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# **FINAL ENVIRONMENTAL ASSESSMENT**

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## **NORTHSIDE IMPROVEMENTS SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN**

**San Diego International Airport  
San Diego, San Diego County, California**

*Prepared for:*

**San Diego County Regional Airport Authority  
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### **U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION**

As lead Federal Agency pursuant to the National Environmental Policy Act of 1969

*Prepared by:*

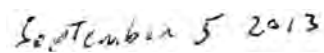
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## **August 2013**

This environmental assessment becomes a Federal document when evaluated, signed and dated by the Responsible FAA Official.



Responsible FAA Official



Date

## **GENERAL INFORMATION ABOUT THIS DOCUMENT**

**WHAT'S IN THIS DOCUMENT?** This document contains a Final Environmental Assessment for San Diego County Regional Airport Authority's proposed Northside Improvements at San Diego International Airport (SAN). This document discloses the analysis and findings of the potential impacts of the San Diego County Regional Airport Authority's proposal, the No Action alternative, and other reasonable alternatives.

**BACKGROUND.** The proposed improvements consist of airfield, support facilities, and ground transportation improvements primarily located on the north and east portions of SAN. There is also a proposed storm drain going westward that will create a new outfall into the Navy Boat Channel. These improvements are needed to allow SAN to effectively continue its mission of serving San Diego's commercial air transportation needs forecasted through 2020.

The Draft EA was released on May 31, 2013. The notice of availability of the Draft EA was advertised in the local newspaper to inform the general public and other interested parties.

The document presented herein represents the Final EA for the federal decision-making process, in fulfillment of FAA's policies and procedures relative to NEPA and other related federal requirements. Copies of the document are available for inspection at four local libraries in San Diego, at SAN, at the FAA Western-Pacific Regional Office, and at the FAA's Los Angeles Airports District Office in Hawthorne, California. The addresses for these locations are provided in Chapter 5 of this Final EA.

**WHAT SHOULD YOU DO?** Read the Final Environmental Assessment to understand the actions that the San Diego County Regional Airport Authority and FAA intend to take relative to the proposed Northside Improvements project at SAN.

**WHAT HAPPENS AFTER THIS?** The FAA will decide to prepare and issue a Finding of No Significant Impact/Record of Decision or decide to prepare an Environmental Impact Statement.

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WESTERN-PACIFIC REGION

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***FINDING OF NO SIGNIFICANT IMPACT  
AND  
RECORD OF DECISION***

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**Proposed Northside Improvements  
San Diego International Airport Master Plan**

San Diego International Airport  
San Diego, San Diego County, California



For further information

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September 5, 2013

## GENERAL INFORMATION ABOUT THIS DOCUMENT

**WHAT'S IN THIS DOCUMENT?** This document is the Federal Aviation Administration's (FAA) Finding of No Significant Impact (FONSI) and Record of Decision (ROD) (FONSI/ROD) for the proposed San Diego International Airport Master Plan Northside Improvements (Northside Improvements) at San Diego International Airport located in San Diego, California. This document includes the agency determinations and approvals for those proposed Federal actions described in the Final Environmental Assessment dated August 2013. This document discusses all alternatives considered by FAA in reaching its decision, summarizes the analysis used to evaluate the alternatives, and briefly summarizes the potential environmental consequences of the Proposed Action and the No Action alternative, which are evaluated in detail in this FONSI/ROD. This document also identifies the environmentally preferred alternative and the agency preferred alternative. This document identifies applicable and required mitigation.

**BACKGROUND.** In May 2013, the San Diego County Regional Airport Authority prepared a Draft Environmental Assessment Draft (EA). The Draft EA addressed the potential environmental effects of the proposed Northside Improvements including various reasonable alternatives to that proposal. The Draft EA was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) [Public Law 91-190, 42 USC 4321-4347], the implementing regulations of the Council on Environmental Quality (CEQ) [40 CFR Parts 1500-1508], and FAA Orders 1050.1E, *Environmental Impacts: Policies and Procedures* and 5050.4B, *National Environmental Policy Act (NEPA), Implementing Instructions for Airport Actions*. San Diego County Regional Airport Authority published the Draft EA on May 31, 2013 and received comments on the document through July 1, 2013. FAA approved the Final EA on September 5, 2013.

**WHAT SHOULD YOU DO?** Read the Finding of No Significant Impact and Record of Decision to understand the actions that FAA intends to take relative to the proposed Airport Northside Improvements at San Diego International Airport.

**WHAT HAPPENS AFTER THIS?** San Diego County Regional Airport Authority may begin to implement the Proposed Action.

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
FINDING OF NO SIGNIFICANT IMPACT  
AND  
RECORD OF DECISION**

**PROPOSED NORTHSIDE IMPROVEMENTS  
SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN**

**SAN DIEGO INTERNATIONAL AIRPORT  
SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA**

1. **Introduction.** This document is a Finding of No Significant Impact and Record of Decision (FONSI/ROD) on the environment as a result of a development proposal by the San Diego County Regional Airport Authority (Airport Authority), owner and operator of San Diego International Airport (SDIA or Airport). The Airport Authority's proposed action consists of improvements to the airfield and aviation facilities all located predominantly within the main portion of SDIA. The proposed physical improvements at SDIA are needed to allow the Airport Authority to consolidate landside activities in order to improve the overall efficiency of the Airport and improve levels of service and optimize Airport land uses, which will allow the Airport to continue its mission of serving the San Diego area transportation needs.
  
2. **Purpose and Need of the Proposed Action.** The purpose of the proposed SDIA Airport Master Plan Northside Improvements (Northside Improvements) is to accommodate existing and future passenger and aircraft operations at SDIA. Implementation of the Proposed Action is needed because forecast growth cannot be reasonably accommodated within the existing Airport facilities without a reduced level of service. Without the proposed improvements, Fixed Base Operator and General Aviation users will continue to have inadequate and inefficient facilities, cargo operators will not have adequate facilities to load/offload/sort air cargo, rental car companies will not be able to handle the forecast growth in rental car business, passengers will continue to be inconvenienced by an unconsolidated rental car system, inefficient shuttle bus service will create unnecessary traffic and congestion on local area roadways, parking demand will continue to outstrip supply, and a connection between the north and south sides of the Airport will not exist, impacting development plans for the northside of the Airport. The Level of Service will also be reduced further beyond its existing degraded level. The Proposed Action would result in General Aviation, air cargo, and ground transportation facilities that would improve levels of service and optimize Airport land uses, as discussed below. Chapter 1 of the August 2013 Final Environmental Assessment (Final EA) provides a detailed discussion on the purpose and need for the proposed project.

The FAA's statutory mission is to ensure the safe and efficient use of navigable airspace in the United States. Pursuant to Title 49 United States Code (USC), Subtitle VII, as amended, FAA must ensure the proposed project does not derogate the safety of aircraft and airport operations at San Diego International Airport. The Federal Aviation Administration (FAA) must comply with the National Environmental Policy Act of 1969 (NEPA) before taking the federal action of further processing of an application for Federal assistance in funding various eligible airport development and for approval of the Airport Layout Plan (ALP) that depicts the proposed airport development projects. Approval of the ALP is authorized by the Airport and Airway Improvement Act of 1982, as amended (Public Laws 97-248 and 100-223).

3. **Proposed Project and Federal Action.** The following is a listing of the various components of the proposed project at SDIA, as shown in Figure 1-3 of the Final EA:
  - Reconfiguration of proposed general aviation and fixed base operator facilities;
  - Air cargo warehouse facilities and associated improvements;

- Consolidated rental car center;
- Reconfiguration of SAN Park Pacific Highway surface parking facility;
- Terminal Link Roadway;
- Construction of northside circulation access road from Sassafra/Pacific Highway intersection;
- Receiving and Distribution Center;
- Storm drain force main and outfall; and
- Utilities Improvements.

The federal actions necessary to carry out the proposed projects include:

- Unconditional approval of the ALP for SDIA depicting the proposed improvements pursuant to 49 U.S.C. §§ 40103(b), 44718, and 47107(a)(16); 14 Code of Federal Regulations (CFR) Part 77, *Objects Affecting Navigable Airspace*; and 14 CFR Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports*.
- Determinations under 49 U.S.C. §§ 47106 and 47107 relating to the eligibility of the Proposed Action for federal funding under the Airport Improvement Program (AIP) and/or under 49 U.S.C. § 40117, as implemented by 14 CFR § 158.25, to impose and use passenger facility charges (PFCs) collected at San Diego International Airport for the proposed project to assist with construction of potentially eligible development items shown on the ALP.
- Determination under 49 U.S.C. § 44502(b) that the Proposed Action is reasonably necessary for use in air commerce or in the interest of national defense.
- Continued close coordination with the City of San Diego and appropriate FAA program offices, as required, to ensure safety during construction pursuant to 14 CFR Part 139, *Certification of Airports*, under 49 U.S.C. § 44706.

**4. Reasonable Alternatives Considered:** Chapter 2 of the Final EA, used an alternatives analysis screening process to determine whether the Proposed Alternatives fulfill the Purpose and Need.

During the development of the EA, a wide range of alternatives to improve facilities at the airport were considered, along with the No Action Alternative. Analysis of the No Action Alternative is required pursuant to Title 40, CFR § 1502.14(d). Paragraph 405(d) of FAA Order 1050.1E states in part: “An EA must consider the proposed action and a discussion of the consequences of taking no action, and may limit the range of alternatives to action and no action when there are no unresolved conflicts concerning alternative uses of available resources.”

The alternatives analysis presented in Chapter 2 of the Final EA evaluated alternatives to the various components of the proposed action.

Section 2.2 of the Final EA identifies three alternatives to the Airport Authority proposed action for the Northside Improvements. These three alternatives are: Use of Locations On-Airport; Use of Locations Off-Airport; and Use of Other Airports. As discussed above, the No Action Alternative would also be included, however it would result in no change in location for the new GA and FBO facilities, aprons, and associated taxiway, since these uses were already previously approved in the 2009 Near Term Improvements EA. The No Action Alternative would result in no new air cargo warehouse facilities, no new Rental Car Center facility (RCC), no new Terminal Link Roadway, or associated utility improvements.

Section 2.2.1 of the Final EA describes Use of Locations On-Airport. This alternative meets the Airport Authority’s purpose and need to accommodate forecast growth while improving levels of service, utilizing Airport property efficiently, and relieving congestion on the airfield and on area roadways.

Section 2.2.2 of the Final EA describes Use of Locations Off-Airport. This alternative does not meet the Airport Authority's purpose and need. No other location is suitable for the construction of air cargo facilities. The former Teledyne Ryan property could be utilized for the RCC, but would lead to increased congestion on North Harbor Drive and lead to inefficient use of Airport property. Alternative alignments for the Terminal Link Roadway would require land acquisition from the U.S. Marine Corps to avoid impacting existing FAA navigational equipment, require relocation of a planned future building, cause the loss of a future aircraft parking position, and increase traffic on the service roads serving the passenger terminals.

Section 2.2.3 of the Final EA discusses Use of Other Airports. This alternative does not meet the Airport Authority's purpose and need. Other airports within the San Diego region do not currently have adequate runway lengths or taxiway/apron areas. Additionally, the closest airports to SDIA with similar runway lengths able to accommodate the aircraft fleet serving San Diego International Airport are in excess of 100 miles from the Airport. Additionally, aircraft operators choose which airports they use and service; therefore use of another airport cannot be mandated by the Airport Authority.

Section 2.2.4 of the Final EA considers the No Action Alternative. This alternative does not meet the Airport Authority's purpose and need nor does this alternative provide for adequate level of service to accommodate forecast growth. The No Action alternative would result in continued congestion on North Harbor Drive and other area roadways from rental car traffic, rental car shuttles, and truck deliveries; it was retained for evaluation pursuant to 40 CFR 1502.14(d).

Finally, Section 2.3 of the Final EA identifies two alternatives retained for further evaluation to the San Diego County Regional Airport Authority's proposed action for the Northside Improvements. These two alternatives are: Use of Northside Locations On-Airport and the No Action Alternative.

5. **Assessment.** The potential environmental impacts and possible adverse effects were identified and evaluated in a Final Environmental Assessment (EA) prepared in August 2013. The Final EA examined the following environmental impact categories: Noise; Compatible Land Use; Socioeconomic Impacts; Environmental Justice, and Children's Environmental Health; Secondary (Induced) Impacts; Air Quality; Water Quality; Department of Transportation Act Section 4(f) Land; Historic, Architectural, Archaeological and Cultural Resources; Fish Wildlife & Plants; Wetlands; Floodplains; Coastal Resources; Natural Resources and Energy Supply; Light Emissions and Visual Impacts; Hazardous Materials, Pollution Prevention and Solid Waste; Construction Impacts and Cumulative Impacts.

Section 4 of the Final EA, indicates that Farmlands and Wild and Scenic Rivers were not analyzed in the Final EA. The Proposed Action would not have an impact on prime or unique farmland, or farmland of state wide importance due to the closest designated farmland being located eight miles away from San Diego International Airport. Nor would the proposed action impact any Wild and Scenic Rivers since the closest designated river is Bautista Creek which is located approximately 50-miles from San Diego International Airport.

**A. Noise.** Section 4.1, of the Final EA states that the proposed project would not affect (increase or decrease) the number of existing aircraft operations at SDIA or affect the routing of aircraft arrivals and departures at the airport. There would be a change in taxiing patterns for cargo and general aviation aircraft to and from the new facilities; however, these aircraft would remain on the northside of the airfield, going to locations that would be located closer to Runway 9-27, which would not have a significant effect on the aircraft noise contours for SDIA. No change to areas exposed to significant levels of aircraft noise in the Airport environs would occur under the Proposed Action compared with the No Action Alternative. Thus, the Proposed Action would not cause a significant noise impact. Additionally, the proposed Northside Improvements will be accomplished on existing airport property, except for the storm drain outfall, and will not require the relocation of people or businesses.

**B. Compatible Land Use.** Section 4.2, of the Final EA discloses that the Proposed Action would be compatible with the existing land uses such as the terminal buildings, ground transportation and air support facilities already at SDIA and would not have any significant land use compatibility impacts.

Documentation in the form of a Land Use Assurance letter is provided within Appendix C of the Final EA to support the Airport sponsor's assurance under 49 U.S.C § 47107(a)(10) of the 1982 Airport Act that appropriate action is being taken to the extent reasonable to restrict the use of land adjacent to or in the immediate vicinity of the Airport to activities and purposes compatible with normal airport operations.

**C. Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks.** Section 4.3, of the Final EA discloses that the Proposed Action would not significantly affect population or housing in the region. Developing SDIA with the proposed land uses would not displace any residents or residences because the locations proposed for the improvements currently contain Airport uses. The construction involved for the Proposed Action would not be on a large enough scale to draw new residents into the area, nor would the improvements be expected to induce growth within the region. Accordingly, the Proposed Action would not generate enough new employment opportunities to have a significant impact on population or housing. Implementation of the Proposed Action would not adversely affect the local tax base. Additionally, the Proposed Action does not eliminate uses that contribute to the tax base. The Proposed Action would not impact schools or school enrollment. The Proposed Action would not result in a disproportionately high and adverse human health or environmental effect on minority or low-income populations since there are no minority or low income populations located adjacent to or in the vicinity of the project area. Additionally, the Proposed Action would not result in environmental health and safety risks that may disproportionately affect children that reside or play in the project area or surrounding area.

**D. Secondary (Induced) Impacts.** Section 4.4, of the Final EA states that the Proposed Action is not expected to induce population growth within the region that would lead to the demand for new public services or facilities. Nor would it impact the planned location, distribution, density, or population growth rate in the area. The Proposed Action is intended to address existing service deficiencies at the Airport and accommodate projected demand. The Proposed Action would not add passengers or flights at the Airport. However, the existing noise ordinance does allow the airlines to add additional flight operations as long as flight hour restrictions are not exceeded. Additional flights are allowed and would be accommodated regardless of whether the Proposed Action is approved or built. Additional flights could result from air carrier decisions regarding market forces and unmet demand, rather than the availability of specific San Diego International Airport facilities. Ultimately, the Proposed Action would not be growth-inducing nor would it cause significant secondary (induced) impacts.

**E. Air Quality.** Section 4.5, of the Final EA, states the proposed action will not change aircraft operations at SDIA. Section 4.5.3 of the Final EA provides emissions inventories for the years 2015 and 2020. Construction emissions for the proposed action were evaluated and were determined to be below the *de minimis* thresholds for all applicable pollutants, and therefore not significant. Table 4-6 of the Final EA summarizes the operational and construction emission inventory results for the proposed action alternative. The proposed action does not exceed the General Conformity *de minimis* levels. Construction operations would cause specific impacts resulting from and limited to construction of the Northside Improvements. These impacts are distinct and temporary in duration and decrease as work is finished. Best management techniques would be used to reduce the impacts due to the construction work, and air quality impacts would not be significant.

**F. Water Quality.** Section 4.6, of the Final EA discloses the proposed improvements would modify existing uses within the project area and also modify the existing storm water drainage system. Surface water drainage within the main portion of the project area (i.e., parking lot, RCC, air cargo, and FBO areas) would gravity flow to a 30-inch storm drain line, which would then flow westward to a proposed pump station. Flows from the pump station would continue westward via a 30- to 36-inch force main to be discharged at the Navy Boat Channel located along the west edge of the Airport. With numerous Best Management Practices (BMP's) during construction and in future use such as new porous pavement, improved surface water drainage, vegetated grass medians and swales, double walled fiberglass tanks, leak detection systems, and monitoring sumps the Proposed Action would not result in significant water quality impacts

**G. Wetlands.** Section 4.7, of the Final EA states the proposed improvements construction area does not reveal the presence of any wetland vegetation within the boundary of the proposed improvements,



below or above the Ordinary High Water Mark (OHWM). Therefore, the proposed improvements area does not contain federal wetlands, and implementation of the Proposed Action would not impact jurisdictional wetlands.

**H. Floodplains.** Section 4.8, of the Final EA discloses that none of the proposed improvements would place structures within a 100-year floodplain. Development of the Terminal Link Roadway between the northern and southern portions of the Airport would include a segment that passes through the 100-year floodplain of the former Teledyne Ryan leasehold. The Terminal Link Roadway would not, however, represent a structure that impedes or redirects flood flows or result in long or short-term adverse impacts associated with the occupancy and modification of a floodplain. Thus, the Proposed Action would not cause significant floodplain impacts.

**I. Coastal Resources.** Section 4.9, states that the Proposed Action would be consistent with the planning and land use policies adopted by the State to protect coastal resources, and there would be no significant impact on coastal resources.

**J. Fish, Wildlife and Plants.** Section 4.10, of the Final EA discloses the potential impacts to federally listed threatened or endangered species. The FAA conducted informal consultation with the U.S. Fish and Wildlife Service (Service) for the proposed project. The FAA determined the proposed project may affect, but not likely to adversely affect the California least tern (tern). The Service has concurred with the FAA's determination by letter dated August 20, 2013 (Final EA Appendix A).

As a condition of approval as identified in Section 4.10.3.1, the FAA will require the Airport Authority to implement conservation measures to avoid and minimize potential adverse effects to the tern, to an insignificant level. These measures support the Service's concurrence with the FAA's "not likely to adversely affect" determination for the tern with regard to the FAA's proposed action to fund and approve of the project.

1) The Airport Authority will restore the 0.5-acre Teledyne-Ryan Taxiway in Oval-3 South (O-3S) to conditions suitable for tern nesting. The Teledyne-Ryan Taxiway will be maintained in condition suitable for tern nesting for the life of the Northside Improvements project.

2) The Airport Authority and FAA, in coordination with the Service and California Department of Fish and Wildlife (CDFW), will incorporate an 8-foot high by 165-foot long visual barrier into the Transportation Security Administration (TSA) fence to reduce the potential for visual disturbance related to activities at the Vehicle Service Road security gates and guard shack. The visual barrier will consist of heavy shade cloth that is attached to or incorporated into the fencing. The Airport Authority will install anti-perch material (e.g., Nixalite) on any TSA fence segments or posts that do not include razor wire.

3) The Airport Authority will extend the visual barrier on the TSA fence approximately 345 feet to the east along the Terminal Link Roadway to reduce illumination of the SDIA nesting area from vehicle headlights, if deemed beneficial by the Service and CDFW and tern monitors retained by Airport Authority.

4) The Vehicle Service Road in the area of the security gate will be realigned up to 65 feet to the west to provide a 22,775 square foot buffer between the roadway/security gate and O-3S ((Figure 1) identified as Figure 4-2 in the Final EA). In addition, the guard shack will be constructed on the west side of the Vehicle Service Road to maximize the distance away from O-3S.

5) The Airport Authority, in consultation with the Service and CDFW, will identify a security gate and guard shack design that minimizes light, noise and movement to the extent possible, and does not provide openings for the potential ingress of mammalian predators into the SDIA least tern nesting area. For this design, the height of security cameras, lighting, and fences will be reduced as much as possible and include predator perch barriers. In addition, lighting will be minimized in and around the guard shack. The light at the guard shack will be angled to shine down towards the security gate. The Airport Authority will submit draft designs for the security gate and guard shack to the Service for review and approval prior to finalizing the designs.

- 6) The Airport Authority will not install street lights along the Terminal Link Roadway.
- 7) The Airport Authority will remove two 25-foot light poles that lie within 65 feet of O-3S.
- 8) The backup triturator for lavatory waste disposal will be relocated from its current location directly east of O-3S, to the west side of the airport, which will partially reduce traffic on the Vehicle Service Road near O-3S.
- 9) The Airport Authority will implement project components that are beneficial to the tern, including: creation of nesting habitat at Teledyne-Ryan taxiway, re-location of the backup triturator and removal of light poles, before the 2014 nesting season. Construction of the Terminal Link Roadway, realigned Vehicle Service Road, and security gate/guard shack will not begin until after the 2014 tern nesting season.
- 10) The Airport Authority will implement the following conservation measures as modified from informal consultation FWS-SDG-08B0752-09I0019:
  - a) All project construction within 800 feet of the SDIA least tern nesting area will occur from September 15 to March 31 to avoid the tern nesting season.
  - b) The staging area will be located on the north side of the Runway 9-27 at least 1,200 feet from tern nesting oval O-3S or on the former Teledyne Ryan Property at least 800 feet from O-3S during the tern nesting season. Construction vehicles will not use roads adjacent to the tern nesting areas located on the south side of the Runway 9-27. Any construction vehicles will be parked on paved areas on the north side of Runway 9-27 or on the Teledyne Ryan property at least 800 feet from O-3S during work hours;
  - c) Beginning April 1, the Airport Authority will hire a tern biologist (*i.e.*, can identify the tern, recognize their vocalizations, and identify agitated or distressed tern behavior) to monitor daily for the arrival of terns into San Diego Bay and to the SDIA nesting sites and immediately notify the FAA and Service (collectively, Agencies) upon their arrival. The tern biologist will coordinate with other tern monitors in San Diego. The Airport Authority will notify the Agencies via email on a daily basis as to the presence or absence of terns in San Diego Bay and at the SDIA nesting sites. The notifications will be sent to Victor Globa (FAA) and Sandy Vissman (Service) unless otherwise notified by the Agencies;
  - d) The Airport Authority will hire a tern biologist (*i.e.*, can identify the tern, recognize their vocalizations, and identify agitated or distressed tern behavior) to be onsite during the breeding season on all days when construction activities are conducted within 1,200 feet of SDIA least tern nesting area to ensure that activities and personnel do not disrupt the tern. Construction activities will be conducted in a manner that prevents individual terns or groups of terns from displaying agitated or stressed behavior and/or suddenly leaving their nest(s) and not resettling on the nest(s) within 5 minutes. The tern biologist will monitor the tern during construction and will immediately notify the Resident Engineer (RE; or acting RE) of any construction activity that may lead to, or likely result in, the disruption of the tern, its young, or its eggs. If the tern biologist determines that adverse effects to the tern have occurred, the RE will be notified and all project construction activities will cease immediately, except those activities necessary to make the SDIA safe and operational. The tern biologist, in coordination with the RE, will contact the Agencies immediately after stopping construction. Construction will not resume until approved by the Agencies. The biological monitor will submit daily field reports to the Agencies on the status of the nesting activity, any construction-related incidents that disrupted tern nesting, and any action taken by the RE to avoid further incidents, within 24 hours of each monitoring date. The tern biologist will also submit a final summary report of monitoring to the Agencies by October 1;

- e) Covered trash dumpsters or other suitable containers will be provided for construction personnel. All food items or containers that previously held food items will be immediately disposed of in these dumpsters or containers so as not to attract avian or mammalian predators of the tern;
- f) Construction personnel will not be permitted to feed cats, gulls, ravens, etc. as this may result in an increase in the numbers of these potential predators in the vicinity of tern chicks and eggs;
- g) Crane booms or similar equipment that have heights of 25 feet or greater will be lowered at the close of each construction day, if possible;
- h) A pre-construction meeting will be held to make all contractor personnel, including all construction staff, aware of the tern nesting issue and the specific conditions of construction. Project status meetings will be regularly held to remind all involved personnel of the measures required to protect the tern as well as any modifications made to ensure their effectiveness. The Service will be notified of the date and time of the pre-construction and status meetings in order to attend, if needed or desired;
- i) Nighttime construction will be limited to those activities that are necessary to maintain airfield operations during normal operational times. Should nighttime construction be required, the biological monitor will be onsite and perform the duties specified above.
- j) Night lighting for project construction more than 800 feet from the SDIA least tern nesting area will be kept to a minimum during the tern nesting season (April 1- September 15), and will not be used unless active construction or other essential work is occurring.

### **Marine Habitat**

The following protective measures are proposed to prevent impacts to marine habitats. These are consistent with protective measures proposed to prevent impacts to Essential Fish Habitat. The stormwater outfall was addressed in a previous consultation with the U.S. Army Corps of Engineers (FWS-SDG-11B0105-12I0503).

- 1) Due to the close proximity of eelgrass beds to the proposed outfall construction zone, the shoreward edge of eelgrass shall be staked with ridged PVC markers or self-centering buoys visible at all periods of construction in the Bay outfall work area prior to initiation of project construction in the Bay.
- 2) A temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift. It shall consist of a hanging weighted curtain with a surface float line. The turbidity curtain shall be kept a minimum of 10 feet away from existing eelgrass beds and the curtain shall be anchored to temporary driven pipe corners in order to prevent damage to eelgrass beds from curtain drag or movement.
- 3) The project shall conform to the survey requirements of the Southern California Eelgrass Mitigation Policy (SCEMP) (NMFS 1991, revision 11). In accordance with the requirements of the SCEMP, a pre-construction eelgrass survey shall be completed by a qualified biologist within 60 days prior to initiation of construction activities at the project site. This survey shall include both area and density characterization of the beds. A post-construction survey shall be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts shall then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, would require mitigation as defined in the SCEMP. If required following the post-construction survey, a mitigation planting plan shall be developed, approved by the Airport Authority and National Marine Fisheries Service (NMFS), and implemented to offset losses to eelgrass.
- 4) Because the outfall has the potential to result in operational impacts associated with drainage from the discharge pipe, the discharge shall be monitored for two years following construction to assess any adverse changes that may result from the presence and operations of the proposed storm drain force main. The potential long-term impacts to eelgrass will be monitored for a two-year period using means

and methods that are in accordance with the SCEMP. Impacts to eelgrass, if any, identified by the two year monitoring effort would require mitigation as defined in the SCEMP. If required, a mitigation planting plan shall be developed, approved by the Airport Authority and NMFS, and implemented to offset losses to eelgrass.

5) The Proposed Action shall conform to the approved Storm Water Pollution Prevention Plan (SWPPP) and shall incorporate construction-related erosion/sediment control Best Management Practices. These include: removal of silt and debris from the storm drain system following a rainfall event, covering stockpiled material prior to rain events, and providing equipment and staff as required to repair and/or implement erosion/sediment control measures.

6) The following protective measures are proposed to prevent impacts to sensitive species.

a) To ensure that the turbidity from project construction is maintained at a low and contained level anticipated within this analysis, a temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift.

b) To protect marine reptiles and mammals, project construction shall temporarily halt if any individual is observed within 100 feet of the project construction area. Work shall resume once the individual animal has left the area.

**K. Department of Transportation Act, Section 4(f)/303(c) Properties.** Section 4.11 of the Final EA indicates that the Proposed Action would not generate changes in noise off Airport property; there would be no noise-related effects to the recreational facilities near SDIA; and the Proposed Action would not significantly affect views at Spanish Landing Park, Harbor Island, or other areas where scenic views contribute substantially to the recreational experience or impact any historic resources. As such, the Proposed Action would not have a significant impact on recreational or historic resources.

**L. Historic, Archaeological, Architectural, and Cultural Resources.** Section 4.12 of the Final EA discloses that only one existing structure, the Allied Aerospace Building, remains within the Area of Potential Effect (APE) that was determined to be eligible for listing on the National Register of Historic Places and California Register of Historical Resources. This historic resource is not in the area proposed to be disturbed and the Proposed Action would not cause any adverse effect to this resource. No traditional cultural properties, Native American heritage sites, or other culturally important sites or areas have been identified or are known to exist within the APE; therefore, no impacts to such resources would occur under the Proposed Action. The State Historic Preservation Office (SHPO) has provided concurrence via letter dated June 14, 2013; a copy of the letter is provided in Appendix A of the Final EA. As described in the letter, the SHPO found no objections to the identification and delineation of the APE and concurred with the FAA's determination that the Proposed Action would not affect historic properties.

**M. Light Emissions and Visual Impacts.** Section 4.13 of the Final EA states that Light and glare associated with the project area is presently generated by buildings and exterior sources to protect and secure people, property, and the air transportation system. Implementation of the Proposed Action would result in additional facilities on the northside of the Airport and a new Terminal Link Roadway along the southeastern boundary which would result in greater amounts of light emanating from interior and exterior sources. The following measures as components of the proposed improvements would ensure that light emission impacts during operations would not be significant:

1) The light fixtures specified for the project design must comply with the standard of the Illuminating Engineering Society for full cutoff capability.

2) Exterior lighting shall be designed and located as to avoid intrusive effect on runway operations, so as not to result in an air safety hazard. Lighting fixtures shall use shielding, if necessary, to prevent spill lighting on adjacent off-site uses.

The Proposed Action would be consistent with the Unified Port of San Diego's Port Master Plan's goals that address aesthetics and development design and would not result in any significant impacts to aesthetic and visual resources.

**N. Natural Resources and Energy Supply.** Section 4.14 of the Final EA indicates the Proposed Action would not result in an incremental increase in the demand for natural resources and energy and will not result in significant impacts on natural resources or energy supplies. Additionally, through a Memorandum of Understanding between Airport Authority and the State Attorney General of California, as well as, the Air Quality Management Plan for SDIA, numerous measures are in place involving reduced fuel consumption and resource utilization.

**O. Hazardous Materials, Pollution Prevention and Solid Waste.** Section 4.15, of the Final EA discloses that the Proposed Action would not involve the generation, use or storage of hazardous materials in quantities or types that are substantially different from those that are currently associated with the Airport and would not create a significant long-term hazard to the public or the environment. Moreover, the proposed improvements would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within ¼-mile of a school nor are they located within 2,000 feet of a National Priorities List Superfund site. Operation of the new development would extend use of the Airport's recycling/waste reduction program and the Proposed Action would not have a significant impact on the solid waste disposal system at SDIA.

**P. Construction Impacts.** Section 4.16 of the Final EA states that the Proposed Action may create some increases in noise, dust and equipment emissions, storm water runoff and water quality. These impacts are distinct and temporary in duration and generally disappear after the construction phase. Construction activities would involve excavation, grading, and demolition activities, but would not exceed noise levels from aircraft operations at the airport. Table 4-11 provides construction noise levels by construction equipment. Estimated air emissions associated with the construction of the Proposed Action are shown in Table 4-12 and indicate that air emissions of each of the pollutants associated with construction activities would not exceed the established General Conformity *de minimus* thresholds or State of California significance thresholds for applicable pollutants. SDIA currently operates under a National Pollutant Discharge Elimination System (NPDES). Conformance with identified discharge requirements in the NPDES Groundwater Permit would avoid or reduce these associated potential impacts to no significance. The Airport Authority is committed to implementing BMP's and has a policy to achieve zero negative effects from stormwater runoff.

**Q. Cumulative Impacts.** An evaluation of cumulative impacts from these cumulative actions is discussed in Section 4.17 of the Final EA. For the purposes of the cumulative impact analysis, other projects at San Diego International Airport or within 1 mile of SDIA that have been completed within the last 5 years or proposed to be implemented within the next 5 years or are currently ongoing were considered for the past, present and present projects. Reasonably foreseeable actions that have requested or received approval for implementation were also considered. As a result of this evaluation, no significant cumulative impacts were identified.

#### **R. Environmentally Preferred Alternative and FAA Preferred Alternative**

In connection with its decision to approve the proposed ALP revisions, the FAA considered the environmental impacts from the Proposed Action and the No Action Alternatives. The FAA determined that all practicable means to avoid or minimize environmental harm from the Proposed Action have been adopted and there would be no significant environmental impacts from the proposed North Side Improvements and that the project would not jeopardize the safe and efficient operations at the Airport. The No Action Alternative has fewer environmental effects than the Proposed Action alternative and thus would be the environmentally preferred alternative. However, the No Action Alternative does not meet the Purpose and Need for the proposed project and does not allow the San Diego County Regional Airport Authority to consolidate landside activities in order to improve the overall efficiency of the Airport and improve levels of service and optimize Airport land uses. The primary considerations for the FAA in selection of a preferred alternative include the Purpose and Need for the project and the environmental impacts of the project. In its consideration of alternatives, the FAA is mindful of its statutory charter to

encourage the development and safety of civil aeronautics in the United States (49 USC § 40104). Thus, the FAA's preferred alternative is the Proposed Action because it meets the Purpose and Need of the proposed project with minimum adverse environmental effects. Further, it also meets FAA's statutory mission by promoting increased aviation safety through updating and meeting FAA Airport Design Standards, to the extent practicable.

## 6. Public Participation.

The public was encouraged to review and comment on the Draft EA which was release for public review on May 31, 2013. The San Diego County Regional Airport Authority published a notice of availability of the Draft EA in the following local newspapers in the vicinity of the airport: *The San Diego Daily* and *The San Diego Union-Tribune*. The City made the Draft EA available on their web site, in the local libraries, the Airport administrative offices and the FAA's Western-Pacific Region Office. The public review of the Draft EA was available through July 1, 2013. Five comment letters on the Draft EA were received during the public review and comment period: one comment letter each from the San Diego County Archaeological Society, Inc., the San Diego Association of Governments, and the Peninsula Community Planning Board; and two comment letters from the City of San Diego. The comments received on the Draft EA did not require additional analysis to develop the Final EA. No new issues surfaced as a result of the public review process.

## 7. Inter-Agency Coordination.

In accordance with 49 USC § 47101(h), the FAA has determined that no further coordination with the U.S. Department of Interior or the U.S. Environmental Protection Agency is necessary because the Proposed Action does not involve construction of a new airport, new runway or major runway extension that has a significant impact on natural resources including fish and wildlife; natural, scenic, and recreational assets; water and air quality; or another factor affecting the environment.

## 8. Reasons for the Determination that the Proposed Action will have No Significant Impacts.

The attached August 2013 Final EA examines each of the various environmental resources that were deemed present at the project location, or had the potential to be impacted by the Proposed Action. The proposed Northside Improvements at SDIA would not involve any environmental impacts, after mitigation that would exceed the threshold of significance as defined by FAA Orders 1050.1E and 5050.4B. Based on the information contained in the Final EA, the FAA has determined that the Proposed Action is the most feasible and prudent alternative. The FAA has decided to implement the Proposed Action as described in Section 3 of this FONSI.

## 9. Agency Findings.

The FAA makes the following determination for this project based on information and analysis set forth in the Final EA and other portions of the administrative record.

- a. **Air Quality.** As discussed in Section 5 of this FONSI/ROD and Sections 3.5 and 4.5 of the Final EA, the Proposed Action would not change the number or type of aircraft operations and would not exceed the General Conformity *de minimis* levels. Construction operations would cause specific impacts resulting from and limited to construction of the Northside Improvements. These impacts are distinct and temporary in duration and decrease as work is finished. Best management techniques would be used to reduce the impacts due to the construction work to a less than significant level.
- b. **Fish, Wildlife and Plants:** As discussed in Section 5 of this FONSI/ROD and Sections 3.5.7 and 4.10 of the Final EA the Proposed Action may affect, but not likely to adversely affect the California least tern, a federally listed endangered species. As a condition of FAA approval as identified in Section 4.10.3.1, of the Final EA, the FAA will require the Airport Authority to implement conservation measures to avoid and minimize potential adverse effects to the tern to an insignificant level. These measures support the Service's concurrence with the FAA's "not likely to adversely

affect" determination for the tern with regard to the FAA's proposed action to fund and approve of the project. These conditions are identified in Section 5(J) of the FONSI/ROD and Appendix A of the Final EA.

- c. Independent and Objective Evaluation:** As required by the Council on Environmental Quality (40 CFR § 1506.5) the FAA has independently and objectively evaluated this proposed project. As described in the Final EA, the Proposed Action and the No Action alternatives were studied extensively to determine the potential impacts and appropriate mitigation measures for those impacts. The FAA provided input, advice, and expertise throughout the analysis, along with administrative and legal review of the project.

## 10. Decision and Orders.

Based on the information in this FONSI/ROD and supported by detailed discussion in the Final EA, the FAA has selected the proposed Northside Improvements project as the FAA's Preferred Alternative. The FAA must select one of the following choices:

- Approve agency actions necessary to implement the Proposed Action, or
- Disapprove agency actions to implement the Proposed Action.

Approval signifies that applicable federal requirements relating to the proposed airport development and planning have been met. Approval permits the Airport Authority to proceed with implementation of the Proposed Action and associated mitigation measures. Disapproval would prevent the Airport Authority from implementing the Proposed Action elements within the SDIA.

Under the authority delegated to me by the Administrator of the Federal Aviation Administration, I find that the project is reasonably supported. I, therefore, direct that action be taken to carry out the agency actions discussed more fully in Section 3 of this FONSI/ROD.

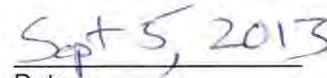
1. Unconditional approval of the portion of the ALP that depicts the proposed Northside Improvements submitted by the Airport Authority for SDIA pursuant to 49 USC §§ 40103(b), 44718 and 47107(a)(16) and 14 CFR Part 77. The approval of the ALP is based on determinations through the aeronautical study process regarding obstructions to navigable airspace, and that the airport development proposal is acceptable from an airspace perspective.
2. Continued close coordination with the Airport Authority and appropriate FAA program offices, as required, to maintain aviation and airfield safety during construction.
3. Approval to proceed with further processing of an application for Federal assistance for those eligible development projects described as the Proposed Action within the Final EA and this FONSI/ROD, under 49 USC §§ 47106 and 47107 for the AIP, and under 49 USC § 40117, as implemented by 14 CFR § 158.25, to impose and use passenger facility charges (PFC's) collected at SDIA to assist with construction and operation of the potentially eligible development items shown on the ALP.
4. Determination under 49 USC § 44502(b) that the proposed Northside Improvements are reasonably necessary for use in air commerce or the in the interests of national defense.

This order is issued under applicable statutory authorities, including 49 USC §§ 40101(d), 40103(b), 40113(a), 44701, 44706, 44718(b), and 47101 et seq.

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information, I find the proposed Federal action is consistent with existing national environmental policies and objectives of Section 101(a) of the National Environmental Policy Act of 1969 (NEPA). I also find the proposed Federal action will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2)(C) of NEPA. As a result, FAA will not prepare an Environmental Impact Statement for this action.

**APPROVED:**

  
\_\_\_\_\_  
Brian Q. Armstrong  
Acting Manager, Airports Division, AWP-600

  
\_\_\_\_\_  
Date

**DISAPPROVED:**

\_\_\_\_\_  
Brian Q. Armstrong  
Acting Manager Airports Division, AWP-600

\_\_\_\_\_  
Date

*RIGHT OF APPEAL*

*This FONSI/ROD constitutes a final order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. § 46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 U.S.C. § 46110. Any party seeking to stay implementation of the ROD must file an application with the FAA prior to seeking judicial relief as provided in Rule 18(a) of the Federal Rules of Appellate Procedure.*



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# 1. Purpose and Need

## 1.1 Introduction

San Diego International Airport (SDIA or the Airport) served approximately 16.7 million domestic and international passengers in 2012.<sup>1</sup> SDIA is classified as a large-hub commercial service airport in the National Plan of Integrated Airport Systems (NPIAS). Hub classifications are based on the number of passengers enplaned at the Airport, and a “large hub” classification means that SDIA accommodates at least 1.0 percent of total U.S. enplaned passengers, ranking it as one of the nation’s busiest airports.<sup>2</sup> The Airport is owned and operated by the San Diego County Regional Airport Authority (SDCRAA).

This Environmental Assessment (EA) has been prepared by the SDCRAA (Sponsor) to fulfill federal requirements for environmental review of an airport development project that requires federal approval and/or funding, as outlined in Federal Aviation Administration (FAA) Order 1050.1E, *Environmental Impacts: Policies and Procedures*<sup>3</sup> and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.<sup>4</sup> In compliance with the National Environmental Policy Act of 1969 (NEPA, 42 United States Code [U.S.C.] 4321-4370h), the FAA must review the potential environmental effects of a proposed project before taking any action to approve the proposed project.

NEPA requires federal agencies to prepare environmental documentation that discloses to decision-makers and the interested public a clear, accurate description of potential environmental effects resulting from proposed federal actions and reasonable alternatives to those actions. Through NEPA, the U.S. Congress directed federal agencies to integrate environmental factors in their planning and decision-making processes and to encourage and facilitate public involvement in decisions that affect the quality of the human environment. Federal agencies are required to consider the environmental effects of a proposed action, alternatives to the proposed action, and a no action alternative (assessing the potential environmental effects of not undertaking the proposed action).

<sup>1</sup> Air Service Development Department, San Diego County Regional Airport Authority, *Air Traffic Report, 2010 to Present, San Diego International Airport, Lindbergh Field*, [www.san.org/sdia/at\\_the\\_airport/education/airport\\_statistics.aspx](http://www.san.org/sdia/at_the_airport/education/airport_statistics.aspx) (accessed April 19, 2013).

<sup>2</sup> U.S. Department of Transportation, Federal Aviation Administration, *Report to Congress: National Plan of Integrated Airport Systems (NPIAS), 2011-2015*, September 27, 2010.

<sup>3</sup> U.S. Department of Transportation, Federal Aviation Administration, Order 1050.1E, *Environmental Impacts: Policies and Procedures*, June 8, 2004, Change 1, effective March 20, 2006.

<sup>4</sup> U.S. Department of Transportation, Federal Aviation Administration, Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, effective April 28, 2006.

The SDCRAA is preparing this EA on behalf of the FAA in compliance with FAA Orders 1050.1E and 5050.4B to evaluate the potential environmental impacts of proposed improvements on the northside of the Airport, which is the “Proposed Action” evaluated in this EA. The proposed northside improvements would not affect (increase or decrease) the number of aircraft operations at SDIA or the routing of aircraft in the air to and from the Airport.

The purpose of and need for the Proposed Action are described in this chapter, along with background information and a description of the Proposed Action.

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## 1.2 Background

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The Airport is located in the northwest portion of the downtown area within the City of San Diego. The existing Airport site is severely constrained by its location; it is bounded by North Harbor Drive and San Diego Bay to the south, the Navy Boat Channel and Liberty Station (mixed-use redevelopment of the former Naval Training Center) to the west, the Marine Corps Recruit Depot to the north, and Pacific Highway and Interstate 5 to the east. A general location and vicinity map of the SDIA is depicted on **Figure 1-1**.

On May 1, 2008, the SDCRAA adopted an Airport Master Plan (AMP), which was initiated in 2005. The AMP was prepared in accordance with FAA Advisory Circular 150/5070-6A, *Airport Master Plans*. Public involvement was included as an integral part of the development of the AMP.

Subsequent to adoption of the AMP, the SDCRAA prepared an EA for near term improvements at SDIA. A Finding of No Significant Impact (FONSI) was issued for these projects on April 20, 2009. The projects analyzed in the Near Term Improvements EA<sup>5</sup>, as shown on **Figure 1-2**, included:

- Expansion of Terminal 2 West
- New aircraft aprons and taxilane adjacent to Terminal 2 West
- New second level road/curb for Terminal 2
- New parking structure for Terminal 2
- Relocation and reconfiguration of SAN Park Pacific Highway
- New access road from Sassafras Street/Pacific Highway intersection to northside area of Airport
- New general aviation (GA) facilities and apron
- Demolition of existing GA facilities
- New apron hold pads and taxiway east of Taxiway D

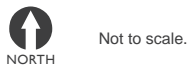
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<sup>5</sup> HNTB Corporation, *Final Environmental Assessment, San Diego International Airport Master Plan, Near Term Improvements*, April 2009.



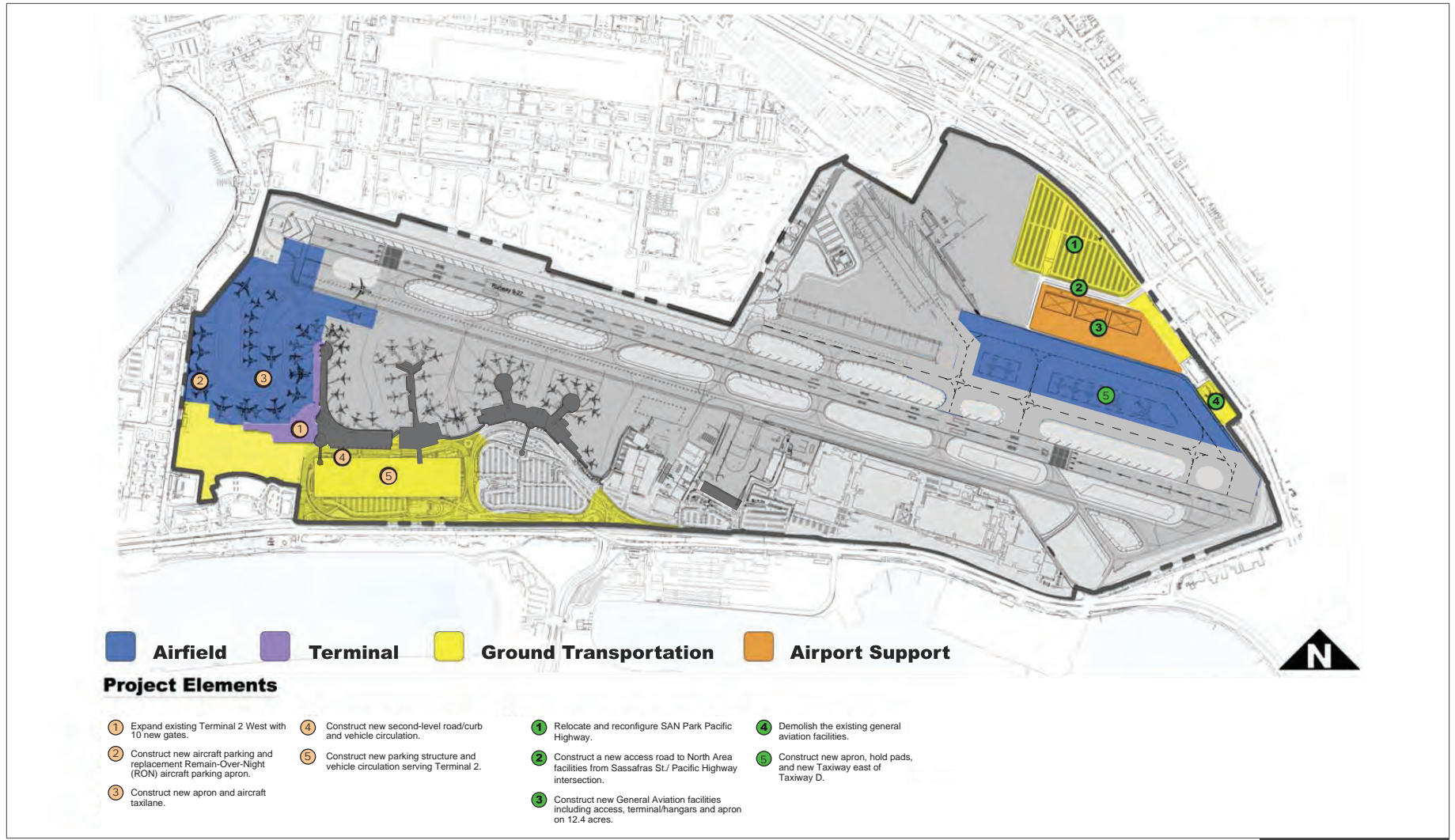
SOURCE: Ricondo & Associates, Inc., January 2013.  
PREPARED BY: Ricondo & Associates, Inc., January 2013.

