day of Activity: ***6***

Enter number of pieces for each type of equipment: Daily Emissions (lbs./day)

ID	Type	No.	CO	ROG	NOx	PM10	SOx
2	Loader	***1***	3.43	1.38	11.40	0.18	1.02
17	Water Truck	***1***	2.79	0.39	1.73	0.10	1.56
7	Miscellaneous	***1***	4.05	0.09	10.20	0.84	0.86
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00
		0	0.00	0.00	0.00	0.00	0.00

	CO	ROG	NOx	PM10	SOx
Grading Equipment Emissions (lbs./	10.269	1.861	23.335	1.119	3.438

TOTAL CONSTRUCTION EMISSIONS

	CO	ROG	NOx	PM10	SOx
Total Emissions (lbs./day)	**29.49**	**7.41**	**77.46**	**5.58**	**4.96**