**FIGURE I-1**




General Location and Vicinity Map

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SOURCE: HNTB Corporation.  
 PREPARED BY: HNTB Corporation, 2008; Ricondo & Associates, Inc., May 2012.

**FIGURE I-2**

 Not to scale.

Projects Approved in the Near Term Improvements EA

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Construction of the projects associated with expansion of Terminal 2, now referred to as “The Green Build,” was initiated in 2009 and is expected to be completed in 2013.<sup>6</sup>

### *Proposed Action Components*

This EA, the Northside Improvements EA, analyzes potential environmental effects related to changes in the following projects analyzed and approved in the 2009 Near Term Improvements EA:

- Change in location and boundaries of the new GA and fixed base operator (FBO) facilities, aprons, and associated taxiway
- Change in location and configuration of the SAN Park Pacific Highway facility
- Extension of on-Airport circulation road from Sassafras Street/Pacific Highway intersection

In addition to the above projects, this EA examines the potential effects of the following proposed projects that have not previously undergone NEPA review:

- New air cargo warehouse facilities
- New consolidated Rental Car Center (RCC) facility
- New Terminal Link Roadway (along the eastern perimeter of the Airport connecting the proposed northside facilities to the southside of the Airport)
- Utility improvements to support the proposed development on the north side of the Airport
- Connections to Taxiway C
- New Receiving and Distribution Center (RDC)
  - The existing loading dock facilities at Terminal 2 West were closed as part of the passenger terminal expansion (“The Green Build”). Due to the reconstruction of the terminal roadway system associated with The Green Build, the SDCRAA needed to expedite construction of the RDC because the existing loading dock located below the terminal was closed and removed to allow the terminal expansion and eliminate deliveries of supplies and goods from the terminal roadway system. The RDC opened in November 2012, using an on-Airport vehicle service road to make deliveries to the passenger terminals. Thus, this component of the Proposed Action has been completed. Since the environmental effects of constructing and operating the RDC were not evaluated in a separate NEPA document, they are incorporated into this EA. Although a NEPA analysis for the RDC was not performed prior to construction, constructing the RDC did not limit the range of reasonable alternatives regarding the Northside Improvements. Alternative locations for the RDC were limited due to potential line-of-sight issues with the existing airport traffic control tower (ATCT); constructing the RDC adjacent to the ATCT eliminated any potential line-of-sight issues with the ATCT while providing the most logical, efficient location for centralizing truck deliveries. The RDC’s location on the north side of the Airport replaces existing vehicle trips using

<sup>6</sup> San Diego County Regional Airport Authority, “The Green Build Fact Sheet,” [www.san.org/documents/GB/Green\\_Build\\_Fact\\_Sheet.pdf](http://www.san.org/documents/GB/Green_Build_Fact_Sheet.pdf) (accessed May 9, 2012).

North Harbor Drive with consolidated truck deliveries that use the secure airfield perimeter road to deliver products to the secure side of the terminals. Construction of the RDC did not prejudice any of the improvements being proposed or result in any prejudgment of the range of reasonable alternatives considered.

### 1.3 Aviation Forecasts

The SDCRAA prepared updated aviation activity forecasts in 2012 for the proposed Airport Development Program (ADP). The forecast was approved by the FAA on May 7, 2013.<sup>7</sup> **Table 1-1** presents the 2012 FAA-approved ADP forecasts. As shown in Table 1-1, the 2012 ADP forecasts for total passenger enplanements at SDIA are 9.4 million annual passengers in 2016 growing to 10.4 million annual passengers in 2021.

**Table 1-1 2012 Airport Development Program Forecast**

ACTIVITY CATEGORY	2012 ACTUAL	2016 FORECAST	2021 FORECAST
<b>Passenger Enplanements</b>			
Domestic	8,385,960	9,072,300	9,971,400
International	256,870	303,400	387,200
<b>Total</b>	<b>8,642,830</b>	<b>9,375,700</b>	<b>10,358,600</b>
<b>Aircraft Operations</b>			
Passenger	169,323	176,800	187,900
Cargo	6,371	6,730	7,280
General Aviation	9,891	11,050	11,600
Military	666	700	700
<b>Total</b>	<b>186,251</b>	<b>195,280</b>	<b>207,480</b>

SOURCES: LeighFisher, San Diego County Regional Airport Authority, *Airport Development Plan, San Diego International Airport, Technical Memorandum – Aviation Demand Forecasts*, March 2013; Air Service Development Department, San Diego County Regional Airport Authority, *San Diego International Airport, Lindbergh Field, Air Traffic Report, 2010 to Present*.

PREPARED BY: Ricondo & Associates, Inc., July 2013.

<sup>7</sup> Federal Aviation Administration, Letter from Margie Drilling, Aviation Planner, Federal Aviation Administration, Western-Pacific Region, Los Angeles Airports District Office, to Ms. Angie Jamison, Manager, Airport Planning, San Diego County Regional Airport Authority, San Diego International Airport, May 7, 2013.



## 1.4 Purpose and Need

Pursuant to NEPA and FAA Orders 1050.1E and 5050.4B, an EA must include a description of the purpose of a proposed action and why it is needed. Identification of the purpose and need for a proposed action provides the rationale and forms the foundation for identification of reasonable alternatives that can meet the purpose for the action and, therefore, address the need or problem. The purpose of and the need for the Proposed Action are discussed in this section.

### 1.4.1 PURPOSE OF THE PROPOSED ACTION

As discussed above, the Proposed Action includes changes to the location and boundaries of the proposed GA and FBO facilities, aprons, and taxiway; addition of air cargo warehouse facilities and associated improvements; the RCC facility and reconfiguration of the SAN Park Pacific Highway public parking facility; a new Terminal Link Roadway; extension of access road from Sassafras Street/Pacific Highway intersection to Washington Street; addition of a RDC; and on-site utilities improvements to serve the proposed development. In general, the proposed Northside Improvements are intended to consolidate landside activities in order to improve the overall efficiency of the Airport.

The proposed improvements are in accordance with SDCRAA objectives to allow the Airport to continue its mission of serving San Diego's air transportation needs.<sup>8</sup> The approved AMP identified SDCRAA's objectives for SDIA, which are listed below:

- Improve levels of service for Airport customers/users
- Improve airport safety and security for Airport customers/users
- Utilize property and facilities efficiently by:
  - Maintaining balance of passenger volumes and operations among the Airport's facilities
  - Improving tenant facilities
- Enhance airport access as part of the region's transportation system
- Enhance regional economy by serving demand for air service
- Prepare measured, incremental improvements that are cost effective and respond to the region's forecast for air service and passenger cargo
- Involve stakeholders and solicit community input
- Consider compatibility with surrounding land uses and SDCRAA policies

Based on these stated objectives, the purpose of the Proposed Action is as follows:

- To improve levels of service, Airport safety and security, and enhance Airport access

<sup>8</sup> HNTB, *San Diego International Airport, Airport Master Plan*, May 2008.

- To optimize the utilization of limited Airport property and facilities, freeing up space on the south side of the Airport
- To relieve landside and airside congestion at the Airport and on area roadways through the provision of sufficient facilities and infrastructure

#### 1.4.2 NEED FOR THE PROPOSED ACTION

Implementation of the Proposed Action is needed because forecast growth cannot be reasonably accommodated within the existing Airport facilities without a reduced level of service. Without the proposed improvements, FBO and GA users will continue to have inadequate and inefficient facilities, cargo operators will not have adequate facilities to onload/offload/sort air cargo, rental car companies will not be able to handle the forecast growth in rental car business, passengers will continue to be inconvenienced by an unconsolidated rental car system, inefficient shuttle bus service will create unnecessary traffic and congestion on local area roadways, parking demand will continue to outstrip supply, and a connection between the north and south sides of the Airport will not exist, impacting development plans for the northside of the Airport. The specific need for the Proposed Action is to provide GA, air cargo, and ground transportation facilities to improve levels of service and optimize Airport land uses, as discussed below.

##### 1.4.2.1 Provide Improved Airport Support Facilities

###### *Modify Location of Proposed General Aviation and Fixed Base Operator Facilities, Apron, and Associated Taxilane*

The Near Term Improvements EA identified the need to relocate and consolidate the existing GA and FBO facilities due to safety concerns associated with jet blast and the inefficient layout of these facilities. Figure 1-2 shows the location proposed for these facilities in the Near Term Improvements EA. As planning for the northside of the Airport has progressed, changes to the site configuration and location for the proposed GA and FBO facilities has occurred, necessitated by refinements to the access road system to the northside area and the addition of the proposed Terminal Link Roadway. The total size of the proposed GA and FBO facilities has not changed, only the location and configuration in order to maximize efficiency of the northside airfield and improve circulation.

###### *Improve Air Cargo Processing Capabilities of the Airport*

No permanent cargo aircraft parking areas currently exist at SDIA. In the current Airport layout, cargo operators must park, load, and unload aircraft on taxiways or empty apron space, primarily in areas located on the north part of the airfield. The need for a dedicated parking and servicing facility for cargo aircraft is essential to safe and efficient cargo operations and to accommodate expanding demand for air cargo capacity and services. Under the ADP forecasts, air cargo operations are forecast to increase 14 percent by 2021, when compared to 2012 activity levels (see Table 1-1).

Due to the lack of existing warehouse space at SDIA, all air cargo operations (including the sorting and staging of pallets/containers) are currently conducted out in the open on former runway/taxiway and apron areas in the northern portion of the airfield. There is a need for a dedicated facility to handle air cargo, which would increase the efficiency of air cargo operations and reduce airfield congestion. The new facilities would provide an enclosed area (warehouse) within which incoming and outgoing cargo can be sorted and staged prior to being transferred between trucks and aircrafts.

### 1.4.2.2 Provide Improved Ground Transportation Facilities

#### *Consolidate Dispersed Rental Car Facilities into a Single Location*

Currently the rental car companies are spread out along Rental Car Road and the Pacific Highway corridor and each operates individual shuttle services. This is an inconvenience to passengers and also contributes to road and curbside congestion because of the need for individual shuttle service and a lack of a dedicated right-of-way for shuttle buses. The RCC facility would accommodate all rental car companies that operate at the Airport and provide a consolidated shuttle to the terminals. The RCC would reduce the number of rental car shuttle trips as individual company shuttles would be replaced by a consolidated shuttle serving all companies.

#### *Modify Location of SAN Park Pacific Highway Public Parking Facility*

The Near Term Improvements EA analyzed the expansion and relocation of the existing SAN Park Pacific Highway parking facility, as shown in Figure 1-2. As planning for the northside of the Airport has progressed, it was decided that portions of the relocated SAN Park Pacific Highway parking facility should be moved to the north and west to allow for improved access and utilization of the RCC facility. The public parking assumed in the AMP to be part of the RCC facility is now proposed to be part of the SAN Park Pacific Highway parking facility instead.

#### *Provide Access between the Northern and Southern Portions of Airport*

A link between the Airport northside and the passenger terminal area on the south is required in order for the proposed projects, particularly the RCC and public parking, to be convenient and accessible to Airport users, and to reduce congestion on local area roadways. The roadway would be constructed on Airport property and would be open only to vehicles authorized by the Airport. This efficient, dedicated link would help ease congestion on local area roadways. Additionally, passenger convenience would be enhanced through the provision of an on-Airport controlled roadway system that is not congested by general public and non-Airport traffic.

#### *On-Airport Northside Circulation Road from Sassafras Street/Pacific Highway Intersection*

The Near Term Improvements EA included provisions for an access road to the northside area of the Airport from the Sassafras Street/Pacific Highway intersection. This on-Airport circulation road would provide access to the proposed GA/FBO facilities, RCC facility, and the relocated SAN Park Pacific Highway parking facility.

#### *Consolidate Delivery of Materials to the Airport*

An RDC is needed to provide for the efficient storage and distribution of incoming deliveries of products at the Airport. The existing loading dock facilities at Terminal 2 West were closed due to the passenger terminal expansion (The Green Build project). Delivery of products to the terminals on the south side of the Airport was conducted via truck deliveries utilizing public streets (primarily North Harbor Drive). The RDC on the northside of the Airport replaces existing vehicle trips using North Harbor Drive with consolidated truck deliveries that use the secure airfield perimeter road to deliver products to the secure side of the terminals.

### 1.4.2.3 Provide Utilities to Support Proposed Improvements

The development of the air cargo warehouse facilities, RCC, GA/FBO facilities, surface parking lot, Terminal Link Roadway, access road extension, and RDC necessitates the implementation of utility improvements to provide:

- Storm drain
- Electricity
- Natural gas
- Fueling
- Communications
- Water
- Sanitary sewer

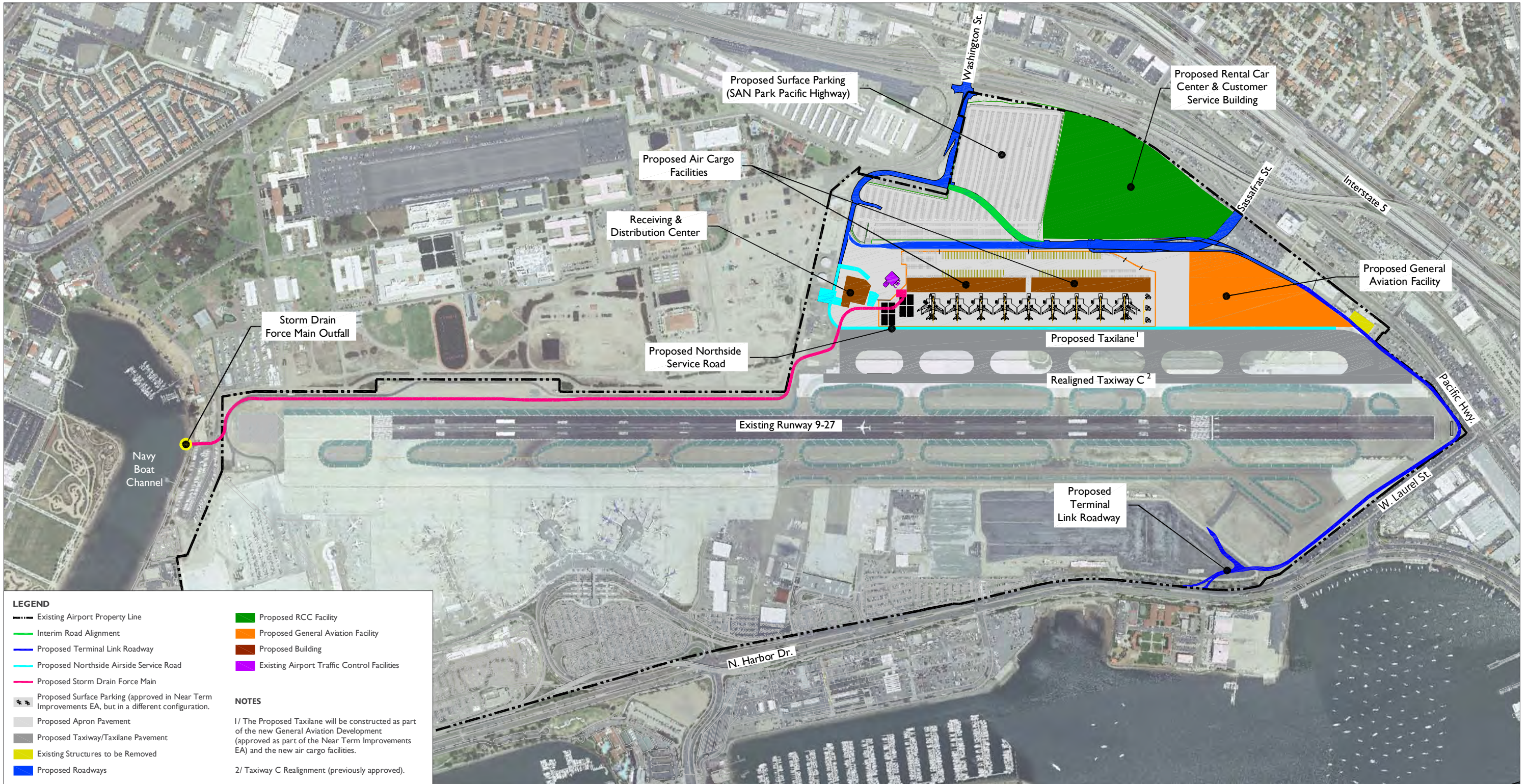
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## 1.5 Proposed Action

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Details of the projects that constitute the SDCRAA's Proposed Action are provided below. **Figure 1-3** depicts the elements of the Proposed Action.

- **Reconfiguration of proposed general aviation and fixed base operator facilities.** The proposed GA and FBO facilities approved in the Near Term Improvements EA would be shifted south and slightly reconfigured to allow for the connection of the proposed Terminal Link Roadway to the northside access road (see below). The total size of the facilities would remain at 12.4 acres, as approved in the Near Term Improvements EA. The reconfiguration of the GA and FBO facilities also affects the configuration of the associated proposed taxiway, which has also been shifted south (see also discussion below).
- **Air cargo warehouse facilities and associated improvements.** New air cargo facilities would be located parallel to, and on the north side of, Taxiway C. These facilities would include up to 225,000 square feet of warehouse space for air cargo, and an aircraft parking apron with up to nine parking positions for cargo aircraft. All current and future air cargo operators would be consolidated into the new cargo facilities. The proposed cargo warehouse facilities would be designed to accommodate future air cargo volumes at the Airport. A taxiway with connectors would be constructed parallel to and between Taxiway C and the cargo ramp. The proposed air cargo warehouse facilities and associated improvements would not affect (increase or decrease) the number of aircraft operations, including cargo aircraft operations, at SDIA or the routing of aircraft to and from the Airport.



**LEGEND**

- Existing Airport Property Line
- Interim Road Alignment
- Proposed Terminal Link Roadway
- Proposed Northside Airside Service Road
- Proposed Storm Drain Force Main
- Proposed Surface Parking (approved in Near Term Improvements EA, but in a different configuration)
- Proposed Apron Pavement
- Proposed Taxiway/Taxilane Pavement
- Existing Structures to be Removed
- Proposed Roadways
- Proposed RCC Facility
- Proposed General Aviation Facility
- Proposed Building
- Existing Airport Traffic Control Facilities

**NOTES**

1/ The Proposed Taxilane will be constructed as part of the new General Aviation Development (approved as part of the Near Term Improvements EA) and the new air cargo facilities.

2/ Taxiway C Realignment (previously approved).

SOURCES: San Diego International Airport Layout Plan, San Diego County Regional Airport Authority, 2009; SanGIS (Aerial Photography), May 2012; Ricondo & Associates, April 2013.  
 PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE I-3**



**Proposed Action**

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- **Consolidated rental car center.** An RCC facility up to approximately 2.04 million square feet for rental car ready/return, and storage operations for up to 6,500 parking spaces, is proposed to be constructed along Pacific Highway. The facility would be oriented near the Sassafras Street and Pacific Highway intersection that would serve as the primary access point. The RCC facility is planned to be a four-level parking structure that would measure approximately 66 feet in height and occupy 25.5 acres. The customer service building would be up to 40,200 square feet and integrated into the front of the parking structure. The facility would operate 24 hours per day 7 days per week. Access to the RCC facility from the terminal buildings would be provided in common use RCC buses that would utilize the proposed Terminal Link Roadway (see below). The Quick Turn Around (QTA) area of the RCC is where the processing and maintenance of cars would take place. Within the QTA, rental cars would be washed, vacuumed and refueled. The indoor gasoline fueling operation is an integral part of rental car company operation. After the vehicle is returned by a customer, it needs to be quickly cleaned and fueled so that it may be rented again. There would be three, 25,000 gallon underground double-walled fiberglass fuel storage tanks located remotely from the QTA/Rental Car Center facility for a total fuel storage capacity of 75,000 gallons. This fuel storage system would include the aforementioned storage tanks, dispensing system, associated piping as well as a leak detection system and vapor recovery system. The fueling systems proposed are exclusively for rental car vehicle fueling and would not be utilized for aviation or airport-related fueling purposes.
- **Reconfiguration of SAN Park Pacific Highway surface parking facility.** Construction of the RCC facility would necessitate relocation and reconfiguration of the SAN Park Pacific Highway surface parking facility, which would occur to the north and west of the proposed RCC facility. Access would be provided via extension of the northside on-site access road that connects to Sassafras Street and Washington Street (see below).
- **Terminal Link Roadway.** The Terminal Link Roadway would be a dedicated, Airport-controlled, on-Airport road that connects the northside development area and south terminal area. The road alignment would run south from the Sassafras Street and Pacific Highway intersection to the eastern end of the runway then turn west and proceed to a new intersection at the entrance to the U.S. Coast Guard facility and North Harbor Drive. This alignment would take the roadway through the existing GA area (facilities that are being relocated as described above) parallel to Pacific Highway. Portions of the Terminal Link Roadway would be located on top of the existing airfield service road south and east of Runway 9-27. The co-location of these two roadway functions would require placement of a new Transportation Security Administration (TSA) fence along the outside edge of the existing airfield service road. The Terminal Link Roadway would lie between the new TSA fence and the existing Airport boundary fence. Two Air Operations Area (AOA) vehicle access gates with guardposts would be added at the entrance/exit to the on-Airport vehicle service road; a separate un-manned vehicle access gate would be added for vehicles entering or exiting the Terminal Link Roadway from North Harbor Drive. The Terminal Link Roadway would be dedicated to SDCRAA vehicles, passenger shuttle buses, and other authorized vehicles; no public vehicles would be permitted to use the roadway.
- **Construction of northside circulation access road from Sassafras Street/Pacific Highway intersection.** The northside access road approved in the Near Term Improvements EA would be extended west from Sassafras Street at Pacific Highway. The access road would connect with the Terminal

Link Roadway and would provide access to the GA and FBO facilities, RCC facility, and reconfigured SAN Park Pacific Highway facility (see above).

- **Receiving and Distribution Center.** As noted above, due to the closure of the existing Terminal 2 West loading docks and the ongoing Green Build construction, the SDCRAA constructed the RDC, which began operations in November 2012. The RDC is approximately 23,000 square feet comprised of building interior (approximately 21,000 square feet) and covered loading dock (approximately 2,000 square feet). It includes a non-secure delivery area, security screening area, dry/cold/freezer storage, and a secure loading dock. An estimated 50 to 70 truck deliveries are made to the RDC daily with an estimated daily volume of 15,000 cubic feet per day. Deliveries are unloaded, screened, and consolidated onto delivery trucks that use the airfield vehicle service road to distribute deliveries to the terminals.
- **Storm drain force main and outfall.** Project components include the following (no new buildings would be constructed):
  - Linear Storm Drain: A 36-inch diameter gravity linear storm drain would traverse approximately 1,210 linear feet, beginning at the proposed Northside Service Road and terminating at a new stormwater pump station. The drain would be constructed underground beneath the existing air cargo area using trenchless technology methods.
  - Pump Station: A pump station capable of pumping 27 cubic-feet of stormwater per second would be constructed southeast of the existing ATCT. The pump station would consist of a concrete structure below surface grade, a wet well, two low-flow and two high-flow pumps, an intake bar screen and a discharge manifold with isolation valves. The facilities would be installed underground to a depth of 22 feet, with the top concrete slab of the wet well located at surface grade. An emergency generator and an electrical equipment panel would be constructed approximately 7-8 feet above ground level and would be surrounded by protective bollards.
  - Force Main: A force main consisting of a 30-inch diameter pressurized pipe would be constructed for a distance of approximately 3,148 linear feet. The force main would begin at the pump station, traverse south and then west, parallel to the runway. The force main would be constructed using conventional cut-and-cover methods. The pump station and pressurized force main would pump the storm water to the west.
  - Gravity Line: The force main would transition to a 36-inch gravity line pipe that would continue to carry the storm water approximately 3,292 linear feet to the west of the force main. The gravity line would have manholes spaced at 1,000-foot maximum intervals to allow access to the pipe. The gravity line would eventually turn south, around the end of the runway on the west side of Airport property, before crossing the Marine Corps Recruit Depot (MCRD) property. The gravity line would be constructed using conventional cut-and-cover methods.
  - Outfall to Navy Boat Channel: The gravity line would connect to a storm drain outfall for discharge to the Navy Boat Channel west of the Airport. The outfall would consist of 24 feet of reinforced concrete pipe, non-grouted rip rap, filter fabric, grouted rip rap and a "Tideflex" check valve. Approximately 2,500 cubic feet of rip rap would be deposited surrounding the outfall for an area of approximately 800 square feet. The stormwater would drain by gravity through the



outfall. The riprap would reduce the velocity of the water and dissipate the water's energy. A "Tideflex" check valve would prevent water in the Boat Channel from entering the storm drain.

- **Utilities Improvements.** Local utilities would be expanded to provide water, sewer, natural gas, power, and communications infrastructure for each of the planned facilities. The main trunk lines, or "backbone system," of the new utilities would generally be located within the proposed on-site access road right-of-way that would be extended west from Sassafras Street at Pacific Highway. The smaller service lines would extend north and south from the backbone system. The new utility lines would connect to the existing utility infrastructure located nearby, with the majority of the new connections occurring in the vicinity of Pacific Highway and Sassafras Street. Some utilities such as water lines, natural gas lines, and telecommunication lines would also have connections to existing utilities at both the east side and the west side of the proposed development area. No major improvements to existing off-site utilities are anticipated to be necessary for the proposed development.

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## 1.6 Requested Federal Action

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The federal actions being requested of the FAA by the SDCRAA include:

- Unconditional approval of the Airport Layout Plan (ALP) for SDIA depicting the proposed improvements pursuant to 49 U.S.C. 40103(b), 44718, and 47107(a)(16); 14 Code of Federal Regulations (CFR) Part 77, *Objects Affecting Navigable Airspace*; and 14 CFR Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports*
- Determinations under 49 U.S.C. §§ 47106 and 47107 relating to the eligibility of the Proposed Action for federal funding under the Airport Improvement Program (AIP) and/or under 49 U.S.C. § 40117, as implemented by 14 CFR § 158.25, to impose and use passenger facility charges (PFCs) collected at SDIA for the proposed project to assist with construction of potentially eligible development items shown on the ALP
- Determination under 49 U.S.C. 44502(b) that the Proposed Action is reasonably necessary for use in air commerce or in the interest of national defense
- Continued close coordination with the City of San Diego and appropriate FAA program offices, as required, to ensure safety during construction pursuant to 14 CFR Part 139, *Certification of Airports*, under 49 U.S.C. 44706

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## 1.7 General Implementation Timeframe

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Construction of the Sponsor's Proposed Action would begin upon FAA approval of the ALP and issuance of a favorable environmental finding. Construction of the Proposed Action is expected to take approximately three to five years to complete. Subject to the completion of the environmental review process, components of the Sponsor's Preferred Alternative are projected to be operational in 2016 and 2017.

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## 2. Alternatives

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### 2.1 Introduction

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FAA Orders 1050.1E and 5050.4B set forth FAA policies and procedures to be followed in assessing the environmental impacts of aviation-related projects in compliance with NEPA and the implementing regulations (Title 40 CFR Parts 1500-1508) issued by the Council on Environmental Quality (CEQ). These Orders require a thorough and objective assessment of the Proposed Action, the No Action alternative, and all “reasonable” alternatives that would achieve the stated purpose and need for the Proposed Action. The alternatives analysis presented in this chapter of the EA is consistent with the requirements of FAA Orders 1050.1E and 5050.4B.

The process followed to identify the range of initial alternatives to be considered and the screening process used to determine which alternatives would reasonably satisfy the purpose of and need for the Proposed Action are described in this chapter. Those alternatives that would satisfy the purpose and need for the Proposed Action were carried forward for analysis of environmental consequences. Lists of applicable federal laws and regulations considered during the analysis are provided at the end of this chapter.

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### 2.2 Screening Analysis of Potential Alternatives

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This section provides a brief description of potential alternatives and discloses if the alternatives will be carried forward for detailed analysis. Alternatives were considered in three general areas:

- Use of Locations on the Airport
- Use of Locations off the Airport
- Use of Other Airports

## 2.2.1 USE OF LOCATIONS ON-AIRPORT

### 2.2.1.1 Northside Locations

Use of locations on the northside of the Airport were identified on the Airport Land Use Plan<sup>1</sup> (see **Figure 2-1**) for proposed improvements to meet FAA criteria, provide improved airport support facilities, provide improved ground transportation facilities, and provide utilities to support the proposed improvements. This alternative was identified as potentially being able to meet the purpose and need defined for the Proposed Action, which would provide facilities that would:

- Improve levels of service, Airport safety and security, and enhance Airport access.
- Optimize the utilization of limited Airport property and facilities, freeing up space on the south side of the Airport.
- Relieve landside and airside congestion at the Airport and on area roadways through the provision of sufficient facilities and infrastructure.

#### *Provide Improved Airport Support Facilities*

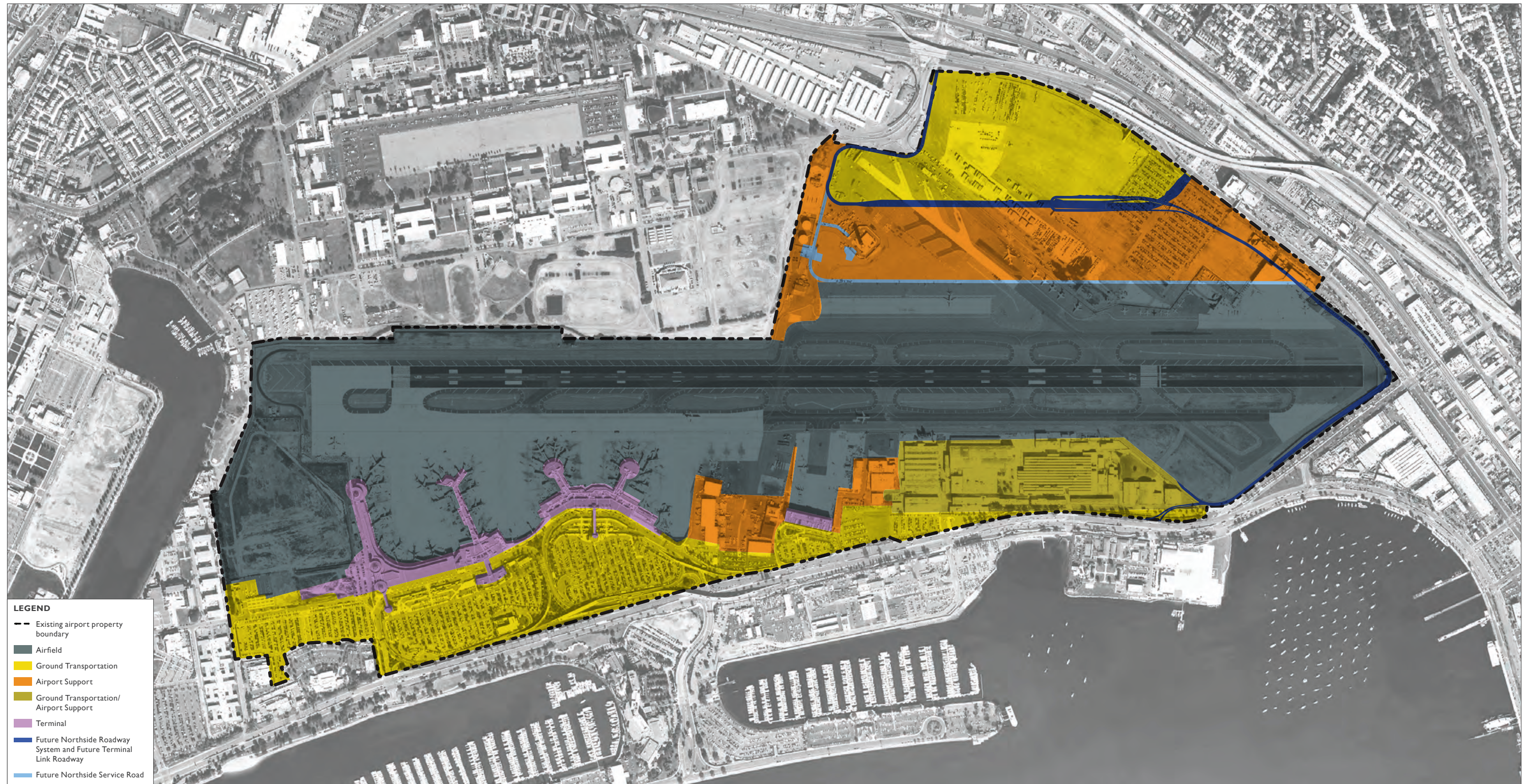
As depicted in Figure 1-3, new air cargo facilities would be located parallel to, and on the north side of, Taxiway C. The proposed facilities would include 225,000 square feet of warehouse space for air cargo, and an aircraft parking apron with up to nine (9) parking positions for cargo aircraft. All current and future air cargo operators would be consolidated into the new cargo facilities. The proposed cargo warehouse facilities would be designed to accommodate future air cargo volumes at SDIA.

Due to the lack of existing cargo sortation structures at SDIA, all air cargo operations (including the sorting and staging of pallets/containers) are currently conducted out in the open on former runway/taxiway and apron areas in the northern portion of the airfield. The new facilities would provide an enclosed area (warehouse) within which incoming and outgoing cargo can be sorted and staged prior to being transferred between trucks and aircrafts. As currently planned, two air cargo warehouse structures would be approximately 116 feet deep, total approximately 1,939 feet in length, and setback 1,113 feet from the runway to provide airspace clearance for the tails of aircraft parked in front of the warehouse. The height of the structures would range from 10 to 20 feet.

The planned air cargo facilities would include the construction of a new aircraft parking apron area, and a new taxilane adjacent to the cargo ramp and north of and parallel to Taxiway C. The taxilane would include connectors to Taxiway C.


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<sup>1</sup> An amended Airport Land Use Plan was adopted by the SDCRAA on September 1, 2011.



SOURCE: San Diego County Regional Airport Authority, San Diego International Airport Master Plan, August 2011.  
 PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 2-1**

 Not to scale.  
 NORTH

Approved Airport Land Use Plan

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Construction and operation of the proposed air cargo facilities would increase the efficiency of operations at the Airport and help relieve airfield congestion.

As discussed in Section 1.2, the RDC component of the Proposed Action has been completed. The existing loading dock facilities at Terminal 2 West were closed as part of the passenger terminal expansion (“The Green Build”). Due to the reconstruction of the terminal roadway system associated with The Green Build, the SDCRAA needed to expedite construction of the RDC because the existing loading dock located below the terminal was closed and removed to allow the terminal expansion and eliminate deliveries of supplies and goods from the terminal roadway system. The RDC opened in November 2012, using an on-Airport vehicle service road to make deliveries to the passenger terminals. Since the environmental effects of constructing and operating the RDC were not evaluated in a separate NEPA document, they are incorporated into this EA.

The RDC is located west of the ATCT. The RDC is approximately 23,000 square feet comprised of building interior (approximately 21,000 square feet) and covered loading dock (approximately 2,000 square feet). It includes a non-secure delivery area, security screening area, dry/cold/freezer storage, and a secure loading dock. An estimated 50 to 70 truck deliveries are made to the RDC daily with an estimated daily volume of 15,000 cubic feet per day. Deliveries are unloaded, screened, and consolidated onto delivery trucks that use the airfield vehicle service road to distribute deliveries to the terminals.

The RDC on the northside of the Airport replaces existing vehicle trips using North Harbor Drive with consolidated truck deliveries that use the secure airfield perimeter road to deliver products to the secure side of the terminals. Roadway congestion is reduced with these vehicle trips removed from North Harbor Drive.

#### *Provide Improved Ground Transportation Facilities*

A consolidated rental car center (RCC) facility for rental car ready/return operations, and storage operations for up to 6,500 parking spaces is proposed to be constructed north of the proposed air cargo facilities. The RCC facility, depicted in Figure 1-3, would be located along Pacific Highway oriented close to the Sassafras Street and Pacific Highway intersection that would serve as the primary access point to the RCC. The RCC facility is planned to be a four-level parking structure that would measure up to 66 feet in height. The facility would total up to 2.04 million square feet of space and encompass a footprint of approximately 25.5 acres. The customer service building would be up to 40,200 square feet and integrated into the front of the parking structure. The facility would operate 24 hours per day, seven days per week. Shuttle service to and from the passenger terminals would be provided in common use RCC buses that would utilize a new Terminal Link Roadway (see below) for access between the passenger terminals and the RCC facility. Customers would be dropped-off and picked-up at the RCC customer service building.

The primary ground access to the RCC facility would be located near the intersection of Pacific Highway and Sassafras Street. This intersection would be used by customers for returning rental cars as well as exiting the facility. A service access route for the RCC facility would be via the Pacific Highway/Washington Street intersection, connecting to a new on-site road between the new RCC and air cargo facilities. The service access route would be utilized by employees, maintenance vehicles, semi-truck car carriers, fueling vehicles, etc.

The Terminal Link Roadway would be a dedicated, airport-controlled, road located entirely on Airport property that connects the northside development area and south terminal area. As depicted in Figure 1-3, the road alignment would run south from the Sassafras Street and Pacific Highway intersection to the eastern end of the runway, then turn west and proceed to a new intersection at the entrance to the U.S. Coast Guard facility and North Harbor Drive. This alignment would take the roadway through the existing general aviation area parallel to Pacific Highway. Portions of the Terminal Link Roadway would be located on top of the existing airfield service road south and east of Runway 9-27. The co-location of these two roadway functions would require placement of a new Transportation Security Administration (TSA) fence along the outside edge of the existing airfield service road. The Terminal Link Roadway would lie between the new TSA fence and the existing Airport boundary fence. Two Air Operations Area (AOA) vehicle access gates with guardposts would be added at the entrance/exit to the on-Airport vehicle service road; a separate un-manned vehicle access gate would be added for vehicles entering or exiting the Terminal Link Roadway from North Harbor Drive.

The Terminal Link Roadway would be dedicated to SDCRAA vehicles, passenger shuttle buses, and other authorized vehicles; no public vehicles would be permitted to use the roadway. The subject 2-lane roadway would provide one twelve-foot wide lane in each direction with a six-foot shoulder on each side for an overall right-of-way dimension of 36 feet.

Construction and operation of these projects would improve levels of service and airport access, increase efficient utilization of Airport property, and relieve congestion on area roadways.

### *Connected Projects*

Construction of the RCC facility would necessitate relocation and reconfiguration of the SAN Park Pacific Highway surface parking facility, which would occur to the north and west of the proposed RCC facility. The northside access road approved in the Near Term Improvements EA<sup>2</sup> would be extended west from Sassafras Street at Pacific Highway. The access road would connect with the Terminal Link Roadway and would provide access to the GA and fixed based operator (FBO) facilities, RCC facility, reconfigured SAN Park Pacific Highway facility, and the RDC. Associated with this would be the provision of a northside service road for use by security, emergency, airline support, and Airport personnel. This service road would connect to the existing service road that runs along the perimeter of the Airport property.

Various alignments of the Terminal Link Roadway through the existing general aviation area were evaluated by the SDCRAA and the preferred option includes relocation of the FBO. Thus, the proposed GA and FBO facilities approved in the Near Term Improvements EA would be shifted south and slightly reconfigured to allow for the connection of the proposed Terminal Link Roadway to the northside access road. The total size of the facilities would remain at 12.4 acres, as approved in the Near Term Improvements EA. The reconfiguration of the GA and FBO facilities would also affect the configuration of the proposed associated taxilane, which would be shifted south.

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<sup>2</sup> HNTB Corporation, *Final Environmental Assessment, San Diego International Airport Master Plan, Near Term Improvements*, April 2009.



Local utilities would be expanded to provide water, sewer, natural gas, storm drain, power, and communications infrastructure for each of the planned facilities. The main trunk lines, or "backbone system," of the new utilities would generally be located within the proposed on-site access road right-of-way that would be extended west from Sassafras Street at Pacific Highway. The smaller service lines would extend north and south from the backbone system. The new utility lines would connect to the existing utility infrastructure located nearby, with the majority of the new connections occurring in the vicinity of Pacific Highway and Sassafras Street. Some utilities such as water lines, natural gas lines, and telecommunication lines would also have connections to existing utilities at both the east side and the west side of the proposed development area. No major improvements to existing off-site utilities are anticipated to be necessary for the proposed development.

Stormwater within the proposed drainage system would be routed, via gravity flow, to a collection point near the existing ATCT complex, where a proposed pump station would convey the flows into a 24- to 30-inch diameter force main pipeline. That force main would extend west along the proposed northside service road to the edge of the site, then south along an existing airport service road, and then turn westward again to continue on to the Navy Boat Channel at the edge of the Airport (see **Figure 2-2**). This alignment would require granting of an underground easement for construction, operation, and maintenance of the pipe beneath U.S. Marine Corps property. A Grant of Easement #N6247311RP00188 was signed January 25, 2012 from the U.S. Marine Corps to the San Diego County Regional Airport Authority. The outfall would consist of 24 feet of reinforced concrete pipe, non-grouted rip rap, filter fabric, grouted rip rap and a "Tideflex" check valve. Approximately 2,500 cubic feet of rip rap would be deposited surrounding the outfall for an area of approximately 800 square feet. The stormwater would drain by gravity through the outfall. The riprap would reduce the velocity of the water and dissipate the water's energy. A "Tideflex" check valve would prevent water in the Boat Channel from entering the storm drain.

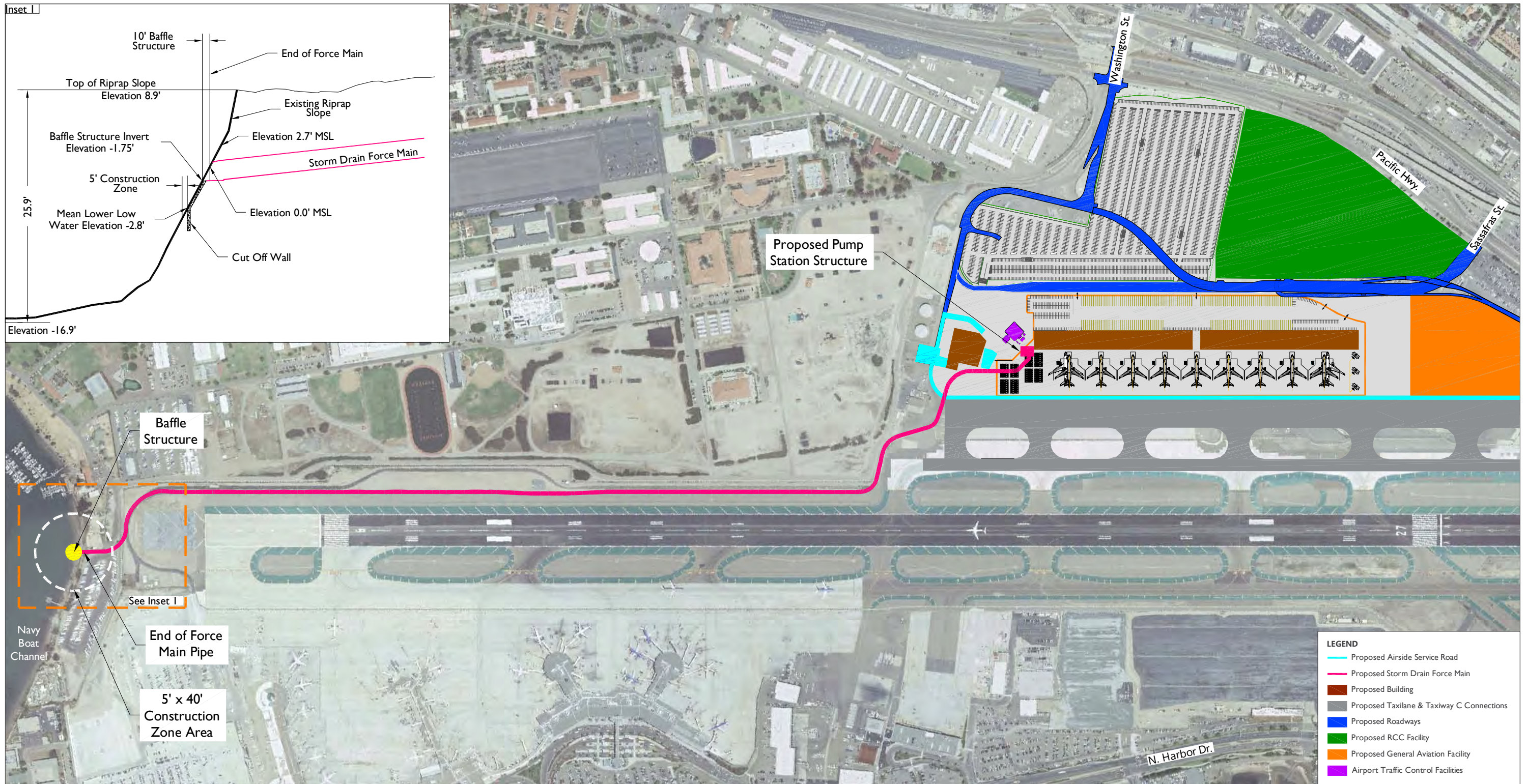
These projects are needed to support development of the other elements of the proposed northside improvements.

Because these projects would improve levels of service, Airport safety and security, and enhance Airport access, would optimize the utilization of the limited Airport property and facilities, and would relieve landside and airside congestion at the Airport and on area roadways, this category of alternatives is considered to be a reasonable alternative for meeting the Purpose and Need of the Proposed Action and is retained for detailed analysis.

### 2.2.1.2 Use of Other Locations On-Airport

The existing Airport property is constrained and consists of 661 acres. Currently, the majority of Airport property is being used for airfield/airspace, terminal, ground transportation, and air cargo and airport support facilities (see Figure 2-1).

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SOURCE: HNTB 2009, as modified by CDM, October 2010; SanGIS (Aerial Photography), May 2012.  
 PREPARED BY: Ricondo & Associates, Inc., April 2013.

FIGURE 2-2



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### *Provide Improved Airport Support Facilities*

Existing and projected future land use for property located south of Runway 9-27 consist primarily of terminal and ground transportation facilities. Most of the Airport support facilities have been planned to be located/remain on the northside of the Airport, north of Runway 9-27. From an operational perspective, it makes sense to separate cargo and GA facilities from passenger facilities to improve airfield efficiency. Due to limited available land area, the only viable site on-Airport for these facilities is the northside area as identified on the approved Airport Land Use Plan. Thus, no other on-Airport locations are available to provide improved Airport support facilities.

### *Provide Improved Ground Transportation Facilities*

Similarly, the SDCRAA is striving to relieve congestion on the terminal roadway system and other area roadways. The former Teledyne Ryan property located on the southern edge of the Airport, east of the terminal area, is identified on the approved Airport Land Use Plan for ground transportation/airport support facilities. While this area could be utilized for the RCC and/or RDC, it would result in more traffic congestion on North Harbor Drive. In addition, the San Diego Association of Governments (SANDAG) is contemplating an Intermodal Transportation Center (ITC) to serve as a transportation hub for bus, rail, and parking facilities connecting via a pedestrian bridge across Pacific Highway to the Northside Improvements area on the Airport. The long-term plans for the SAN Park Pacific Highway parking lot and RCC could be connected with SANDAG's proposed ITC with a pedestrian bridge for transit passengers. Relocation of the individual rental car company facilities from the southside of the Airport to the northside of the Airport would eliminate rental car traffic and shuttle buses from North Harbor Drive and the terminal roadway system, relieving congestion on these roads, while also providing a logical connection with SANDAG's proposed ITC (if approved/constructed). Construction of a RDC on the northside of the Airport reduces the amount of truck traffic on North Harbor Drive by consolidating deliveries to the northside of the Airport.

An alternative on-Airport western alignment for the Terminal Link Roadway was identified that would run west of the RCC and SAN Park Pacific Highway facilities, then south along the proposed and existing service road inside the northwest boundary of the Airport, turn west and run parallel to Runway 9-27, then travel south around the runway end and exit to McCain Road along the western edge of the Airport (see Alternative 3 alignment on **Figure 2-3**). The existing service road located north of Runway 9 narrows to one lane due to the existing FAA navigational equipment associated with the Runway 9 CAT I Instrument Landing System (ILS). During certain weather conditions, the existing service road has to be closed to maintain proper operation of the ILS system. FAA design criteria for siting and operation of ILS equipment includes a required critical area to protect the ILS equipment from moving and stopped aircraft and vehicles. FAA guidance states that, "All surface traffic must remain clear of the glide slope critical area whenever the equipment is in operation. Parking of unattended vehicles or aircraft within this area is prohibited at all times."<sup>3</sup>

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<sup>3</sup> U.S. Department of Transportation, Federal Aviation Administration, Order 6750.16D, *Siting Criteria for Instrument Landing Systems*, February 14, 2005.

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SOURCES: San Diego International Airport Layout Plan, San Diego County Regional Airport Authority, 2009; SanGIS (Aerial Photography), May 2012; Ricondo & Associates, April 2013.  
 PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 2-3**



Drawing: Z:\San Diego\SAN Supplemental EIR\Terminal Link Road Alignment\CAD\Terminal Link Road Alignment Alternatives\_080513.dwg\_Layout: Fig 2-3 Terminal Link Roads\_Aug 21, 2013, 9:29am

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In order to maintain continuous operations of rental car shuttles between the proposed RCC facility and the passenger terminals, construction of the Terminal Link Roadway north of Runway 9 would require either an easement or acquisition of property from the U.S. Marine Corps to move the vehicle service road outside of the ILS critical area, which would necessitate the relocation of Guantanamo Street and would impact the existing running track at the MCRD.

In 2008, during the SDIA Airport Master Plan Study, various options were explored to maximize the use of Airport property and identify ways to improve movement of aircraft and vehicles along the northside of the Airport. Both the Commanding General of MCRD and the U.S. Secretary of Navy submitted letters to SDCRAA stating unequivocally that no excess property exists on MCRD and that “National defense requirements preclude making any portion of Marine Corps Recruit Depot, San Diego available for expansion of Lindbergh Field operations.” Additionally, this alignment would require the relocation of a planned trash enclosure and recycling center west of the terminal area, increased traffic on the Airport service road that connects the passenger terminal area with the northside of the Airport, and would impact one future aircraft parking position (see **Figure 2-4**). An additional security gate would be required to allow shuttle bus access to McCain Road. Due to the need to acquire land or an easement from the U.S. Marine Corps, impacts to a planned building and future aircraft parking position, and increased congestion associated with this alternative, it was eliminated from further consideration.

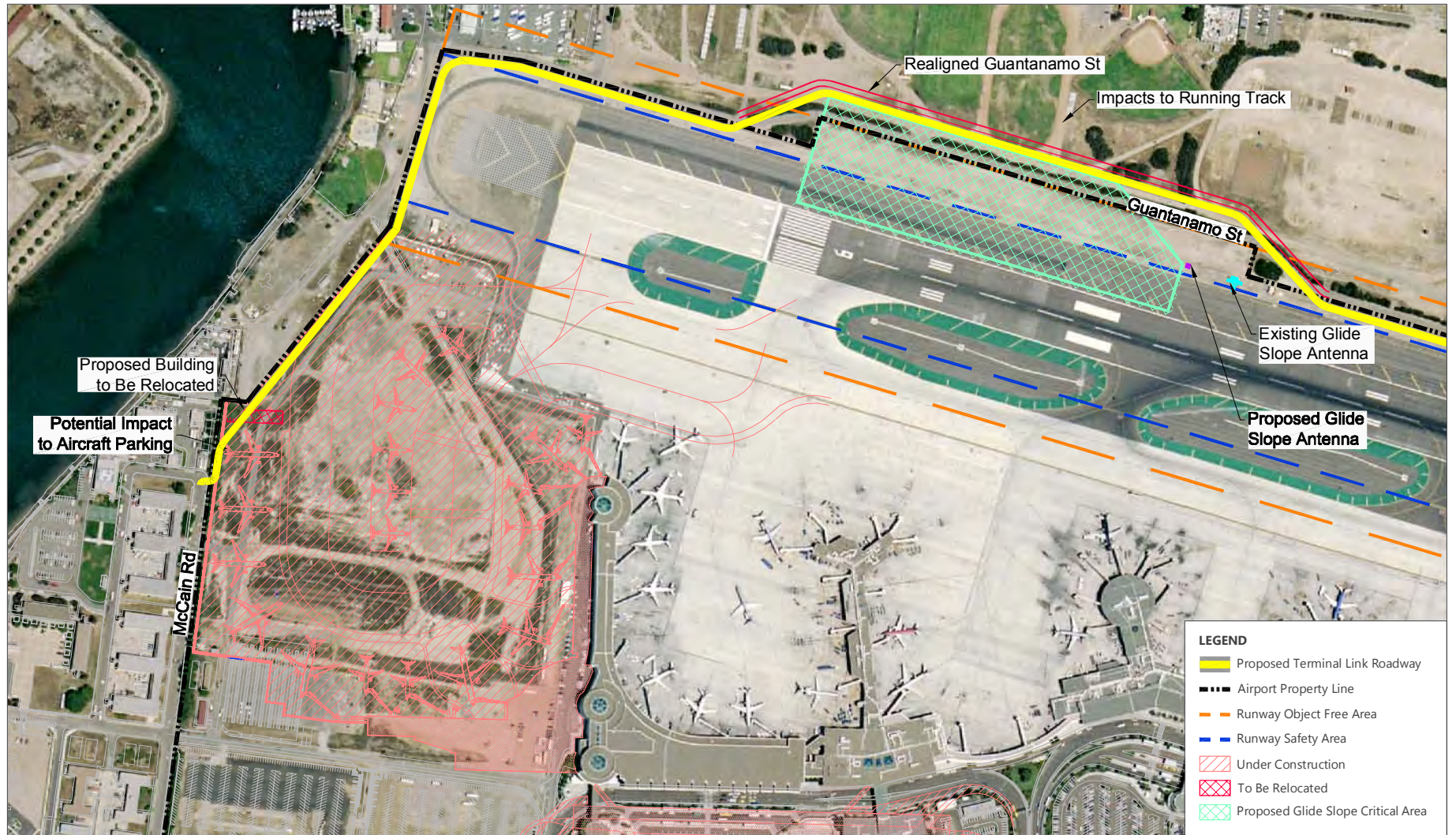
### *Connected Projects*

Most of the connected projects identified above would not occur if the proposed projects are not implemented on the northside of the Airport. However, utility improvements would need to occur if other locations were selected.

Alternative on-Airport alignments for the stormwater force main were considered, but all would involve construction of tunnels and pipes underneath the active runway and discharge to Convair Lagoon. The stormwater force main would be designed as described above and shown on Figure 2-2; however, the design and operation of such a discharge system to Convair Lagoon would be encumbered by constraints associated with constructing and maintaining a pipeline that crosses underneath the Airport’s runway. Additionally, this alternative alignment would have to extend to or through the known contaminants in the Convair Lagoon sediment, which poses substantial regulatory concerns, costly construction methods, and the potential for agitation of these contaminants during construction, operation (discharge), and maintenance activities, and resultant impacts to the local marine and benthic environments.

Because there are no other suitable locations on-Airport that would accommodate the facilities required to improve levels of service, Airport safety and security, and enhance Airport access, would optimize the utilization of limited Airport property and facilities, or relieve landside and airside congestion at the Airport and on area roadways, this category of alternatives is considered not to be a reasonable alternative for meeting the Purpose and Need of the Proposed Action and is not retained for detailed analysis.

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NOTES: Alternative would also require the relocation of the airport security fence and installation of at least one security gate.  
 SOURCES: San Diego International Airport Layout Plan, San Diego County Regional Airport Authority, June 2009; Ricondo & Associates, Inc., July 2012.  
 PREPARED BY: Ricondo & Associates, Inc., February 2013.

**FIGURE 2-4**

### Potential Facilities Impacts Terminal Link Roadway Alternative 3



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## 2.2.2 USE OF LOCATIONS OFF-AIRPORT

### *Provide Improved Airport Support Facilities*

The proposed air cargo facilities need to be located in an area where cargo aircraft can taxi and park. Similarly, the RDC needs access to the secure side of the airfield. Once deliveries are off-loaded at the RDC they are screened and then transported to the passenger terminals and other airside facilities. Thus, direct access to the secure side of the airfield is required. There are no off-airport areas that would provide direct airfield access.

### *Provide Improved Ground Transportation Facilities*

The proposed RCC could be located off-site; however, the SDCRAA does not own any suitable property near the Airport. Any other property located near the Airport may be cost prohibitive and would also result in increased travel times, emissions, and inconvenience for Airport passengers. As discussed above, SANDAG is contemplating an ITC to serve as a transportation hub for bus, rail, and parking facilities connecting via a pedestrian bridge across Pacific Highway to the Northside Improvements area on the Airport. The long-term plans for the SAN Park Pacific Highway parking lot and RCC could be connected with SANDAG's proposed ITC to provide a pedestrian bridge for transit passengers and Airport users.

An alternative alignment for the Terminal Link Roadway was considered that would route the roadway along the outer edge of the airfield, near Pacific Highway and Laurel Street; however, that alignment would extend through existing Solar Turbines employee parking lots that are leased from the Port of San Diego (see Alternative 2 alignment on Figure 2-3). Based on comments and concerns expressed by Solar Turbines and the Port of San Diego relative to elimination of those lots and displacement of employee parking, the SDCRAA refined the proposed alignment of the Terminal Link Roadway to avoid impacts to, and elimination of, the subject parking lots. As such, this alternative alignment was eliminated from further consideration.

### *Connected Projects*

Most of the connected projects would not occur if the projects are not implemented on the northside of the Airport. However, utility improvements would need to occur if other locations were selected.

Because there are no other suitable locations off-Airport that would accommodate the facilities required to improve levels of service, Airport safety and security, and enhance Airport access or relieve landside and airside congestion at the Airport and on area roadways, this category of alternatives is considered not to be a reasonable alternative for meeting the Purpose and Need of the Proposed Action and is not retained for detailed analysis.

## 2.2.3 USE OF OTHER AIRPORTS

The purpose and need for the proposed improvements are to provide facilities that would:

- Improve levels of service, Airport safety and security, and enhance Airport access
- Utilize the current Airport property and facilities efficiently and ensure that new Airport facilities further improve operations at SDIA

- Relieve congestion on the Airport airfield and on area roadways through the provision of sufficient facilities and infrastructure

The proposed improvements are needed to improve levels of service, enhance Airport access, and optimize the utilization of limited Airport property and facilities at SDIA; use of other airports for the proposed improvements would not satisfy the purpose and need for these projects.

#### *Provide Improved Airport Support Facilities*

The proposed air cargo facilities need to be located in an area where cargo aircraft can taxi and park; thus, direct airfield access is required. Air cargo facilities could be provided at other airports; however, the closest airports to SDIA with similar runway lengths able to accommodate the aircraft fleet serving SDIA are Long Beach Airport, LA/Ontario International Airport, and Los Angeles International Airport, all of which are greater than 100 miles away. Additionally, the use of an airport is determined by aircraft operators and not the SDCRAA or the FAA. Air cargo operators choose to serve an airport based on market demand, support facilities, and agreements with freight forwarders. No regulatory mechanism exists for SDCRAA or the FAA to redistribute air traffic to other airports. Federal legislation would be needed in order to give the FAA the necessary authority to redistribute air traffic, which would represent a fundamental change to the nation's policy of a deregulated aviation system. In consideration of this deregulatory trend, legislation is not likely to be enacted.

The RDC is the central location for receipt of deliveries to SDIA, and cannot be located at another airport because of its function at SDIA.

#### *Provide Improved Ground Transportation Facilities*

The RCC would serve air passengers arriving and departing from SDIA desiring to rent a car for local travel. Provision of an RCC at another airport would not serve air passengers at SDIA. The Terminal Link Roadway would not be required if the RCC is not constructed.

#### *Connected Projects*

Most of the connected projects would not occur if the projects were to be implemented at other airports.

Because there are no other airports that would improve levels of service and enhance Airport access or relieve landside and airside congestion at the Airport and on area roadways, this category of alternatives is not considered to be a reasonable alternative for meeting the purpose and need of the Proposed Action and is not retained for detailed analysis.

### **2.2.4 NO ACTION ALTERNATIVE**

The No Action alternative would result in no change in location for the new GA and FBO facilities, aprons, and associated taxilane (previously approved in the Near Term Improvements EA). The No Action alternative would also result in no new air cargo warehouse facilities, no new RCC facility, no new Terminal Link Roadway, or associated utility improvements.

The No Action alternative would result in increased airfield and area roadway congestion, as well as the inefficient use of Airport property.

### 2.2.5 SUMMARY OF ALTERNATIVES CONSIDERED

To summarize, **Table 2-1** shows the alternatives considered and whether they would meet the project objectives identified in Chapter 1, Purpose and Need.

<b>Table 2-1 Comparison of Alternatives</b>		
<b>ALTERNATIVE</b>	<b>MEETS PURPOSE AND NEED</b>	<b>REASONS FOR MEETING OR NOT MEETING PURPOSE AND NEED</b>
Use of Northside Locations On-Airport	Yes	Improves levels of service, Airport safety and security, and enhances Airport access; optimizes the utilization of the limited Airport property and facilities; and relieves landside and airside congestion at the Airport and on area roadways.
Use of Other Locations On-Airport	No	No other location on-Airport is suitable for the construction of air cargo facilities. The former Teledyne Ryan property could be utilized for the RCC, but would lead to increased congestion on North Harbor Drive and would not optimize the utilization of limited Airport property and facilities. Alternative alignments for the Terminal Link Roadway would require land acquisition from the U.S. Marine Corps to avoid impacting existing FAA navigational equipment, require relocation of a planned future building, cause the loss of a future aircraft parking position, and increase traffic on the service roads serving the passenger terminals.
Use of Locations Off-Airport	No	Some of the proposed improvements require direct airfield access or close proximity to the Airport. There are no suitable locations off-Airport that would provide direct airfield access and no land is available in close proximity to SDIA that would be suitable for the proposed projects.
Use of Other Airports	No	Other airports within the San Diego region do not currently have adequate runway lengths or taxiway/apron areas. Additionally, the closest airports to SDIA with similar runway lengths able to accommodate the aircraft fleet serving SDIA are in excess of 100 miles from the Airport. Lastly, aircraft operators choose which airports they use and service; therefore use of another airport cannot be mandated by the SDCRAA.
No Action Alternative	No	Does not improve levels of service. Airport safety and security, or enhance airport access. Would result in continued congestion on North Harbor Drive and other area roadways from rental car traffic, rental car shuttles, and truck deliveries.

SOURCE: Ricondo & Associates, Inc., May 2012.  
 PREPARED BY: Ricondo & Associates, Inc., May 2012.

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## 2.3 Alternatives Retained for Analysis and Identification of the Proposed Action

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Based on the evaluation of alternatives, two alternatives were retained for evaluation in this EA:

- No Action alternative
- Use of Northside Locations On-Airport (Proposed Action)

Of these two alternatives, only the alternative to provide improvements to the northside of the Airport meets the purpose and need identified in Chapter 1; thus, this alternative was identified as the Proposed Action. Although the No Action alternative would not meet the stated purpose and need for the Proposed Action, it was retained for analysis in this EA to comply with Title 40 CFR 1502.14(d), which requires consideration of the no action alternative and to comply with FAA Order 1050.1E. Thus, only the No Action and Proposed Action alternatives are analyzed in detail in this EA.

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## 2.4 Sponsor's Preferred Alternative

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The Proposed Action, as identified in Section 1.5, is the Sponsor's preferred alternative.

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## 2.5 Federal Laws and Regulations Considered

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In accordance with FAA Order 1050.1E, Paragraph 405(d)(4), the relevant federal laws and statutes, executive orders, and other federal regulations considered during preparation of this EA are listed in **Table 2-2**, **Table 2-3**, and **Table 2-4**, respectively.



**Table 2-2 Federal Laws and Statutes Considered**

	<b>CITATION</b>
National Environmental Policy Act of 1969	42 U.S.C. 4321 <i>et seq.</i>
Clean Air Act of 1970, as amended	42 U.S.C. 7401 <i>et seq.</i>
Department of Transportation Act of 1966, Section 4(f)	49 U.S.C. 303(c)
Vision 100 – Century of Aviation Reauthorization Act of 2003	49 U.S.C. 40101
Airport and Airway Improvement Act of 1982, as amended	49 U.S.C. 47101 <i>et seq.</i>
Airport Noise and Capacity Act of 1990	49 U.S.C. 4752 <i>et seq.</i>
Aviation Safety and Noise Abatement Act of 1979	49 U.S.C. 47501 <i>et seq.</i>
Aviation Safety and Capacity Expansion Act of 1990	49 U.S.C. App. 2226
Federal Aviation Act of 1958, as amended	49 U.S.C. 40101 <i>et seq.</i>
Endangered Species Act of 1973	16 U.S.C. 1531 <i>et seq.</i>
Fish and Wildlife Coordination Act of 1958	16 U.S.C. 661 <i>et seq.</i>
Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended	16 U.S.C. 1801 <i>et seq.</i>
Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Community Environmental Response Facilitation Act of 1992	42 U.S.C. 6901 <i>et seq.</i>
Resource Conservation and Recovery Act of 1976, as amended by the Solid Waste Disposal Act of 1980	42 U.S.C. 6901 <i>et seq.</i>
National Historic Preservation Act of 1966, as amended	16 U.S.C. 470 <i>et seq.</i>
Archaeological and Historic Preservation Act of 1974, as amended	16 U.S.C. 469 <i>et seq.</i>
Land and Water Conservation Fund Act of 1965	16 U.S.C. 4601 <i>et seq.</i>
Federal Water Pollution Control Act of 1972, as amended (commonly referred as the Clean Water Act)	33 U.S.C. 1251 <i>et seq.</i>
Rivers and Harbors Act of 1899, Section 10	33 U.S.C. 403 <i>et seq.</i>
Farmland Protection Policy Act	7 U.S.C. 4201 <i>et seq.</i>
Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970	42 U.S.C. 4601 <i>et seq.</i>
Wild and Scenic Rivers Act of 1968	16 U.S.C. 1271 <i>et seq.</i>
Toxic Substances Control Act	15 U.S.C. 2601 <i>et seq.</i>
Coastal Zone Management Act of 1972	16 U.S.C. 1452 <i>et seq.</i>
Oil Pollution Control Act of 1990	33 U.S.C. 2701 <i>et seq.</i>

SOURCE: Ricondo &amp; Associates, Inc., July 2013.

PREPARED BY: Ricondo &amp; Associates, Inc., July 2013.

**Table 2-3 Executive Orders Considered**

	<b>CITATION</b>
Executive Order 11593, Protection and Enhancement of the Cultural Environment	36 Federal Register (FR) 8921
Executive Order 11988, Floodplain Management	43 FR 6030
Executive Order 11990, Protection of Wetlands	42 FR 26961
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations	59 FR 7629
Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks	62 FR 19883

SOURCE: Ricondo & Associates, Inc., July 2013.

PREPARED BY: Ricondo & Associates, Inc., July 2013.

**Table 2-4 FAA Orders, Advisory Circulars, and Federal Regulations Considered**

**U.S. Department of Transportation and FAA Orders**

U.S. Department of Transportation (DOT), FAA Order 1050.1E: *Environmental Impacts: Policies and Procedures*

U.S. DOT, FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*

U.S. DOT, Order 5650.2: *Floodplain Management and Protection*

U.S. DOT, Order 5660.1A: *Preservation of the Nation's Wetlands*

U.S. DOT, Order 5680.1: *Final Order to Address Environmental Justice in Low-Income and Minority Populations*

**FAA Advisory Circulars**

U.S. DOT, FAA Advisory Circular (AC) 150/5020-1: *Noise Control and Compatibility Planning for Airports*

U.S. DOT, FAA AC 150/5200-33A: *Hazardous Wildlife Attractants on or near Airports*

U.S. DOT, FAA AC 36-3H: *Estimated Airplane Noise Levels in A-Weighted Decibels*

U.S. DOT, FAA AC 150/5300-13A, *Airport Design*

U.S. DOT, FAA AC 150/5370-10A: *Standards for Specifying Construction of Airports*

**Code of Federal Regulations**

Title 14 CFR Part 71: Designation of Class A, Class B, Class C, Class D, and Class E Airspace Areas; Airways; Routes; and Reporting Points

Title 14 CFR Part 77: Objects Affecting Navigable Airspace

Title 14 CFR Part 135: Operating Requirements: Commuter and On-Demand Operations and Rules Governing Persons on Board Such Aircraft

Title 14 CFR Part 150: Airport Noise Compatibility Planning

Title 40 CFR Part 93: Determining Conformity of Federal Actions to State or Federal Implementation Plans, Subpart B

Title 40 CFR Part 122: EPA Administered Permit Programs: The National Pollutant Discharge Elimination System

Title 40 CFR Part 123: State Program Requirements

Title 40 CFR Part 124: Procedures for Decisionmaking

Title 40 CFR Part 172: Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements

Title 40 CFR Parts 1500-1508: President's Council on Environmental Quality

SOURCE: Ricondo & Associates, Inc., July 2013.

PREPARED BY: Ricondo & Associates, Inc., July 2013.

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## 3. Affected Environment

The affected environment for the proposed Northside Improvements project encompasses those areas that would be directly or indirectly affected by the Proposed Action if it is implemented. This chapter identifies the potentially affected geographic areas and documents existing conditions within those areas. In accordance with FAA Orders 1050.1E and 5050.4B, those resources that could potentially be affected by the Proposed Action are identified herein.

### 3.1 Identification and Description of Study Area

San Diego International Airport (SDIA) is located within the northwest portion of the downtown area within the city of San Diego. The Airport is uniquely constrained by both natural and man-made boundaries (see **Figure 3-1**). The Airport is bounded by MCRD San Diego to the north, Pacific Highway and Interstate 5 to the east, North Harbor Drive and San Diego Bay to the south, and the Navy Boat Channel and Liberty Station to the west. Farther east of the Airport, land rises to form the hillsides of Uptown and Middletown.

Two study areas have been identified for the Sponsor's Proposed Action. The Area of Potential Effect (APE) demarks the boundary of physical disturbance for the Sponsor's Proposed Action and the viable alternatives. The APE is located primarily within the existing SDIA property except for a portion on the western side of the Airport; an easement for construction, operation, and maintenance of the proposed underground stormwater force main would be required from the U.S. Marine Corps in this area (see Figure 3-1). A Grant of Easement #N6247311RP00188 was signed January 25, 2012 from the U.S. Marine Corps to the San Diego County Regional Airport Authority.

An indirect Study Area has been defined to include those areas that could potentially be indirectly impacted by the Proposed Action and viable alternatives. The indirect Study Area was identified based on areas that may be affected by changes in surface vehicle traffic patterns due to implementation of the Proposed Action (see **Figure 3-2**).

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SOURCE: San Diego Geographic Information Source (SanGIS), March 2013 (aerial photography dated May 2012).  
 PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 3-1**

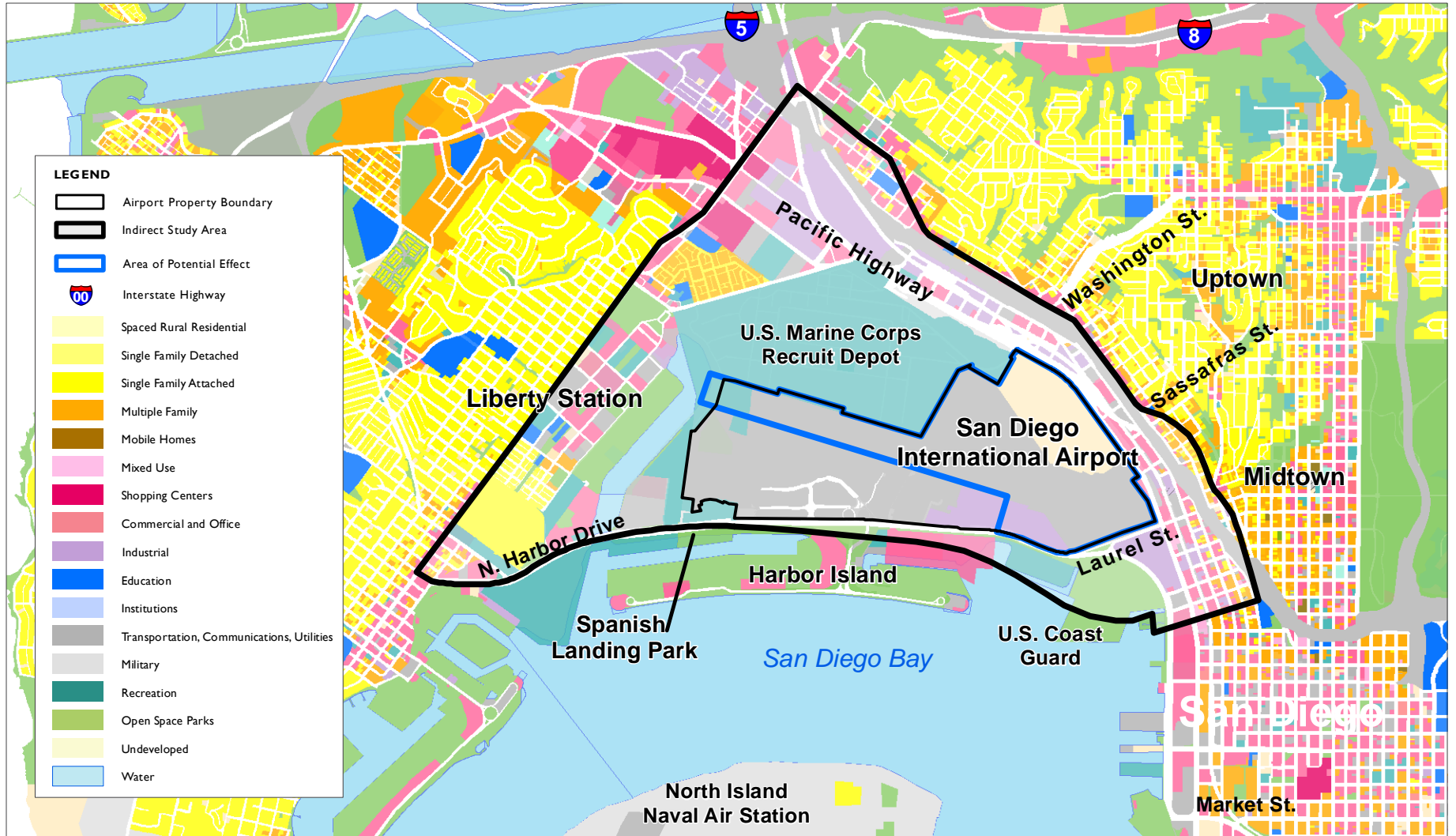


Area of Potential Effect

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SOURCE: Ricondo & Associates, Inc., April 2012, based on GIS datasets received from the City of San Diego, SanGIS and SANDAG (datasets were updated based on field surveys conducted in July and November 2011); Bing Maps Aerial 2011.  
 PREPARED BY: Ricondo & Associates, Inc., April 2012.

**FIGURE 3-2**



Study Area

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## 3.2 Existing Land Use and Zoning

This section presents a summary of existing land use plans and policies that affect development in the vicinity of the Airport. Land use plans that apply to the area surrounding the Project site include:

- City of San Diego General Plan
- City of San Diego Community and Redevelopment Plans
- Navy Redevelopment/Reuse Plans
- Port Master Plan

### 3.2.1 AIRPORT PROPERTY LAND USES

SDIA is situated on 661 acres on the north side of San Diego Bay on State Tidelands. It is the major airport in San Diego County that is served directly by commercial air carrier operations. SDIA includes an existing 9,401-foot runway with associated airfield taxiways and existing air support facilities, including the ATCT, the Aircraft Rescue and Fire Fighting Station, and general aviation facilities. Airport facilities include:

- Runway 9-27 and taxiway system
- North Side: The north side of Runway 9-27, formerly known as the General Dynamics site, is primarily used for long-term and short-term parking. It also includes cargo-related business and FBO facilities for GA aircraft located at the southerly end of the site along Pacific Highway
- South Side: The south side of Runway 9-27 consists of the existing terminals, gates, and parking areas on SDIA. Additionally, the south side includes approximately 47 acres of the former Teledyne Ryan leasehold. Long-term and short-term parking is located along the areas adjacent to North Harbor Drive

### 3.2.2 SURROUNDING LAND USES AND LAND USE PLANS

Land in the vicinity of SDIA is densely developed due to the Airport's proximity within two miles of downtown San Diego. The primary land uses immediately surrounding the SDIA site are depicted in Figure 3-2 and discussed below.

#### 3.2.2.1 North/Northeast of Airport

MCRD San Diego comprises 388 acres of land immediately north of and adjacent to the Airport, and also contains 25 buildings listed on the National Register of Historic Places (NRHP).<sup>1</sup> All male U.S. Marine Corps recruits residing west of the Mississippi River are sent to MCRD San Diego to complete basic training. MCRD San Diego has over 800 civilian employees and over 1,800 permanent military personnel. At any one time, approximately 4,000 recruits are housed at MCRD. Outdoor use areas adjacent to SDIA include an outdoor combat skills training area.

<sup>1</sup> Marine Corps Recruit Depot, San Diego, <http://www.marines.mil/unit/tecom/mcrdsandiego/Pages/welcome.aspx> (accessed December 12, 2011).

A portion of the Midway-Pacific Highway Corridor Community Plan Area (CPA) extends along Pacific Highway immediately adjacent to the Airport. Existing land uses in this area consist primarily of light industrial and commercial transportation related uses such as long- and short-term parking and car rentals, the headquarter offices of the San Diego Unified Port District, and the Middletown Palm Avenue Trolley Station. There are also educational facilities including Dewey Elementary School and St. Charles Borromeo Academy, a private school, and a U.S. Postal Service facility.<sup>2</sup>

### 3.2.2.2 East of Airport

The Uptown CPA is located east of the Airport, across I-5, immediately north of the downtown Centre City area. The Uptown CPA is dominated by residential uses with some commercial businesses bordering I-5. Some of these residences and businesses are located on the western slopes of hills adjacent to I-5, overlooking SDIA and the Study Area.<sup>3</sup>

### 3.2.2.3 South/Southeast of Airport

The San Diego downtown CPA, called the Centre City CPA, is located on the southeast side of SDIA and comprises approximately 1,500 acres. The Centre City CPA is intended to be the City of San Diego's center, comprised of a financial/commercial core surrounded by well-integrated mixed-use areas, including residential neighborhoods, offices, open spaces, and commercial uses serving an urban downtown environment. The Downtown area is divided into eight urban, high-density, mixed-use districts. The district that is most relevant to the Airport is the Little Italy District, which is immediately adjacent to the southeast corner of the Airport.<sup>4</sup>

The Little Italy District is a medium-density residential and commercial neighborhood located between Laurel Street on the north and Ash Street on the south, between Harbor Drive on the west and I-5 and Front Street on the east. The Little Italy District is a community of diverse uses, with industrial, mixed-use, residential, commercial, and open space land uses. The District is also home to the County of San Diego Administration Center on Harbor Drive.<sup>5</sup> Additionally, the portion of the Little Italy District west of the railroad and trolley tracks, also known as the North Embarcadero Area, has been promoted for redevelopment under the North Embarcadero Visionary Plan (NEVP).

The North Embarcadero area encompasses the downtown waterfront area bounded by Laurel Street on the north, Market Street on the south, San Diego Bay on the west, and the railroad and trolley tracks on the east. The northern end of the North Embarcadero area borders the southern property boundary of SDIA at Laurel

<sup>2</sup> City of San Diego, Midway Pacific Highway Corridor Community Planning Area, <http://www.sandiego.gov/planning/community/profiles/midwaypacifichwycorridor/plan.shtml> (accessed December 16, 2011).

<sup>3</sup> City of San Diego, Uptown Community Planning Area, <http://www.sandiego.gov/planning/community/profiles/uptown/> (accessed December 16, 2011).

<sup>4</sup> City of San Diego, Centre City Community Planning Area, <http://www.sandiego.gov/planning/community/profiles/centrecity/> (accessed December 16, 2011).

<sup>5</sup> Centre City Development Corporation, Downtown Neighborhoods, <http://www.ccdc.com/resources/downtown-neighborhoods.html> (accessed December 20, 2011).

Street.<sup>6</sup> Existing land uses in the North Embarcadero area include: industrial and warehousing in the northern end; commercial, recreational, hotel, small-scale retail, and office uses in the central area; and the U.S. Navy and residential uses at the southern end.<sup>7</sup>

Existing land uses surrounding SDIA include: Airport-related industrial and commercial uses such as Solar Turbines and car rental agencies, other commercial businesses, and the County of San Diego Administration Center. There are also several public recreation facilities in this area, including viewing and fishing piers along Harbor Drive, a waterfront promenade, and the Grape Street pier.<sup>8</sup>

North Harbor Drive runs along the southern property line of SDIA. Along the south side of North Harbor Drive are located the City of San Diego Metropolitan Sewer Pump Station #2, the U.S. Coast Guard Station, a rental car return center, the Harbor Police Station, and the Spanish Landing Park. Farther to the south is Harbor Island, which includes hotels, restaurants, marinas, and Harbor Island Park.

Spanish Landing Park is an existing park located south of SDIA across North Harbor Drive. This park extends along the north bank of the Harbor Island West Basin, occupying 11.2 acres of land, and includes a bicycle and pedestrian path along the shore of San Diego Bay. The park is developed with picnic tables, restrooms, parking, and extensive landscaping. Approximately one mile of public access to the shore is provided by this park. The park has been designated as a California Historical Landmark as it was the site of anchorage for the supply ships of the Portola-Serra expedition of 1769.<sup>9</sup>

#### 3.2.2.4 West of Airport

The former Naval Training Center (NTC) property, comprising approximately 541 acres, is located west of the Airport on the west side of the Navy Boat Channel. The NTC site has been redeveloped as Liberty Station. Uses include residential, commercial, office, recreational, educational, and civic uses.<sup>10</sup>

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<sup>6</sup> Unified Port of San Diego, North Embarcadero Visionary Plan, Overview and Background, <http://www.portofsandiego.org/north-embarcadero/1880-overview-and-background.html> (accessed December 20, 2011).

<sup>7</sup> North Embarcadero Alliance, *North Embarcadero Alliance Visionary Plan*, 1998.

<sup>8</sup> City of San Diego, CityWorks interactive mapping, <http://citymaps.sandiego.gov/imf/imf.jsp?site=ciptpub> (accessed December 20, 2011).

<sup>9</sup> Unified Port of San Diego, Spanish Landing Park, <http://www.portofsandiego.org/spanish-landing-park.html> (accessed December 20, 2011).

<sup>10</sup> City of San Diego, Naval Training Center Overview, <http://www.sandiego.gov/ntc/overview/index.shtml> (accessed December 20, 2011).

### 3.2.3 EXISTING ZONING

Zoning for the City of San Diego is planned and mapped by the Development Services Department of the City.<sup>11</sup> Generally, zoning in the immediate areas surrounding the Airport tend to be commercial or industrial in use, which is consistent with the current land use for these areas.

Areas to the west of the Airport are currently zoned for commercial, residential, and open space uses. Properties to the east and north of the Airport are zoned for commercial, residential, and industrial uses. South of the Airport consists of CPAs that are not designated for specific uses. Within these broad zoning designations are specific zones with distinct classifications and restrictions. These specific designations vary in development intensity, the mix of uses, and types of uses allowed.

## 3.3 Noise

The FAA has developed specific guidance and requirements for the assessment of aircraft noise in order to comply with NEPA requirements. The methodology to be used in conducting aircraft noise analyses is established in FAA Order 1050.1E. The FAA has determined that the cumulative noise exposure of individuals resulting from aircraft noise must be established in terms of the yearly day-night average sound level (DNL) metric, but accepts the use of the Community Noise Equivalent Level (CNEL) for aircraft noise evaluations in California.<sup>12</sup>

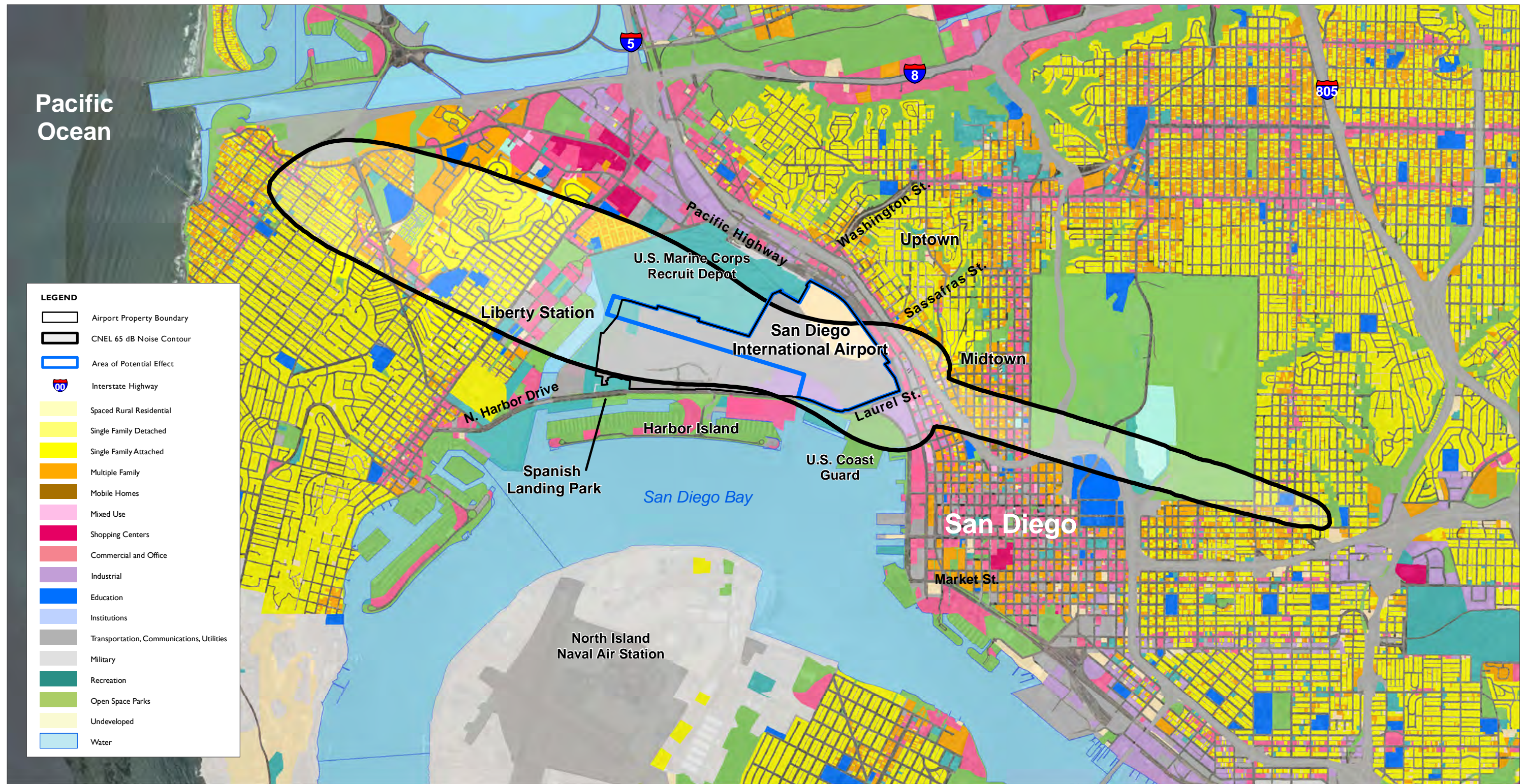
CNEL is the average noise level over a 24-hour period with a 5 dB penalty applied to evening operations (i.e., operations between 7 p.m. to 10 p.m.) and a 10 dB penalty applied to nighttime operations (i.e., operations between 10 p.m. and 7 a.m.). The 5 dB and 10 dB increases during evening and nighttime hours, respectively, are intended to account for the added intrusiveness of aircraft noise during time periods when ambient noise due to vehicle traffic and other sources is typically less than during the daytime. CNEL is similar to DNL; however DNL does not add a 5-dB penalty to evening operations.

Noise exposure maps (NEMs) were developed for SDIA as part of the Part 150 Update Study completed in 2009.<sup>13</sup> **Figure 3-3** depicts the CNEL 65 dB noise contour for 2009. The 2009 noise contour is representative of existing conditions at SDIA.

<sup>11</sup> Development Services Department, City of San Diego, Official Zoning Map. <http://www.sandiego.gov/development-services/zoning/zoninggridmap.shtml> (accessed December 12, 2011).

<sup>12</sup> The FAA definition of "significance" is specified using the day-night average sound level (DNL) metric. The FAA recognizes the use of the Community Noise Equivalent Level (CNEL) for aircraft noise evaluations in California. See FAA Order 1050.1E, Appendix A, Section 14 for FAA's acceptance of CNEL as a suitable substitute for DNL.

<sup>13</sup> San Diego County Regional Airport Authority, *San Diego International Airport, Part 150 Update, Noise Exposure Maps*, August 2009.



SOURCE: Ricondo & Associates, Inc., April 2012, based on GIS datasets received from the City of San Diego, SanGIS and SANDAG (datasets were updated based on field surveys conducted in July and November 2011); HMMH, San Diego International Airport, Part 150 Update, Noise Exposure Maps, August 2009; Bing Maps Aerial 2011.  
 PREPARED BY: Ricondo & Associates, Inc., April 2012.

FIGURE 3-3

Existing Conditions (2009)  
 CNEL 65 dB Noise Contour



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## 3.4 Demographics and Socioeconomic Profile

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Socioeconomics are the activities and resources associated with the everyday human environment, particularly with population centers, their demographics, and economic activities generated. Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was enacted in 1994. This EO was adopted to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no groups of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, tribal, and local programs and policies. Consideration of environmental justice concerns must be given to populations in the vicinity of a proposed project.

Because the Proposed Action is expected to potentially affect the neighborhoods and communities in the immediate vicinity of the north side of the Airport, a series of census tracts have been identified for socioeconomic analysis. **Figure 3-4** depicts these census tracts in relation to the Airport property. The tables that follow give detailed information on the communities surrounding the Airport. The study area includes the following census tracts: 100, 202, 5800, 5900, 6000, 6100, 6200, 6300, 6500, 6900, and 21400.

The Study Area has a population that is predominantly Caucasian (82 percent), with Asians making up the next highest ethnic group at 4 percent (see **Table 3-1**). The Study Area is largely an affluent population, except for census tract 6500 which has a median household income of \$32,721 (see **Table 3-2**). The remaining census tracts have median incomes that range from \$52,107 to \$112,065. Tracts 6200 and 6300, Airport and U.S. Marine Corps lands, do not report median incomes or poverty levels.

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## 3.5 Natural Environment

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### 3.5.1 AIR QUALITY

#### 3.5.1.1 Introduction to Air Quality Standards Rules

The federal *Clean Air Act of 1970*, 42 U.S.C. 7401, et seq., as amended, requires that states identify those areas where the National Ambient Air Quality Standards (NAAQS) are not being met for specific air pollutants. The U.S. Environmental Protection Agency (USEPA) designates such areas as nonattainment areas. A state with one or more nonattainment areas must prepare a State Implementation Plan (SIP) for each nonattainment area, detailing the programs and requirements that the state will implement to meet the NAAQS by the deadlines specified in the *Clean Air Act Amendments of 1990* (CAAA), Public Law 101-49. SIPs must address all pollutants for which the NAAQS are not met.

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SOURCE: Environmental Systems Research Institute, Bing Maps Aerial 201 I; SANDAG; U.S. Department of Commerce, U.S. Census Bureau, Geography Division, TIGER/Line Shapefile 2010.  
 PREPARED BY: Ricondo & Associates, Inc., April 2012.

**FIGURE 3-4**



Census Tracts (2010)

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**Table 3-1 Demographic and Socioeconomic Data, 2010**

	SAN DIEGO COUNTY		CITY OF SAN DIEGO		STUDY AREA	
Total Residents	3,095,313		1,307,402		37,077	
Percent Change vs. 2000	10%		7%		- <sup>2/</sup>	
Percent by Ethnicity Group <sup>1/</sup>						
White	1,981,442	64%	769,971	59%	30,518	82%
Black or African American	158,213	5%	87,949	7%	1,284	3%
Pacific Islander/Native Hawaiian	15,337	0.5%	5,908	0.5%	92	0.2%
Asian	336,091	11%	207,944	16%	1,623	4%
American Indian and Alaska Native	26,340	1%	7,696	1%	252	1%
Some Other Race	419,465	14%	161,246	12%	1,798	5%
Reporting Two or More Races	158,425	5%	66,688	5%	1,510	4%
Hispanic or Latino <sup>3/</sup>						
Hispanic or Latino (of any race)	991,348	32%	376,020	29%	5,578	15%
Not Hispanic or Latino	2,103,965	68%	931,382	71%	31,499	85%
Socioeconomic Data <sup>4/</sup>						
Median Household Income, 2010	62,901		61,962		<b>See Table 3-2.</b>	
Persons Below Poverty Level, 2010	7.9%		13.1%			

NOTES:

- 1/ Census 2010 Redistricting Data.
- 2/ Census tract geographies have changed from 2000 to 2010. No comparison can be made.
- 3/ According to the U.S. Census Bureau, "...race and Hispanic origin (also known as ethnicity) are two separate and distinct concepts...Persons who report themselves as Hispanic can be of any race and are identified as such in our data tables." For more information, see [www.census.gov/population/hispanic/about/faq.html#Q1](http://www.census.gov/population/hispanic/about/faq.html#Q1) or [www.census.gov/population/hispanic/](http://www.census.gov/population/hispanic/).
- 4/ 2005-2009 American Community Survey 5 Year Estimates.

SOURCES: U.S. Census Bureau American Fact Finder, <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml> (accessed January 22, 2013).

PREPARED BY: Ricondo & Associates, Inc., January 2013.

**Table 3-2 Economic Data by Census Tract**

CENSUS TRACT	MEDIAN HOUSEHOLD INCOME (\$)	PERCENT PEOPLE BELOW POVERTY LEVEL <sup>2/</sup>
100	112,065	6.70%
202	56,563	8.70%
5800	73,777	14.0%
5900	52,107	12.0%
6000	60,598	10.0%
6100	70,234	4.0%
6200	- <sup>1/</sup>	-
6300	- <sup>1/</sup>	-
6500	32,721	21.0%
6900	63,300	11.0%
21400	80,172	3.8%

## NOTES:

1/ Data not available because tract is predominantly U.S. Marine Corps or Airport land use.

2/ Poverty level is \$10,890 for 1 person and an additional \$3,820 for each additional family member in the lower 48 contiguous states and Washington, D.C., U.S. Department of Health & Human Services, 2011.

SOURCE: U.S. Census Bureau American Community Survey, <http://factfinder.census.gov> (accessed May 6, 2011).

PREPARED BY: Ricondo & Associates, Inc., May 2012.

NAAQS have been established for seven air contaminants or criteria pollutants. These contaminants are:

- Carbon monoxide (CO)
- Nitrogen dioxide (NO<sub>2</sub>)
- Ozone (O<sub>3</sub>)
- Sulfur dioxide (SO<sub>2</sub>)
- Lead (Pb)
- Particulate matter (PM<sub>10</sub>)
- Fine particulates (PM<sub>2.5</sub>)

The primary standards were established at levels sufficient to protect public health with a satisfactory margin of safety. The regulation and management of ambient (i.e., "outdoor") air quality conditions in San Diego County is the combined responsibility of federal, state, and local governmental agencies.

On the **federal** level, the EPA establishes the guiding principles and policies for protecting air quality conditions throughout the nation, including San Diego County. Relevant to this assessment, USEPA is also responsible for promulgating the NAAQS, the approval of the SIP, and the regulation of aircraft emissions.

On the **state** level, the California Air Resources Board (CARB) serves to help ensure that federal air quality requirements and guidelines are met. CARB also enforces the California Ambient Air Quality Standards (CAAQS), monitors air quality, and regulates mobile sources of emissions (i.e., on-road and off-road motor vehicles and equipment).

On the **local** level, the San Diego County Air Pollution Control District (SDAPCD) is responsible for administering federal and state air quality regulations, permitting of stationary sources of air emissions, and monitoring of air quality conditions in the County. Together, CARB, the SDAPCD, and SANDAG are involved in the preparation and implementation of the SIP for San Diego County.

The CARB and SDAPCD operate nine permanent ambient air quality monitoring sites scattered throughout San Diego County as part of their ongoing state and local air quality monitoring programs. The closest of these air quality monitoring stations to SDIA is located approximately two miles southeast of the Airport in downtown San Diego.<sup>14</sup> No air quality monitoring stations are located directly on, or adjacent to, the SDIA.

### 3.5.1.2 Attainment/Nonattainment Status

The Airport is located within San Diego County, an area designated as a nonattainment area for ozone (8-hour), and a maintenance area for carbon monoxide.<sup>15</sup> A maintenance area is any area previously designated nonattainment but is in transition back to attainment. The CARB designates San Diego County as nonattainment for State ozone, particulate matter, and fine particulate standards.<sup>16</sup>

### 3.5.2 WATER QUALITY

SDIA is generally flat with local minor elevation variations due to landscaping. Elevations across the area range from approximately 7 to 15 feet above mean sea level (msl).<sup>17</sup> The APE is situated within the Pueblo San Diego Hydrologic Unit (HU) listed in the San Diego Basin Plan.<sup>18</sup> The average annual precipitation at SDIA is approximately 12 inches.<sup>19</sup>

According to the San Diego Regional Water Quality Control Board, groundwater flow is assumed to be southward toward San Diego Bay.<sup>20</sup> The general hydrologic regime includes: freshwater underflow from the regional groundwater system toward San Diego Bay; freshwater recharge from water and wastewater

<sup>14</sup> These air monitoring stations are components of the permanent network operated by CARB/SDAPCD in San Diego County. The locations are established according to a series of parameters that take into consideration meteorological conditions, emission source(s) locations, demographics and pollutant characteristics.

<sup>15</sup> U.S. Environmental Protection Agency, Criteria Pollutant Reports, <http://www.epa.gov/air/oaqps/greenbk/multipol.html> (accessed April 9, 2013).

<sup>16</sup> California Air Resources Board, 2011 National Area Designations, <http://www.arb.ca.gov/desig/adm/adm.htm>, June 2011 (accessed April 9, 2013).

<sup>17</sup> San Diego Regional Water Quality Control Board, *San Diego Region, Water Quality Control Plan for the San Diego Basin*, September 8, 1994.

<sup>18</sup> MACTEC, *Hydrology Report for Storm Drainage System BMP Program at San Diego International Airport*, April 2005.

<sup>19</sup> San Diego County Regional Airport Authority, *Fiscal-year 2004-2005 Municipal Stormwater Permit Annual Report*, January 2006.

<sup>20</sup> San Diego Regional Water Quality Control Board, *San Diego Region, Water Quality Control Plan for the San Diego Basin*, September 8, 1994.

distribution, collection, and transmission lines; saline water encroachment from the ocean, and potentially from the larger, deeper storm drains; and brackish to saline native groundwater beneath the artificial fill. The San Diego Formation in the area south of SDIA is the principal aquifer that provides groundwater recharge. Because of SDIA's proximity to San Diego Bay, diurnal changes in sea level caused by lunar tides also cause concurrent changes in the level of groundwater elevations in the near-shore groundwater.

In 2005, prior to transfer of the General Dynamics and Teledyne Ryan properties to the SDCRAA, approximately 85-90 percent of Airport property was impervious area covered by buildings and paved surfaces.<sup>21</sup> A high percentage of Airport property remains impervious and is covered by runways, taxiways, apron, buildings, and associated facilities. Thus, recharge of the groundwater is limited due to the high percentage of impervious surface at SDIA.

Surface water in the vicinity of SDIA is dominated by San Diego Bay to the south and a leg of the bay called the Navy Boat Channel, which runs north-south just west of the Airport. Drainage typically flows in a southerly direction toward the Bay and in a southwesterly direction toward the Navy Boat Channel. The largest body of fresh water in proximity to SDIA is the San Diego River, approximately one mile to the north, which flows in an east-west direction and drains into the Pacific Ocean.

San Diego Bay is the largest marine and bay estuary in southern California. Depths range from 20 feet at narrow areas to 40 feet in the northern portion with an average depth of 25 feet. As a working harbor, the Bay includes recreational boating areas and commercial docks. The Navy Boat Channel formerly was a portion of the San Diego River Channel, which was diverted to its present location in the 1800s. The channel measures approximately 4,922 feet long by 558 feet wide with an average depth of 15 feet. Portions of San Diego Bay in the vicinity of SDIA are listed under California Environmental Protection Agency (Cal-EPA) Section 303(d) list of waters that do not meet, or are not expected to meet by the next listing cycle, applicable water quality standards for impacts due to coliform bacteria and metals. Of the four identified Toxic Hot Spots in the San Diego Bay, the one located between the foot of Grape Street and the foot of Laurel Street receives stormwater runoff from local urbanized areas of the City of San Diego as well as SDIA.<sup>22</sup>

Rainfall runoff at the Airport travels by gravity flow through the network of concrete channels and underground pipes that comprise the SDIA storm drain conveyance systems. These systems ultimately discharge runoff directly to San Diego Bay. Without an adequate stormwater management program, rainfall runoff on runways, taxiways, and industrial and commercial sites can pick up a multitude of adsorbable and dissolvable pollutants and potentially transport such pollutants to San Diego Bay. As further described below, the SDCRAA has developed and implemented a stormwater management program to prevent or reduce the discharge of polluted runoff from the Airport, in accordance with State and federal water quality requirements.

<sup>21</sup> MACTEC, *Hydrology Report for Storm Drainage System BMP Program at San Diego International Airport*, April 2005.

<sup>22</sup> MACTEC, *Hydrology Report for Storm Drainage System BMP Program at San Diego International Airport*, April 2005.



Pollutants typically found in rainfall runoff samples collected from the airfield surface at SDIA include sediment, nutrients (e.g., fertilizers), oxygen-demanding substances (e.g., decaying vegetation), bacteria, heavy metals, synthetic organics (e.g., fuels, oils, solvents, lubricants), pesticides, and other toxic substances.<sup>23</sup>

In addition, rainfall runoff as a potential transport mechanism for pollutants, these same pollutants have the potential to be transported by “dry weather runoff/dry weather flows.” Any flow in the stormwater conveyance system during periods of dry weather is considered a dry weather flow. Dry weather flows can originate from over irrigation of landscaped areas, air conditioning condensation, high groundwater or groundwater sump pumps, and accidental, improper, or illegal discharges to the stormwater conveyance system. Common examples of the latter are accidental spills of jet fuel or lavatory waste, or improper vehicle or pavement washing activities, or illegally disposed used motor oil or antifreeze.

In light of the potential for pollutants to be transported to San Diego Bay through the stormwater conveyance system, SDIA is subject to both the State Industrial General Stormwater Permit (National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000001) and the San Diego Municipal Stormwater Permit (NPDES Permit No. CAS0109266).<sup>24</sup> In response to these permit requirements, the SDCRAA has developed and implemented a stormwater management program to prevent or reduce the discharge of polluted runoff from SDIA during rain events and during instances of dry weather flow.

The City of San Diego Storm Water Division within the Transportation and Storm Water Department is responsible for protecting and improving water quality and reducing flood risk through efficient stormwater management. The intent of the City’s Storm Water Division is to protect and enhance the water quality of watercourses, water bodies, and wetlands consistent with the Clean Water Act and NPDES Permit No. CAS0109266. Due to poor quality, groundwater underlying SDIA and the former NTC is not used for drinking, irrigation, or industrial supply purposes. No existing or potential beneficial uses for groundwater are designated in these areas. According to the San Diego Basin Plan, groundwater within this Hydrologic Area has been exempted by the San Diego Regional Water Quality Control Board (RWQCB) from the municipal use designation under the terms and conditions of State Board Resolution No. 88-63, “Sources of Drinking Water Policy.”

Groundwater testing at the former NTC indicates that metals and minerals did not exceed total threshold concentration limits; however, concentrations of chromium, copper, lead, nickel, and zinc exceeded San Diego RWQCB standards for protection of marine resources in San Diego Bay. Groundwater exceeding these standards, removed as part of construction site dewatering activities at SDIA, is subject to NPDES permitting and would require either discharge into the sanitary sewer system or treatment before discharge into the Bay.<sup>25</sup>

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<sup>23</sup> San Diego County Regional Airport Authority, *Storm Water Management Plan*, January 2005.

<sup>24</sup> The California Regional Water Quality Control Board for the San Diego Region adopted Order No. R9-2013-0001 and NPDES Permit No. CAS0109266, *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region (Order)*, on May 8, 2013, with an effective date of June 27, 2013.

<sup>25</sup> Redevelopment Agency of the City of San Diego, November 1999.

### 3.5.3 WETLANDS

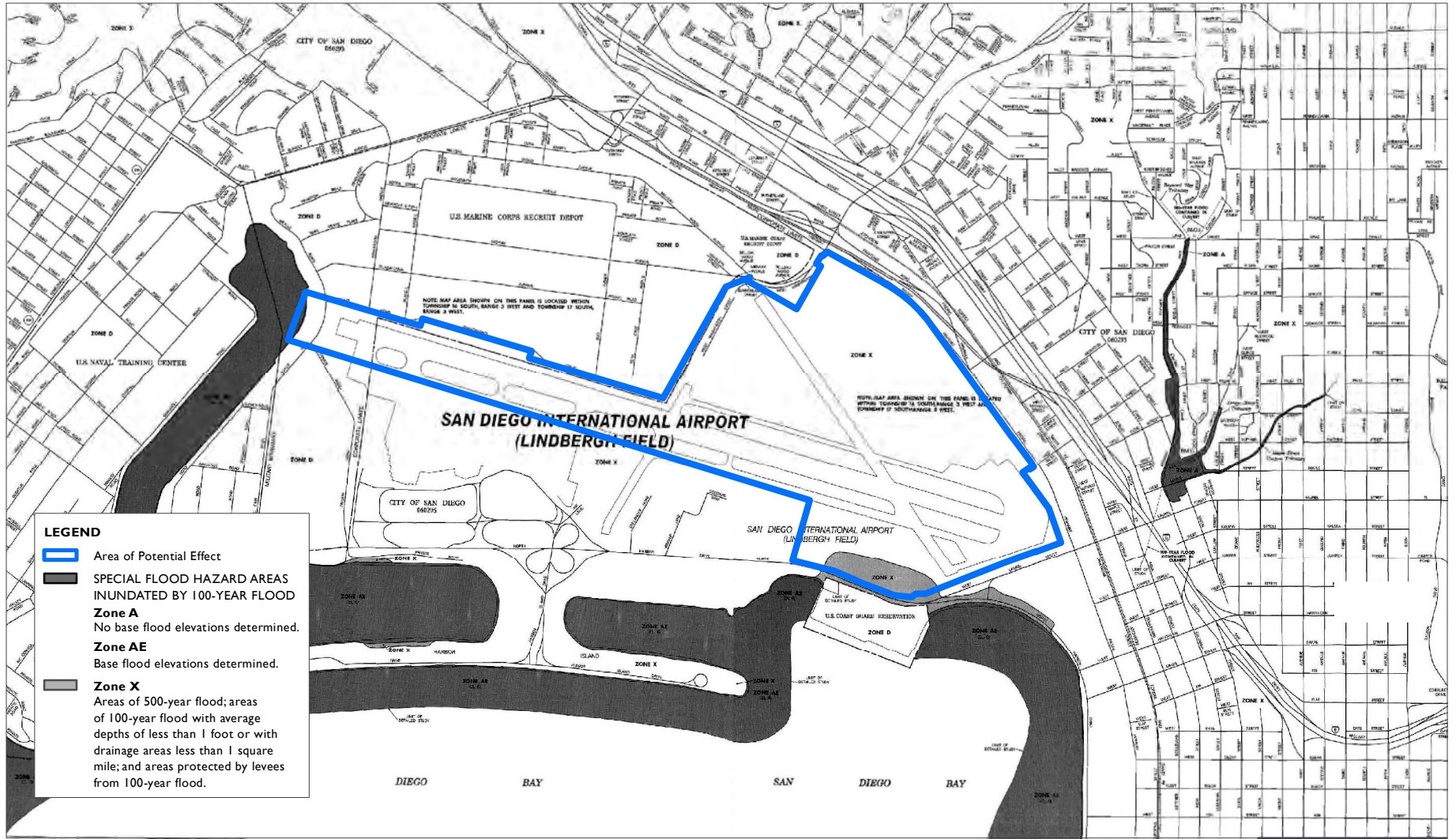
The U.S. Army Corps of Engineers' (USACE) *Wetland Delineation Manual* defines wetland areas that have positive indicators for hydrophytic vegetation, wetland hydrology, and hydric soils as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." The USACE typically takes jurisdiction over wetlands only when they lie within or adjacent to navigable waters, or tributaries of such waters where those tributaries bear an ordinary high water mark. An ordinary high water mark is defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, presence of litter or debris, or other appropriate means that consider the characteristics of the surrounding areas."

SDIA is highly developed (e.g., buildings, paved surfaces, ornamental landscaping) and contains few areas with the potential to support wetlands. Virtually all areas that would be developed under the Proposed Action consist of bare earth, paved surfaces, structures or ornamental (low habitat value) landscaping. Review was undertaken for jurisdictional habitats that may fall under Corps jurisdiction pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), wetland and streambed habitats under California Department of Fish and Wildlife (CDFW), formerly the California Department of Fish and Game, jurisdiction pursuant to Section 1600 of the Fish and Game Code, and wetland habitat under California Coastal Commission jurisdiction pursuant to Section 30121 of the California Coastal Act. During this review it was determined that there was no habitat that met the criteria for jurisdictional wetlands per the federal Clean Water Act, California Fish and Game Code, or the California Coastal Act. However, the Navy Boat Channel is regulated as a "waters of the U.S." under Section 10 of the Rivers and Harbors Act of 1899.

### 3.5.4 FLOODPLAINS

Executive Order No. 11988 was enacted in order to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practical alternative. The order was issued in furtherance of NEPA, the National Flood Insurance Act of 1968, and the Flood Disaster Act of 1973. Floodplains are defined as lowland and flat areas adjoining waters that are subject to a one percent or greater chance of flooding in any given year, i.e. a 100-year flood event.

A portion of the APE, where the proposed force main storm drain would outfall into the Navy Boat Channel lies within the 100-year flood zone as delineated by the Federal Emergency Management Agency (FEMA) maps. FEMA Flood Rate Insurance Map (FIRM) 06073C1881F indicates the floodplains for the APE (**Figure 3-5**). This map illustrates that the southeastern portion of the APE contains Flood Zone X (areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood).



SOURCE: Federal Emergency Management Agency, Flood Insurance Rate Maps (06073C1877 F, 06073C1881 F), 1997.  
 PREPARED BY: Ricondo & Associates, Inc., April 2012.

**FIGURE 3-5**



Floodplains

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### 3.5.5 COASTAL AREAS

The Coastal Zone Management Act (CZMA) of 1972 ensures effective management, beneficial use, protection and development of the coastal zone. Coastal Zone Management Programs, prepared by states according to guidelines issued by the National Oceanic and Atmospheric Administration (NOAA), are designed to address issues affecting coastal areas. Coastal resources are identified in accordance with the California Coastal Act of 1976 ("Coastal Act"; California Public Resources Code Sections 30,000 et seq.). This act, which is consistent with the Federal CZMA, contains the State's adopted policies with regard to the protection of coastal resources. In accordance with the California Coastal Commission, the only Federal actions for the FAA that would trigger a certification of consistency with the State's California Coastal Management Program (CCMP) are the certificates for the operation of new airports.<sup>26</sup>

SDIA and the entire APE are within California's Coastal Zone, as designated by the Coastal Act. There is no Coastal Commission-certified Airport Land Use Plan for SDIA, although the Airport and the APE were encompassed previously by the Coastal Commission-certified *Port Master Plan*. The *Port Master Plan* designates SDIA as International Airport, Aviation Related Commercial, and Aviation Related Industrial. In general, the International Airport designation encompasses areas where the Port operated SDIA facilities, the Aviation Related Commercial designation was applied to commercial operators' leaseholds (such as the existing FBO in the North Area), and the Aviation Related Industrial designation encompasses the former General Dynamics leasehold and the former Teledyne Ryan leasehold. The *Port Master Plan* does envision, among other actions, (1) addition of an air terminal concourse, and associated aircraft apron areas; and (2) modification of existing parking and airport roadway improvements. However, it should be noted that SDCRAA does not use the *Port Master Plan* as a guide to future development of SDIA.

### 3.5.6 BIOTIC COMMUNITIES

The habitat surrounding and including SDIA supports a limited number of biological resources because much of the area is already extensively developed. Except as noted below, the entire area within the perimeter of the SDIA boundaries is developed or disturbed in some manner with no native vegetation existing on the site. Land cover in the ovals between taxiways, the runway, and roads consists primarily of bare soil and gravel, with sparse patches of weeds and grass. These patches consist of ruderal species such as Bermuda grass (*Cynodon dactylon*), feathergrass (*Nassella tenuissima*), common tanglehead (*Heteropogon contortus*), and curly dock (*Rumex crispus*).

### 3.5.7 ENDANGERED AND THREATENED SPECIES

Coordination with the U.S. Fish and Wildlife Service (USFWS) and the CDFW resulted in the identification of several listed animal species that are known to occur or have the potential to occur within the APE. SDIA is used by the California least tern (*Sterna antillarum browni*, federal and state listed as endangered). The peregrine falcon (*Falco peregrinus anatum*, state listed as endangered [federal delisted as endangered]) also occasionally uses the SDIA area incidentally to its presence in the San Diego Bay region. The California brown

<sup>26</sup> State of California, California Coastal Commission, *California Coastal Management Program, List of Federal Licenses and Permits Subject to Certification for Consistency*.

pelican (*Pelecanus occidentalis californicus*, delisted) uses areas of the San Diego Bay region as foraging habitat.

A survey conducted in 1979 indicated that a single pair of western snowy plover (*Charadrius alexandrinus nivosus*; Pacific coastal population federally listed as threatened) nested at SDIA; however, the 1979 documentation was part of a regional survey and, to date, the western snowy plover has not been recorded as being present at the Airport during subsequent SDIA-specific surveys for biological resources.

The California horned lark (*Eremophila alpestris actia*; a state species of concern and former federal Category 2 Candidate) is a sensitive species that has decreased in abundance across its entire range, presumably because of loss of habitat.<sup>27</sup> California horned larks have been eliminated as a nesting species at SDIA. Horned larks are thought to nest at MCRD San Diego and are known to nest at Naval Air Station North Island.<sup>28</sup>

Of the avian species discussed above, the California least tern, described in more detail below, has been recorded to use the habitable areas of SDIA during the nesting season.

### California Least Tern

California least terns breed from San Francisco Bay south to Baja California. In San Diego County, this species is a fairly common summer resident from early April to the end of September.<sup>29</sup> Wintering areas are along the Pacific coast of South America. This small migratory tern nests colonially on undisturbed, sparsely vegetated, flat areas with loose, sandy substrate adjacent to open water foraging areas. The California least tern is federally listed as endangered with loss of nesting habitat being the primary cause for the initial decline of the population of the California subspecies. Few undisturbed beach nesting areas remain and California least terns are now found in varied habitats ranging from mudflats to airports. Breeding California least terns begin nesting in mid-May and June. California least terns abandon the nesting colonies by mid-August and migrate south by mid-September. California least terns exhibit tenacity to the colony site where they first breed successfully. Prey includes northern anchovy, top smelt, killifish, mosquito fish, shiner, surf perch, and mudflat gobies.

California least terns have nested at multiple locations at SDIA with the first observations of terns thought to be nesting at SDIA occurring in 1969.<sup>30</sup> It is likely, given the historic configuration of the San Diego shoreline and the tern's documented use of fill and airports, that nesting occurred at this site prior to 1969.<sup>31</sup> The site was first monitored for tern nesting in 1970; and, in that year, SDIA supported the third largest colony in the state. Nesting at the Airport has been documented in 28 of the last 36 years. Areas used for nesting by the California least tern have been monitored annually by the CDFW since 1976. **Figure 3-6** depicts California least tern nesting locations on the Airport from 2003 through 2011. There is an annual fluctuation in the

<sup>27</sup> S. R. Gallagher, *Atlas of Breeding Birds*, Orange County, California, 1997.

<sup>28</sup> CH2M HILL, San Diego Unified Port District, *Environmental Constraints Analysis for San Diego International Airport Master Plan 2020*, March 1999.

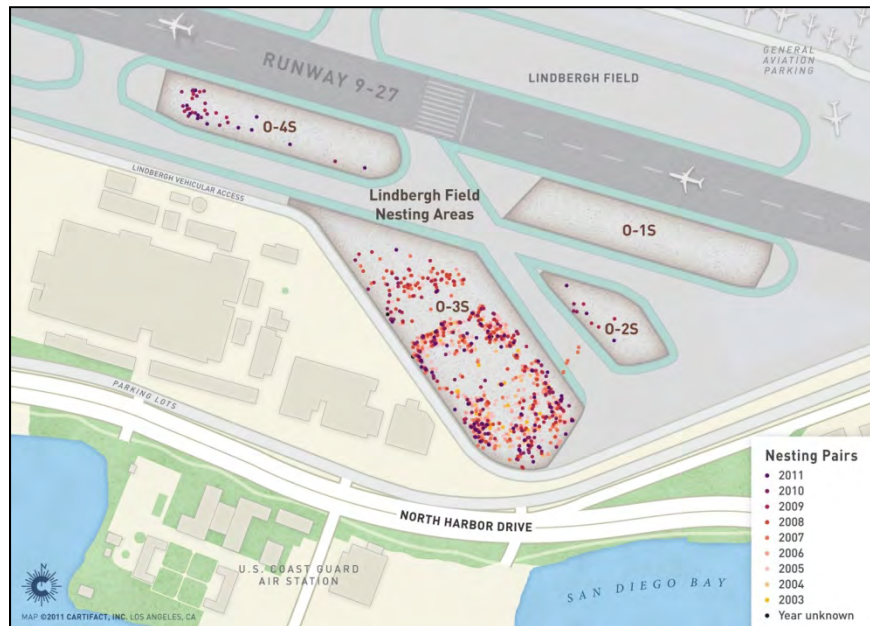
<sup>29</sup> P. Unitt, San Diego Society of Natural History, *The Birds of San Diego County*, 1984.

<sup>30</sup> A. Craig, *Survey of California Least Tern Nesting Sites*, California Department of Fish and Game Wildlife Management Branch, 1970.

<sup>31</sup> A. Craig, *Survey of California Least Tern Nesting Sites*, California Department of Fish and Game Wildlife Management Branch, 1970.

number of least tern nests at SDIA; the cause of this fluctuation is not known. **Table 3-3** lists the number of least tern nests observed at SDIA from 2003 to 2012. It should be noted that some pairs of least terns may have more than one nest.

**Figure 3-6 California Least Tern Nests, Lindbergh Field, 2003-2011**



NOTE: The four open, gravel ovals (0-15, 0-25, 0-35, and 0-45) that provide potential nesting habitat for the California Least Tern and the location of nests from 2003-2011.

SOURCE: Robert Patton, August 2011.

PREPARED BY: Hamilton Biological, Inc., August 2011.

**Table 3-3 Least Tern Nesting at SDIA, 2003-2012**

YEAR	ESTIMATED NUMBER OF BREEDING PAIRS AT SDIA	NUMBER OF NESTS AT SDIA
2003	45-50	53
2004	65-70	76
2005	121-150	157
2006	114	131
2007	120-127	135
2008	122-124	139
2009	136	145
2010	110	116
2011	66-76	78
2012	96	130

NOTES: 1/ The number of nests is an estimate based on the mean of the estimated annual range of breeding pairs.

SOURCES: URS Corporation, California Least Tern (*Sternula antillarum browni*) Status Summary for Lindbergh Field & Former Naval Training Center, 2010; Robert Patton, August 2011; San Diego International Airport, [http://www.san.org/sdcraa/airport\\_initiatives/environmental/sustainability.aspx](http://www.san.org/sdcraa/airport_initiatives/environmental/sustainability.aspx) (accessed December 13, 2011); San Diego International Airport, 2013.

PREPARED BY: Cooper Ecological Monitoring, Inc., February 2013.

The Airport has supported a significant percentage of the State's least tern nesting population over the last several years. As depicted on Figure 3-6, least terns have nested at several locations around the Airport with Oval 3 South (denoted on Figure 3-6 as 0-3S) being the area used most consistently. Various projects have obligated tern management efforts at SDIA and a Biological Opinion (BO) prepared by the USFWS in 1993 requires reasonable and prudent measures for protecting terns at SDIA.<sup>32</sup> The 1993 BO stated a number of conditions/protective measures, which included, among others, the following:

- The FAA and the SDCRAA<sup>33</sup> will maintain in perpetuity Ovals 0-1S, 0-2S, 0-3S, and 0-4S as nesting habitat for California least tern. The area of each of these respective ovals is 6.2, 2.7, 7.8, and 7.3 acres.
- The FAA and SDCRAA placed tern fledgling nest barriers/fencing around the perimeter of the above ovals to prevent the movement of fledglings outside these areas onto runways and taxiways. The fence is inspected and maintained during the breeding season by a qualified tern biologist with the appropriate endangered species permit issued by the USFWS.
- The FAA and SDCRAA provide annual funding for a predator control program; however, no shooting of tern predators at SDIA is allowed and non-lethal means are preferred.

<sup>32</sup> U.S. Department of the Interior, Fish & Wildlife Service, Ecological Services, Carlsbad Field Office, "Biological Opinion on the Immediate Action Program, Lindbergh Field Facilities Improvements, San Diego International Airport, San Diego, California," July 16, 1993.

<sup>33</sup> The Biological Opinion measures were directed at the Port of San Diego, not the SDCRAA, because at the time, SDIA was operated by the Port. Because the responsibilities regarding the least tern have transferred to the SDCRAA, references to the Port of San Diego have been revised accordingly.



- The FAA and SDCRAA will prepare and maintain in perpetuity a minimum of 6.2 acres of contiguous supratidal habitat at the Chula Vista Wildlife Reserve in south San Diego Bay for tern nesting.
- The FAA and SDCRAA are responsible for assuring ongoing monitoring of tern populations at SDIA and at Chula Vista Wildlife Reserve by qualified tern biologist(s).

In addition, the BO specified certain practices for construction crews working on facility improvements, including educating workers on prohibitions to applying materials, storing equipment, or performing maintenance near the ovals, constraining ingress and egress routes to specific locations during the nesting season (greater than 1,200 feet from the ovals), lowering crane booms when not in use, ensuring that trash would be properly disposed and that workers would not feed potential tern predators in the area.

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## 3.6 Public Lands

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Section 4(f) of the Department of Transportation (DOT) Act of 1966, which was recodified and renumbered as Section 303(c), dictates that, for any program or project undertaken or approved by the U.S. DOT, impacts to the use of any publicly owned land of a public park; recreation area; or wildlife and waterfowl refuge of national, state, or local significance; or land from a historic site of national, state, or local significance must be considered. The Act prohibits the use of these properties for transportation purposes unless no prudent and feasible alternative exists and all efforts have been made to minimize impacts.

There are a number of existing parks and other recreational areas near SDIA, including those maintained by the Port of San Diego, as well as the recreational opportunities associated with north San Diego Bay. Shelter Island is an artificial island (technically, a peninsula) located approximately one mile southwest of SDIA on Port Tidelands. Recreational facilities on Shelter Island include Shelter Island Park and paved pedestrian and bike paths, picnic benches, rest rooms, a boat launch, marinas, a shoreline beach, docking slips, and a public fishing pier. Shelter Island Park occupies open space around the Friendship Bell Monument and retains access to San Diego Bay and viewpoints.

Located due south of SDIA, Harbor Island is another artificial island (technically, a peninsula) created on Port Tidelands. Its recreational resources include Harbor Island Park, which runs along the south side of Harbor Island, scenic paved pedestrian paths and a bicycle route. Spanish Landing Park is located along north San Diego Bay, extending east from the Navy's Anti-submarine Warfare Base to just across from SDIA. This Port of San Diego-operated park occupies approximately 11.2 acres, approximately 1.3 acres of which are used for a paved bicycle and pedestrian path along the scenic shoreline.

As noted previously, the former NTC site has been redeveloped as Liberty Station, which includes approximately 125 acres of parks and open space along the Navy Boat Channel directly west of SDIA.

## 3.7 Historic, Archaeological, Architectural, and Cultural Resources

Historic, archaeological, architectural, and cultural resources are prehistoric and historic sites, districts, structures, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. Numerous laws and regulations require that possible effects on these resources be considered during the planning and execution of federal undertakings. These laws and regulations stipulate a process of compliance, define the responsibilities of the federal agency proposing the actions, and prescribe the relationships among involved agencies. In addition to NEPA, the primary laws that pertain to the treatment of historic, archaeological, architectural, and cultural resources during environmental analyses are the National Historic Preservation Act (NHPA, especially Sections 106 and 110), the Archaeological Resources Protection Act, the American Indian Religious Freedom Act, and the Native American Graves Protection and Repatriation Act.

Section 106 of the NHPA requires that federal agencies consider whether their activities could affect historic properties that are already listed, determined eligible, or not yet evaluated under the NRHP criteria. Properties that are either listed in or eligible for listing in the NRHP are provided the same measure of protection under Section 106. If an undertaking has the potential to affect historic properties, then the federal agency, in consultation with the State Historic Preservation Officer (SHPO), defines an APE. The APE is defined in 36 CFR §800.16(d) as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.”

Figure 3-1 depicts the APE utilized by the FAA to identify whether any historic properties exist within the area anticipated to be affected by the Proposed Action. The APE was defined by determining the extent of construction or alteration of existing structures. The South Coastal Information Center was contacted and they conducted a records search for the Proposed Action to identify any known historic, archaeological, architectural, or cultural resources within ½-mile of the APE. The records search identified no archaeological resources, no California historical landmarks, and no historical resources listed on the NRHP or the California Register of Historical Resources within the APE. Additionally, the records search found no cultural resources within the Project site (see **Appendix A**).

### 3.7.1 ARCHAEOLOGICAL RESOURCES

Seven archaeological sites have been recorded within a ½-mile radius of the SDIA property line, none within the APE itself. Two of these sites were recorded in the early part of the 20<sup>th</sup> century and were already quite disturbed at that time. One site (CA-SDI-53) was described as traces of probable camp sites. The second site (CA-SDI-54) was described as traces of a refuse heap on a bluff, which washed away as the bluff receded. The site’s documentation was based on observations of a gully. The only other prehistoric or Native American site in the vicinity is a light shell scatter that may have been redeposited from SDM-W-291, which Malcolm Rogers considered to be associated with the ethnohistoric village of Kosoy. The remaining four sites are historic archaeological sites, which include the Barth Foundry Dump site; two historic artifact scatters from the early part of the 20<sup>th</sup> century; and a historic dump used circa 1900-1930.

An archaeological survey report for the Airport was completed in February 2006 as part of the environmental review for elements of the Airport Master Plan. The survey examined the entire Airport property including the former NTC and Teledyne Ryan manufacturing complex, and consisted of a records search at the South Coastal Information Center, review of archaeological reports for other projects in the vicinity of SDIA, and a driving tour of the Airport. The current topography of the APE has been achieved through decades of dredging and placement of fill soils in an area of bay and mudflats. In addition, the APE consists of portions of the existing SDIA and a small portion of the MCRD located west of the Airport; the APE contains no undisturbed ground surface. Based on the information from the Archaeological Survey Report and the results of the 2011 South Coastal Information Center records search, archaeological resources would not be anticipated in the APE.

### 3.7.2 HISTORIC, ARCHITECTURAL, AND CULTURAL RESOURCES

No traditional cultural properties, Native American heritage sites or other culturally important sites or areas have been identified within the APE. The California Native American Heritage Commission (NAHC) sacred lands files identified that Native American cultural resources were identified in proximity to the APE. The NAHC stated that this area is known to contain Native American cultural resources and provided a list of Native American tribal contacts with which to coordinate. The FAA transmitted coordination letters concerning the Proposed Action to those contacts on January 16, 2013.

A number of historic structures have been recorded within ½-mile of the APE, including buildings at the former NTC and at MCRD, as well as buildings and structures associated with the Consolidated Aircraft Plant No. 1, almost all of which have been removed. In 2011, the NRHP's database, the California Inventory of Historic Resources, and California Historical Landmarks were reviewed through a record search obtained from the South Coastal Information Center at San Diego State University to determine the presence of previously identified resources within the APE.

An historic architectural survey report for the Airport was completed in May 2006 as part of the environmental review for elements of the Airport Master Plan. The survey examined the entire Airport property including the former NTC and Teledyne Ryan manufacturing complex. Research was conducted at the archives of the San Diego Aerospace Museum and the San Diego Historical Society, to prepare a historical overview that would identify important themes and contexts against which to evaluate buildings and structures located in the APE. These included: (1) early airport development, (2) development of the airline industry, (3) development of the aircraft manufacturing industry at Lindbergh Field, and (4) contributions of Lindbergh Field aircraft manufacturers to World War II and the early Cold War.

SDCRAA provided dates of construction for buildings and structures in the APE<sup>34</sup>. This information was augmented by research conducted for the historic background study. All buildings older than 45 years or that would be 50 years old by 2015 were recorded and assessed for significance as historic resources based on their potential eligibility for listing on the NRHP, California Register of Historical Resources, or local City of San Diego Historic Resources Board List. A qualified historian inspected each potentially significant historic

<sup>34</sup> The APE for the 2006 Historic Architectural Survey included the entire Airport property, the former NTC property, and the former Teledyne Ryan manufacturing complex.

resource within the study area and took field notes and photographs. State of California Department of Parks and Recreation Primary and District, or Building, Structure, and Object Record forms were completed for each of the buildings evaluated. Only one existing structure, the Allied Aerospace Building, remains within the APE<sup>35</sup> for the proposed Northside Improvements project that was determined to be eligible for listing on the NRHP California Register of Historical Resources (the former Teledyne Ryan structures were demolished in 2010). The Allied Aerospace Building was constructed in 1945 and is located on the eastern edge of the Airport, west of Pacific Highway between Sassafras and West Palm Streets, north of Landmark Aviation (the existing FBO).

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## 3.8 Hazardous Materials and Solid Waste

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Four primary laws have been passed governing the handling and disposal of hazardous materials, chemicals, substances, and wastes. The two statutes most applicable to airport projects are the Resource Conservation and Recovery Act (RCRA, as amended by the Federal Facilities Compliance Act of 1992) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended (also known as Superfund). RCRA governs the generation, treatment, storage, and disposal of hazardous wastes. CERCLA provides for cleanup of any release of a hazardous substance (excluding petroleum) in the environment.

### 3.8.1 HAZARDOUS MATERIALS

Hazardous materials are regulated by a number of federal laws and regulations - most of which are promulgated by the USEPA. These include the RCRA and CERCLA, as mentioned above, in addition to the Clean Air Act (CAA) and Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), Hazardous Materials Transportation Act (HMTA), and the Emergency Planning & Community Right to Know Act (EPCRA). Together, these regulations serve as guiding principles governing the storage, use and transportation of hazardous and other regulated materials from their time of origin to their ultimate disposal. The recovery and clean-up of environmental contamination resulting from the accidental or unlawful release of these materials and substances are also governed by these regulations.

On the state level, the agency with similar authority to USEPA over hazardous materials is the California Environmental Protection Agency (Cal-EPA). Specifically, the Cal-EPA Department of Toxic Substances Control (DTSC) is responsible statewide for matters concerning the use, storage, transport and disposal of hazardous materials. Similarly, the California Integrated Waste Management Board (CIWMB) is responsible for the management of solid wastes and the Cal-EPA Office of Environmental Health Hazard Assessment (OEHHA) is involved in the evaluation of risks to public health and the environment posed by hazardous materials and environmental contamination. Importantly, Cal-EPA delegates much of the enforcement responsibility for hazardous materials to local governments under the Certified Unified Program Agency (CUPA) program.

Locally, the San Diego Department of Environmental Health (DEH) serves as the CUPA and is responsible for regulating hazardous materials, hazardous wastes and underground storage tanks (USTs) county-wide. The

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<sup>35</sup> There are no structures on the small portion of MCRD property contained within the APE.

San Diego RWQCB also has jurisdiction over the management of potential sources of surface and groundwater contamination such as the cleanup of UST and aboveground storage tank (AST) spill sites. The City of San Diego Development Services Department is designated as the Local Enforcement Agency (LEA) by the CIWMB and is responsible for enforcing regulations pertaining to solid waste disposal units (i.e., landfills, old burn dumps, etc.). Finally, the SDAPCD is involved in the assessment of health and environmental hazards associated with toxic (or hazardous) air pollutants.

A listing of regulations pertaining to the management of hazardous materials and other hazard conditions in San Diego are listed in **Table 3-4**.

Based upon the review of available documents, discussions with SDIA staff and an in-the-field survey of existing conditions, the types, characteristics, and utilization of hazardous materials and other similarly regulated substances at SDIA are typical of most metropolitan airports that offer commercial service. Activities and facilities that involve the use of these materials include the fueling, servicing, and repair of aircraft, ground support equipment (GSE), and motor vehicles; the operation and maintenance of the airfield, main terminal complex, and passenger concourses; and a range of other special purposes connected with commercial aviation (e.g., rental car and air cargo facilities, navigation and air traffic control functions).<sup>36, 37, 38, 39</sup>

By far, the overall largest quantities of substances used at SDIA that are classifiable as hazardous include aircraft and motor vehicle fuels. These fuels are contained in USTs and ASTs ranging in size from less than 500 to greater than 1,000,000 gallons and are located on Airport property or at the adjoining rental car facilities. The aircraft fuel types predominantly include Jet-A and Av-gas and the motor vehicle fuels include gasoline and diesel.

Other, smaller amounts of petroleum-products (e.g., lubricants and solvents), waste materials (e.g., used oils, cleaning residues, and spent batteries) and manufactured chemicals (e.g., herbicides, fertilizers, paints, fire-fighting foam, de-icing fluids) are used in various locations throughout the Airport. These are characteristically used on a routine basis in support of aircraft, GSE, and motor vehicle maintenance activities and for a range of other functions to keep the Airport operational and meet aviation safety requirements.

The SDCRAA and many of the tenants at SDIA have developed and implemented Stormwater Management Plans (SWMP) containing Best Management Practices (BMPs) intended to eliminate or reduce the release of contaminants into the environment. A number of these BMPs pertaining to hazardous materials include secondary containment and covered storage facilities; procedures and equipment for the clean-up of spills and accidental releases; training, auditing, and other work practices.

<sup>36</sup> Brown and Caldwell, *Fate and Transport Modeling Report: Chlorinated Hydrocarbons, Lindbergh Field Plant, Building No. 1 Area*, prepared for General Dynamics Division, April 1998.

<sup>37</sup> Brown and Caldwell, *Convair Lagoon PCB Technical Report*, prepared for San Diego Unified Port District, January 2002.

<sup>38</sup> Essentia, *Limited Environmental Baseline Summary (EBS) Report, General Dynamics Lindbergh Field Plant Facility*, prepared for San Diego County Regional Airport Authority, May, 2004.

<sup>39</sup> MACTEC, *Storm Drainage System BMP Program Final Site Audit Report for San Diego International Airport*, prepared for San Diego County Regional Airport Authority, June 2005.

**Table 3-4 Regulations Pertaining to the Management of Hazards and Hazardous Materials in San Diego County**

----- FEDERAL -----

- Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) – Regulation of former and new waste disposal and spill sites. Established the “Superfund” program and the National Priorities List (NPL).
- Resource Conservation & Recovery Act (RCRA) – Regulation of the generation, transportation, storage, treatment, and disposal of hazardous materials.
- Clean Water Act (CWA) – Regulation of discharges and spills of pollutants (including hazardous materials) to surface and ground-waters.
- Safe Drinking Water Act (SDWA) – Regulation of discharges of pollutants to underground aquifers.
- Clean Air Act (CAA) – Regulation of discharges of air emissions (including hazardous air pollutants) to the ambient (i.e., “outside”) air.
- Hazardous Materials Transportation Act (HMTA) – Regulation of the transport of hazardous materials by motor vehicles, marine vessels, and aircraft.
- Emergency Planning & Community Right to Know Act (EPCRA) – Regulation of facilities that use hazardous materials in quantities that require reporting to emergency response officials.

----- STATE -----

- Hazardous Materials Release Response Plans & Inventory Act – Requires facilities using hazardous materials to prepare Hazardous Materials Business Plans.
- Hazardous Waste Control Act – Similar to RCRA on the federal level in regulating the generation, transportation, storage, treatment, and disposal of hazardous materials.
- Safe Drinking Water & Toxic Enforcement Act – Similar to the SDWA and CWA on the federal level in regulating the discharge of contaminants to groundwater.
- California Government Code Section 56962.5 – Requires the DTSC to compile and maintain lists of potentially contaminated sites throughout the State.
- Emergency Services Act – Similar to EPCRA on the federal level.

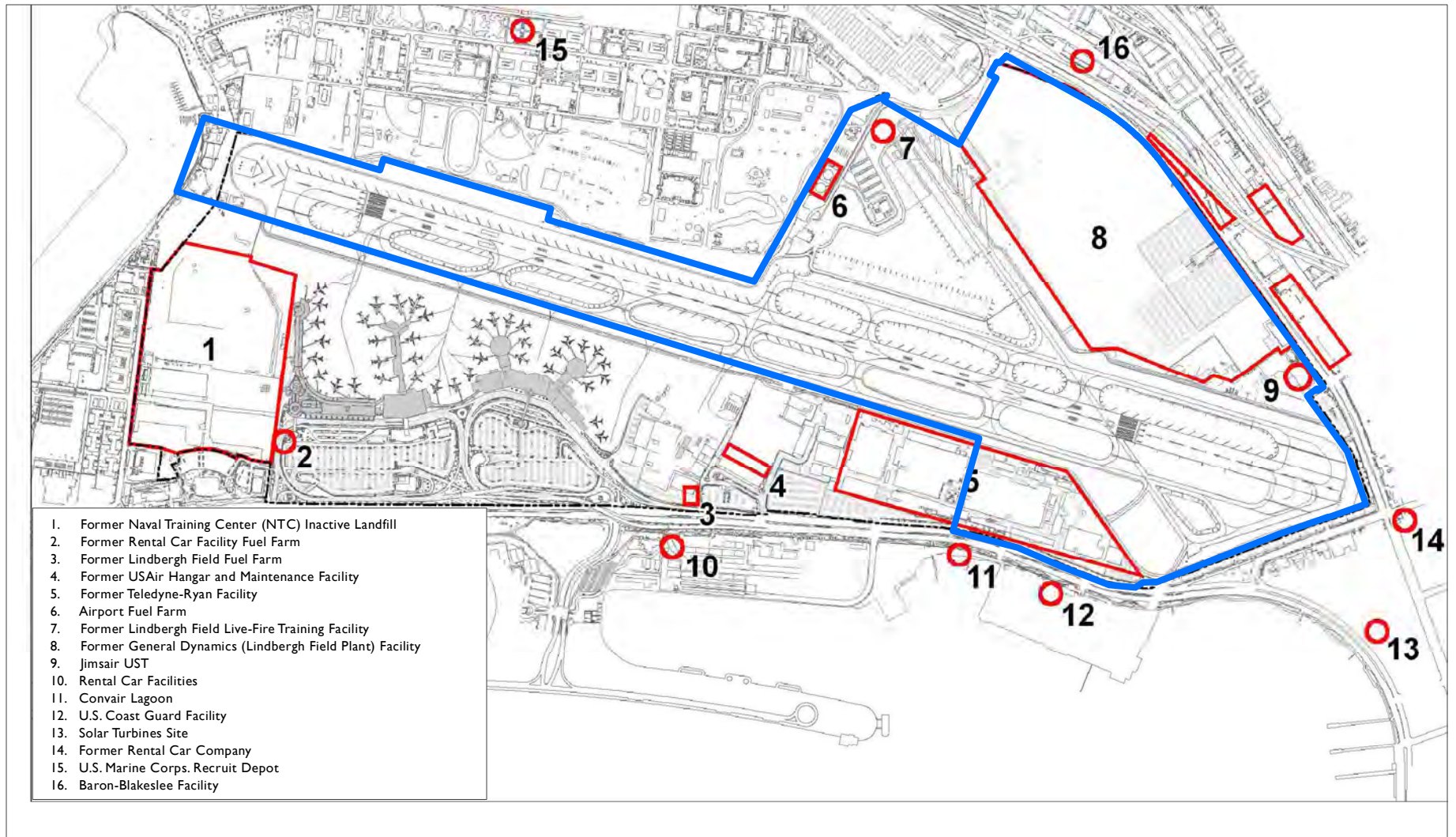
----- LOCAL -----

- SDAPCD Rules 50, 51, and 59 – Requires permits, monitoring plans, and other dust mitigation measures for large scale construction projects and waste sites.

SOURCE: HNTB Corporation, Final Environmental Assessment, *San Diego International Airport Master Plan, Near Term Improvements*, April 2009.  
 PREPARED BY: KBE Environmental Sciences, Inc., 2009.

There are also a number of sites and facilities located on, or adjacent to, Airport property that are known, or have the potential, to contain environmental contamination of the soil and/or groundwater. The identification of these sites is again based upon documents and other sources of information possessed by SDIA staff; an electronic search of federal, state and local agency databases; and an in-the-field survey of existing conditions. From this assessment, 15 individual sites (8 on the Airport and 7 off the Airport) are identified on **Figure 3-7** and discussed in **Table 3-5**.

Importantly, there are no sites or facilities at SDIA or in the immediate vicinity that are listed on the federal “Superfund” National Priorities List (NPL).



SOURCE: HNTB Corporation, Final Environmental Assessment, San Diego International Airport, Near Term Improvements, April 2009.  
 PREPARED BY: Ricondo & Associates, Inc., April 2012.

**FIGURE 3-7**

Sites and Facilities Reported or with the Potential to Contain Hazardous Materials or Environmental Contamination in the Vicinity of SDIA



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**Table 3-5 (1 of 2) Sites and Facilities Reported or with the Potential to Contain Hazardous Wastes or Environmental Contamination in the Vicinity of SDIA**

----- ON AIRPORT PROPERTY -----			
SITE NO.	NAME	LOCATION	SUMMARY DESCRIPTION
1.	Former NTC Inactive Landfill	S.W. sector of airport, N. of Harbor Dr., E. of Navy Lagoon and W. of Term. 2 West	52-acre site formerly used by NTC and MCRD from the 1940s to 1971 as a municipal landfill for consumer waste, burn ash, and construction debris. The landfill site has been remediated and is currently being redeveloped as part of The Green Build at SDIA.
2.	Former Rental Car Facility Fuel Farm	S.W. sector of airport, N. of Harbor Dr. and S. of Term. 2 West	2-acre site formerly used as a rental car facility and contained USTs. The buildings and tanks have been removed and the site is now covered by an asphalt roadway and parking lot. Residual soil/groundwater contamination remains in place.
3.	Former Lindbergh Field Fuel Farm	S.-central boundary of airport, N. of Harbor Dr. and W. of the Commuter Term.	5-acre site formerly used until 1995 as a fuel storage facility for jet fuel, av-gas and motor vehicle fuel. The tanks have been removed and the site is presently occupied with a one story office building and adjoining asphalt parking lot. Residual soil/groundwater contamination remains in place.
4.	Former US Air Hangar and Maintenance Facility (Commuter Terminal)	S. central sector of airport, N. of and adj. to the Commuter Term.	4-acre site formally occupied by an aircraft/GSE maintenance facility. Now covered with asphalt and concrete apron, the residual soil and groundwater contamination is not reported to be significant.
5.	Former Teledyne Ryan Facility	S.E. sector of airport, N. of Harbor Dr.	Also known as the former Northrop Grumman Corp. and Ryan Aeronautical Company facility, this 47-acre site is undergoing remediation.
6.	Airport Fuel Farm	N. central sector of airport	Site of the existing Airport fuel farm. Contains two 1 million-gallon aboveground storage tanks for jet fuel. No reported environmental contamination or significant leaks.
7.	Former Lindbergh Field Live-Fire Training Facility	N. central sector of airport near Runway 13	This 3-acre site was used until 1987 for live-fire training. Now covered with dirt or asphalt, the extent of residual soil/groundwater contamination (if any) is unknown.
8.	Former General Dynamics (Lindbergh Field Plant) Facility	N.E. sector of airport; S. of Pacific Hwy.	90-acre site formerly used for manufacturing of aircraft and other military equipment. Presently vacant and serves as a staging area for unloading trucks and parking cars. Chemicals of concern include chlorinated hydrocarbons, petroleum hydrocarbons and chromium. Designated for "open field" land-uses.
9.	Jimsair UST	S.E. of Site No. 8	Underground storage tank (UST) associated with an existing Fixed-base operator (FBO).

**Table 3-5 (2 of 2) Sites and Facilities Reported or with the Potential to Contain Hazardous Wastes or Environmental Contamination in the Vicinity of SDIA**

----- OFF AIRPORT PROPERTY -----			
SITE NO.	NAME	LOCATION	SUMMARY DESCRIPTION
10.	Rental Car Facilities	S. of airport property, S. of Harbor Dr.	Sites contain USTs for storage of motor vehicle fuel. No reported soil or groundwater contamination or significant spills.
11.	Convair Lagoon	S. of airport property, W. of the U.S. Coast Guard facility and S. of Harbor Dr.	10-acre shallow embayment, site of stormwater conveyance system outfall. Evidence of polychlorinated biphenyl (PCB) contamination in sediments reported in 1979. Sampling indicates the former Teledyne Ryan Facility is the primary source.
12.	U.S. Coast Guard Facility	S.E. of airport property, and S. of Harbor Dr.	Facility is listed on federal and state lists for hazardous materials and USTs. No reported soil or groundwater contamination or significant spills.
13.	Solar Turbines Site	S.W. of airport property, N. of Harbor Dr.	Site of former aircraft parts manufacturing facility. Site is listed on federal and state lists for environmental corrective action.
14.	Former Rental Car Company	S.E. of airport property, E. of Runway 27	Site of former rental car service facility. Soil and groundwater contamination reported but is not expected to migrate onto adjoining properties.
15.	U.S. Marine Corps Recruit Depot	N.W. of and adjoining airport property	Facility is listed on federal and state lists for hazardous materials use and USTs. No reported soil or groundwater contamination or significant spills.
16.	Baron-Blakeslee Facility	N.E. of airport between Pacific Hwy. and I-5	Chemical use and storage facility listed on state lists for environmental corrective action.

SOURCE: HNTB Corporation, Final Environmental Assessment, *San Diego International Airport Master Plan, Near Term Improvements*, April 2009.  
 PREPARED BY: KBE Environmental Sciences, Inc., 2009.

### 3.8.2 SOLID WASTE

In accordance with FAA Order 1050.1E, impacts to solid waste resulting from the Sponsor’s Proposed Action were considered.

In September 1989, the California Integrated Solid Waste Management Act (also known as Assembly Bill [AB] 939) was enacted into law. The Integrated Waste Management Authority (IWMA) establishes an integrated system of waste management in California and requires each local jurisdiction to implement a Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE), and Non-Disposal Facility Element (NDFE). The IWMA requires that the Siting Element be prepared by the county and approved by the County Board of Supervisors and a majority of the cities within the county. The IWMA requires each city in the state to divert at least 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting.

As described in the County Integrated Waste Management Plan,<sup>40</sup> the system of collection, removal and disposal of solid waste in the jurisdictions of San Diego County has evolved from the direct haul of waste to county or city owned landfills, to a system that integrates waste management alternatives. The current methods include separate collection of refuse and recyclables, and in certain cases removal of recyclables from waste at transfer stations. Collections are made by permitted and franchised haulers, which provide these services, by agreement, for ratepayers. In 2006, San Diego County was diverting 56 percent of its solid waste from landfill disposal through source reduction, recycling, and composting.<sup>41</sup>

There are seven existing landfills in San Diego County, five accept municipal solid waste and two accept only military waste. Of the five landfills that accept municipal solid waste, four are privately owned and operated by Allied Waste Industries, Inc. The fifth, Miramar Landfill, is operated by the City of San Diego on land owned by the U.S. Navy.

Solid waste generated in the Study Area is generally collected by private contractors and transported to the Miramar Landfill. The Miramar Landfill is located at 5180 Convoy Street and is operated by the City's Development Services Department, Solid Waste Local Enforcement Agency (under a lease agreement with the Marine Corps Air Station Miramar). It has a current remaining capacity of approximately 16.5 million cubic yards.<sup>42</sup> The landfill is expected to operate and accept refuse through the year 2016.

The City of San Diego has an agreement with Allied, Inc., the owner/operators of Sycamore Sanitary Landfill, to provide San Diego preferred customer status if the capacity exists to accept waste after Miramar closes. Sycamore Sanitary Landfill is located on a 520-acre site and is permitted to receive 3,965 tons of waste for disposal daily. Sycamore Sanitary Landfill is fully permitted as a Class III landfill and accepts only routine household and commercial waste. Based on a revised permit for the landfill issued on September 15, 2006, Sycamore Canyon Landfill is anticipated to be at capacity in the year 2031.<sup>43</sup>

### 3.9 Past, Present, and Reasonably Foreseeable Future Actions

Cumulative impacts to environmental resources result from incremental effects of future actions combined with other past, present, and reasonably foreseeable future actions in the area. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (federal, state, and local) or individuals. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or planned for

<sup>40</sup> County of San Diego Department of Public Works, Solid Waste Planning and Recycling. *San Diego County Integrated Waste Management Plan, Consisting of: Countywide Summary Plan & Countywide Siting Element, 2005 5-Year Revision, Final*. Approved and Adopted by the Board Of Supervisors January 5, 2005. Approved by the California Integrated Waste Management Board September 20-21, 2005.

<sup>41</sup> County of San Diego Department of Public Works, *Five-Year Review Report of the County Integrated Waste Management Plan for the County of San Diego*, March 23, 2011.

<sup>42</sup> CalRecycle, *Facility/Site Summary Details, West Miramar Sanitary Landfill*, [www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0020/Detail/](http://www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0020/Detail/) (accessed April 4, 2012).

<sup>43</sup> CalRecycle, *Facility/Site Summary Details, Sycamore Sanitary Landfill*, [www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0023/Detail/](http://www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0023/Detail/) (accessed April 4, 2012).

implementation in the near future, is required. For purposes of this analysis, projects implemented within the last 5 years or proposed to be implemented within the next 5 years located within 1-mile of the proposed northside improvements were identified (see **Table 3-6**).

**Table 3-6 (1 of 3) Past, Present, and Reasonably Foreseeable Future Actions in the Study Area**

PAST ACTIONS			
PROJECT NAME	LOCATION	DESCRIPTION	CURRENT STATUS
Laurel and Kettner Parking	West corner of Kettner Blvd. & W. Laurel St.	442,358 square-foot parking structure was constructed on this 0.85-acre formerly Industrial Small Lot (IS-1-1) Zone. Mitigated Negative Declaration issued May 2007 for this project.	Completed.
Date Street Storm Drain Improvements	Date Street & Kettner Blvd.	Date Street storm drain improvements completed by the Centre City Development Corporation in the area of Kettner Blvd. and India St.	Completed August 2010.
Water and Sewer Pipeline Projects in Point Loma	Point Loma area (west of SDIA)	Various sewer and water infrastructure replacement projects in the Point Loma area.	Completed 2011.
NTC Park	Former Naval Training Center	46-acre public park with 3-acre eastern shoreline esplanade area at the former Naval Training Center.	Completed December 2009.
The Pavilion on Broadway Pier	Broadway Pier	Port Pavilion on Broadway Pier is a 52,000 square-foot multi-use facility that includes a cruise ship terminal to accommodate 2,600 passengers, a shore power system, and Leadership in Energy and Environmental Design (LEED)-certified design.	Completed December 2010.
Veterans Village of San Diego	4141 Pacific Highway	This project includes a \$22 million rehabilitation center and a range of services to homeless veterans. Phase I included a 112-bed early treatment facility and state-of-the-art living and support facilities. Phase II added an additional 112 beds, a medical facility, employment center and an administration building. Phase III added 96 additional beds, a storage warehouse and 125 parking spaces.	Phase I completed July 2006. Phase II completed September 2009. Phase III completed in December 2010.
Expand existing Terminal 2 West with 10 new jet gates	SDIA	Construct an addition to the existing Terminal 2 West that includes approximately 430,100 square feet of new space, 10 additional aircraft gates, and approximately 2,250 lineal feet of new and reconfigured vehicle curb front on two levels and approximately 1,800 feet of lineal curb front dedicated to commercial vehicles in a transit plaza.	Completed April-July 2013.
Construct new aircraft parking and replacement Remain-Over-Night aircraft parking apron	SDIA	Construct new aircraft parking apron to accommodate up to 10 jet aircraft adjacent to the new Terminal 2 West taxiway.	Completed April-July 2013.
Construct new apron and aircraft taxiway	SDIA	Build new aircraft apron pavement adjacent to and west of the new aircraft gates at Terminal 2 West. It will be used as an aircraft taxiway for aircraft to taxi between the runway and the new gates.	Completed April-July 2013.

**Table 3-6 (2 of 3) Past, Present, and Reasonably Foreseeable Future Actions in the Study Area**

<b>PRESENT ACTIONS</b>			
<b>PROJECT NAME</b>	<b>LOCATION</b>	<b>DESCRIPTION</b>	<b>CURRENT STATUS</b>
Pacific Highway Trunk Sewer Project	Pacific Highway from Grape St. to Sassafras St.	Install 496 linear feet of new 30-inch pipe and manholes on Grape Street from North Harbor Drive to Pacific Highway. Rehabilitate 4,630 linear feet of 36-inch and 39-inch pipe in Pacific Highway and associated manholes from Grape Street to Sassafras Street by slip-lining the pipes with 30-inch HDPE pipe.	Under construction (estimated to be completed in 2013).
Residential Project Block 2E	Mission Hills	Utilities undergrounding program to underground 30,743 linear ft. of utility lines.	Trenching work completed in the summer of 2012. Street resurfacing estimated to be complete in 2013.
Shelter Island/America's Cup Harbor Redevelopment	Shelter Island Area	Development plans include three buildings, a 50-slip marina, a 16,000 sq. ft. park and shoreline promenade. The marina, park, pedestrian pier and recreation dock and dining facilities have been completed under Phase I.	Currently undergoing Phase II development.
Construct new parking structure and vehicle circulation serving Terminal 2	SDIA	New multi-level parking structure accommodating a departure curb on the second level adjacent to Terminal 2 to accommodate forecasted growth of passengers expected by 2015. The structure would be 5 levels, adding 3,700 new parking spaces, a departure curb, and a commercial vehicle curb for shuttles, buses, taxis and shared-ride vans.	Project designed in 2012; construction estimated to begin February 2014 and be completed by 2015.
Rehabilitation of the Existing SDIA Runway 9 Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR)	SDIA – MALSR environment and platforms (ground- and water-based) off the approach end of Runway 9	Rehabilitation to maintain safety margins at the Airport, particularly during inclement weather, and to enhance safety of FAA maintenance technicians. Includes removing 6 timber piles, installing 6 new piles, replacing wooden platforms with wider platforms, providing new ladders and guardrails at the platforms, and replacing submarine power/control cables.	Rehabilitation started in 2012.
North Embarcadero Port Master Plan: Grape Street Block	From Laurel Street/Harbor Drive to G Street Mole Park	Future development of the North Embarcadero waterfront. Grape Street block features: Mixed use parking facility that could include a hostel, parking, retail, restaurant, office and cultural uses.	Master Plan undergoing amendments, Environmental Impact Report (EIR) in progress.
Harbor Drive Pipelines Replacement Project	Midway/North Bay and Peninsula Communities Planning Areas	This project will replace two sixteen-inch diameter water mains with new sixteen-inch PVC water mains. It will replace 4.4 miles of cast iron pipelines that have reached the end of their useful life. The new PVC water mains will be installed using open trench construction methods in public streets and roadways.	Construction began in summer 2012 and is estimated to be completed by summer 2013.
San Diego County Park	Along North Harbor Drive between Ash St. and Grape St.	This county park will be located along North Harbor Drive and required the demolition of the J.B. Askew Building.	Scheduled for completion in 2013.

**Table 3-6 (3 of 3) Past, Present, and Reasonably Foreseeable Future Actions in the Study Area**

FUTURE ACTIONS			
PROJECT NAME	LOCATION	DESCRIPTION	CURRENT STATUS
Palm Project	Palm Street & Pacific Highway	Construct Intermodal facility with public parking, linkage to Palm Street trolley station, cruise ship baggage handling facility, bus station, shuttle depot and 10,000 square feet of retail.	Undergoing design and environmental review. Earliest completion estimated mid-2014.
Demolish the existing general aviation facilities to improve airport safety and circulation on airfield	SDIA	Existing general aviation facilities would be demolished to accommodate airfield/taxiway improvements. The removal of subsurface structures and site remediation, including removal of existing underground storage tanks, would be conducted.	Project design and environmental review in 2012; construction estimated to begin September 2013 and be completed in 2014.
Proposed Runway 9 Displaced Threshold Relocation	SDIA – Runway 9 end and MALSR environment	Relocating the displaced threshold by 300 feet (from 700 feet to 1,000 feet), relocating the threshold and MALSR lights, and relocating the glide slope antenna to meet FAA Approach Category D, Category I instrument approaches.	Draft EA published July 10, 2013 for a 30-day review period.
Sunroad Harbor Island Hotel	Eastern side of Harbor Island	A four-story, 175-room hotel and associated facilities on Harbor Island.	Conceptual plans approved in June 2011.
Hancock Street Mixed-Use Project	Hancock St. and Washington St.	Mixed-use housing project to be redeveloped on 1.26-acre former light industrial site. 53 unit multi-use facilities planned for construction.	Unknown.
Pacific Beach Pipeline South	Various, including Pacific Highway from Enterprise St. to Upas St.	The project proposes the installation of 38,725 linear feet of water main and 6,731 linear feet of sewer main along with the abandonment of the Pacific Beach Reservoir, which is no longer in use.	In design phase. Construction from 2015-2018.
Water Group 954	Pacific Highway from Upas St. to Laurel St.	Water main replacement along Pacific Highway	In planning stage. Construction from 2016-2017.

SOURCES: San Diego County Regional Airport Authority, *Final Environmental Assessment-San Diego International Airport Master Plan, Near Term Improvements*, 2009; Centre City Development Corporation, <http://www.ccdc.com/projects.html>, 2011; City of San Diego, Engineering and Capital Projects: Featured Projects in Construction, <http://www.sandiego.gov/undergrounding/schedule/current.shtml>, 2011; City of San Diego, North Bay Redevelopment Project Area, 2011; Port of San Diego: Development Projects, <http://www.portofsandiego.org>, 2011.

PREPARED BY: Ricondo & Associates, Inc., July 2013.

## 4. Environmental Consequences

The potential environmental consequences associated with the No Action and the Proposed Action alternatives are discussed in this chapter. The environmental categories evaluated, as specified in FAA Order 1050.1E<sup>1</sup> are as follows:

- Noise
- Compatible Land Use
- Socioeconomic Impacts, Environmental Justice, and Children’s Health and Safety Risks
- Secondary (Induced) Impacts
- Air Quality
- Water Quality
- Wetlands
- Floodplains
- Coastal Resources
- Fish, Wildlife, and Plants
- Department of Transportation Act, Section 4(f)/303(c) Properties
- Historic, Archaeological, Architectural, and Cultural Resources
- Light Emissions and Visual Impacts
- Natural Resources and Energy Supply
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Construction Impacts
- Cumulative Impacts

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<sup>1</sup> U.S. Department of Transportation, Federal Aviation Administration, Order 1050.1E, *Environmental Impacts: Policies and Procedures*, Change 1, effective March 20, 2006.

The following environmental resources are not present within the Study Area and, therefore, would not be affected by the No Action or Proposed Action: farmlands and wild and scenic rivers. SDIA is underlain by artificial fill and bay deposits, neither of which is identified in the Soil Candidate Listing for prime farmland and farmland of statewide importance by the United States Department of Agriculture (USDA). The closest designated farmland to SDIA is unique farmland associated with Miramar Wholesale Nurseries located over eight miles north of SDIA near the Marine Corps Air Station Miramar.<sup>2</sup> Therefore, the Proposed Action would not have an impact on prime or unique farmland, or farmland of statewide importance. According to the Nationwide Rivers Inventory, no rivers federally classified as wild or scenic are located in San Diego County.<sup>3</sup> The nearest river designated as wild and scenic is Bautista Creek located in Riverside County approximately 50 miles northeast of SDIA (Bautista Creek is designated as Recreational).<sup>4</sup> Because there are no designated wild and scenic rivers near SDIA, the Proposed Action would have no impact on wild and scenic rivers.

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## 4.1 Noise

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Per FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, requirements for a noise analysis pertain to evaluating potential increases in aviation-related noise from a proposed action. As indicated in Chapter 2, Alternatives, the Proposed Action would not affect (increase or decrease) the number of existing aircraft operations at SDIA or the routing of aircraft in the air to and from the Airport. The following discussion regarding projected changes in aviation noise at and in the vicinity of SDIA modeled for future year 2014 is presented for information purposes.

### 4.1.1 METHODOLOGY

Noise exposure maps (NEMs) for SDIA were completed in 2009 as part of the Part 150 Update.<sup>5</sup> The Part 150 Update generated CNEL contours for existing conditions (2009) and future conditions (2014). The methodology utilized to create the NEM noise contours is described in **Appendix B**. Because the Proposed Action would have no effect on the number or type of aircraft operations nor would it effect flight tracks, the 2014 CNEL 65 dB noise contour is reasonably representative of the future noise conditions at SDIA. **Figure 4-1** depicts the 2014 noise contour. Since the Proposed Action would not affect flight tracks or aircraft activity levels, and no changes to the airfield would occur under the Proposed Action, the 2014 noise contour is the same under both the No Action and Proposed Action alternatives.

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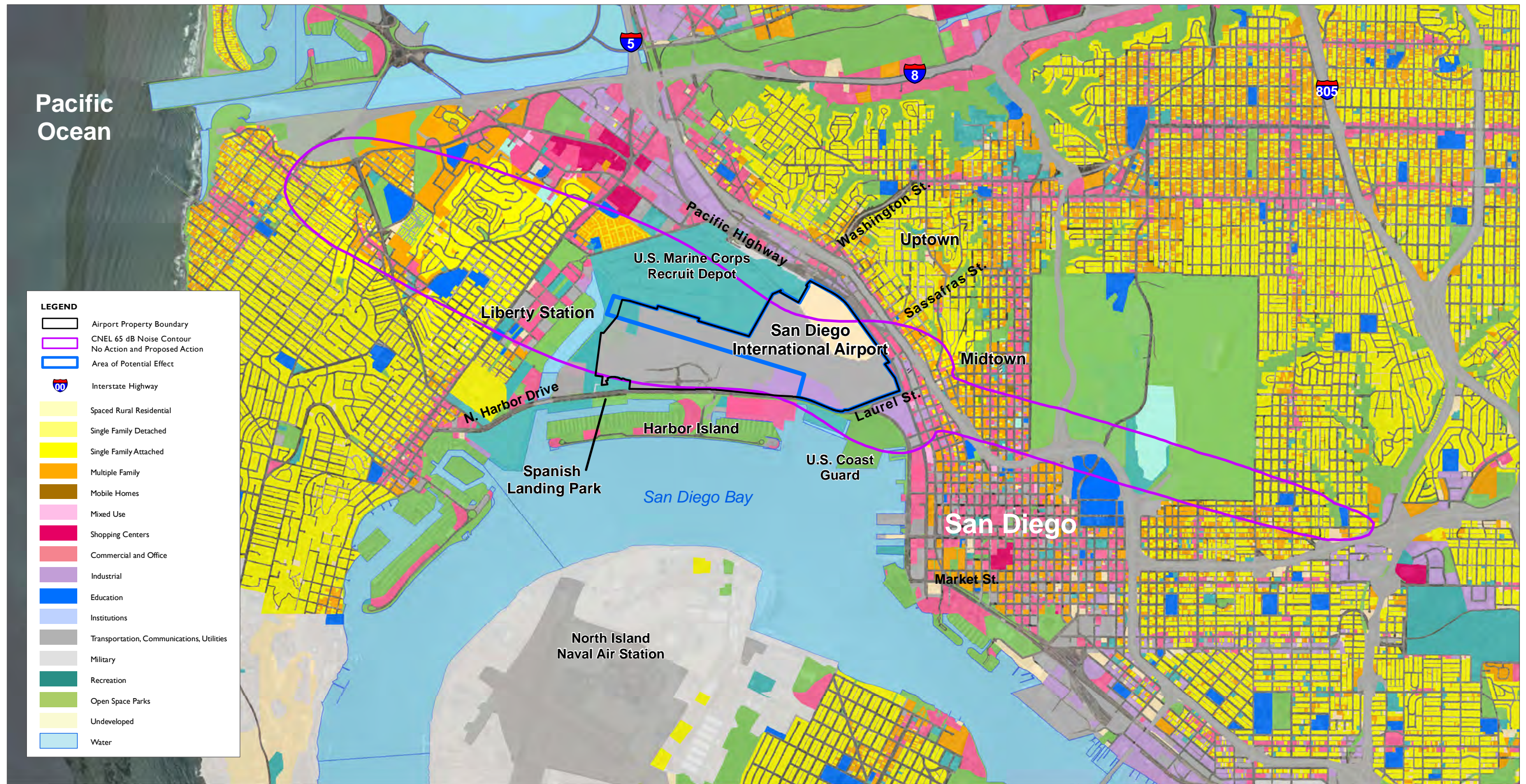
<sup>2</sup> California Dept. of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, "San Diego County Important Farmland 2008," October 2010, [ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/sdg08\\_west.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/sdg08_west.pdf) (accessed January 21, 2013).

<sup>3</sup> U.S. Department of the Interior, National Parks Service, "Nationwide Rivers Inventory – California Segments," National Center for Recreation & Conservation, modified February 27, 2009, [www.nps.gov/nrcr/programs/rtca/nri/states/ca.html](http://www.nps.gov/nrcr/programs/rtca/nri/states/ca.html) (accessed January 21, 2013).

<sup>4</sup> National Wild and Scenic Rivers System, Nationwide Rivers Inventory, "California," [www.rivers.gov/rivers/](http://www.rivers.gov/rivers/) (accessed January 21, 2013).

<sup>5</sup> San Diego County Regional Airport Authority, *San Diego International Airport Part 150 Update, Noise Exposure Maps*, August 2009.





**LEGEND**

- Airport Property Boundary
- CNEL 65 dB Noise Contour No Action and Proposed Action
- Area of Potential Effect
- Interstate Highway
- Spaced Rural Residential
- Single Family Detached
- Single Family Attached
- Multiple Family
- Mobile Homes
- Mixed Use
- Shopping Centers
- Commercial and Office
- Industrial
- Education
- Institutions
- Transportation, Communications, Utilities
- Military
- Recreation
- Open Space Parks
- Undeveloped
- Water

SOURCE: Ricondo & Associates, Inc., April 2012, based on GIS datasets received from the City of San Diego, SanGIS and SANDAG (datasets were updated based on field surveys conducted in July and November 2011); HMMH, San Diego International Airport, Part 150 Update, Noise Exposure Maps, August 2009; Bing Maps Aerial 2011.  
 PREPARED BY: Ricondo & Associates, Inc., April 2012.

**FIGURE 4-1**



**2014 CNEL 65 dB Noise Contours  
 No Action and Proposed Action**

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The proposed Northside Improvements would not change, alter or affect aircraft noise. The noise contour maps are provided in the EA since the SDCRAA was concurrently developing a Draft EA for the Proposed Runway 9 Displaced Threshold; these noise contours are included for consistency purposes. The NEM contours presented in Figure 4-1 provide a reasonable representation of the noise contours anticipated to be generated by aviation activity at SDIA in the general timeframe of the Proposed Action.

#### 4.1.2 NO ACTION ALTERNATIVE

The No Action alternative would not affect (increase or decrease) the number of existing aircraft operations at SDIA or the routing of aircraft in the air to and from the Airport. There would be no change in noise levels due to aircraft operations when compared to the Proposed Action for the same timeframes.

#### 4.1.3 PROPOSED ACTION

No changes to existing air traffic patterns would occur under the Proposed Action compared with the No Action alternative. Additionally, the Proposed Action would not result in a change in the number or type of aircraft operations at the Airport compared with the No Action alternative. There would be a change in taxiing patterns for cargo and GA aircraft to and from the new facilities; however, these aircraft would remain on the northside of the airfield, just going to locations located closer to Runway 9-27, which would not have a significant effect on the aircraft noise contours for SDIA. Thus, no change to areas exposed to significant levels of aircraft noise in the Airport environs would occur under the Proposed Action compared with the No Action alternative. Thus, the Proposed Action would not cause a significant noise impact.

#### 4.1.4 MITIGATION MEASURES

The Proposed Action would have no impact on aviation noise, and therefore no mitigation is required.

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## 4.2 Compatible Land Use

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Impacts to existing and planned land uses in the vicinity of an airport are usually associated with the extent of aircraft noise impacts related to that airport. As indicated in Section 4.1, Noise, above, the alternatives would not increase the CNEL under aircraft approach and departure paths.

This section presents a summary of existing land use plans and policies that affect the APE and surrounding area. Land use plans that apply include City of San Diego Community and Redevelopment Plans, Navy Redevelopment/Reuse Plans, and the Port Master Plan. The potential land use impacts of the alternatives are identified in relation to each of the on-site and surrounding land use plans.

#### 4.2.1 METHODOLOGY

This analysis documents the existing onsite and offsite land uses and the surrounding area land use plans and policies. The offsite land uses consist of the adjacent military facility, nearby communities, and recreation areas. The relevant offsite land use plans consist of the City of San Diego General Plan, Community Plans,

Land Development Code, and Port Master Plan. Additionally, the analysis is based on a site reconnaissance of the APE and the surrounding communities.

In accordance with FAA Order 1050.1E, the Proposed Action is compatible with existing and future land uses if the noise analysis conducted for the Proposed Action concludes that there is no significant impact. The Airport Development Grant Program (49 USC 47101 *et seq.*) requires that the FAA cannot approve a project, unless it is consistent with plans (existing at the time the project is approved) of public agencies for development of the area in which the airport is located 49 USC 47106(a)(10).

Documentation is provided within this EA to support the Airport sponsor's assurance under 49 USC 47107(a)(10) of the 1982 Airport Act that appropriate action is being taken to the extent reasonable to restrict the use of land adjacent to or in the immediate vicinity of the Airport to activities and purposes compatible with normal airport operations (see **Appendix C** for the Land Use Assurance letter for SDIA).

#### 4.2.2 NO ACTION ALTERNATIVE

This section evaluates the potential effects of maintaining the existing condition of the Northside Improvements area at SDIA. Under the No Action alternative, there would be no changes to the existing airside facilities, cargo facilities, or landside access facilities.

The No Action alternative would not develop an RCC, air cargo warehouse facilities and associated improvements, a Terminal Link Roadway, or utilities improvements that would improve airport operations. The No Action alternative would not result in any changes that would cause a significant noise impact, or defer appropriate action that is being taken to consider and control the use of land adjacent to or in the immediate vicinity of the Airport to activities and purposes compatible with normal airport operations. The No Action alternative would, however, be inconsistent with the approved Airport Master Plan, which includes the proposed improvements as integral components of the overall land use plan and development framework for the long-term future of the Airport. Implementation of this alternative would, therefore, have a significant land use impact.

#### 4.2.3 PROPOSED ACTION

As described in Section 4.1, Noise, there would be no significant aircraft noise impact for this alternative.

Since its creation in 2003, the SDCRAA has engaged in numerous federal and state measures to assure compatible land uses surrounding SDIA. These measures have included:

- Part 150 Study. The SDCRAA recently completed a FAR Part 150 Noise Compatibility Program (NCP) Update for SDIA. The NCP is composed of proposed actions to minimize existing and future aircraft noise and land use incompatibilities. These actions include noise abatement measures, noise mitigation or compensation measures, and/or preventative measures. The Draft SDIA NCP was forwarded to FAA for

review in June 2010, accepted for review in January 2011, and returned to SDIA with recommendations effective June 30, 2011.<sup>6</sup> A Record of Approval on the NCP was issued by the FAA on July 1, 2011.

- Airport Land Use Compatibility Plan. As the Airport Land Use Commission for San Diego County, the SDCRAA has been in the process of updating the Airport Land Use Compatibility Plan (ALUCP) for SDIA over the last several years. A draft ALUCP for SDIA was released in March 2013.
- Airport Land Use Commission. SDCRAA also promotes land use compatibility in their role as San Diego County's Airport Land Use Commission. Charged with protecting public health and safety around the Airport, the Commission reviews development projects around SDIA for land use compatibility and provides recommendations to the City of San Diego.
- State Variance. Since the late 1970s, the owner and operator of SDIA has received multiple variances to the California Noise Standards from Caltrans that allow SDIA to continue to operate while working toward compliance with California Noise Standards.<sup>7</sup>

A copy of a land use assurance letter in compliance with 49 USC Section 47107(a)(10) of the Airport and Airway Improvement Act of 1982 is included in Appendix C, Land Use Assurance for San Diego International Airport.

The following discussion identifies the potential land use planning impacts associated with the Proposed Action as it relates to consistency with public agency plans for development within the Airport surrounds. More specifically it reviews the Airport Land Use Compatibility Plan, the Port Master Plan/California Coastal Act, and the City of San Diego Community and Redevelopment plans.

#### 4.2.3.1 Surrounding Land Use Plan and Policies

##### *Port Master Plan/California Coastal Act*

The Port Master Plan (PMP) of the Unified Port District of San Diego serves as the equivalent of Local Coastal Program for the lands under the jurisdiction of the Port District per the California Coastal Act. Any actions within the Port District must comply with the PMP and, since the PMP must comply with and be approved by the Coastal Commission, would also be in compliance with the California Coastal Act. The Port Master Plan no longer governs SDIA, but does govern a significant portion of the area surrounding SDIA. Because of this, the plans and policies of the PMP were reviewed here in relation to the Proposed Action. The planning goals of the PMP relevant to Coastal Act compliance and the project, followed by the project consistency analysis for each, include the following:

- Provide for the present use and enjoyment of the bay and tidelands in such a way as to maintain options and opportunities for future use and enjoyment.

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<sup>6</sup> FAA's cover letter and Record of Approval is provided on the SDCRAA website at [http://www.san.org/documents/airport\\_noise/part150/FAA\\_Part\\_150\\_NCP\\_Letter\\_of\\_Approval.pdf](http://www.san.org/documents/airport_noise/part150/FAA_Part_150_NCP_Letter_of_Approval.pdf).

<sup>7</sup> The variance is available on the SDCRAA website at [www.san.org/sdcraa/airport\\_initiatives/noise/variance.aspx](http://www.san.org/sdcraa/airport_initiatives/noise/variance.aspx).

The APE is currently being used for airport-related uses, except for a small portion that is located on U.S. Marine Corps property. The proposed improvements would not preclude alteration of area use in the future nor alter the existing use of the APE. As such, the Proposed Action would not conflict with the PMP goal to provide for the present use and enjoyment of the Bay and tidelands area adjacent to and surrounding the APE in such a way as to maintain options and opportunities for future use and enjoyment.

- The District, as trustee for the people of the State of California, will administer the tidelands to provide the greatest economic, social, and aesthetic benefits to current and future generations.

The Proposed Action, part of the larger SDIA Airport Master Plan, would result in significant economic gains to the entire San Diego region.<sup>8</sup> The proposed improvements would not result in significant adverse aesthetic impacts to surrounding regions (see Section 4.13, Light Emissions and Visual Impacts). By creating economic advantages for the region and avoiding negative aesthetic impacts, the Proposed Action would be consistent with the PMP goal to administer the tidelands area adjacent to and surrounding the APE to provide the greatest economic, social, and aesthetic benefits to present and future generations.

- District will integrate the tidelands into a functional regional transportation network.

The Proposed Action would provide a new Terminal Link Roadway, which would help alleviate Airport-related traffic on North Harbor Drive.

After the adoption of the SDIA Airport Master Plan in 2008, a multi-agency planning process was conducted to: 1) determine the ultimate build-out configuration of SDIA; 2) evaluate and plan to minimize Airport-related traffic impacts to adjacent communities; and 3) improve intermodal access to the Airport, while considering SDIA as a potential location for a regional transportation hub. In order to address these three priorities in a comprehensive manner, the Destination Lindbergh process was conducted as an integrated, regional surface and air transportation planning effort centered on SDIA (Destination Lindbergh, Executive Summary, February 12, 2009).

An alliance was formed between the City of San Diego, SANDAG, and the SDCRAA resulting in the creation of the Ad Hoc Airport Regional Policy Committee, chaired by San Diego Mayor Sanders. The Ad Hoc Committee also invited other key participants to assist in this effort, including policy makers from the Port of San Diego, County of San Diego, Metropolitan Transit System, North County Transit District and the U.S. Department of Defense. Destination Lindbergh included technical planning to provide a broad overview of existing and forecasted conditions, alternatives considered, and a development plan including an ITC to be located immediately north of, and adjacent to, SDIA and developed in a phased manner (Destination Lindbergh, Executive Summary, February 12, 2009).

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<sup>8</sup> San Diego Association of Governments. *Airport Economic Analysis*. Fall 2000.

The first phase of Destination Lindbergh was identified as "Opening Day" when activity levels between 2015 and 2020 are anticipated to reach approximately 20 million annual passengers. The Opening Day facilities included an ITC located on the north side of Pacific Highway that serves the blue and orange trolley lines as well as the Coaster/Amtrak and Metropolitan Transit System (MTS) Bus routes. A passenger walkway would connect the ITC across Pacific Highway to an RCC. The Opening Day facilities also assumed the dedicated on-airport road would provide a link for passengers to the terminals on the south side. Parking for both transit and airline passengers would be provided (Destination Lindbergh, Executive Summary, February 12, 2009).

SANDAG, as the designated Metropolitan Planning Organization for San Diego County and the region's transportation planning agency, is conducting the planning for the ITC. SANDAG is the lead agency for planning for transit facilities and has prepared preliminary concepts for the proposed ITC. The ITC is proposed at the intersection of West Washington, Hancock Streets and Pacific Highway on the north side of the heavy rail and light rail right of ways. The contemplated ITC is a transportation hub for bus, rail, and parking facilities, with the possibility of expanding to the south at a later phase to provide a high speed rail station as proposed by the California High Speed Rail Authority. It is envisioned that the connection would be provided via a pedestrian bridge to the entrance plaza of the RCC facility.

The contemplated ITC is not located within the planning or operation jurisdiction of the SDCRAA. However, consistent with the Destination Lindbergh Opening Day plan, a pedestrian bridge connection to the RCC would provide another transit connection opportunity to serve Airport passengers and employees that may use a shuttle on the terminal link road to access the ITC. As such, the Proposed Action is consistent with the Destination Lindbergh Opening Day plan. SANDAG's concepts for the ITC are preliminary and no specific plans have been incorporated into the Regional Transportation Plan (RTP) to date. In addition, in April 2011 SANDAG released the Draft 2050 RTP, which includes the development of an Airport ITC; however, the Draft 2050 RTP similarly does not include specific design plans for the ITC. The Final 2050 RTP was adopted on October 28, 2011. SANDAG would need to conduct additional planning for the ITC and complete additional procedural steps (i.e., property acquisition and environmental review). Further, SANDAG will need to coordinate actions with other agencies including the City of San Diego, MTS, Caltrans, and the North County Transit District (NCTD) to further the ITC.

Future phases of Destination Lindbergh contemplate further improvements and connections to the region's transit system, including high speed rail if developed in California. In addition, future phases of Destination Lindbergh contemplate direct ramp connections from Interstate 5 to an Airport passenger processing center along Pacific Highway. These plans are preliminary in nature and no specific projects have been identified or approved. In addition, no land acquisition has been identified. However, the Northside Improvements have been planned to be compatible with future phases of Destination Lindbergh, including an Airport passenger processing center. The preliminary design for the Northside Improvements included an estimated 200-foot setback from Pacific Highway to allow for future roadway and direct ramp connections. In addition, the remainder of the Northside Improvements fronting Pacific Highway are surface-level parking facilities that could be used in the future for structures, including a passenger processing center along Pacific Highway. As such, the Proposed Action is compatible with future phases of the Destination Lindbergh plan and does not preclude elements of the Destination

Lindbergh plan from being implemented. At this time, future phases or concepts for Destination Lindbergh are preliminary in nature.

- The District will enhance and maintain the Bay and tidelands as an attractive physical and biological entity.

The RCC and air cargo warehouse facilities and associated improvements would be developed in an architecturally attractive manner consistent with existing Airport facilities (see Section 4.13, Light Emissions and Visual Impacts). With implementation of mitigation, the Proposed Action would not result in a significant adverse biological impact (see Section 4.10, Fish, Wildlife, and Plants). By planning a visually appealing project that would not result in significant adverse biological impacts, the Proposed Action would be consistent with the PMP goal to enhance and maintain the Bay and tidelands area adjacent to and surrounding the APE as an attractive physical and biological entity.

- The District will ensure physical access to the Bay except as necessary to provide for the safety and security, or to avoid interference with waterfront activities.

The proposed Northside Improvements would be constructed on a previously developed area that is not used as a Bay access point. The proposed storm drain force main outfall would not obstruct or otherwise prohibit use of and access to the Navy Boat Channel. Therefore, the Proposed Action would be consistent with the PMP goal to ensure physical access to the Bay except as necessary to provide for the safety and security or to avoid interference with waterfront activities.

- The quality of water in San Diego Bay will be maintained at such a level as will permit human water contact activities.

The Proposed Action would not result in significant water quality impacts (see Section 4.6, Water Quality). Therefore, the Proposed Action would be consistent with the PMP goal to maintain San Diego Bay water quality at such a level as will permit human water-contact activities.

- The District will protect, preserve, and enhance natural resources, including natural plant and animal life in the Bay, as a desirable amenity, an ecological necessity, and a valuable and usable resource.

The proposed Northside Improvements would be located on a previously developed area and, with implementation of mitigation, would not significantly impact any biological resources (see Section 4.10, Fish, Wildlife, and Plants). Therefore, the Proposed Action would be consistent with the PMP goal to protect, preserve, and enhance natural resources, including natural plant and animal life in the Bay as a desirable amenity, an ecological necessity, and a valuable and usable resource.

Although the proposed improvements are located outside of the PMP jurisdiction, the above review demonstrates the consistencies of the Proposed Action with many of the PMP goals and policies. As such, the impacts of the Proposed Action related to the goals and policy of the PMP would not be considered significant.



### *City of San Diego Land Use Plans and Policies*

This section discusses the compatibility of the Proposed Action with the City of San Diego Land Use Plans and Policies. More specifically the City's General Plans, Community and Precise Plans, and Redevelopment Plans were reviewed.

### *City of San Diego General Plan*

The proposed improvements would be located on land within the existing Airport. These improvements include additions to cargo, utility, and ground transportation facilities. Current and historic land uses of the land in the APE would continue to be on those areas noted for Airport-related uses. Use of this land for the proposed improvements would be consistent with the highly disturbed current and past uses of the land.

The proposed improvements would not extend into surrounding communities. As such, there would be no significant disruption or division of the established communities. Therefore, the Proposed Action would not cause significant offsite disruption impacts to the City of San Diego or its communities.

There would be no significant change in the noise contours to the surrounding communities of the general plan based on the Proposed Action. As a result there would be no significant impacts to these communities related to noise (see Section 4.1, Noise).

### *City of San Diego Community and Precise Plans*

The compatibility of the Proposed Action with the City of San Diego's Community and Precise Plans for communities adjacent to and surrounding SDIA are discussed in this section.

### Midway-Pacific Highway Corridor Community Plan

The Midway-Pacific Highway Corridor Community Plan is not consistent with the adopted ALUCP. However, the Proposed Action does not cause the inconsistency with the ALUCP.

### Uptown Community Plan

The policies in the Uptown Community Plan recommending the protection of views on the western slopes are addressed in Section 4.13, Light Emissions and Visual Impacts. The Uptown Community Plan is not consistent with the adopted ALUCP. However, the Proposed Action does not cause the inconsistency with the ALUCP.

### Peninsula Community Plan

The Peninsula Community Plan defines the major views of the area to be those to "the San Diego Bay, the downtown, Coronado, Mission Bay and Pacific Beach." Section 4.13, Light Emissions and Visual Impacts, presents an evaluation of the potential impacts to key views, neighborhood character, and aesthetics in the nearby CPAs. Peninsula CPA views would not be significantly impacted by the proposed improvements visible to a viewer in the Peninsula area.

As discussed in Section 4.13, Light Emissions and Visual Impacts, lighting and glare would be similar to existing Airport lighting and would exist along with the lighting of the highly urbanized area. Therefore, the light emissions would not significantly impact the surrounding neighborhood views to San Diego Bay, downtown, Coronado, Mission Bay, or Pacific Beach.

The Peninsula Community Plan is not consistent with the adopted ALUCP. However, the Proposed Action does not cause the inconsistency with the ALUCP.

#### San Diego Downtown Community Plan

The San Diego Downtown Community Plan has been determined to be conditionally consistent with the existing SDIA ALUCP. The Proposed Action would be consistent with the ALUCP.

#### *Naval Training Center (NTC) Precise Plan*

None of the proposed improvements associated with the Proposed Action would be located on former NTC land recently acquired by SDIA. On June 12, 2001, the Port District incorporated the former NTC land designated for "Airport Expansion" (approximately 52-acres), which was transferred from the City of San Diego. Therefore, the Proposed Action would be consistent with the NTC Precise Plan.

#### *City of San Diego Redevelopment Plans*

This section discusses the compatibility of the Proposed Action with the City of San Diego Redevelopment Plans and Policies.

#### North Bay Redevelopment Plan

The North Bay Redevelopment Plan is not consistent with the adopted ALUCP. However, the Proposed Action does not cause the inconsistency with the ALUCP.

#### NTC Redevelopment/Re-use Plan

None of the proposed improvements associated with the Proposed Action would be located on former Naval Training Center land recently acquired by SDIA. On June 12, 2001, the Port District incorporated the former NTC land designated for "Airport Expansion" (approximately 52-acres), which was transferred from the City of San Diego. Therefore, the Proposed Action would be consistent with the NTC Redevelopment/Re-Use Plan.

#### *City of San Diego Airport Plans and Policies*

This section discusses the compatibility of the Proposed Action with the City of San Diego Airport Plans and Policies.

#### City of San Diego Airport Approach Overlay Zone

The proposed improvements, including the RCC and cargo facilities, would not exceed height limits identified by FAA regulations. Ultimately, the FAA would review building plans to ensure that the proposed

improvements do not obstruct navigable airspace or affect safety of aircraft and passengers. As such, the Proposed Action would not have a significant land use impact.

#### City of San Diego Airport Environs Overlay Zone

Review of the City of San Diego Airport Environs Overlay Zone (AEOZ), which aims to protect the public from noise or hazards associated with aircraft operations at SDIA, indicates that the Proposed Action would be consistent with the stated purpose of the AEOZ. The implementation of the proposed improvements would not change noise exposure within the Airport Influence Area (see Section 4.1, Noise). The noise impact of the SDIA Airport Master Plan, which includes the proposed Northside Improvements, would be less than or equal to the impact assumed in the adopted ALUCP, which is the standard of review under the AEOZ for projects submitted to the City of San Diego. As such, this impact would not be significant.

Existing land uses in the area immediately adjacent to the APE include Liberty Station (the former NTC), MCRD San Diego, and Airport-related facilities. The greater area outside the APE is developed with residential, urban commercial, recreational open space, and military industrial uses.

The Proposed Action would be compatible with the existing terminal buildings, ground transportation and air support facilities already at SDIA. Therefore, the Proposed Action would not have any significant land use compatibility impacts.

#### 4.2.4 MITIGATION MEASURES

With no significant land use impacts identified for the alternatives considered, with the exception of the No Action alternative, no mitigation measures are necessary or, in the case of the No Action alternative, available. However, to ensure that land use compatibility is considered for adjacent development, future land uses surrounding the SDIA shall follow the allowable land uses and policies as defined in the approved ALUCP and Part 150 Study for SDIA.

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## 4.3 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

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The Proposed Action and No Action alternatives were evaluated for the potential to result in the relocation of residences and businesses as well as the potential to alter surface transportation patterns, divide established communities, disrupt orderly planned development, or create an appreciable change in employment. This section also addresses the potential for the Proposed Action and No Action alternatives to result in disproportionately high and adverse human health or environmental effects on minority or low-income populations or disproportionate health and safety risks to children.

#### 4.3.1 METHODOLOGY

This analysis incorporates existing data sources including U.S. Census data and traffic studies completed by the SDCRAA. Because the alternatives would not increase the CNEL under aircraft approach and departure

paths (see Section 4.1, Noise), this section focuses on populations in the vicinity of the Airport. The potential effect of the project alternatives to cause social impacts or community disruption was evaluated qualitatively. Potential conflicts with Executive Orders addressing Environmental Justice and the Protection of Children were evaluated based on the requirements of those orders and implementing guidance published by the federal government.

#### 4.3.1.1 Socioeconomic Impacts

FAA guidance contained within FAA Order 1050.1E (see Appendix A, Section 16) for analysis of socioeconomic impacts states that the Proposed Action would have a significant population and housing impact if it would:

- Displace a substantial number of people;
- Displace a substantial amount of residential units;
- Substantially reduce the levels of service of roads serving the airport and its surrounding communities;
- Create a substantial loss in community tax base; and/or
- Induce substantial population growth that would affect the population/housing balance.

Based on these guidelines, an alternative would have a significant socioeconomic impact if its social effects would lead to substantial, adverse physical changes in the environment.

#### 4.3.1.2 Environmental Justice

Environmental Justice significance was assessed with regard to whether the Proposed Action would conflict with the requirements of Executive Order 12898, (59 FR 7629 (1994)), "Environmental Justice for Low Income and Minority Populations." This Executive Order directs federal agencies "to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States." Based on this guidance, the Proposed Action would have a significant Environmental Justice impact if it would cause high and adverse human health or environmental effects that disproportionately affect minority or low-income populations.

#### 4.3.1.3 Protection of Children

Impact significance with regard to the protection of children was assessed with regard to whether the Proposed Action would conflict with the requirements of Executive Order 13045 (62 FR 19883 (1997)), "Protection of Children from Environmental Health Risks and Safety Risks." Under this Executive Order, each federal agency:

- shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children
- shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks

### 4.3.2 NO ACTION ALTERNATIVE

The No Action alternative does not include any property acquisition or construction and therefore would not result in the relocation of residences or businesses, alteration of traffic patterns, division of communities, disruption of planned development, or appreciable changes in employment. The quality of life and noise levels in surrounding areas would not be affected, and no impacts to low-income populations, minority populations, or impacts to children would occur.

### 4.3.3 PROPOSED ACTION

#### 4.3.3.1 Socioeconomic Impacts

The Proposed Action would not significantly affect population or housing in the region. Developing SDIA with the proposed land uses would not displace any residents or residences because the improvements locations currently contain Airport uses. The construction involved for the Proposed Action would not be on a large enough scale to draw new residents into the area, nor would the improvements be expected to induce growth within the region (see Section 4.4, Secondary (Induced) Impacts). Accordingly, the Proposed Action would not have a significant impact on population or housing.

Additionally, the Proposed Action would not generate enough new employment opportunities at SDIA to affect the job/housing balance, or induce growth that would affect this balance (see also Section 4.4, Secondary (Induced) Impacts). The level of proposed improvements would not be such to entice new residents to the San Diego area, thereby creating a need for new housing.

The Proposed Action would not induce vehicular traffic and only includes on-Airport surface transportation actions. The Proposed Action would not require any notable traffic re-routing, changes to street configurations or dimensions, and changes to land use patterns resulting from the effects of traffic systems. Specifically, all surface roadway improvements included as part of the Proposed Action are contained on Airport property. The SDCRAA conducted a Traffic Impact Study (TIS) that considered potential traffic impacts of the overall Airport Master Plan, which includes the proposed Northside Improvements. The TIS indicated that there are two streets in the immediate vicinity of SDIA that are operating at Level of Service (LOS) F (e.g., North Harbor Drive between Rent-A-Car Access Road and Laurel Street, and Rosecrans Street between Nimitz Boulevard and Barnett Avenue). The LOS for these street segments is expected to remain at LOS F.

To the extent that implementation of the Proposed Action may result in a redistribution of traffic in the Airport area, such redistribution is considered beneficial relative to reducing Airport-related traffic and drawing traffic away from congested roadways. The proposed Terminal Link Roadway would be constructed within the Airport boundary, providing an on-Airport dedicated (i.e., non-public) access route between the Northside area and a new intersection at the vehicle entrance to the U.S. Coast Guard facility and North Harbor Drive. Shuttle bus activity would continue to remain on the section of North Harbor Drive between the Airport terminal area and the terminus of the Terminal Link Roadway.

The combination of replacing the individual rental car facilities that are currently distributed along the southern edge of the Airport with the new RCC and instituting a consolidated shuttle system to replace the individual rental car company shuttles would result in an overall reduction in rental car-related traffic on North

Harbor Drive because (a) rental car rental and return activity would shift to the north area rather than in the existing south area facilities accessed via North Harbor Drive, and (b) the implementation of a consolidated shuttle busing operation would result in an overall reduction in shuttle bus trips compared to the shuttle bus trips generated by the existing individual rental car operations. In particular, the traffic analyses prepared for the SDIA Airport Master Plan estimated that, for the horizon year of 2015 with implementation of the Airport Master Plan, which includes the proposed Northside Improvements, 21 consolidated rental car shuttle round-trips would access the consolidated rental car center during the a.m. peak hour as compared to 53 individual rental car shuttle round-trips that would otherwise access the existing rental car area in the south without the consolidated rental car center. During the p.m. peak hour, 23 consolidated rental car shuttle round-trips would, with development of the RCC by 2015, replace the 68 individual rental car shuttle round-trips from individual operations. During a 24-hour period, it was estimated that 497 consolidated rental car shuttle round-trips per day would replace 1,000 individual rental car shuttle round-trips accessing the individual rental car facilities in the south. Consequently, the presence of the Terminal Link Roadway and associated RCC operations would produce a net decrease in traffic activity along North Harbor Drive as compared to maintaining existing rental car operations in the south area resulting in a net positive operational benefit from the project (i.e., with implementation of the proposed Northside Improvements, which include the RCC and Terminal Link Roadway), along North Harbor Drive relative to the No Action condition (i.e., without implementation of the Northside Improvements). Additionally, implementation of the RDC eliminates delivery trucks previously accessing the loading docks at the passenger terminal from North Harbor Drive and the terminal roadway system.

Implementation of the Proposed Action would not adversely affect the local tax base, as it, in conjunction with the other improvements in the Airport Master Plan, is intended to support overall growth in the San Diego region. Additionally, the Proposed Action does not eliminate uses that contribute to the tax base.

Guidelines from the City of San Diego on significance criteria for schools deal mainly with residential developments that could influence school enrollment. Because the Proposed Action does not include (and would not induce) any new residential development, this alternative would not directly impact any schools. The Proposed Action is not growth inducing as detailed in Section 4.4, Secondary (Induced) Impacts, and therefore, would not impact schools or school enrollment.

#### 4.3.3.2 Environmental Justice

As indicated in Section 3.4, Demographics and Socioeconomic Profile, based on 2010 U.S. Census data, no minority or low income populations are located adjacent to or in the vicinity of the APE. Therefore, the Proposed Action would not result in a disproportionately high and adverse human health or environmental effect on minority or low-income populations.

#### 4.3.3.3 Protection of Children

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, requires federal agencies to determine whether a proposed action would result in environmental health risks and safety risks that may disproportionately affect children. As described in Sections 4.5, Air Quality, and 4.6, Water Quality, the Proposed Action would not result in significant air quality or water quality impacts. As

described in Section 4.15, Hazardous Materials, Pollution Prevention, and Solid Waste, the Proposed Action would not result in the exposure of humans to hazardous substances. Therefore, the Proposed Action would not result in environmental health and safety risks that may disproportionately affect children that reside or play in the APE or surrounding area.

#### 4.3.4 MITIGATION MEASURES

For the above-described reasons, the Proposed Action would have no significant socioeconomic, environmental justice, or children’s environmental health and safety risk impacts, and therefore no mitigation is required.

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## 4.4 Secondary (Induced) Impacts

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The Proposed Action was evaluated for its potential to impose secondary effects on the surrounding communities. This includes any shifts in patterns of population movement and growth, the demand for public services, and changes in business and economic activity that are influenced by airport development.

#### 4.4.1 METHODOLOGY

According to FAA Order 1050.1E, secondary impacts would not normally be significant except where there is also a significant impact to another category, particularly noise, compatible land use, or social impact. Because the Proposed Action would not result in impacts exceeding the significant impact thresholds in any impact category, secondary impacts would not be expected.

#### 4.4.2 NO ACTION ALTERNATIVE

The No Action alternative does not include any construction, demolition, or changes to Airport property or the area around SDIA, and therefore would not produce any secondary impacts.

#### 4.4.3 PROPOSED ACTION

The development of the Proposed Action improvements would occur mostly on existing SDIA property, with the only notable exception being the proposed storm drain force main outlet structure at the west edge of the Airport, which is unoccupied. As noted in Section 4.3, Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks, there would be no displacement of residences or residents during construction.

As stated in Section 4.3, Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks, the Proposed Action would not induce substantial population or economic growth in the area. Short-term employment opportunities during construction of the proposed improvements are anticipated to be filled from the local labor pool. Long-term employment opportunities from operation of the RCC and associated shuttle buses, and other proposed northside facilities, are anticipated to be filled primarily by existing Airport and rental car agency employees. Within the context of the San Diego area’s large labor pool, the number of new jobs would be nominal and would not cause a noticeable change in the regional

jobs/housing balance or (un)employment figures. As such, the Proposed Action would not impact the planned location, distribution, density, or population growth rate in the area.

The proposed infrastructure improvements (i.e., the Terminal Link Roadway, northside circulation access road, and utilities expansion) would accommodate the existing Airport uses and the proposed improvements on the northside of the Airport only; such infrastructure improvements are not designed for, nor would they be used by, any future off-Airport developments.

As described in Chapter 1, Purpose and Need, the Proposed Action is needed because forecast growth cannot be reasonably accommodated within the existing Airport facilities without a reduced level of service. Without these improvements, FBOs and GA users will continue to have inadequate and inefficient facilities, cargo operators will not have adequate facilities to onload/offload/sort air cargo, rental car companies will not be able to handle the forecast growth in rental car business, passengers will continue to be inconvenienced by an unconsolidated rental car system, inefficient shuttle bus service will create unnecessary traffic and curbside congestion, parking demand will continue to outstrip supply, and a connection between the north and south sides of the Airport will not exist. As such, the Proposed Action is intended to improve levels of service and optimize Airport land uses. The Proposed Action would not, in itself, add passengers or flights at the Airport, as discussed in Chapter 1, Purpose and Need. However, the existing noise ordinance does allow the airlines to add additional flight operations as long as flight hour restrictions are not exceeded. Additional flights are allowed and would be accommodated regardless of whether the Proposed Action is approved or built. Additional flights could result from air carrier decisions regarding market forces and unmet demand, rather than the availability of specific SDIA facilities.

Based on the above, the Proposed Action would not be growth-inducing.

#### 4.4.4 MITIGATION MEASURES

Because the Proposed Action would not cause significant secondary (induced) impacts, no mitigation is required.

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## 4.5 Air Quality

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The quantification of air quality impacts includes estimates of air pollutant emissions levels, typically expressed in terms of pounds per day (lbs/day) or tons per year (tpy), and air pollutant concentrations, typically expressed in terms of micrograms per kilogram ( $\mu\text{g}/\text{m}^3$ ). Emissions inventories provide an overall measure of the types and total amounts of emissions generated by airport-related sources and enable comparisons to the federal CAA General Conformity Rule *de minimis* levels.

Assessments of hazardous air pollutants (HAPs) and greenhouse gases (GHGs) associated with the Airport Master Plan improvements are also addressed in this section. Air quality mitigation measures designed to reduce the potential impacts to air quality are also identified and discussed.



#### 4.5.1 REGULATORY STANDARDS AND CRITERIA

Under NEPA and the federal CAA, both qualitative and quantitative criteria are used to evaluate air quality conditions associated with future development projects. Based upon these regulations and the emission characteristics of the Airport Master Plan, which includes the Proposed Action, the following criteria were used to evaluate the potential air quality impacts associated with these proposed improvements (see **Table 4-1**).

#### 4.5.2 METHODOLOGY

Consistent with FAA guidelines<sup>9</sup>, the potential impacts to air quality were evaluated using appropriate and up-to-date analytical methods and computer models. The SDCRAA created an Air Quality Modeling Protocol document (AQMPD)<sup>10</sup> for the EA prepared for the Master Plan (*Final Environmental Assessment, San Diego International Airport Master Plan, Near Term Improvements*, April 2009). At the time the AQMPD for the Near Term Improvements EA was drafted, the proposed improvements under consideration included generalized land uses for the northside of San Diego International Airport. These were specified as including air cargo, fixed base operator improvements, airside improvements, and surface parking in the AQMPD, all of which are components of the proposed Northside Improvements project.

The AQMPD contains information pertaining to how the air quality analyses were to be conducted including (but not limited to) the analysis years, the emission sources (e.g., operational and construction emissions), methodology, and the models to be used. The AQMPD for the Near Term Improvements EA was circulated to pertinent federal, State, and local agencies including the FAA Western Pacific Region, U.S. EPA Region 9, CARB, and the San Diego AQMD. As documented in a letter from SDCRAA to the FAA, the AQMPD was reviewed with these agencies during coordination meetings with little or no comments received (see **Appendix A**). In particular, coordination with Mr. Jim Lerner (CARB, 8/15/2005) and Mr. Carl Selnick (San Diego County Air Pollution Control District, 7/28/2005) occurred. The air quality analyses for the Near Term Improvements EA followed this AQMPD, but as is required, the most recent version of the models available when the analyses were conducted were used (e.g., EDMS 5.02, EMFAC2007, OFFROAD2007, URBEMIS2007).

All air quality analyses were conducted in accordance with FAA guidance, specifically FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and the *Air Quality Procedures for Civilian Airports and Air Force Bases* (Air Quality Handbook). The following models/emission factors were used in the analyses for the different emission source types analyzed:

- EDMS – aircraft emissions, auxiliary power units (APU), ground support equipment (GSE), stationary sources, and all dispersion modeling
- California Air Resources Board (CARB) EMFAC2011 – on-road motor vehicles

<sup>9</sup> FAA's Order 1050.1E, *Environmental Impacts: Policies and Procedures Section 2, Air Quality* (June 8, 2004); FAA's Order 5050.4B, *NEPA Implementing Instructions for Airport Actions* (April 26, 2006); and the FAA's *Air Quality Procedures for Civilian Airports and Air Force Bases* (April 1997).

<sup>10</sup> HNTB Corporation and KB Environmental Sciences, Inc., *San Diego International Airport Master Plan, Federal Air Quality Assessment Protocol*, August 24, 2006.

- CARB OFFROAD 2011 – off-road motor vehicles
- URBEMIS2011 – fugitive dust and asphalt paving
- USEPA AP-42 – stationary sources emission factors

The attainment status of the San Diego area has not changed at the federal level since the AQMPD was drafted; thus, the qualitative and quantitative criteria identified in the AQMPD are still relevant. However, the quantitative limits for fine particulates (PM<sub>2.5</sub>) were updated to reflect existing National Ambient Air Quality Standards as documented in **Table 4-1**. As noted above, the models that were specified in the AQMPD were utilized for the Northside Improvements air quality analyses; the only difference was that, as required, the most recent version of the models were used at the time the air quality analysis was conducted (e.g., EMFAC2011, OFFROAD2011, URBEMIS2011). The AQMPD has been supplemented with construction schedules and emission inventories based on updated analyses specifically for the Northside Improvements EA. Notices were sent to the federal, state, and local agencies that regulate air emissions and air quality for the public scoping meeting (10/28/2011) and the availability of the Draft EA (5/30/2013). No questions or comments on the methodology or the air quality analysis were submitted from these agencies.

**Table 4-1 NEPA & Federal CAA Air Quality Criteria<sup>1/</sup>**

BASIS	QUALITATIVE CRITERIA	
Based on demonstrating that the project(s) will not:	Cause or contribute to a new violation of any air quality standard in any area.	
	Increase the frequency or severity of any existing violation of any air quality standard in any area.	
	Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.	
QUANTITATIVE CRITERIA		
POLLUTANT	EMISSIONS <sup>2/</sup>	CONCENTRATIONS <sup>3/</sup>
Carbon Monoxide (CO)	100 tpy	1-hour = 40 mg/m <sup>3</sup> ; 8-hour = 10 mg/m <sup>3</sup>
Nitrogen Oxides/Nitrogen Dioxide (NO <sub>x</sub> /NO <sub>2</sub> )	50 tpy	Annual Average = 100 µg/m <sup>3</sup>
Volatile Organic Compounds (VOCs)	50 tpy	n/a
Particulate Matter (PM <sub>10/2.5</sub> )	n/a	PM <sub>10</sub> - 24-hour = 150 µg/m <sup>3</sup> and PM <sub>2.5</sub> 24-hour = 35 µg/m <sup>3</sup> Annual Average = 15 µg/m <sup>3</sup>

CAA = Clean Air Act, NEPA = National Environmental Policy Act, tpy = tons per year, mg/m<sup>3</sup> = milligrams per cubic meter, µg/m<sup>3</sup> = micrograms per cubic meter, n/a = not applicable

NOTES:

- 1/ Criteria taken from FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, Section 2, Air Quality.
- 2/ Emission values based on applicable "de-minimis" levels established under the Federal Clean Air Act (CAA) General Conformity Rule.
- 3/ Concentrations of pollutants in the outside air based on the National Ambient Air Quality Standards (NAAQS).

SOURCE: Federal Aviation Administration, Order 1050.1E, Change 1, *Environmental Impacts: Policies and Procedures*, March 20, 2006.  
 PREPARED BY: CDM Smith, April 2012.

In evaluating the impacts of the currently Proposed Action (Northside Improvements), only emissions estimates for stationary sources and on- and off-site motor vehicles were considered. Implementation of the Proposed Action would not affect aircraft operations. Specifically, the airside improvements included in the Proposed Action, such as the proposed air cargo area improvements and the general aviation facilities improvements, would not increase operations, as the related aircraft operations would occur with or without the proposed new/replacement facilities. The proposed general aviation facilities improvements would replace existing facilities and would be located in close proximity to existing facilities. The proposed air cargo facility improvements would consolidate existing air cargo operations that currently offload and load cargo at various points around the airport. As such, emissions from aircraft and aircraft ground support equipment and auxiliary power units (GSE/APU) are not relevant to this analysis. The assumptions related to the quantification of pollutant sources for the Proposed Action are very conservative because they include emissions from other Master Plan elements in addition to the Northside Improvements.

As demonstrated below, however, even using the very conservative assumptions and analysis approach described above, no significant impacts would occur; hence, it is reasonable to conclude that implementation of the currently Proposed Action would not result in significant air quality impacts.

### 4.5.3 EMISSIONS INVENTORY

#### 4.5.3.1 2015 No Action Alternative

The emissions inventory for the No Action alternative, specific to stationary sources and motor vehicles, is summarized in **Table 4-2** for the year 2015. These results are used for comparative purposes against the Proposed Action, which in this case is the SDIA Airport Land Use Plan, inclusive of the Northside Improvements.

<b>SOURCE</b>	<b>CO</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Stationary Sources	3.7	3.5	12.4	4.0	0.6	0.6
Motor Vehicles (On-site)	32.0	1.5	3.4	<0.1	0.7	0.6
Motor Vehicles (Off-site)	141	5.4	34.1	0.3	3.1	2.0
<b>2015 No Action Total</b>	<b>177</b>	<b>10.4</b>	<b>49.9</b>	<b>4.3</b>	<b>4.4</b>	<b>3.2</b>

SOURCE: KBE Environmental Sciences, Inc., April 2012.  
 PREPARED BY: CDM Smith, July 2013.

#### 4.5.3.2 2015 Proposed Action

The emissions inventory for the Airport Land Use Plan, including the proposed Northside Improvements, specific to stationary sources and motor vehicles, is summarized in **Table 4-3** for the year 2015. As shown, the total stationary source and mobile source emissions associated with implementation of the SDIA Airport Land

Use Plan, which includes the proposed Northside Improvements, would be less than the CAA *de minimis* levels, and therefore not significant.

**Table 4-3 2015 Proposed Airport Land Use Plan Air Emissions Inventory (tons per year)**

SOURCE	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Stationary Sources	4.1	3.5	12.5	4.0	0.7	0.7
Motor Vehicles (On-site)	47.4	2.3	4.9	0.1	1.1	0.8
Motor Vehicles (Off-site)	168	6.4	40.6	0.3	3.7	2.3
2015 Land Use Plan Total	219	12.2	58.0	4.4	5.5	3.8
2015 No Action Total	177	10.3	50.0	4.3	4.5	3.2
Differences (+/-)	42.2	1.8	8.1	0.1	1.0	0.7
<i>De minimis</i> Threshold	100	50	50	n/a <sup>1/</sup>	n/a <sup>1/</sup>	n/a <sup>1/</sup>
Conforms to SIP?	Yes	Yes	Yes	n/a	n/a	n/a

NOTES:

1/ *De minimis* thresholds apply only to those pollutants for which the air basin has been designated as being “nonattainment” or “maintenance.” The San Diego Air Basin is not designated as either of those classifications for SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>; hence, no *de minimis* thresholds are applicable or shown in the table for those pollutants.

SOURCE: KB Environmental Science, Inc., April 2012..

PREPARED BY: CDM Smith, July 2013.

#### 4.5.3.3 2020 No Action Alternative

The emissions inventory for the No Action alternative, specific to stationary sources and motor vehicles, is summarized in **Table 4-4** for the year 2020. These results are used for comparative purposes against the Proposed Action, which in this case is the SDIA Airport Land Use Plan, inclusive of the Northside Improvements.

**Table 4-4 2020 No Action Alternative Air Emissions Inventory (tons per year)**

SOURCE	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Stationary Sources	3.7	3.6	12.4	4.0	0.6	0.6
Motor Vehicles (On-site)	23.4	1.0	2.4	<0.1	0.8	0.6
Motor Vehicles (Off-site)	118	4.6	27.0	0.3	3.4	2.0
<b>2020 No Action Total</b>	<b>145</b>	<b>9.2</b>	<b>41.8</b>	<b>4.4</b>	<b>4.8</b>	<b>3.2</b>

SOURCE: KB Environmental Sciences, Inc., July 2013.

PREPARED BY: CDM Smith, July 2013.

4.5.3.4 2020 Proposed Action

The emissions inventory for the Airport Land Use Plan, including the proposed Northside Improvements, specific to stationary sources and motor vehicles is summarized in **Table 4-5** for the year 2020. As shown, the total stationary source and mobile source emissions associated with implementation of the SDIA Airport Land Use Plan, which includes the proposed Northside Improvements, would be less than the CAA *de minimis* levels, and therefore not significant.

SOURCE	CO	HC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Stationary Sources	4.1	3.6	12.5	4.0	0.7	0.7
Motor Vehicles (On-site)	33.2	1.5	3.3	0.1	1.2	0.9
Motor Vehicles (Off-site)	196	7.7	44.5	0.5	5.6	3.4
2020 Airport Land Use Plan Total	234	12.8	60.4	4.6	7.5	5.0
2020 No Action Total	145	9.2	41.8	4.4	4.8	3.3
Differences (+/-)	88.8	3.6	18.6	0.3	2.6	1.7
<i>De minimis</i> Threshold	100	50	50	n/a <sup>1/</sup>	n/a <sup>1/</sup>	n/a <sup>1/</sup>
Conforms to SIP?	Yes	Yes	Yes	n/a	n/a	n/a

NOTES:

1/ *De minimis* thresholds apply only to those pollutants for which the air basin has been designated as being "nonattainment" or "maintenance." The San Diego Air Basin is not designated as either of those classifications for SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>; hence, no *de minimis* thresholds are applicable or shown in the table for those pollutants.

SOURCE: KB Environmental Sciences, Inc., July 2013.

PREPARED BY: CDM Smith, July 2013.

4.5.4 CUMULATIVE IMPACTS RELATED TO CRITERIA POLLUTANTS

As described above, implementation of the Proposed Action would result in operational (such as motor vehicles and stationary sources) and construction emissions well below the General Conformity *de minimis* emissions thresholds. The air quality impacts due to the Proposed Action would be temporary and localized to the project area attributed to the construction equipment emissions as well as fugitive dust resulting from ground disturbance. These impacts would be minimized by implementing best management practices and compliance with air regulations. **Table 4-6** displays the Proposed Action emissions from operations and construction activities. The operations associated with the Proposed Action would occur towards the end of construction. Thus, the emissions associated with the construction and operations of the Proposed Action would not overlap greatly in time. For 2015, when construction activities and operational emissions associated with the Proposed Action would occur simultaneously, the total emissions would also be well below the General Conformity *de minimis* emissions thresholds.

**Table 4-6 Proposed Action Operational and Construction Emissions (tons per year)**

SOURCE	YEAR	CO	VOC	NO <sub>x</sub>	
Proposed Action Construction-Related Emissions	2013	12.4	4.1	21.5	
Proposed Action Construction-Related Emissions	2014	15.9	2.2	18.0	
Proposed Action Construction-Related Emissions	2015	5.6	0.9	7.6	
Proposed Action Construction-Related Emissions	2016	3.8	0.7	7.1	
Proposed Action Construction-Related Emissions	2017	1.3	0.2	2.0	
<b>Proposed Action Maximum Construction-Related Emissions</b>		<b>15.9</b>	<b>4.1</b>	<b>21.5</b>	
<i>De Minimis</i> Threshold		100	50	50	
<i>Conforms to SIP?</i>		Yes	Yes	Yes	
Proposed Action Construction-Related Emissions	2015	5.6	0.9	7.6	
Proposed Action Motor Vehicle and Stationary Source Operational Emissions	2015	42.4	1.8	9.5	
<b>Proposed Action Operations and Construction-Related Emissions</b>		<b>2015</b>	<b>48.0</b>	<b>2.7</b>	<b>17.1</b>
<i>De Minimis</i> Threshold		100	50	50	
<i>Conforms to SIP?</i>		Yes	Yes	Yes	

CO = Carbon monoxide; VOC = Volatile organic compounds; NO<sub>x</sub> = Nitrogen oxides

NOTES:

Operational-related emissions for 2015 (See Table 4-3).

Construction-related emissions (See Table 4-12).

SOURCE: San Diego County Regional Airport Authority, *SDIA Airport Master Plan Final Environmental Impact Report*, April 2008.

PREPARED BY: KB Environmental Sciences, Inc., February 2013.

#### 4.5.5 HAZARDOUS AIR POLLUTANTS

Hazardous air pollutants (HAPs) are pollutants that do not have established NAAQS, but present potential adverse human health risks from short-term (acute) or long-term (chronic) exposures. Because the analysis of HAPs is not an FAA requirement, the approach described herein is designed to address state and local agency concerns as well as those of the general public. (For the purposes of this discussion, the terms HAPs, toxic air pollutants and air toxics are considered to be synonymous.)

As described above in Section 4.5.2, Methodology, emissions sources that are relevant to the Proposed Action include stationary sources, motor vehicles (on-site), and motor vehicles (off-site). An estimation of HAPs inventory associated with those sources for the No Action alternative and for the Airport Land Use Plan, which includes the proposed Northside Improvements, were prepared for the Airport Master Plan and are used to assess the potential impacts of the currently Proposed Action.

#### 4.5.5.1 No Action Alternative

**Table 4-7** presents the HAP emissions by relevant source category for the No Action alternative in 2015 and 2020.

**Table 4-7 No Action Alternative Emissions of HAPs (tons per year) in 2015 and 2020**

HAP SPECIES	2015			2020		
	MOTOR VEHICLES	STATIONARY SOURCE	TOTAL	MOTOR VEHICLES	STATIONARY SOURCE	TOTAL
Acetaldehyde	0.49	<0.01	0.49	0.49	<0.01	0.49
Acrolein	0.06	<0.01	0.06	0.06	<0.01	0.06
Benzene	0.79	0.03	0.82	0.79	0.03	0.82
1,3-butadiene	0.15	<0.01	0.15	0.15	<0.01	0.15
Formaldehyde	1.29	<0.01	1.29	1.29	<0.01	1.29
DPM	2.33	0.55	2.88	2.33	0.55	2.88

NOTES:

HAPs = Hazardous air pollutants; DPM = Diesel particulate matter

SOURCE: KB Environmental Sciences, 2012.

PREPARED BY: KB Environmental Sciences, March 2012.

#### 4.5.5.2 Proposed Action

**Table 4-8** presents the HAP emissions by relevant source category for the Airport Land Use Plan, which would include the proposed Northside Improvements, in 2015 and 2020 and the increases in total emissions of each HAP compared to the No Action alternative.

**Table 4-8 Airport Land Use Plan Emissions of HAPs (tons per year) in 2015 and 2020**

HAP SPECIES	2015				2020			
	MOTOR VEHICLES	STATIONARY SOURCE	TOTAL	CHANGE FROM NO ACTION	MOTOR VEHICLES	STATIONARY SOURCE	TOTAL	CHANGE FROM NO ACTION
Acetaldehyde	0.60	<0.01	0.60	0.11	0.60	<0.01	0.60	0.11
Acrolein	0.07	<0.01	0.07	0.01	0.07	<0.01	0.07	0.01
Benzene	0.94	0.03	0.97	0.15	0.97	0.03	1.00	0.18
1,3-butadiene	0.18	<0.01	0.18	0.03	0.18	<0.01	0.18	0.03
Formaldehyde	1.56	<0.01	1.56	0.27	1.58	<0.01	1.58	0.29
DPM	2.35	0.55	2.90	0.02	2.83	0.55	3.38	0.50

NOTE:

HAPs = Hazardous air pollutants; DPM = Diesel particulate matter

SOURCE: KB Environmental Sciences, 2012.

PREPARED BY: KB Environmental Sciences, March 2012.

While implementation of the Proposed Action would, in conjunction with the other Airport Master Plan improvements included in the Airport Land Use Plan, increase emissions of various HAPs, the increases are considered to be relatively minor and not significant.

## 4.5.6 GREENHOUSE GASES

### 4.5.6.1 Overview

Of growing concern is the impact of proposed projects on climate change. Greenhouse gases (GHGs) are those that trap heat in the earth's atmosphere. Both naturally occurring and anthropogenic (man-made) GHGs include water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>),<sup>11</sup> methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and O<sub>3</sub>.<sup>12</sup>

Research has shown there is a direct correlation between fuel combustion and GHG emissions. In terms of U.S. contributions, the U.S. General Accounting Office (GAO) reports that "domestic aviation contributes about 3 percent of total carbon dioxide emissions, according to U.S. EPA data," compared with other industrial sources, including the remainder of the transportation sector (20 percent) and power generation (41

<sup>11</sup> All GHG inventories measure carbon dioxide emissions, but beyond carbon dioxide different inventories include different GHGs.

<sup>12</sup> Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also greenhouse gases, but they are, for the most part, solely a product of industrial activities. For example, chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) are halocarbons that contain chlorine, while halocarbons that contain bromine are referred to as bromofluorocarbons (i.e., halons) or sulfur (sulfur hexafluoride: SF<sub>6</sub>).



percent).<sup>13</sup> The International Civil Aviation Organization estimates that GHG emissions from aircraft account for roughly 3 percent of all anthropogenic GHG emissions globally.<sup>14</sup> Climate change due to GHG emissions is a global phenomenon, so the affected environment is the global climate.<sup>15</sup>

The scientific community is continuing efforts to better understand the impact of aviation emissions on the global atmosphere. The FAA is leading and participating in a number of initiatives intended to clarify the role that commercial aviation plays in GHG emissions and climate. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies (e.g., National Aeronautics and Space Administration [NASA], National Oceanic and Atmospheric Administration [NOAA], U.S. EPA, and U.S. Department of Energy [DOE]), has developed the Aviation Climate Change Research Initiative in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions. FAA also funds the Partnership for Air Transportation Noise & Emissions Reduction Center of Excellence research initiative to quantify the effects of aircraft exhaust and contrails on global and U.S. climate and atmospheric composition. Similar research topics are being examined at the international level by the International Civil Aviation Organization.<sup>16</sup>

Although there are no federal standards for aviation-related GHG emissions, it is well established that GHG emissions can affect climate. The Council on Environmental Quality (CEQ) has indicated that climate should be considered in NEPA analyses.<sup>17</sup> The FAA has also prepared guidance on how to address GHG emissions and climate change within NEPA evaluations.<sup>18</sup> As noted by CEQ, "it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand".<sup>19</sup>

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<sup>13</sup> Aviation and Climate Change. GAO Report to Congressional Committees, (2009). <http://www.gao.gov/new.items/d09554.pdf>

<sup>14</sup> Alan MeIrose, "European ATM and Climate Adaptation: A Scoping Study," in ICAO Environmental Report. (2010).

<sup>15</sup> As explained by the U.S. Environmental Protection Agency, "greenhouse gases, once emitted, become well mixed in the atmosphere, meaning U.S. emissions can affect not only the U.S. population and environment but other regions of the world as well; likewise, emissions in other countries can affect the United States." Climate Change Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency, Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act 2-3 (2009), available at <http://epa.gov/climatechange/endangerment.html>.

<sup>16</sup> Lourdes Q. Maurice and David S. Lee. Chapter 5: Aviation Impacts on Climate. Final Report of the International Civil Aviation Organization (ICAO) Committee on Aviation and Environmental Protection (CAEP) Workshop. October 29th\_ November 2nd 2007, Montreal. [http://www.icao.int/icaoenet/cnfrst/CAEP/CAEP\\_SG\\_20082/docs/Caep8\\_SG2\\_WPI0.pdf](http://www.icao.int/icaoenet/cnfrst/CAEP/CAEP_SG_20082/docs/Caep8_SG2_WPI0.pdf)

<sup>17</sup> FAA, NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emission, CEQ (January 12, 2012) [http://www.faa.gov/about/office\\_org/headquarters\\_offices/apl/environ\\_policy\\_guidance/guidance/media/NEPA\\_GHG\\_Guidance\\_Final.pdf](http://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/guidance/media/NEPA_GHG_Guidance_Final.pdf).

<sup>18</sup> See *Massachusetts v. E.P.A.*, 549 U.S. 497, 508-10, 521-23 (2007).

<sup>19</sup> Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, CEQ (2010). [http://ceq.hss.doe.gov/nepa/regs/Consideration\\_of\\_Effects\\_of\\_GHG\\_Draft\\_NEPA\\_Guidance\\_FINAL\\_02182010.pdf](http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.pdf)

Based on FAA data, operations activity at SDIA represents less than two percent of U.S. aviation activity.<sup>20</sup> Therefore, assuming that greenhouse gases occur in proportion to the level of activity, greenhouse gas emissions associated with existing and future aviation activity at SDIA would be expected to represent less than 0.003 percent of U.S.-based greenhouse gases.

The cumulative impact of this Proposed Action on the global climate when added to other past, present, and reasonably foreseeable future actions is not currently scientifically predictable. Aviation has been calculated to contribute approximately 3 percent of global CO<sub>2</sub> emissions; this contribution may grow to 5 percent by 2050. Actions are underway within the U.S. and by other nations to reduce aviation's contribution through such measures as new aircraft technologies to reduce emissions and improve fuel efficiency, renewable alternative fuels with lower carbon footprints, more efficient air traffic management, market-based measures and environmental regulations including an aircraft CO<sub>2</sub> standard. The U.S. has ambitious goals to achieve carbon-neutral growth for aviation by 2020 compared to a 2005 baseline, and to gain absolute reductions in GHG emissions by 2050. At present, there are no calculations of the extent to which measures individually or cumulatively may affect aviation's CO<sub>2</sub> emissions. Moreover, there are large uncertainties regarding aviation's impact on climate.

The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies (e.g., NASA, NOAA, EPA, and DOE), has developed the Aviation Climate Change Research Initiative in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions, with quantified uncertainties for current and projected aviation scenarios under changing atmospheric conditions.<sup>21</sup>

In a Memorandum of Understanding (MOU) with the Attorney General of the State of California (dated May 9, 2008)<sup>22</sup> steps were outlined to reduce GHG emissions that might otherwise occur with future growth of air travel to and from SDIA. The MOU outlined the terms of compliance with specific measures included in Exhibit A, which included the SDCRAA agreeing to implement:

- Reduction in Aircraft On-the-Ground-Energy Usage
- Reduction of Landside Energy Usage
- Use of Green Materials and Sustainable Design
- Use of Green Construction Methods and Equipment
- Coordination and Encouragement of Tenants to Address GHG

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<sup>20</sup> In 2011, the FAA Air Traffic Activity Data System reported 50,598,454 total towered aircraft operations in the United States. SAN accounted for 158,852 aircraft operations, or 0003 percent of the total aircraft operations at towered airports in the United States.

<sup>21</sup> Nathan Brown, et. al. The US Strategy for Tackling Aviation Climate Impacts (2010). 27th International Congress of the Aeronautical Sciences

<sup>22</sup> Memorandum of Understanding, San Diego Airport and State of California Justice Department, May 9, 2008. [www.san.org/documents/airport\\_authority/MOU\\_SDCRAA\\_AG\\_Master\\_Plan\\_2008.pdf](http://www.san.org/documents/airport_authority/MOU_SDCRAA_AG_Master_Plan_2008.pdf).

This MOU represents SDIA’s goal of minimizing the potential impacts of GHG on the environment.

**4.5.7 NO ACTION ALTERNATIVE**

**Table 4-9** provides an estimate of the GHG emissions associated with the No Action alternative.

<b>Table 4-9 GHG Emissions Inventory (metric tons)</b>								
<b>NO ACTION ALTERNATIVE</b>					<b>PROPOSED ACTION</b>			
<b>COMPOUNDS</b>					<b>COMPOUNDS</b>			
<b>YEAR</b>	<b>CO<sub>2</sub></b>	<b>N<sub>2</sub>O</b>	<b>CH<sub>4</sub></b>	<b>TOTALS</b>	<b>CO<sub>2</sub></b>	<b>N<sub>2</sub>O</b>	<b>CH<sub>4</sub></b>	<b>TOTALS</b>
<b>Direct Emissions</b>					<b>Direct Emissions</b>			
2015	224,944	655	159	248,967	230,239	680	167	259,263
2020	251,991	734	168	278,972	257,353	761	176	290,325
<b>Indirect Emissions</b>					<b>Indirect Emissions</b>			
2015	1,724,331	4,482	967	1,706,572	1,730,083	4,482	967	1,706,768
2020	1,839,550	4,778	1,029	1,819,278	1,845,786	4,779	1,030	1,819,560
<b>Direct and Indirect Emissions</b>					<b>Direct and Indirect Emissions</b>			
2015	1,949,276	5,137	1,126	1,955,538	1,960,322	5,164	1,135	1,966,621
2020	2,091,541	5,512	1,198	2,098,250	2,103,140	5,540	1,205	2,109,885

SOURCE: KB Environmental Sciences, Inc., April 2012.  
 PREPARED BY: CDM Smith, April 2012.

**4.5.8 PROPOSED ACTION**

Table 4-9 above also delineates the estimated GHG emissions associated with implementation of the Airport Land Use Plan, which includes the proposed Northside Improvements. The GHG emissions associated with the Airport Land Use Plan would be approximately 0.5 percent to 7 percent greater than those associated with the No Action alternative.

**4.5.9 MITIGATION MEASURES**

**4.5.9.1 Actions Taken by SDCRAA to Reduce Air Pollutant Emissions**

The findings of the air quality impact assessment show that emission totals associated with implementation of the Airport Land Use Plan, which includes the proposed Northside Improvements, are comparable to those of the No Action alternative. This is because the proposed improvements to SDIA would help to reduce delays and conflicts on both the airside and landsides of the Airport and also serve to mitigate air quality impacts. These benefits include the following:

- In order to reduce vapor emissions from the proposed RCC fueling facilities, a Stage 1 Vapor Recovery System would be installed with the fuel tanks. This system recovers hydrocarbons emitted during the transfer of fuel from the delivery vehicle into the fuel tank. Vapors in the tank are displaced as the fuel fills the tank. During Stage 1 Vapor Recovery, these vapors are routed through a hose back into the tanker instead of venting directly into the atmosphere.
- As a means of further reducing this potential impact, the following actions will be implemented as part of the construction plans and process:
  - Prevent construction equipment and delivery trucks from excess idling during periods of inactivity
  - Substitute low- and zero-emitting equipment whenever feasible
  - Implement a construction-employee shuttle service, rideshare program and/or on-site food service to reduce vehicle trips
  - Use electrical drops in place of temporary electrical generators wherever feasible
- Other construction-related air quality actions are aimed at reducing the occurrence and potential impacts from “fugitive” dust. These measures include (but are not necessarily limited to) the following:
  - Apply non-toxic soil stabilizers to all inactive construction areas including areas with disturbed soils and stockpiles of raw materials
  - Stabilize on-site truck haul routes and staging areas with dust-prevention materials
  - Reduce truck speeds on haul routes to minimize dust entrainment
  - Remove mud and dirt from haul truck wheels and cover truck bodies before leaving the construction site(s)
  - Permanently cover all ground surfaces with vegetation or impervious materials as soon as practicable
  - Curtail and/or modify construction activities on extremely windy days
  - Post a publicly visible sign with the contact information for reporting dust complaints

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## 4.6 Water Quality

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The analysis of potential impacts to water quality was prepared in accordance with the principal objectives of the Federal Water Pollution Control Act, as amended, by the CWA. The purpose of this section is to describe the existing hydrologic and water quality environment and analyze potential impacts from the Proposed Action. The following hydrology and water quality assessment incorporates information from the following reports:

- San Diego County Regional Airport Authority, Fiscal Year 2010-2011 Municipal Stormwater Permit Annual Report, September 2011
- San Diego County Regional Airport Authority, *SAN Storm Water Management Plan*, March 2008

- Kleinfelder West, Inc., *Northside Development Preliminary Drainage Study, San Diego, California*, revised March 11, 2011
- Haley & Aldrich, Inc., *San Diego County Regional Airport Authority Water Quality Analysis – Planned Northside Development Area, San Diego, California*, April 1, 2013

#### 4.6.1 METHODOLOGY

The potential hydrology and water quality effects of the Proposed Action were determined by reviewing the Municipal Stormwater Permit Annual Report (September 2011) and applying basic hydrology and water quality engineering principals to assess potential impact. Because the Proposed Action is still at a conceptual level of planning, the analysis is mostly qualitative rather than quantitative. This analysis assumes that SDCRAA will design all improvements to meet water quality permitting requirements, including NPDES Permit No. CAS0109266.

#### 4.6.2 NO ACTION ALTERNATIVE

##### 4.6.2.1 Hydrology

Under the No Action alternative there would be no change to the impervious surface area and no drainage system improvements; hence, there would be no impact to surface hydrology or drainage patterns.

##### 4.6.2.2 Water Quality

There is no earthwork or construction associated with the No Action alternative and, accordingly, no potential for grading/construction-related water pollution and contamination impacts. Under the No Action alternative, the existing uses within the APE would remain. These uses include vacant unpaved areas and vehicle parking and storage in the northern portion of the site, aircraft ramp area, air cargo operations, and FBO operations in the southern portion of the site, and airfield/vehicle service road operations along the eastern and southern edges of the site (i.e., the alignment of the proposed Terminal Link Roadway). Potential surface water quality pollutants associated with such uses, include, but are not limited to, fuels, lubricants, and other hydrocarbon products, metals, paints, brake fluid, antifreeze, rubber particles, solvents, battery acid, suspended particulate matter, bacteria, and trash and debris. Surface water runoff affected by such pollutants would continue to flow into the existing drainage system within the APE, which discharges to Convair Lagoon at the south edge of the Airport. Pursuant to requirements of the existing Storm Water Management Plan (SWMP) for the Airport, as well as the existing Municipal and Industrial Stormwater permits for the Airport, continued implementation of BMPs would occur to minimize and address the potential water quality impacts associated with these uses.

#### 4.6.3 PROPOSED ACTION

##### 4.6.3.1 Hydrology

Under the Proposed Action, the proposed improvements would modify existing uses within the APE and also modify the existing storm water drainage system. The northern portion of the site, which includes vacant pervious areas, and paved and gravel areas used for vehicle parking and storage would be replaced by a new

surface parking lot, RCC, and access road. The potential increase in impervious area at the site would be offset by project design features that include the use of porous pavement and vegetated/grass medians and swales at and near the new surface parking lot. It is estimated that approximately 20 percent of the parking area would utilize porous pavement and approximately 29 percent of the area at/near the parking lot would be vegetated/grass. Also occurring within the northern portion of the Project site would be the development of the RCC. Similar to above, development of the RCC would add impervious surface to an area that is mostly paved today; however, the design of the RCC includes features to reduce surface runoff. Such features include the use of cisterns for rainfall harvesting and reuse and the installation of vegetated bio-swales along the northern and western sides of the building. All of the above features would help reduce the amount of surface water runoff flowing offsite, and provide water quality benefits as described in the next section below.

The improvements proposed in the southern portion of the APE include air cargo facilities and relocation of the FBO area, all of which would occur within existing paved impervious areas. There would be no notable change in surface hydrology other than the storm drain system improvements described below.

Development of the proposed Terminal Link Roadway would occur along the eastern and southern edges of the Airport, along an alignment that is already paved. No notable changes in surface hydrology are expected to result from development of the subject roadway.

The Northside Improvements area currently drains south into San Diego Bay through existing 42-inch, 54-inch and 60-inch diameter storm drains. Although the 42-inch and 60-inch storm drains cross portions of the Airport, they are owned and maintained by the City of San Diego since they convey storm flows from off-airport properties located north of Pacific Highway. Approximately 50 percent of the stormwater conveyed in the 42-inch drain is attributable to the Airport while only 5 to 10 percent of the stormwater conveyed in the 60-inch drain is attributable to the Airport. The 42-inch drain discharges in downtown San Diego while the 60-inch drain discharges to Convair Lagoon. The 54-inch storm drain is owned and maintained solely by the Airport and discharges into Convair Lagoon.

These storm drains are undersized and do not provide sufficient capacity to adequately drain the existing service areas and new Airport uses and improvements proposed as part of the Northside Improvements. The drains were built between 1950 and 1970 and have undergone various repairs over the years to stop joint leaks. Previous joint repairs cause excess material to form inside the pipe, impeding the ability to install a corrective sleeve inside the pipe to improve the pipe's integrity; furthermore, installation of a line sleeve would reduce flow capacity. Excavating and replacing the drain pipes is not feasible because the pipes cross under the Airport's only active runway; runway and taxiway operations would have to cease during excavation and replacement of the pipes. Since two of the storm drains are owned and maintained by the City of San Diego, the Airport has discussed and evaluated possible repairs with City personnel. It was generally agreed that the challenge of retrofitting and repairing the storm drains was far greater than the benefit. Therefore, the Airport has elected to construct a new storm drain that discharges to the Navy Boat Channel.

A drainage study titled "Northside Development Preliminary Drainage Study, San Diego, California" dated February 24, 2011 and revised March 11, 2011, was prepared by Kleinfelder West, Inc. for the Northside Improvements to determine the stormwater flows that would be conveyed to the storm drain force main and

outfall. Redirecting a portion of flows from the north side to the Navy Boat Channel would improve drainage for the Northside and reduce flows into the existing storm drains that discharge into areas that include contaminated sediments. Surface water drainage in the main portion of the APE (i.e., parking lot, RCC, air cargo, and FBO areas) would gravity flow to a 30-inch storm drain line, which would then flow westward to a proposed pump station. Flows from the pump station would continue westward via a 30- to 36-inch force main to be discharged at the Navy Boat Channel located along the west edge of the Airport (see Figure 2-2 in Chapter 2). The combined storm drain and force main piping is estimated to total approximately 7,650 feet of piping constructed at a maximum depth of approximately 18 feet.

According to a water quality analysis prepared for the proposed Northside Improvements area,<sup>23</sup> the existing site conditions comprise approximately 42.2 acres of asphalt and concrete, 0.1 acre of structures, 38.2 acres of compacted gravel (impervious), and 13 acres of bare soil (pervious). Pervious area would increase by 13 acres with the proposed Northside Improvements compared to existing conditions. The increase in pervious area and implementation of permanent BMPs within the Northside Improvements area would reduce the total volume of runoff compared to existing conditions.

The water proposed to be discharged to the Navy Boat Channel connects to the same water body receiving the discharge now – San Diego Bay. The existing outfalls discharge roughly within 400 feet away from each other in Convair Lagoon and within one mile from downtown San Diego. In general, water discharged to San Diego Bay from the northside area would have a higher quality after the proposed Northside Improvements and the BMPs are implemented than it now has.

Concerns regarding the possibility of salinity changes through dilution resulting from freshwater storm flows arose in connection with The Green Build, which also discharges to an existing outfall in the Navy Boat Channel. A prior evaluation of the dilution capacity of the Navy Boat Channel concluded that potential dilution of salinity by the fresh water outflow from the storm drain outlet would be insignificant and temporary in nature due to the relatively small volume of fresh water and the tidal influence/tidal cycle. The Kleinfelder Drainage Study presented runoff volumes from the proposed Northside Improvements based on the planned, completed project conditions for the 10-year and 25-year/6-hour storms. The runoff volume from the 10-year/6-hour storm is calculated at 2.39 million gallons and the 25-year/6-hour storm runoff volume is 2.80 million gallons. The runoff volume from the 10-year/24-hour storm is 4.18 million gallons and the 25-year/24-hour storm runoff volume is 4.86 million gallons.

Given that the size and design of the proposed storm drain system would be tailored to the specific characteristics of the proposed improvements and the storm water is not dependent on, or constrained by, existing downstream facilities, plus the Proposed Action includes design features to reduce the amount of surface water runoff, no significant impacts to hydrology would occur. It should be noted that the detailed design of the storm drain system for the Proposed Action, based on the general concept described above,

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<sup>23</sup> Haley & Aldrich, Inc., *San Diego County Regional Airport Authority Water Quality Analysis – Planned Northside Development Area, San Diego, California*, April 1, 2013.

would be developed in light of the requirements of the SDIA SWMP, which includes provisions related to the Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID), which would further address potential hydrology impacts.

#### 4.6.3.2 Water Quality

##### *Operations*

As noted above, the Proposed Action includes proposed improvements that would modify existing uses within the APE and modify the existing storm water drainage system. The proposed improvement of the northern portion of the site would convert existing paved and gravel areas used for vehicle parking and storage to a new surface parking lot, RCC, and access road. In general terms, such development would reduce sediment loads and possibly bacteria pollutants to surface water runoff, compared to the No Action alternative (i.e., dirt and gravel portions of site converted to paved surface and building area), and increase pollutant loads related to metals, organic substances, trash and debris, and oils and grease. While these latter types of pollutants would not be new to the subject area, inasmuch as the existing vacant areas and vehicle parking and storage areas generate such constituents, the intensification of daily activity within the subject area poses the potential to increase the daily loads of such pollutants.

Within the southern portion of the site, where the air cargo improvements and relocation of the FBO would occur, it is not anticipated that there would be a substantial change in activities and potential sources of surface water pollutants. Similar to the No Action alternative, potential surface water quality pollutants associated with these ongoing uses would include, but not be limited to, fuels, lubricants, and other hydrocarbon products, metals, paints, brake fluid, antifreeze, rubber particles, solvents, battery acid, and other such constituents.

Development and operation of the Terminal Link Roadway poses the potential to generate surface water pollutants such as hydrocarbons, metals, and rubber particles, although portions of the proposed alignment coincides with an existing vehicle service road, which is already a source of such pollutants.

Several design features are incorporated into the Proposed Action to address potential water quality impacts associated with the uses described above. Such features include the porous pavement and vegetated/grass areas and swales described above, which in addition to reducing surface runoff, provide water quality benefits through infiltration. Additionally, the four main curb drainage inlets along the main interior access road would be equipped with filter systems to treat surface runoff before being discharged into the new storm drain. The filtration system currently proposed would include a large subsurface vault at each inlet, within which there would be several sequential treatment chambers that would allow storm water to be screened three times, settled three times, flow through an oil and grease separator, then pass through a synthetic mesh filter, and finally pass through a column of porous media including activated carbon. Such filtration is designed to provide a level of treatment for sediments, nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, bacteria, and oil and grease. The use of subsurface detention basins and sand filters are also being considered as potential BMPs for the proposed storm drain systems.



Several design features will be incorporated in order to reduce the potential for water quality impacts from the RCC fueling facilities. The fuel storage facilities will feature underground fiberglass fuel storage tanks that would be double-walled to help prevent fuel leaks. The fuel lines from the storage tanks to the dispensing system would also be double-walled fiberglass piping below grade and double-walled steel piping aboveground to prevent leaks. Additionally, a leak detection system and monitoring sumps would be incorporated into the fuel system design.

All of the above water quality BMPs would be integrated into the SUSMP and LID plans to be prepared for the Proposed Action, in accordance with the SDIA SWMP and applicable water quality regulations, along with other measures, as necessary and appropriate. In addition to such treatment control BMPs incorporated into the project design, ongoing implementation of airport-wide water quality measures such as source control BMPs (i.e., non-storm water management, waste handling/disposal, good housekeeping, spill prevention, control, and clean-up, etc.), as set forth in the SDIA SWMP, would also help address potential water quality impacts associated with operation of the proposed improvements. The SDCRAA would coordinate with the City of San Diego Storm Water Division as necessary to protect the City's stormwater drainage system.

### *Construction*

Construction activities associated with improvements under the Proposed Action pose the potential to generate water quality pollutants such as sediments from grading/ground disturbance, fuels, oil, grease, and solvents from construction equipment fueling and servicing, metals from steel/iron work, paints and miscellaneous chemicals stored and used during construction use, and trash and debris. Potential water quality impacts would, however, be addressed through compliance with the construction activity requirements specified in the SDIA SWMP and through the state's General NPDES Permit for Storm Water Discharges Associated with Construction Activities (2009-0009-DWQ), which requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) specific to the proposed construction activities.

#### 4.6.4 MITIGATION MEASURES

No mitigation measures are required beyond those already proposed as project design features or otherwise mandated by provisions in the SDIA SWMP and State NPDES General (Construction) Permit.

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## 4.7 Wetlands

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Executive Order 11990 requires federal agencies to minimize the destruction, loss, or degradation of wetlands resulting from their actions. Section 404 of the Clean Water Act, as amended, requires regulation of discharges or fill matter into waters of the U.S. The USACE has primary responsibility for implementing, permitting and enforcing the provisions of Section 404.

Wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar special aquatic habitats.<sup>24</sup>

#### 4.7.1 METHODOLOGY

A wetlands analysis for the Proposed Action was completed in April 2012 by the biological consulting firm Merkel & Associates, along with the completion of a biological analysis for the project. **Appendix D** of this EA contains the full report by Merkel & Associates and the following summarizes the information related to wetlands.

#### 4.7.2 NO ACTION ALTERNATIVE

The No Action alternative does not include any development on or adjacent to, or that may otherwise adversely affect, jurisdictional wetlands, including the Navy Boat Channel; therefore, this alternative would have no impacts to jurisdictional wetlands.

#### 4.7.3 PROPOSED ACTION

A field survey of the proposed storm drain force main outlet areas conducted by a Merkel & Associates biologist in March 2012 did not reveal presence of any wetland vegetation within the boundary of the proposed improvements construction area, below or above the Ordinary High Water Mark (OHWM). The riprap shoreline and adjacent uplands are free of wetland vegetation. The only vegetation on the riprap is hottentot-fig that dominates the uplands and spreads down the riprap. Additional dominant plant species include quail saltbush (*Atriplex lentiformis*) (two large individuals at the top of the riprap slope), Bermuda grass (*Cynodon dactylon*) and riggut grass (*Bromus diandrus*) interspersed with the hottentot-fig, and English plantain (*Plantago lanceolata*). The uplands and riprap at the proposed outfall site do not contain wetland hydrology or vegetation. Additionally, soils at the site consist primarily of fill material, which do not qualify as hydric (wetlands) soils. As such, the proposed improvements area does not contain federal wetlands, and implementation of the Proposed Action would not impact jurisdictional wetlands.

#### 4.7.4 MITIGATION MEASURES

Because the Proposed Action would not have a significant impact on wetlands, no mitigation for wetlands impacts would be required.

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<sup>24</sup> 33 CFR 328.3(c), 1996.

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## 4.8 Floodplains

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Executive Order No. 11988 was enacted in order to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practical alternative. The order was issued in furtherance of NEPA, the National Flood Insurance Act of 1968, and the Flood Disaster Act of 1973.

Floodplains are defined as lowland and flat areas adjoining waters that are subject to a one percent or greater chance of flooding in any given year, i.e., a 100-year flood event.

### 4.8.1 METHODOLOGY

Potential floodplain impacts were evaluated by comparing the location of Proposed Action elements with floodplain mapping prepared by the FEMA.

The proposed project or an alternative would cause a significant floodplain impact if it would impose a flood hazard on other properties, or place development wholly or partially within a FEMA-mapped 100-year floodplain such that substantial flood hazards would result. Impact significance also is assessed with regard to Executive Order 11988, Floodplain Management (42 Fed. Reg. 26951 (1977)). Under this Executive Order, federal agencies must take action to avoid development in the 100-year floodplain unless it is the only practicable alternative; to reduce hazard and risk associated with floods; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial value of the base floodplain.

### 4.8.2 NO ACTION ALTERNATIVE

The No Action alternative does not include any development on or adjacent to the 100-year floodplain in the southeastern portion of the Airport; therefore, this alternative would have no impacts to a 100-year floodplain and there would be no increased potential for floodplain impacts.

### 4.8.3 PROPOSED ACTION

As indicated in Section 3.5.4, Floodplains, in Chapter 3, Affected Environment, virtually all of SDIA is mapped as Zone X, "areas determined to be outside the 500-year floodplain." However, approximately 8.9 acres of the former Teledyne Ryan leasehold is within the mapped 100-year floodplain and could experience up to one foot of flooding during a 100-year storm. None of the development proposed as part of the proposed improvements would place structures within a 100-year floodplain. Development of the Terminal Link Roadway between the northern and southern portions of the Airport would include a segment that passes through the 100-year floodplain of the former Teledyne Ryan leasehold. The Terminal Link Roadway would not, however, represent a structure that impedes or redirects flood flows or result in long or short-term adverse impacts associated with the occupancy and modification of a floodplain.

Although the Terminal Link Roadway would not result in any adverse floodplain impacts, as described in Chapter 2, Alternatives, an alternative on-Airport western alignment for the Terminal Link Roadway that would

avoid the 100-year floodplain was identified. This alternative alignment would run west of the proposed RCC and SAN Park Pacific Highway facilities, then south along the proposed and existing service road inside the northwest boundary of the Airport, then turn west and run parallel to Runway 9-27, then travel south around the runway end and exit to the terminal roadway system in the southwest corner of the Airport (see Figure 2-3). Because the existing service road located north of Runway 9 is too narrow due to the existing FAA navigational equipment associated with the Runway 9 CAT I ILS, construction of the Terminal Link Roadway north of Runway 9 would require either an easement or acquisition of property from the U.S. Marine Corps. Previous discussions with the U.S. Marine Corps concerning land acquisition in this area have been rejected. Additionally, this alignment would result in increased travel time and resultant emissions for the RCC and SAN Park Pacific Highway shuttle buses and increased traffic on the Airport service road that connects the passenger terminal area with the northside of the Airport. Due to the need to acquire land or an easement from the U.S. Marine Corps, the longer road alignment, travel time, increased congestion, and emissions associated with this alternative, it was eliminated from further consideration. As such, there is no practical alternative for the alignment of the Terminal Link Roadway that would avoid the 100-year floodplain.

#### 4.8.4 MITIGATION MEASURES

Because the Proposed Action would not cause significant floodplain impacts, no mitigation is required.

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## 4.9 Coastal Resources

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The Coastal Zone Management Act (CZMA) of 1972 ensures the effective management, beneficial use, protection, and development of the coastal zone. Coastal Zone Management Programs (CZMPs), prepared by states according to guidelines issued by the NOAA, are designed to address issues affecting coastal areas. The Airport is not within a coastal area defined by the federal government; consequently, analysis of alternatives with respect to an approved CZMP is not required.

The Coastal Barriers Resources Act of 1982 prohibits federal financing for development within the Coastal Barrier Resources System, which consists of undeveloped coastal barriers along the Atlantic and Gulf coasts. The legislation was amended by the Coastal Barrier Improvement Act of 1990 to include undeveloped coastal barriers along the shores of the Great Lakes.

#### 4.9.1 METHODOLOGY

Although the FAA has not established specific thresholds for coastal resources in FAA Order 5050.4B or 1050.1E (Appendix A, Section 3), it follows the regulations set forth in 15 CFR 930, *Federal Consistency with Approved Coastal Management Programs*. A federal action is subject to CZMA federal consistency requirements if the action will affect a coastal use or resource, in accordance with NOAA's regulations. Under §930.33, federal agencies shall determine which of their activities affect any coastal use or resource of states with approved CZMPs. Effects are determined by looking at reasonably foreseeable direct and indirect effects on any coastal use or resource.

If the federal agency determines that the activity has no effects on any coastal use or resource, and a negative determination under §930.35 is not required, then the federal agency is not required to coordinate with state agencies under Section 307 of the CZMA. The Proposed Action or its alternatives cannot be approved if a State with an approved CZMP raises an objection unless other specified actions are taken. The potential significant coastal resources are addressed with regard to consistency with the California Coastal Act of 1976 ("Coastal Act"; California Public Resources Code Sections 30,000 et seq.), which is administered by the California Coastal Commission. This act, which is consistent with the Federal CZMA, contains the State's adopted policies with regard to the protection of coastal resources.

The Proposed Action would have a significant impact to coastal resources if it would be inconsistent with applicable coastal zone management and planning policies in Chapter 3 of the Coastal Act, including the following:

1. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.
2. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.
3. Marine resources shall be maintained, enhanced, and, where feasible, restored.
4. The biological productivity and the quality of coastal waters appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.
5. Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
6. Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.
7. New commercial or industrial development, except as otherwise provided in the Coastal Act, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it.
8. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.
9. The location and amount of new development should maintain and enhance public access to the coast by providing adequate parking facilities or providing substitute means of serving the development with public transportation.

10. New development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard.
11. New development shall be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

Note that these are not the only coastal zone management and planning policies contained in Chapter 3 of the Coastal Act; rather, these are the policies that SDCRAA considers potentially applicable to the Proposed Action. These policies also are considered in light of Coastal Act guidance that existing developed uses are essential to the economic and social well-being of the people of California. That is, although the Airport is not a coastal dependent use, it is an existing facility that cannot feasibly be relocated to a non-coastal location within the timeframes addressed by the Proposed Action. Also note that, because the topic of “coastal resources” encompasses a broad spectrum of resources and issue areas, much of the discussion of impacts provided below refers to analyses elsewhere in this EA. For the purposes of assessing coastal resource impact significance, this section assumes that the provisions identified in other sections (e.g., 4.6, Water Quality, 4.15, Hazardous Materials, Pollution Prevention, and Solid Waste) would be implemented.

#### 4.9.2 NO ACTION ALTERNATIVE

Under the No Action alternative, there would be no change in the existing use of coastal resources at SDIA and the former Teledyne Ryan leasehold. Similarly, there would be no proposed Airport developments requiring certification and/or approval from the California Coastal Commission.

#### 4.9.3 PROPOSED ACTION

The Proposed Action would not conflict with the applicable coastal zone management and planning policies contained in Chapter 3 of the Coastal Act for the following reasons (numbers correspond to the significance criteria listed above):

1. The improvements that would occur under the Proposed Action would not preclude or restrict public access to the coast. For aviation security reasons, much of the APE is currently closed to the public or limited to persons with legitimate Airport business. In the broader sense, improvements to SDIA would make arriving at San Diego more pleasant for visitors, which could be considered an improvement to coastal access. Further, implementation of the Terminal Link Roadway would reduce airport-related rental car shuttle traffic on North Harbor Drive, a local roadway that provides access to area coastal resources such as Spanish Landing Park, the multi-use pathway along North Harbor Drive, recreational uses on Harbor Island, and San Diego Bay.
2. SDIA is not obligated to support coastal recreation and has not historically been used for such a purpose. Recreation would not be consistent with current and proposed use of the subject property as a busy international airport.
3. No construction in or near marine areas would occur under the Proposed Action, with the exception of the proposed storm drain outfall to the Navy Boat Channel. The proposed improvements included in the Proposed Action would not significantly adversely affect the marine environment, including the

Navy Boat Channel, as further described in Section 4.6, Water Quality, Section 4.7, Wetlands, and 4.10, Fish, Wildlife, and Plants.

4. The Proposed Action would not degrade the biological productivity or the quality of coastal waters because: it would incorporate measures to address potential runoff during construction and operation of the proposed new facilities (see Section 4.6, Water Quality); wastewater flows generated at the Airport (including those from Proposed Action facilities) would be treated by the City of San Diego prior to discharge in the ocean; and reclaimed water would be used where appropriate (such as for certain landscaping irrigation applications).
5. As indicated in Chapter 3, Affected Environment, the habitat surrounding and including SDIA supports a limited number of biological resources because much of the area is already extensively developed. As described in Sections 4.10, Fish, Wildlife, and Plants and 4.7, Wetlands, the proposed improvement areas are disturbed/developed. No Clean Water Act or California Fish and Game Code wetlands exist on site. The taxiway ovals in the southeast sector of SDIA represent important nesting habitat for the California least tern; however, impacts to least terns during construction and shuttle operations on the proposed Terminal Link Roadway would not be significant as described in Section 4.10, Fish, Wildlife, and Plants. Further, as described in Section 4.10, no impacts to subtidal vegetated habitat (eelgrass) in the Navy Boat Channel are anticipated as a result of the proposed storm drain force main. Accordingly, the Proposed Action would not cause a significant disruption to, or loss of habitat value in, environmentally sensitive habitat areas.
6. With the exception of marine habitat (see item no. 3), SDIA is not adjacent to environmentally sensitive habitat areas. As described in Section 4.1, Noise, the Proposed Action would not result in an increase in noise levels off-Airport, and as described in Section 4.6, Water Quality, the Proposed Action would not increase pollutant emissions in storm water runoff. Accordingly, the Proposed Action would not have indirect effects on off-Airport habitat. Similarly, the Proposed Action would not adversely affect nearby Spanish Landing Park or recreational boaters in San Diego Bay.
7. The proposed improvements would occur mostly within the existing Airport property. Land in the vicinity of SDIA is densely developed due to the Airport's proximity within two miles of downtown San Diego. Accordingly, the Proposed Action would be consistent with Coastal Act guidance calling for new development to be within, contiguous with, or in close proximity to existing developed areas.
8. As described in Section 4.13, Light Emissions and Visual Impacts, the proposed improvements would not significantly affect views to and along scenic coastal areas (e.g., views to San Diego Bay and the Pacific Ocean from inland of the Airport), and it would result in development that is visually compatible with the character of surrounding areas.
9. SDIA is a public transportation facility that provides coastal access (e.g., access to San Diego County and its coastal resources) for visitors from throughout California and the nation. Locally, the Airport is served by several forms of public transit including buses, taxis, and shuttles, and commuter and inter-city rail (via the MTS Flyer Bus Route No. 992 from Santa Fe Station). These services would continue under the Proposed Action. With regard to parking, the Proposed Action includes relocation and reconfiguration of the SAN Park Pacific Highway surface parking facility, which would occur to the

north and west of the proposed RCC facility. Based on these factors, the Proposed Action is consistent with applicable Coastal Act guidance on transportation and parking in the coastal zone.

10. Development at SDIA would not be in a wildland fire or other high-fire hazard area. Potential geological stability issues would be addressed during project design and construction, as addressed in Section 4.16, Construction Impacts. As discussed in Section 4.8, Floodplains, development of the Terminal Link Roadway between the northern and southern portions of the Airport would include a segment that passes through the 100-year floodplain of the former Teledyne Ryan leasehold. The Terminal Link Roadway would not, however, represent a structure that impedes or redirects flood flows or result in long or short-term adverse impacts associated with the occupancy and modification of a floodplain.
11. As described in Section 4.5, Air Quality, the Proposed Action would be consistent with requirements imposed by the San Diego County Air Pollution Control District and the State Air Resources Control Board.

A determination or consistency certification from the California Coastal Commission is not required for the Proposed Action. As discussed in Section 3.5.5, the only Federal actions that would trigger a certification of consistency per the Coastal Act are certificates for the operation of new airports. The APE is within California's Coastal Zone, as designated by the Coastal Act. However, there is no Coastal Commission-certified Airport Land Use Plan for SDIA. Coordination with the California Coastal Commission regarding permitting related to off-site drainage would occur on a project-by-project basis for each specific project element. All required permits for the construction of the RDC were obtained prior to construction. Because the Proposed Action would be consistent with the planning and land use policies adopted by the State to protect coastal resources, there would be no significant impact on coastal resources.

#### 4.9.4 MITIGATION MEASURES

This assessment of coastal resource impacts assumes that the mitigation measures identified in the water quality and fish, wildlife, and plants sections of this EA would be implemented (see Section 4.6, Water Quality, and Section 4.10, Fish, Wildlife, and Plants). Specifically, this includes implementation of water quality BMPs and other storm water pollution measures identified in the SUSMP and LID plans and the construction activity requirements specified in the SDIA SWMP and State NPDES General (Construction) Permit. Additionally, the mitigation measures identified in Section 4.10.4 would be implemented to minimize impacts to the California least tern and eelgrass within the Naval Estuary Small Boat Channel. With conformance to the SUSMP and the implementation of these measures, no additional measures would be required as coastal resource impacts for the Proposed Action would not be significant.

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## 4.10 Fish, Wildlife, and Plants

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This section focuses on the potential for the project alternatives to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat.



#### 4.10.1 METHODOLOGY

Impacts to biotic communities and threatened and endangered species were assessed through a review of previous documents (e.g., least tern nesting records, Biological Opinion<sup>25</sup> [BO]) and assessment of the potential for SDIA to support vegetation communities/habitat, and by the completion of a biological resources field survey and impacts assessment specific to the Navy Boat Channel. Because the vast majority of SDIA is developed or highly disturbed, this effort focused on two areas: (1) the least tern nesting areas (“ovals”) at the southeast portion of SDIA and (2) the shoreline and intertidal areas in the Navy Boat Channel near the proposed storm drain force main outfall. The biological resources and impacts assessment for the Navy Boat Channel was completed in April 2012 by the consulting firm Merkel & Associates (see Appendix D).

For the purposes of this analysis, potential jeopardy to biotic communities/endangered and threatened species impacts were evaluated based on the potential for the USFWS to determine that the Proposed Action would result in the destruction or adverse modification of Federally-designated critical habitat within the affected area. Correspondence with USFWS is included in Appendix A.

#### 4.10.2 NO ACTION ALTERNATIVE

Under the No Action alternative, there would be no change to the least tern ovals and, except for expected growth in (non-project-related) aircraft operations at SDIA, no increase in indirect effects compared to existing conditions. The Airport would continue to operate in compliance with the terms of the BO issued by the USFWS and there would be no additional lighting or vehicular activity near the ovals. In addition, there would be no development near the Navy Boat Channel which contains sensitive habitat as described below and in Section 3.5.6, Biotic Communities.

#### 4.10.3 PROPOSED ACTION

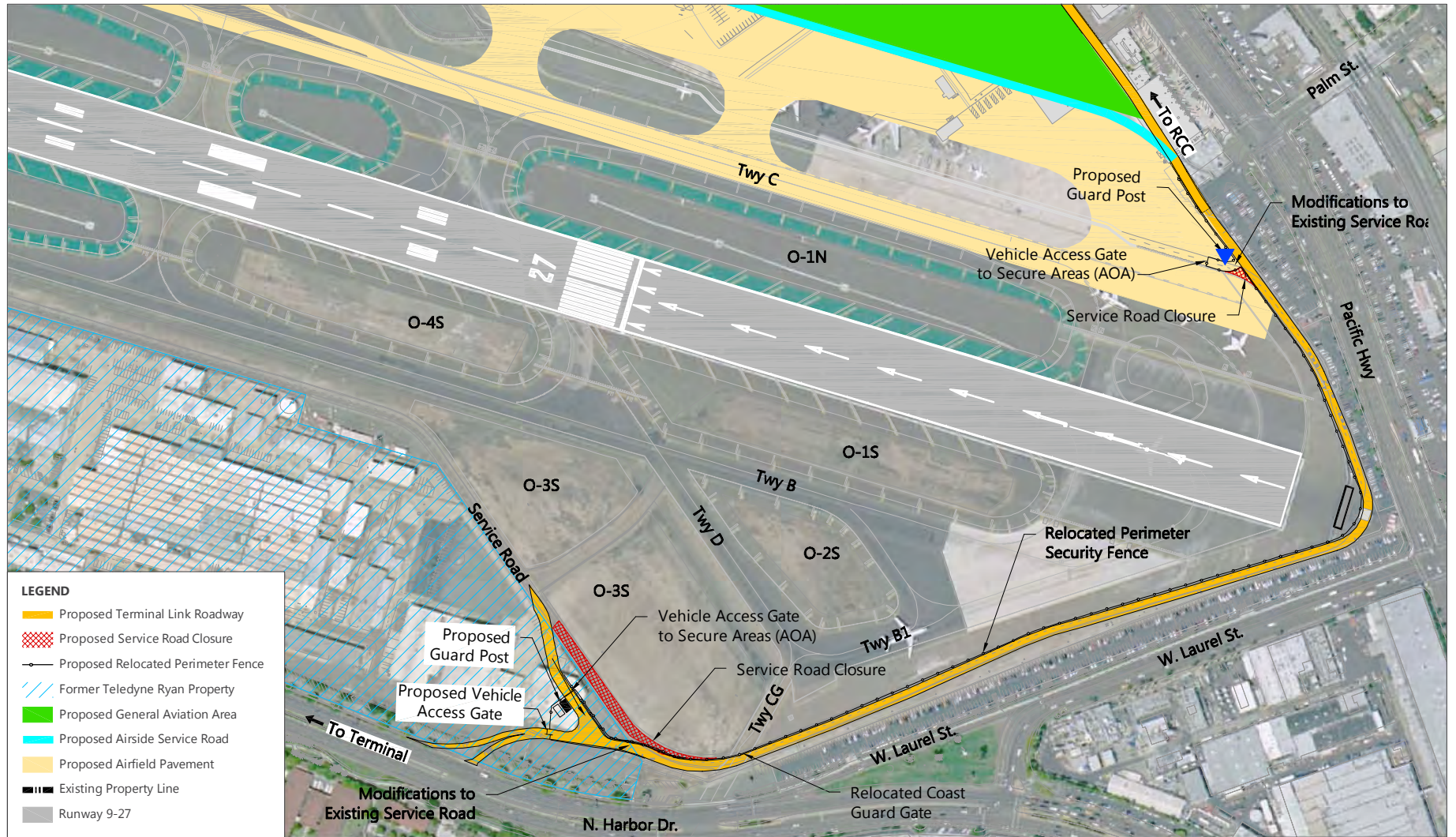
##### 4.10.3.1 California Least Tern Nesting Areas

As indicated in Chapter 3, Affected Environment, the habitat surrounding and including SDIA supports a limited number of biological resources because much of the area is already extensively developed. One notable exception is the California least tern nesting areas (“ovals”) at the southeast portion of SDIA. The California least tern nesting area at SDIA is bordered on the south by an existing on-Airport service road that is used on a regular basis and to the north by Runway 9-27. To the south of the service road, outside of the Airport boundary, are Laurel Street and North Harbor Drive, both of which have substantial traffic volumes. The existing Airport service road located at the southeast corner of the Airport would become the Terminal Link Roadway, from the point where Laurel Street and North Harbor Drive intersect east around Runway 27 and then to the point where the existing Airport service road turns northwest to parallel Runway 9-27 on the north (see **Figure 4-2**).

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<sup>25</sup> U.S. Department of the Interior, Fish & Wildlife Service, Ecological Services, Carlsbad Field Office, “Biological Opinion on the Immediate Action Program, Lindbergh Field Facilities Improvements, San Diego International Airport, San Diego, California,” July 16, 1993.

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SOURCE: San Diego County Regional Airport Authority, May 2012; Ricondo & Associates, Inc., May 2012.  
 PREPARED BY: Ricondo & Associates, Inc., May 2012.

**Figure 4-2**



Terminal Link Roadway Detail

Drawing: Z:\San Diego\SAN On-Call\Northside EA\CAD\Terminal Link Roadway Detail\_20130805.dwg\_Layout: Fig 4-2\_Aug 21, 2013, 9:11am

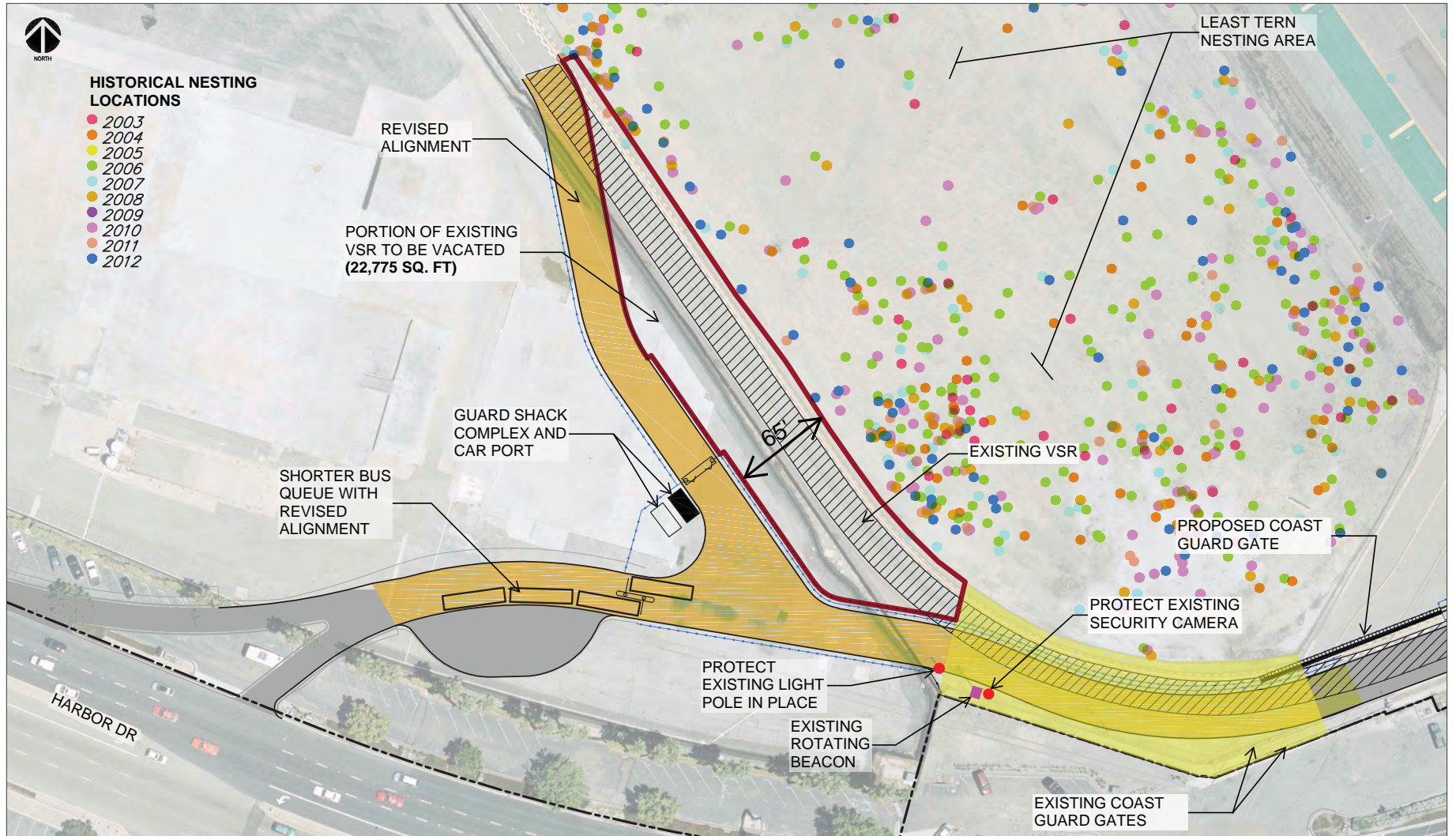
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Airport service vehicles (primarily maintenance and security vehicles) that currently utilize the Airport service road to drive to areas located in the southeast corner of the airfield would have to exit through a new vehicle access gate, turn left onto the Terminal Link Roadway, and then enter through a relocated vehicle access gate on the north side of the runway (see Figure 4-2). After consultation with Airport security and Transportation Security Administration (TSA) personnel, the SDCRAA has determined that both the new vehicle access gate adjacent to Oval 0-3S and the relocated vehicle access gate on the north side of the runway require manned guard posts due to the proximity of the Terminal Link Roadway entrance to North Harbor Drive and the secured Air Operations Area (AOA). Per TSA requirements, any gate accessing the secured AOA that could be accessible by the public requires a manned guard post. Although the Terminal Link Roadway would not be open for public use, vehicles utilizing the Terminal Link Roadway would include RCC shuttle buses and parking lot shuttle buses that would transport unsecured passengers (passengers that have either not gone through passenger screening or passengers that have exited secure areas of the Airport); thus, manned guard posts are required at the two AOA vehicle access gates.

During informal consultation on potential effects of the Proposed Action on the California least terns, the U.S. Fish & Wildlife Service expressed concern that the light and noise from increased vehicle traffic on the Terminal Link Roadway and security gate/guard shack may disturb nesting terns or discourage them from using portions of the tern nesting areas located on the Airport, especially 0-3S. The U.S. Fish & Wildlife Service was also concerned that the vehicle and security gate lights may also increase the visibility of terns to potential predators. In order to accommodate the guard post and vehicle access gate and minimize potential effects to the California least tern nesting area, SDCRAA proposes to shift the existing vehicle service road and Airport security fence to the west. Thus, the vehicle access gate and guard post would be constructed to the west of the existing Airport security fence, and a new Airport security fence would be constructed west of the proposed vehicle access gate and security post. Because the SDCRAA is concerned that a manned guard post in close proximity to nesting Oval 0-3S may be disruptive to nesting California least terns, the SDCRAA proposes to install a fence with opaque screening material to block the guard post and vehicle access gate from ground-level views east of the proposed vehicle access gate (see **Figure 4-3**). Lights associated with the guard post would be shielded and directed downward to minimize light emissions onto the airfield and the nesting ovals. An additional un-manned vehicle access gate would be located on the Terminal Link Roadway southwest of the manned guard post, which would also be shielded from ground-level views east of this proposed vehicle access gate. This vehicle access gate would be for the RCC and parking lot shuttle buses to enter and exit the Terminal Link Roadway system.

The existing Airport service road would be abandoned in place along the west side of Oval 0-3S to provide a buffer between the Airport security fence and Oval 0-3S, while the Airport service road south of Oval 0-3S would be utilized for a portion of the Terminal Link Roadway. This would require the existing perimeter security fence to be moved north of the Airport service road along the southern edge of the Airport by the end of Runway 27. Although the Terminal Link Roadway would not be open for public use, the shuttles would transport unsecured passengers (passengers that have either not gone through passenger screening or passengers that have exited secure areas of the Airport); thus the Terminal Link Roadway has to be located outside of the secured area of the airfield. Although the perimeter security fence would be located closer to the southern end of Oval 0-3S, all vehicle traffic would be located outside of the fence. The SDCRAA would maintain existing design features to minimize perching locations for potential predators on the fence.

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SOURCE: San Diego County Regional Airport Authority, August 2013.  
 PREPARED BY: San Diego County Regional Airport Authority, August 2013.

**FIGURE 4-3**

AOA Access Gate Set Back Alternative, Guard Shack, and Least Tern Nesting Area Section



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The potential environmental effects of the proposed guard post and shielded fencing may result in disturbance to nesting California least terns due to the presence of a manned guard post, movement of the security fence, and vehicle traffic on the Airport vehicle service road and Terminal Link Roadway. The guard post would be located approximately 100 feet from the edge of Oval 0-3S and would be located behind a shielded fence, blocked from the view of California least terns within Oval 0-3S. The shielded security fence would cast a shadow and block views of California least terns to the west. Because nesting terns prefer open views of surrounding areas so they can spot and evade potential predators, the shielded fencing may cause the terns to nest farther from the edge (i.e., more to the north and east), than they have historically done. Figure 3-6 depicts California least tern nesting sites located at the Airport from 2003-2011. Additionally, foraging terns may avoid flying directly over the guard post due to the presence of vehicles, the security guard, or the shadow effect of the shielded security fence.

The movement of the vehicle access gates could cause disturbance of nesting California least terns if the gates are noisy or movement of the gates startles the terns. FAA, SDIA and USFWS personnel have been actively working together to mitigate potential impacts on the California least tern associated with the proposed roadway. These discussions have resulted in additional measures that when incorporated will avoid or reduce to a level of insignificance potential effects of the Proposed Action on the California least tern and compensate for any other effects due to the Proposed Action. These changes include:

- The SDCRAA will restore the 0.5-acre Teledyne-Ryan Taxiway in Oval-3 South (0-3S) to conditions suitable for tern nesting. The Teledyne-Ryan Taxiway will be maintained in condition suitable for tern nesting for the life of the Northside Improvements project.
- The SDCRAA and FAA, in coordination with the USFWS and California Department of Fish and Wildlife (CDFW), will incorporate an 8-foot high by 165-foot long visual barrier into the TSA fence to reduce the potential for visual disturbance related to activities at the vehicle service road security gates and guard shack. The visual barrier will consist of heavy shade cloth that is attached to or incorporated into the fencing. The SDCRAA will install anti-perch material (e.g., Nixalite) on any TSA fence segments or posts that do not include razor wire.
- The SDCRAA will extend the visual barrier on the TSA fence approximately 345 feet to the east along the Terminal Link Roadway to reduce illumination of the SDIA nesting area from vehicle headlights, if deemed beneficial by the USFWS and CDFW and tern monitors retained by SDCRAA.
- The proposed vehicle service road in the area of the security gate will be located 65 feet to the west to provide a 22,775 square foot buffer between the roadway/security gate and 0-3S (see Figure 4-3). In addition, the guard shack will be constructed on the west side of the vehicle service road to maximize the distance away from 0-3S.
- The SDCRAA, in consultation with the USFWS and CDFW, will identify a security gate and guard shack design that minimizes light, noise and movement to the extent possible, and does not provide openings for the potential ingress of mammalian predators into the Airport least tern nesting areas. For this design, the height of security cameras, lighting, and fences will be reduced as much as possible and include predator perch barriers. In addition, lighting will be minimized in and around the guard shack. The light at the guard shack will be angled to shine down towards the security gate.

The SDCRAA will submit draft designs for the security gate and guard shack to the USFWS for review and approval prior to finalizing the designs.

- The SDCRAA will not install street lights along the Terminal Link Roadway.
- The SDCRAA will remove two 25-foot light poles that lie within 65 feet of 0-3S.
- The backup triturator for lavatory waste disposal will be relocated from its current location directly east of 0-3S, to the west side of the Airport, which will partially reduce traffic on the vehicle service road near 0-3S.
- The SDCRAA will implement project components that are beneficial to the tern, including: creation of nesting habitat at Teledyne-Ryan taxiway, re-location of the backup triturator and removal of light poles, before the 2014 nesting season. Construction of the Terminal Link Roadway, re-aligned vehicle service road, and security gate/guard shack will not begin until after the 2014 tern nesting season.

As discussed in Chapter 3, Affected Environment, various projects have obligated California least tern management efforts at SDIA and a BO prepared by the USFWS requires reasonable and prudent measures for protecting California least terns at SDIA. The BO stated a number of conditions/protective measures, which included, among others, the following:

- The FAA and the SDCRAA will maintain in perpetuity Ovals 0-1S, 0-2S, 0-3S, and 0-4S as nesting habitat for California least tern
- The FAA and SDCRAA will maintain tern fledgling nest barriers/fencing around the perimeter of the above ovals to prevent the movement of fledglings outside these areas onto runways and taxiways. The fence is to be inspected and maintained during the breeding season by a qualified tern biologist with the appropriate endangered species permit issued by the USFWS
- The FAA and SDCRAA will provide annual funding for a predator control program; however, no shooting of tern predators at SDIA is allowed and non-lethal means are preferred
- The FAA and SDCRAA will prepare and maintain in perpetuity a minimum of 6.2 acres of contiguous supratidal habitat at the Chula Vista Wildlife Reserve in south San Diego Bay for tern nesting
- The FAA and SDCRAA are responsible for assuring ongoing monitoring of tern populations at SDIA and at Chula Vista Wildlife Reserve by qualified tern biologist(s)

In addition, the BO specified certain practices for construction crews working on facility improvements, including educating workers on prohibitions to applying materials, storing equipment, or performing maintenance near the ovals, constraining ingress and egress routes to specific locations during the nesting season (greater than 1,200 feet from the ovals), lowering crane booms when not in use, ensuring that trash would be properly disposed and that workers would not feed potential tern predators in the area.

The measures and practices specified in the BO, along with the proposed design features to be incorporated into the perimeter security fence, vehicle access gate, guard post, and shielded fencing would be required of the proposed Northside Improvements. In addition to above design features, USFWS specified conservation measures to be implemented based on the BO and informal consultation. These conservation measures are

specified in Section 4.10.4, Mitigation Measures. Implementation of the proposed design features and conservation measures would ensure that impacts to the California least tern would not be significant.

#### 4.10.3.2 Navy Boat Channel

Biotic habitat types that exist at the proposed storm water force main outfall consist of supratidal and intertidal riprap, which abuts a narrow swath of unvegetated intertidal mudflat at the toe. Subtidal habitat consists primarily of unvegetated mud bottom, transitioning to vegetated habitat (eelgrass). The following sections describe potential impacts to such habitats, and to sensitive species that may utilize those habitats or are otherwise associated with the project site area. Also included in the discussion below is an assessment of potential impacts to Essential Fish Habitat (EFH) and managed fish species.

##### *Marine Habitats*

Development of the storm drain force main outlet improvements associated with the Proposed Action would result in impacts to approximately 570 square feet of intertidal mudflat and shallow subtidal unvegetated habitat. These impacts would occur as a result of placement of riprap to dissipate energy and prevent erosion at the storm drain outlet. Temporary impacts would occur to a small amount of intertidal and supratidal riprap revetment that would be removed and replaced during installation of the storm drain.

No impacts to subtidal vegetated habitat (eelgrass) are anticipated. However, unanticipated impacts during construction could occur, either through increased turbidity associated with the in-water construction work or from accidental damage during placement of the riprap energy dissipater apron that may occur as a result of equipment maneuvering or slumping of the dissipater excavation prior to placement of rock. As part of the Application for Clean Water Act §401 Water Quality Certification filed with the San Diego Regional Water Quality Control Board, under the topic of "Protection of Water Quality," the Authority indicated that a turbidity curtain would be deployed during construction, in addition to several other erosion and sediment controls to be implemented as part of the Construction Storm Water Pollution Prevention Plan for the project. These measures are designed to reduce the potential for unanticipated impacts during construction. Long-term impacts may occur as a result of storm drain discharge from the outfall. Because the drain is anticipated to discharge predominantly clear water as a result of upstream inlet BMPs, it is not expected that substantial sediment or organic detrital (typically leaf litter and landscape mulch) deposition would occur at the storm drain outlet.

##### *Sensitive Species*

There were no sensitive species observed during the site visits by Merkel & Associates. The project site does not feature unique or rare habitats for which alteration would significantly impact sensitive species in the area. Sensitive bird species that could potentially occur in the APE are the California brown pelican, double-crested cormorant, and California least tern. During its breeding season, April 1 through September 1, the endangered California least tern is observed in San Diego Bay, nesting at SDIA (see above), North Island Naval Station, the Naval Amphibious Base Delta Beach, D Street Fill, the Chula Vista Wildlife Reserve and within the South Bay Saltworks in the South San Diego Bay Unit of the San Diego National Wildlife Refuge. The closest of these nesting sites to the Navy Boat Channel is within runway ovals of the SDIA, approximately 1.5 miles to the east of the Navy Boat Channel.

Least terns are sight foraging species that plunge dive in open water or swoop dive on mudflat pools to opportunistically capture small fish. Surface turbidity has the potential to adversely affect the capacity of terns to locate forage fish. Conversely, low levels of turbidity generated by bottom disturbance tend to attract small fish that forage on benthic organisms suspended in the turbidity plume. As a result, it is not uncommon to observe increased foraging activities by sight foraging species, including least terns on the margins of turbidity plumes. As a result of the interactions between enhancement of prey items and reduction of foraging effectiveness, minor turbidity generation tends not to produce any foraging area avoidance by terns. However, extensive turbidity generation may render an area unsuited to foraging by least terns or other sight foraging species. This may lead to area avoidance or other inefficiencies in foraging such as low capture success. Because terns are opportunistic in their foraging, low forage efficiency will generally result in terns moving to other areas where foraging is more successful. This relocation to other foraging areas may take birds farther from nest colonies or delay the collection and delivery of food to the nest, thereby exposing the nest to greater potential for predation, or depressed feeding levels. These effects would be considered an adverse impact to terns. As such, widespread turbidity generation has the potential to render a foraging area unsuitable to use by terns.

Project construction for the proposed storm drain force main outlet would likely result in a minor and temporary increase in turbidity rather than large-scale turbidity generation that would be of concern to foraging terns. In addition, slight turbidity elevation could occur while the pipe is placed through the slope and the bare soil on the slope is exposed. The generation of turbidity during the least tern breeding would be expected to occur for a period of not greater than two weeks. With bayside construction being conducted at low tides and a construction period turbidity containment being placed around the in-water work, turbidity generating activities would be expected to be limited to an area of less than approximately 500 square feet while the excavation for the dissipater apron and the placement of dissipater rock is undertaken. This would result in elevated turbidity within an area of less than 0.02 percent of the total area of the Navy Boat Channel. At these levels, the proposed work is not anticipated to result in significant adverse effects on foraging terns.

The California brown pelican has been delisted from its prior federal endangered species status, but it still remains "Fully Protected" by the State of California, with both nesting and roosting areas protected. Brown pelicans do not breed on the mainland California coast, and are not known to roost in the vicinity of the APE; therefore, the Proposed Action would not have an impact on nesting activities. Similarly, the APE does not support breeding populations of double-crested cormorant, and the Proposed Action would not have an impact on nesting activities for this species. California brown pelican and double-crested cormorant are common in San Diego Bay and likely forage and occasionally loaf in the vicinity of the APE. However, no roosting aggregations of these species occur in the APE. Activities associated with project construction could temporarily disturb loafing pelicans and cormorants, resulting in a temporary relocation from the area. An increase in turbidity during construction could result in a minor and temporary disturbance of the foraging ability of these species if large and persistent turbidity plumes were to be generated. For the same reasons as discussed above for least terns, turbidity during construction is not expected to result in significant impacts to these species.

The southern portion of San Diego Bay supports a year-round population of eastern Pacific green sea turtles. Although the turtles are believed to leave the Bay to nest on the beaches of offshore islands of Mexico, some

individuals are thought to be year-round residents within San Diego Bay. In a recent tracking study of green sea turtles within San Diego Bay, the majority of track detections were in south San Diego Bay, concentrated within the warm water effluent of the South Bay Power Plant. While the study area included tracking activities as far north as the Coronado Bay Bridge, no turtles were detected north of the Sweetwater River Channel; however, some turtles presumably pass through the entire bay as they leave to nest in Mexico. Environmental threats to turtle populations include contamination from coastal runoff, fueling facilities, marina and dock construction, dredging, aquaculture, oil and gas exploration and extraction, and increased underwater noise and boat traffic that can degrade marine habitats used by marine turtles. Turtles swimming or feeding at or just beneath the surface of the water are particularly vulnerable to boat and vessel strikes, which can result in serious propeller injuries and death. The Proposed Action involves shoreline work to install a new storm drain outfall and is not anticipated to result in increased boat traffic or other increased post-construction risks to sea turtles. It is unlikely that green sea turtles occur in the area and it is further unlikely that, if present, turtles would remain in the area during construction.

Harbor seals and California sea lions are observed commonly in northern San Diego Bay. There are no established haul-out, foraging, or breeding areas used by these or other marine mammals within the APE or vicinity, although individuals may make occasional transient use of the area. Harbor seals are less common in the industrialized areas of the bay than are sea lions. Construction is anticipated to be of a short duration and low impact level with regard to localized turbidity. Marine mammals would be expected to leave the site for adjacent waters if disturbed by project work; thus, it is not expected that any harassment or long-term harm would occur to marine mammals.

### *EFH and Managed Fish Species*

The area of the proposed storm drain force main outlet improvements is similar to other shallow water environments with armored shorelines within San Diego Bay with regard to distribution of habitats, biological features, and sediment characteristics. The impacts analysis completed for the Proposed Action focused on stressors associated with the improvements and their potential impact to EFH (i.e., subtidal [vegetated and unvegetated] habitat, intertidal mudflat, open water, intertidal/shallow subtidal riprap revetments) within the APE. Pursuant to 50 CFR 600.910(a), an "adverse effect" on EFH is defined as any impact that reduces the quality and/or quantity of EFH. Factors that were considered in this analysis include the duration, frequency, intensity, and spatial extent of the impact; the sensitivity/vulnerability of the habitat; the habitat functions that might be altered by the impact; and the timing of the impact relative to when the species or life stages may use or need the habitat.

### Intertidal/Shallow Subtidal Riprap Revetments

The Proposed Action would result in an increase of riprap substrate, which would consist of existing shoreline riprap, along with installation of approximately 500 square feet of riprap placed along what is currently intertidal mudflat and subtidal unvegetated habitat in order to protect the outfall and prevent erosion. Temporary impacts to the riprap fish community would occur during removal and replacement of shoreline riprap during outfall installation. Some fish would temporarily avoid the work area and move to adjacent riprap during construction, while other species may be expected to form local feeding aggregations where encrusting communities are damaged by the work. More opportunistic fish species would be expected to

temporarily move just outside of the effective range of the impact, then immediately return to forage on the released or damaged biota.

San Diego Bay currently contains 45.4 miles of armored shoreline (74 percent of the total shoreline) within the Bay. Riprap armoring along the approximately 30 foot-long construction zone for the Proposed Action represents a small fraction of the total riprap within the Bay. Because of the temporary nature of disturbance and replacement of shoreline riprap within the outlet improvement site area, the availability of extensive riprap shoreline within San Diego Bay, and the net increase in overall riprap from project installation, the impact of riprap disturbance on EFH and managed species is considered minimal and not significant.

### Intertidal Mudflat

Project construction would result in a net decrease of approximately 250 to 300 square feet due to placement of riprap in the intertidal and shallow subtidal zone to protect the outfall and prevent erosion. The mudflat in the vicinity of the proposed outlet improvement site area exists as a narrow band bordered by riprap and does not contain a substantial source of organic material (such as found at river and creek mouths and adjacent to coastal salt marshes in south San Diego Bay). As a result, this mudflat is anticipated to have lower productivity than the large mudflats elsewhere in San Diego Bay. Direct impacts on the benthic community would include the loss or mortality of any benthic infauna and epifauna in the construction footprint. Fish species that forage along the mudflat during high tides are anticipated to utilize adjacent mudflat habitats during and after project construction. Of the managed fish species, intertidal mudflat is only suitable for English sole. Due to the rarity or absence of this species from San Diego Bay, and the small impact to intertidal mudflat relative to availability of high quality mudflat elsewhere in the Bay, the impact of construction on intertidal mudflat EFH and managed fish species due to the Proposed Action is considered to be minimal and not significant.

### Subtidal Unvegetated Habitat

Subtidal unvegetated habitat would not be permanently impacted by the proposed outlet improvements construction. Temporary impacts during construction could include increased turbidity in the vicinity of the outfall and newly placed riprap. It is anticipated that fish species utilizing this habitat would move away to adjacent habitat during construction, and return to the outlet improvements site area following construction. As part of the Application for Clean Water Act §401 Water Quality Certification filed with the San Diego Regional Water Quality Control Board, under the topic of "Protection of Water Quality," the Authority indicated that a turbidity curtain would be deployed during construction, in addition to several other erosion and sediment controls to be implemented as part of the Construction Storm Water Pollution Prevention Plan for the project. These measures are designed to reduce the potential for unanticipated impacts during construction. While long-term impacts may occur as a result of increased turbidity or sedimentation from the outfall, these impacts will be reduced with the installation of upstream inlet BMPs which are designed to discharge predominantly clean water to the bay. The upstream BMPs are expected to reduce the sediment or organic detrital (typically leaf litter and landscape mulch) deposition that would normally occur at the storm drain outlet. As a result, the impact of the Proposed Action on subtidal unvegetated EFH and managed fish species is considered to be minimal and not significant.

### Subtidal Vegetated Habitat

Eelgrass vegetated habitats are an essential component of southern California’s coastal marine environment. Eelgrass beds function as important habitat for a variety of invertebrate, fish, and avian species. For many fish species, eelgrass beds are an essential biological habitat component for at least a portion of their life cycle, providing structured habitat and nursery sites for numerous species of fish. The Southern California Eelgrass Mitigation Policy offers specific guidelines for appropriate responses and mitigation measures for activities that threaten eelgrass vegetated habitats. Based on the eelgrass survey conducted at the proposed outfall area by Merkel & Associates, eelgrass at the site was found to extend from a depth of 0 feet to approximately –9 feet mean lower low water elevation (MLLW), with the majority being at depths greater than –2 feet MLLW. Eelgrass does not occur within the proposed outfall site area footprint and direct impacts to eelgrass are not anticipated; however, unanticipated impacts during construction could occur, either through increased turbidity associated with the construction work or from accidental damage during placement of riprap. Long-term impacts may occur as a result of increased turbidity or sedimentation from the outfall.

### Open Water

Effects from construction of the proposed outfall improvements would include temporary and localized increases in turbidity and sedimentation within the water column. It is anticipated that the effects of these construction-related impacts on fish would be temporary and minor. Most species of demersal and pelagic fish would avoid construction areas, resulting in the displacement of, followed by post-construction recolonization by, these species. Some sedentary demersal fishes may be affected by the temporary increase in sediment loads within the water column during construction, while more opportunistic fish species would be expected to temporarily move just outside of the effective range of the impact, then immediately return to forage on the released or damaged biota. Use of BMPs, including construction-related erosion/sediment control measures as described above, as well as installation of silt curtains during construction, would minimize the extent of construction-related turbidity. With the use of BMPs the impact of the project on open water EFH and the four managed pelagic fish species is considered to be minimal.

## 4.10.4 MITIGATION MEASURES

### 4.10.4.1 California Least Tern

The following measures would be implemented to avoid effects to California least tern during construction proposed to occur within 1,200 feet (but not closer than 800 feet) of ovals 0-3S and/or 0-2S during the California least tern nesting season (April 1 through September 15).

- The SDCRAA will restore the 0.5-acre Teledyne-Ryan Taxiway in Oval-3 South (0-3S) to conditions suitable for tern nesting. The Teledyne-Ryan Taxiway will be maintained in condition suitable for tern nesting for the life of the Northside Improvements project.
- The SDCRAA and FAA, in coordination with the USFWS and California Department of Fish and Wildlife (CDFW), will incorporate an 8-foot high by 165-foot long visual barrier into the TSA fence to reduce the potential for visual disturbance related to activities at the vehicle service road security gates and guard shack. The visual barrier will consist of heavy shade cloth that is attached to or incorporated into the

fencing. The SDCRAA will install anti-perch material (e.g., Nixalite) on any TSA fence segments or posts that do not include razor wire.

- The SDCRAA will extend the visual barrier on the TSA fence approximately 345 feet to the east along the Terminal Link Roadway to reduce illumination of the SDIA nesting area from vehicle headlights, if deemed beneficial by the USFWS and CDFW and tern monitors retained by SDCRAA.
- The proposed vehicle service road in the area of the security gate will be located 65 feet to the west to provide a 22,775 square foot buffer between the roadway/security gate and 0-3S (see Figure 4-3). In addition, the guard shack will be constructed on the west side of the vehicle service road to maximize the distance away from 0-3S.
- The SDCRAA, in consultation with the USFWS and CDFW, will identify a security gate and guard shack design that minimizes light, noise and movement to the extent possible, and does not provide openings for the potential ingress of mammalian predators into the Airport least tern nesting areas. For this design, the height of security cameras, lighting, and fences will be reduced as much as possible and include predator perch barriers. In addition, lighting will be minimized in and around the guard shack. The light at the guard shack will be angled to shine down towards the security gate. The SDCRAA will submit draft designs for the security gate and guard shack to the USFWS for review and approval prior to finalizing the designs.
- The SDCRAA will not install street lights along the Terminal Link Roadway.
- The SDCRAA will remove two 25-foot light poles that lie within 65 feet of 0-3S.
- The backup triturator for lavatory waste disposal will be relocated from its current location directly east of 0-3S, to the west side of the Airport, which will partially reduce traffic on the vehicle service road near 0-3S.
- The SDCRAA will implement project components that are beneficial to the tern, including: creation of nesting habitat at Teledyne-Ryan taxiway, re-location of the backup triturator and removal of light poles, before the 2014 nesting season. Construction of the Terminal Link Roadway, re-aligned vehicle service road, and security gate/guard shack will not begin until after the 2014 tern nesting season.
- All project construction within 800 feet of the SDIA least tern nesting area will occur from September 15 to March 31 to avoid the tern nesting season.
- The staging area will be located on the north side of Runway 9-27 at least 1,200 feet from tern nesting oval 0-3S or on the former Teledyne Ryan Property at least 800 feet from tern nesting oval 0-3S during the tern nesting season. Construction vehicles will not use roads adjacent to the tern nesting areas located on the south side of Runway 9-27. Any construction vehicles will be parked on paved areas on the north side of Runway 9-27 or on the Teledyne Ryan property at least 800 feet from 0-3S during work hours.



- Beginning April 1, the SDCRAA will hire a tern biologist (i.e., can identify the tern, recognize their vocalizations, and identify agitated or distressed tern behavior) to monitor daily for the arrival of terns into San Diego Bay and to the SDIA nesting sites and immediately notify the FAA and USFWS upon their arrival. The tern biologist will coordinate with other tern monitors in San Diego. The SDCRAA will notify the FAA and USFWS via email on a daily basis as to the presence or absence of terns in San Diego Bay and at the SDIA nesting sites. The notifications will be sent to Victor Globa (FAA) and Sandy Vissman (USFWS) unless otherwise notified by FAA or USFWS.
- The SDCRAA will hire a tern biologist (i.e., can identify the tern, recognize their vocalizations, and identify agitated or distressed tern behavior) to be onsite during the breeding season on all days when construction activities are conducted within 1,200 feet of SDIA least tern nesting areas to ensure that activities and personnel do not disrupt the tern. Construction activities will be conducted in a manner that prevents individual terns or groups of terns from displaying agitated or stressed behavior and/or suddenly leaving their nest(s) and not resettling on the nest(s) within 5 minutes. The tern biologist will monitor the tern during construction and will immediately notify the Resident Engineer (RE; or acting RE) of any construction activity that may lead to, or likely result in, the disruption of the tern, its young, or its eggs. If the tern biologist determines that adverse effects to the tern have occurred, the RE will be notified and all project construction activities will cease immediately, except those activities necessary to make the SDIA safe and operational. The tern biologist, in coordination with the RE, will contact the FAA and USFWS immediately after stopping construction. Construction will not resume until approved by the FAA and USFWS. The biological monitor will submit daily field reports to the FAA and USFWS on the status of the nesting activity, any construction-related incidents that disrupted tern nesting, and any action taken by the RE to avoid further incidents, within 24 hours of each monitoring date. The tern biologist will also submit a final summary report of monitoring to the FAA and USFWS by October 1.
- Covered trash dumpsters or other suitable containers will be provided for construction personnel. All food items or containers that previously held food items will be immediately disposed of in these dumpsters or containers so as not to attract avian or mammalian predators of the tern.
- Construction personnel will not be permitted to feed cats, gulls, ravens, etc. as this may result in an increase in the numbers of these potential predators in the vicinity of tern chicks and eggs.
- Crane booms or similar equipment that have heights of 25 feet or greater will be lowered at the close of each construction day, if possible.
- A pre-construction meeting will be held to make all contractor personnel, including all construction staff, aware of the tern nesting issue and the specific conditions of construction. Project status meetings will be regularly held to remind all involved personnel of the measures required to protect the tern as well as any modifications made to ensure their effectiveness. The USFWS will be notified of the date and time of the pre-construction and status meetings in order to attend, if needed or desired.

- Nighttime construction will be limited to those activities that are necessary to maintain airfield operations during normal operational times. Should nighttime construction be required, the biological monitor will be onsite and perform the duties specified above.
- Night lighting for project construction more than 800 feet from the SDIA least tern nesting area will be kept to a minimum during the tern nesting season (April 1- September 15), and will not be used unless active construction or other essential work is occurring.

#### 4.10.4.2 Marine Habitats

The following protective measures are proposed to prevent impacts to marine habitats. These are consistent with protective measures proposed to prevent impacts to EFH.

- Due to the close proximity of eelgrass beds to the proposed outfall construction zone, the shoreward edge of eelgrass shall be staked with ridged PVC markers or self-centering buoys visible at all periods of construction in the Bay outfall work area prior to initiation of project construction in the Bay.
- A temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift. It shall consist of a hanging weighted curtain with a surface float line. The turbidity curtain shall be kept a minimum of 10 feet away from existing eelgrass beds and the curtain shall be anchored to temporary driven pipe corners in order to prevent damage to eelgrass beds from curtain drag or movement.
- The project shall conform to the survey requirements of the Southern California Eelgrass Mitigation Policy (SCEMP) (NMFS 1991, revision 11). In accordance with the requirements of the SCEMP, a pre-construction eelgrass survey shall be completed by a qualified biologist within 60 days prior to initiation of construction activities at the project site. This survey shall include both area and density characterization of the beds. A post-construction survey shall be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts shall then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, would require mitigation as defined in the SCEMP. If required following the post-construction survey, a mitigation planting plan shall be developed, approved by the SDCRAA and National Marine Fisheries Service (NMFS), and implemented to offset losses to eelgrass.
- Because the outfall has the potential to result in operational impacts associated with drainage from the discharge pipe, the discharge shall be monitored for two years following construction to assess any adverse changes that may result from the presence and operations of the proposed storm drain force main. The potential long-term impacts to eelgrass will be monitored for a two-year period using means and methods that are in accordance with the SCEMP. Impacts to eelgrass, if any, identified by the two-year monitoring effort would require mitigation as defined in the SCEMP. If required, a mitigation planting plan shall be developed, approved by the SDCRAA and NMFS, and implemented to offset losses to eelgrass.
- The Proposed Action shall conform to the approved SWPP and shall incorporate construction-related erosion/sediment control Best Management Practices. These include: removal of silt and debris from the storm drain system following a rainfall event, covering stockpiled material prior to rain events, and

providing equipment and staff as required to repair and/or implement erosion/sediment control measures.

- The following protective measures are proposed to prevent impacts to sensitive species.
  - To ensure that the turbidity from project construction is maintained at a low and contained level anticipated within this analysis, a temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift.
  - To protect marine reptiles and mammals, project construction shall temporarily halt if any individual is observed within 100 feet of the project construction area. Work shall resume once the individual animal has left the area.

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## 4.11 Department of Transportation Act, Section 4(f)/303(c) Properties

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49 U.S.C. Section 303(c), commonly referred to as Section 4(f) of the DOT Act, states that it is federal policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Under Section 4(f), FAA may approve a program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of a historic site of national, State, or local significance only if: (1) there is no prudent and feasible alternative to using that land; and (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

This analysis also examines whether there would be a change in the use of a recreational park or facility funded through the Department of the Interior Land and Water Conservation Fund Act of 1965 (L&WCF Act). If a change from a recreational to a non-recreational use were to occur, it would be considered a "conversion" under the L&WCF Act. Conversion of parks funded through L&WCF grants is defined by regulations and guidelines issued by the National Park Service to implement Section 6(f) of the L&WCF Act. Section 6(f) properties are considered in the same manner as Section 4(f) properties. There are no Section 6(f) properties on or adjacent to SDIA.

Both direct and indirect adverse impacts to Section 4(f) properties are considered. Direct impacts include any physical taking of the property. Indirect adverse impacts, such as noise, which conflict with the public use of Section 4(f) properties or adversely affect the context of historic sites, are considered a constructive use or taking of the property, if normal activities of the property are incompatible with FAA guidelines on noise and land use.

Parks, recreational areas, wildlife refuges, and historic sites are classes of land use which may be noise-sensitive depending upon the specific use of the site. Sites that might be substantially impaired by excessive noise are amphitheaters, campgrounds, or other areas where a quiet setting is a significant attribute of the resource.

#### 4.11.1 METHODOLOGY

Existing recreation resources near SDIA were documented through review of applicable plans (e.g., Port of San Diego Port Master Plan) and maps, and through field reconnaissance. According to FAA Order 1050.1E, a significant impact would occur to Section 4(f) or 6(f) areas “when a proposed action involves more than a minimal physical use of a section 4(f) property or is deemed a “constructive use” substantially impairing the Section 4(f) property, and mitigation measures do not eliminate or reduce the effects of the use below the threshold of significance.” As described in Section 4.1, Noise, the Proposed Action would not affect off-Airport noise levels related to aircraft noise, meaning that there would be no change to indirect noise impacts at parks or other recreational areas located under the SDIA flight paths (such as at Balboa Park or Ocean Beach). Based on these factors, the assessment of recreational resources focused on those resources located in the immediate vicinity of the Airport.

Impacts to historic resources, which are also considered Section 4(f) properties, are addressed in Section 4.12, Historic, Archaeological, Architectural, and Cultural Resources.

#### 4.11.2 NO ACTION ALTERNATIVE

Under the No Action alternative, there would be no actions at SDIA that would induce growth or otherwise affect the demand for recreational resources. Similarly, because there would be no development of the Northside Improvements, there would be no potential for such improvements to directly or indirectly affect parks or other recreational resources. Accordingly, the No Action alternative would have no effect on recreational or historic resources.

#### 4.11.3 PROPOSED ACTION

As described in Section 4.1, Noise, and Section 4.16, Construction Impacts, the Proposed Action would not generate changes in noise off Airport property. Accordingly, there would be no noise-related effects to the recreational facilities near the Airport. Similarly, for the reasons described in Section 4.13, Light Emissions and Visual Impacts, the Proposed Action would not significantly affect views at Spanish Landing Park, Harbor Island, or other areas where scenic views contribute substantially to the recreational experience. As such, the Proposed Action would not have a significant impact on recreational resources.

Impacts to historic resources, which are also considered Section 4(f) resources, resulting from the Proposed Action, are addressed in Section 4.12, Historic, Archaeological, Architectural, and Cultural Resources, and would not be significant.

#### 4.11.4 MITIGATION MEASURES

Because the Proposed Action would not have a significant impact on Section 4(f) resources, no mitigation for Section 4(f) impacts would be required.

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## 4.12 Historic, Archaeological, Architectural, and Cultural Resources

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To comply with the National Historic Preservation Act of 1966 and Archaeological and Historic Preservation Act of 1974, cultural resources which have the potential to be affected by a Proposed Action must be identified.

### 4.12.1 METHODOLOGY

#### 4.12.1.1 Historic Architectural Resources

As indicated in Section 3.7.2, Historic, Architectural, and Cultural Resources, an historic architectural survey report for the Airport was completed in May 2006 as part of environmental review for elements of the Airport Master Plan. The survey examined the entire Airport property including the former NTC and Teledyne Ryan manufacturing complex. Research was conducted in 2009 at the archives of the San Diego Aerospace Museum and the San Diego Historical Society, to prepare a historical overview that would identify important themes and contexts against which to evaluate buildings and structures located in the APE (see Figure 3-1 in Chapter 3, Affected Environment). These included: (1) early airport development; (2) development of the airline industry; (3) development of the aircraft manufacturing industry at Lindbergh Field; and (4) contributions of Lindbergh Field aircraft manufacturers to World War II and the early Cold War. Additionally, a records search through the South Coastal Information Center was completed in 2011 for the Proposed Action, with search results being consistent with findings of the 2006 and 2009 evaluations referenced above.

SDCRAA provided dates of construction for buildings and structures in the APE. This information was augmented by research conducted for the historic background study. All buildings older than 45 years old or that would be 50 years old by 2015 were recorded and assessed for significance as historic resources based on their potential eligibility for listing on the NRHP, California Register of Historical Resources, or local City of San Diego Historic Resources Board List. A qualified historian inspected each potentially significant historic resource within the Airport property boundary and took field notes and photographs. State of California Department of Parks and Recreation Primary and District, or Building, Structure, and Object Record forms were completed for each of the buildings evaluated. Only one existing structure, the Allied Aerospace Building, remains within the APE for the proposed Northside Improvements project that was determined to be eligible for listing on the NRHP and California Register of Historical Resources (the former Teledyne Ryan structures were demolished in 2010). The Allied Aerospace Building was constructed in 1945 and is located on the eastern edge of the Airport, west of Pacific Highway between Sassafras and West Palm Streets, north of Landmark Aviation (the existing FBO).

#### 4.12.1.2 Archaeological Resources

An archaeological survey report for the Airport was completed in February 2006 as part of the environmental review for elements of the Airport Master Plan. The survey examined the entire Airport property including the former NTC and Teledyne Ryan manufacturing complex, and consisted of a records search at the South Coastal Information Center, review of archaeological reports for other projects in the vicinity of SDIA, and a driving tour of the Airport. In addition, as described above, a subsequent 2011 South Coastal Information

Center records search was conducted for the Proposed Action. As described in Section 3.7.1, Archaeological Resources, the current topography of the APE has been achieved through decades of dredging and placement of fill soils in an area of bay and mudflats. In addition, the APE consists of portions of the existing SDIA and a small portion of the MCRD San Diego located west of the Airport; the APE contains no undisturbed ground surface. Based on the information from the Archaeological Survey Report and the results of the 2011 South Coastal Information Center records search, archaeological resources would not be anticipated in the APE.

#### 4.12.1.3 Cultural Resources

The California Native American Heritage Commission (NAHC) was contacted to request a check of their sacred lands files. That check indicated that no Native American sacred lands are recorded within or in proximity to the APE. Letters were also sent to the Native American entities (Bands and individuals) identified by the NAHC as interested parties, in order to solicit their comments and potential concerns regarding the project.

#### 4.12.2 NO ACTION ALTERNATIVE

Under the No Action alternative, ongoing land uses would continue. There would be no adverse effect to any identified significant historic resources and no adverse effect to archaeological or cultural resources.

#### 4.12.3 PROPOSED ACTION

As discussed above, only one existing structure, the Allied Aerospace Building, remains within the APE that was determined to be eligible for listing on the NRHP and California Register of Historical Resources. This historic resource is not in the area proposed to be disturbed and the Proposed Action would not cause any adverse effect to this resource. The SHPO has provided concurrence via letter dated June 14, 2013; a copy of the letter is provided in Appendix A.<sup>26</sup> As described in the letter, the SHPO found no objections to the identification and delineation of the APE and concurred that the Proposed Action would not affect historic properties.

No traditional cultural properties, Native American heritage sites, or other culturally important sites or areas have been identified or are known to exist within the APE; therefore, no impacts to such resources would occur under the Proposed Action.

#### 4.12.4 MITIGATION MEASURES

The Proposed Action would have no adverse effect on the historic Allied Aerospace Building or on traditional cultural properties, Native American heritage sites, or other culturally important sites; therefore, no mitigation measures are required.

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<sup>26</sup> State of California – The Natural Resources Agency, Letter from Carol Roland-Nawi, State Historic Preservation Officer, Office of Historic Preservation, Department of Parks and Recreation, to Victor Globa, Regional Environmental Protection Specialist, Federal Aviation Administration, June 14, 2013.

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## 4.13 Light Emissions and Visual Impacts

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The primary sources of light emissions from airports are the FAA required lighting for security, obstruction clearance, and navigation. An analysis of the impact of light emissions on the surrounding environment is required when proposed projects include the introduction of new lighting that may affect residential or other sensitive land uses.

Airport improvement activities involving potential disruption of the natural environment or aesthetic integrity of the area or any activities that may affect sensitive locations such as parks, historic sites, or other public use areas are relevant visually.

### 4.13.1 METHODOLOGY

#### 4.13.1.1 Light Emissions

The potential light emission impacts of the Proposed Action were determined by evaluating the current Airport light sources (i.e., parking lots, roadways, terminals, cargo areas) and assessing future lighting effects based on the proposed site plans. Conclusions regarding impacts take into account offsetting effects associated with existing Airport commitments to the community and adherence to current airport lighting guidelines.

#### 4.13.1.2 Visual Impacts

The purpose of the aesthetics section is to describe the existing aesthetic conditions of the APE and analyze the potential impacts of the proposed improvements on its aesthetic character and the aesthetic character of the surrounding areas as a result of the implementation of the Proposed Action. The approach to analyzing potential impacts to aesthetic resources for the Proposed Action includes: first, a review of the regulatory documents that govern the APE in regards to aesthetic resources; second, a review of the significance criteria that was used to evaluate potential impacts; third, a description of the environmental setting, both on-site, as well as the surrounding area; fourth a description of the proposed improvements in terms of potential aesthetic impacts and the relevant plans and policies that regulate land use, both on-site and in the surrounding areas; and fifth, potential construction impacts that could occur during construction of the proposed improvements.

This analysis is based on a review of the regulatory documents governing the APE and the areas adjacent to it. Additionally, the analysis included: 1) site reconnaissance of the APE and the surrounding communities; 2) identification and documentation of key views; 3) review of the preliminary designs and project descriptions of the proposed improvements; and 4) development of conceptual visual simulations. More specifically, in regards to views, consideration and assessment were given to defining public scenic resources, identifying major viewer groups, and selecting key views.

#### 4.13.1.3 Regulatory Framework

There are several planning areas located near or adjacent to SDIA that set policies within their own areas specific to aesthetic views of San Diego Bay, the Pacific Ocean, the Point Loma peninsula, and the downtown area. Policies and guidelines related to urban design and view corridor preservation in the community plans and other planning documents that are most relevant to the Proposed Action are described below.

##### *Port Master Plan*

The Port Master Plan is the land use document governing the land and water development within the Port District's jurisdiction. However, in January 2003, the San Diego Regional Airport Authority Act (SDCRAA Act) became effective. The SDCRAA Act grants to the SDCRAA all land use and design related authority and jurisdiction over lands within the original SDIA leasehold, along with any other lands that might be acquired adjacent to the existing Airport property and necessary to operate the Airport. Although the Airport property, including the more recently acquired General Dynamics and Teledyne Ryan parcels, are still depicted in the certified Port Master Plan, the Port Master Plan and its associated design guidelines are no longer applicable to property now under the planning and design auspices of the SDCRAA.

The Unified Port of San Diego's *Port Master Plan* (as amended) still guides the land use designation and policies for lands adjacent to or adjoining SDIA. The *Port Master Plan* establishes precise plans for each of the planning districts located within the APE. The planning district most affected by the Proposed Action is Planning District 2 (Harbor Island/Lindbergh Field). This planning district identifies two scenic vistas that include:

- Views from Spanish Landing out toward the Bay
- Views from West and East Harbor Island to the Bay

Both of these designated view areas are generally located to the south of SDIA and would not be affected by the proposed Northside Improvements.

Section II, Planning Goals of the Port Master Plan identifies general goals that are to be attained by implementing the policies set forth in the Precise Plans. These goals apply to the entire district and address the design and treatment of new development in the area under the Port District's jurisdiction. The most relevant goals that address aesthetic issues include the following:

- Goal VIII: The Port District will enhance and maintain the Bay and tidelands as an attractive physical and biological entity
- Views should be enhanced through view corridors, the preservation of panoramas, accentuation of vistas, and shielding of the incongruous and inconsistent
- Establish guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment free of noxious odors, excessive noise, and hazards to the health and welfare of the people of California



- Goal IX: The Port District will insure physical access to the Bay except as necessary to provide for the safety and security, or to avoid interference with waterfront activities
- Provide 'windows to the water' at frequent and convenient locations around the entire periphery of the bay with public right-of-way, automobile parking and other appropriate facilities

It should be noted that these planning goals of the *Port Master Plan* apply only to the lands under the Port District's jurisdiction and do not apply to SDCRAA or SDIA.

### *California Coastal Act*

Under the provisions of the California Coastal Act, development projects located in the coastal zone must receive an additional level of review for potential impacts to coastal resources. Section 30251 of the California Coastal Act is the section that is applicable for assessing aesthetic impacts of the Proposed Action. Section 30251 states:

- The scenic and visual qualities of the coastal areas should be protected as a public resource
- Proposed projects in the Coastal Zone shall be sited and designed to protect views to and along the ocean, scenic coastal areas, to minimize the alteration of natural landforms, to be visually in character of the surrounding area and, wherever possible to restore and enhance the visual quality in visually degraded areas

### *City of San Diego Community Plans and Policies*

#### Midway/Pacific Highway Corridor Community Plan

##### *Urban Design Guidelines*

The Midway/Pacific Highway Corridor Community Planning Area contains areas that are within the State Coastal Zone as defined by the California Coastal Act of 1976. As such, as part of the Midway/Pacific Highway Corridor Community Plan development process, it was required that a Local Coastal Program be developed and approved by the California Coastal Commission. Under the Local Coastal Program for the Midway/Pacific Highway Corridor Community Planning Area, the area within the Coastal Zone is subject to special coastal guidelines. Those that apply to this project include:

- Assure continuity and compatibility between the City and the Port District through the coordination of planning efforts
- Improve the quality of architectural styles and site design in and around the Coastal Zone Area
- Preserve and emphasize public views west and south to the waterfront
- Prevent the expansion or development of unsightly land use activities in the coastal strip

### *View Corridor Preservation*

In regards to visual resources, the Midway/Pacific Highway Corridor Community Plan states the following policies:

- Commercial redevelopment projects located along Pacific Highway should not obstruct scenic vistas and/or should provide and maintain view corridors from all public right-of-ways
- Provide coastal and bayward view corridors through the community
- Application of the CPIOZ (Community Plan Implementation Overlay Zone) in conjunction with the (Commercial) C-1 zone will ensure maintenance of view corridors to the waterfront, incorporation of pedestrian-oriented features and landscaping of visible parking structures, while promoting airport-related uses

### Uptown Community Plan

#### *Urban Design Guidelines*

In regards to urban design and aesthetics, the Uptown Community Plan contains policies that comply with the existing land uses and built conditions at SDIA.

#### *View Corridor Preservation*

In regard to visual resources, the Uptown Community Plan provides for the protection of public views of open space and water areas, particularly along the "western slopes" of the community.

#### 4.13.1.4 Analysis Methodology

Because the FAA understands the subjectivity of defining visual impacts for the purposes of this analysis, visual impacts will be considered using aesthetics criteria for visual impact. For the purposes of the proposed Northside Improvements aesthetics analysis, potential significant aesthetics impacts were evaluated based on the following criteria:

- Substantially alter aesthetics in the area by:
  - Altering the natural or naturalized landform<sup>27</sup>
  - Conflicting with adopted state and local urban design and view preservation policies
  - Conflicting with local community plans
  - Severely contrast with the character of the surrounding neighborhood

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<sup>27</sup> SDIA is relatively flat and, therefore, potential impacts related to landform alternation are not applicable to the proposed Northside Improvements.

- Substantially block public views from designated open space, roads, or parks to visual landmarks or scenic vistas (San Diego Bay, the Pacific Ocean, the Point Loma peninsula, and the downtown skyline) for a majority of viewers
- Altering lighting whereby light emissions create annoyance to or interfere with normal activities

In addition, per FAA Order 1050.1E, the following was considered:

- When consultation with federal, state, or local agencies, tribes, or the public shows these effects contrast with existing environments and the agencies state the effect is objectionable.

In evaluating the potential impact of the proposed Northside Improvements on the quality of aesthetic and visual resources, the analysis process begins with an evaluation of the potential for the proposed Northside Improvements to impact key views. The degree of potential impact at each key view is assessed by assigning low-, medium-, or high-value weighting factors to the three aesthetic impact categories: views, neighborhood character, and aesthetics. This approach is similar to the system used for many years by the Federal Highway Administration.<sup>28</sup> The characteristics of each weighting factor are described below.

- Low (1): Minor adverse change in views to scenic or visual resources, neighborhood character, or aesthetics resulting in a minor effect on the visual resource that would not generally be noted by the viewer because of the minor aspect of the change or distance from the site. Visual impacts would not be significant and mitigation measures are not required.
- Medium (2): Moderate adverse change in the views to scenic or visual resources, neighborhood character, or aesthetics resulting in an effect that some viewers would consider to be significant while others might not. Mitigation measures might be necessary to improve the visual quality of the area and create a setting where the visual impact would not be significant.
- High (3): Major adverse change to the views to scenic or visual resources, neighborhood character, or aesthetics resulting in an effect that the majority of the viewers would consider to be significant. Mitigation measures are needed to alleviate the problem. Without mitigation, visual impact would be significant.

The aesthetics impact analysis described below evaluates the potential aesthetic and visual changes, as well as potentially significant environmental impacts associated with the implementation of the Proposed Action.

The aesthetic impact analysis includes a review of neighborhood character. Also considered are surrounding area's land use plans and policies related to visual resources/aesthetics.

In regards to visual resources, several long and short-range views were considered for this analysis. Public off-Airport views of the proposed Northside Improvements site are predominantly located along roadways to the

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<sup>28</sup> Federal Highway Administration (FHWA). *Aesthetics and Visual Quality Guidance Information*. August 18, 1986.

east and south of the APE, although some streets within residential areas along the Point Loma peninsula also have limited long-range views of the APE. The nine key view locations chosen for this analysis represent typical public viewpoints of the proposed Northside Improvements, with a focus on those locations with views of the visual resources in the area, including San Diego Bay, the Point Loma peninsula, the Pacific Ocean, and the downtown skyline. These viewpoints are located at residential neighborhoods and public roadways located to the east and south of the APE. **Figure 4-4** identifies the location of these key views.

The following steps were conducted for this visual resources assessment:

- Define the existing conditions of the visual environment of the Proposed Action area
- Identify major viewer groups that would view the Proposed Action area
- Select key views for the visual assessment based on representative viewer groups, public viewing locations, and public policies
- Document the type and degree of visual changes to the key views based on the significance criteria
- Select significant key views requiring further analysis and representation
- Assess visual impacts and determine significance
- Assess visual impacts during the course of construction
- Generate design recommendations to mitigate significant visual impacts

The weighting factor system used to determine the significance of the potential impacts to key views is described above.

**Table 4-10** lists the key views presented and the weighting valuation for each using the system above.



SOURCE: San Diego County Regional Airport Authority, April 2013.  
 PREPARED BY: Ricondo & Associates, Inc., April 2012.

**FIGURE 4-4**



Not to Scale.

Key View Location Map

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**Table 4-10 Visual Impact Assessment Summary**

POTENTIAL VISUAL CHANGE						
KEY VIEWS	VIEW	NEIGHBORHOOD CHARACTER	AESTHETICS	TOTAL	WEIGHTING VALUATION	SIGNIFICANT IMPACT
1	2	1	1	4	Medium	No
2	1	1	1	3	Low	No
3	2	1	1	4	Medium	No
4	1	1	1	3	Low	No
5	1	1	1	3	Low	No
6	2	1	1	4	Medium	No
7	2	1	1	4	Medium	No
8	2	1	1	4	Medium	No
9	2	1	1	4	Medium	No

NOTES:

- Low: 1 to 3 = "Low Impact" and not considered significant
- Medium: 4 to 6 = "Medium Impact" and not considered significant
- High: 7 to 9 = "High Impact" and considered significant

SOURCE: San Diego County Regional Airport Authority, April 2013; JBG Environmental Consulting, April 2013.

PREPARED BY: JBG Environmental Consulting, April 2013.

### 4.13.2 NO ACTION ALTERNATIVE

The No Action alternative would not result in any modifications to SDIA facilities; therefore, there would be no light emissions or aesthetic impacts associated with this alternative.

### 4.13.3 PROPOSED ACTION

#### 4.13.3.1 Light Emissions

Light and glare associated with the APE is presently generated by buildings and exterior sources to protect and secure people, property, and the air transportation system. Implementation of the Proposed Action would result in additional facilities on the northside of the Airport and a new Terminal Link Roadway along the southeastern boundary which would result in greater amounts of light emanating from interior and exterior sources. Inclusion of the following measures as components of the proposed improvements would ensure that light emission impacts during operations would not be significant:

- The light fixtures specified for the project design must comply with the standard of the Illuminating Engineering Society for full cutoff capability.
- Exterior lighting shall be designed and located as to avoid intrusive effect on runway operations, so as not to result in an air safety hazard. Lighting fixtures shall use shielding, if necessary, to prevent spill lighting on adjacent off-site uses.

To reduce energy consumption and meet the environmental sustainability goals of the SDCRAA, solar panels or canopies may be incorporated into the top level of the RCC facility. Any solar panels or canopies would be designed from materials that avoid or reduce glare. Depending upon the location of the solar panels and canopies, the FAA may require a glare analysis be conducted as part of the final design to avoid or reduce glare to arriving aircraft. Any restriction on materials or locations in the glare analysis would be incorporated into the final design and would eliminate any potential effects from lighting or glare.

The heights of the additional facilities proposed to be constructed on the northside of the Airport under the Proposed Action would not result in line-of-sight impacts to operators of the ATCT. At 152 feet tall, the ATCT extends several feet higher than the proposed RCC facility and other northside facilities proposed to be constructed in the vicinity of the tower under the Proposed Action. No facilities would be constructed between the ATCT and aircraft movement areas, thus views from the ATCT to Runway 9-27 and its supporting taxiways would remain the same under the Proposed Action. The light emissions associated with the proposed northside facilities would be consistent with the existing light emissions from airfield lighting, airport facilities, roadways (e.g., I-5), and parking lots near the ATCT. Lights associated with these facilities would be oriented downwards or directed on to the facility. Since the additional light emissions under the Proposed Action would be consistent with existing lighting, the additional light emissions are not anticipated to create an adverse impact to ATCT operators.

Relative to construction-related impacts, construction activities could create light or glare impacts during both daylight and non-daylight hours if safety and security lights were not positioned correctly. Inclusion of the following measure as a component of the proposed improvements would ensure that light emission impacts during construction would not be significant:

- During construction activities, the construction contractor shall ensure that temporary construction-related lighting shall be arranged so that direct rays would not shine on or produce glare for adjacent street traffic, or community, biological, or scientific resources.

#### 4.13.3.2 Visual Impacts

The following includes an analysis of the potential impacts related to aesthetic and visual resources associated with implementation of the Proposed Action, as well as how it conforms to adjacent land use plans and policies related to aesthetics.

##### *Surrounding Area: Aesthetic Resources (Neighborhood Character)*

As indicated in Chapter 2, Alternatives, the proposed Northside Improvements include an RCC facility, air cargo warehouse facilities and associated improvements, a Terminal Link Roadway along the eastern perimeter of the Airport connecting the proposed northside facilities to the southside of the Airport, and on-airport utilities improvements. Conceptual visual simulations of the proposed RCC, the most visible of the proposed Northside Improvements, from key views of the surrounding area are provided below.

The current character of the APE is represented by aircraft parking aprons, general aviation facilities, and surface parking. Areas surrounding the APE are characterized by Airport operations and facilities (SDIA) to the



south and west and commercial/light industrial and transportation (I-5, Pacific Highway, connector ramps, and the Palm Avenue Trolley Station) facilities to the north and east. One of the most notable structures in the area is the six-story Port of San Diego administrative building which is highly visible from I-5, roadways, and commercial and residential uses to the north and east. Farther east beyond I-5 are the residential communities of Middletown and Mission Hills.

As described in Chapter 2, Alternatives, the proposed RCC facility is currently planned to be a four-level parking structure that would measure approximately 66 feet in height. The ultimate height for the structure would be determined during final design. The facility would total approximately 2.04 million square feet of space and encompass a footprint of approximately 25.5 acres. As discussed above, to reduce energy consumption and meet the environmental sustainability goals of the SDCRAA, solar panels or canopies may be incorporated into the top level of the RCC facility. Any solar panels or canopies would be designed from materials that avoid or reduce glare. Depending upon the location of the solar panels and canopies, the FAA may require a glare analysis be conducted as part of the final design to avoid or reduce glare to arriving aircraft. Any restriction on materials or locations in the glare analysis would be incorporated into the final design and would eliminate any potential effects from lighting or glare.

The proposed cargo facilities would include 225,000 square feet of warehouse space for air cargo, and an aircraft parking apron with up to nine parking positions for cargo aircraft. As currently planned, two air cargo warehouse structures would be approximately 116 feet deep, total approximately 1,939 feet in length. The height of the structures would range from 10 to 20 feet.

The proposed Northside Improvements would not conflict with the current character of the Project area, because proposed improvements, including the RCC and cargo facilities, would be consistent and compatible with the existing surrounding transportation and commercial/light industrial uses.

Additionally, the proposed Northside Improvements would not have a significant impact on the character of the surrounding neighborhoods, as they would not encroach onto adjacent communities and, although the RCC would be of a somewhat greater overall scale relative to existing surrounding structures and uses, the facility would be substantially shorter than the existing Port of San Diego administrative building and would be similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE.

Therefore, the proposed Northside Improvements would not result in a significant impact on neighborhood character.

### *Surrounding Areas: Visual Resources*

Using the evaluation process described above, nine key views were identified for evaluation in terms of the visual impact based on conceptual visual simulations of the RCC, the most visible of the proposed Northside Improvements, as described in Chapter 2, Alternatives. As indicated in Table 4-10, impacts on three views were determined to have a "Low" rating, while six view impacts were determined to have a rating of

"Medium," and none of the view impacts received a "High" rating. The following provides further discussion and analysis of the nine key views considered in this analysis.

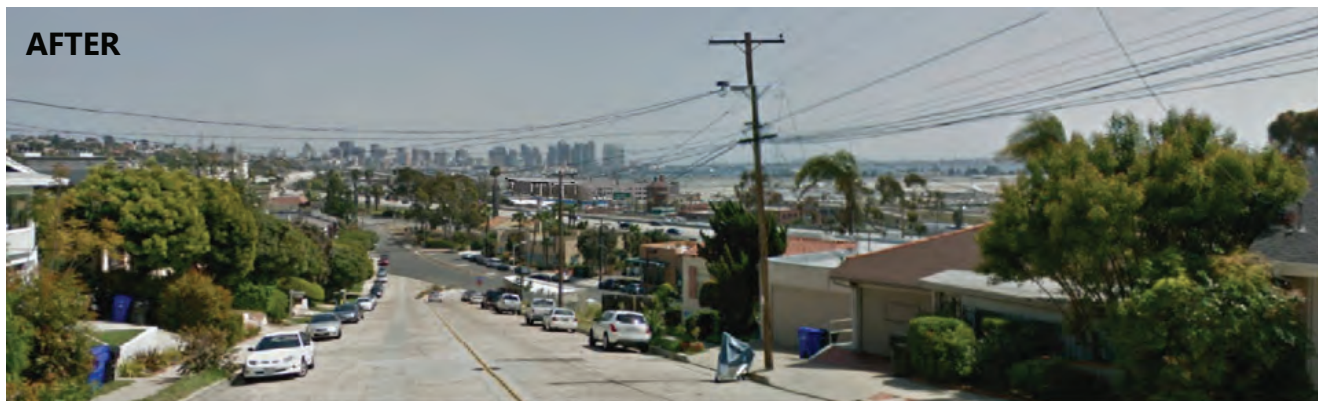
#### Key View 1: California Street near Henry Street

This view is looking south towards the proposed RCC and cargo facilities sites in the northern portion of the Airport. As shown in **Figure 4-5**, existing scenic resources include relatively unobstructed views of the downtown skyline, San Diego Bay, and the Pacific Ocean. Other features within view from this location are utility lines, commercial buildings, and airport operations/facilities, most notably surface parking and airfield facilities (runway/taxiways). As illustrated in Figure 4-5, based on conceptual visual simulations of the proposed RCC, existing views of the downtown skyline San Diego Bay, and the Pacific Ocean would not be altered or blocked as a result of the proposed improvements.

Although the RCC would be of a somewhat greater height and scale relative to existing surrounding structures and uses within this view, the facility would be similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. Nonetheless, as indicated in Table 4-10, it was determined that the proposed improvements would have a "medium" or moderate adverse change to views from this location as the RCC would be highly visible and may result in a view impact that some viewers would consider significant while others might not. Overall, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

#### Key View 2: Sassafras Street near State Street

This view is looking southwest towards the northern and eastern portions of the Airport. As shown in **Figure 4-6**, existing scenic resources include relatively unobstructed views of San Diego Bay, the Point Loma peninsula, and the Pacific Ocean. Other features within view from this location are utility lines, I-5, and Airport operations/facilities. As illustrated in Figure 4-6, based on conceptual visual simulations of the proposed RCC, existing views of San Diego Bay, the Point Loma peninsula, and the Pacific Ocean would not be altered or blocked as a result of the proposed improvements. The proposed cargo facilities and a portion of the proposed RCC would be visible from this location, and would be similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. As indicated in Table 4-10, it was determined that the proposed improvements would have a "low" adverse change to views from this location based on the weighting factors described above. As such, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.



**LOCATION:** California Street near Henry Street

**VIEWER GROUP:** Local residents and users of public streets

**VIEW DESCRIPTION:** This view is looking south towards the proposed RCC and cargo facilities sites on the northern portion of the Airport. Existing scenic resources include relatively unobstructed views of the downtown skyline, San Diego Bay, and the Pacific Ocean. Other features within view from this location are utility lines, commercial buildings, and Airport operations/facilities, most notably surface parking and airfield facilities (runway/taxiways).

SOURCE: San Diego County Regional Airport Authority, April 2013.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

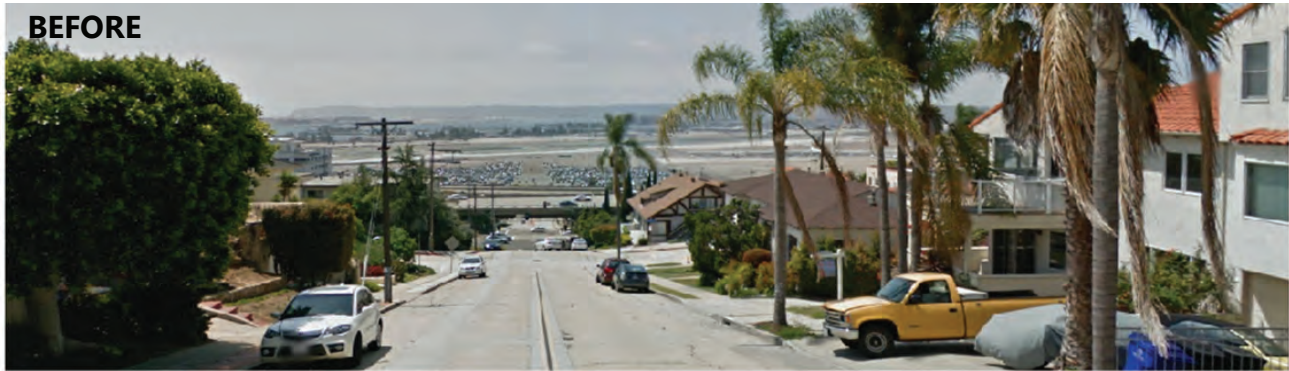
**FIGURE 4-5**

Not to Scale.

## Visual Simulation - Key View 1

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**LOCATION:** Sassafras Street near State Street

**VIEWER GROUP:** Local residents and users of public streets

**VIEW DESCRIPTION:** This view is looking southwest towards the northern and eastern portions of the Airport. Existing scenic resources include relatively unobstructed views of San Diego Bay, the Point Loma peninsula, and the Pacific Ocean. Other features within view from this location are utility lines, I-5, and Airport operations/facilities.

SOURCE: San Diego County Regional Airport Authority, April 2013.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-6**

Not to Scale.

Visual Simulation - Key View 2

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### Key View 3: Columbia Street and Redwood Street

This view is looking west towards the Airport. As shown in **Figure 4-7**, existing scenic resources include unobstructed views of San Diego Bay, the Point Loma peninsula, and the Pacific Ocean. Other features within view from this location are utility lines, I-5 and connector ramps, the Port of San Diego administrative building, and Airport operations/facilities. As illustrated in Figure 4-7, based on conceptual visual simulations of the proposed RCC, existing views of San Diego Bay, the Point Loma peninsula, and the Pacific Ocean would not be altered or blocked as a result of the proposed improvements. The proposed cargo facilities and the proposed RCC would be visible from this location. Although the RCC would be of a somewhat greater overall scale relative to existing surrounding structures and uses within this view, the facility would be substantially shorter than the existing Port of San Diego administrative building and similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. Nonetheless, as indicated in Table 4-10, it was determined that the proposed improvements would have a "medium" or moderate adverse change to views from this location as the RCC would be highly visible and may result in a view impact that some viewers would consider significant while others might not. Overall, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

### Key View 4: I-5 Pedestrian Bridge at West Palm Street and India Street

This view is looking west/northwest towards the Airport. There are no existing scenic resources included in the view. As shown in **Figure 4-8**, features within view from this location are utility facilities/lines, commercial buildings, the Port of San Diego administrative building, Airport operations/facilities, and a portion of MCRD. As illustrated in Figure 4-8, the proposed RCC would be visible from this location, and would be similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. As indicated in Table 4-10, it was determined that the proposed improvements would have a "low" adverse change to views from this location based on the weighting factors described above. As such, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

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**BEFORE**



**AFTER**



**LOCATION:** Columbia Street and Redwood Street

**VIEWER GROUP:** Local residents and users of public streets

**VIEW DESCRIPTION:** This view is looking west towards the Airport. Existing scenic resources include unobstructed views of San Diego Bay, the Point Loma peninsula, and the Pacific Ocean. Other features within view from this location are utility lines, I-5 and connector ramps, the Port of San Diego administrative building, and Airport operations/facilities.

SOURCE: San Diego County Regional Airport Authority, April 2013.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-7**

Not to Scale.

## Visual Simulation - Key View 3

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**LOCATION:** I-5 Pedestrian Bridge at West Palm Street and India Street

**VIEWER GROUP:** Pedestrians and users of public streets

**VIEW DESCRIPTION:** This view is looking west/northwest towards the Airport. There are no existing scenic resources included in the view. Features within view from this location are utility facilities/lines, commercial buildings, the Port of San Diego administrative building, Airport operations/facilities, and a portion of MCRD.

SOURCE: San Diego County Regional Airport Authority, April 2013 .  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-8**

Not to Scale.

## Visual Simulation - Key View 4

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### Key View 5: Harbor Drive and Coast Guard Crossing<sup>29</sup>

This view is looking north towards the Airport at the location of the proposed Terminal Link Roadway. There are no existing scenic resources included in the view. As shown in **Figure 4-9**, features within view from this location are Airport operations/facilities, including surface parking, airfield facilities (runway/taxiways, access road, and California least tern nesting areas), and the easternmost building of the former Teledyne Ryan facility. The Port of San Diego administrative building and residential areas to the northeast of the Airport are visible in the background. As illustrated in Figure 4-9, the proposed RCC and cargo facilities would not be readily visible from this location; however, the segment of the proposed Terminal Link Roadway that passes through this portion of the Airport would be very apparent from areas that are immediately adjacent. Although visible, the appearance of the road and periodic passing of shuttles and other vehicles on the road would be generally consistent with the current surroundings, which include vehicle parking in the area where the roadway is proposed and vehicle travel on Laurel Street and North Harbor Drive. As such, as indicated in Table 4-10, it was determined that the proposed improvements would have a "low" adverse change to views from this location and impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

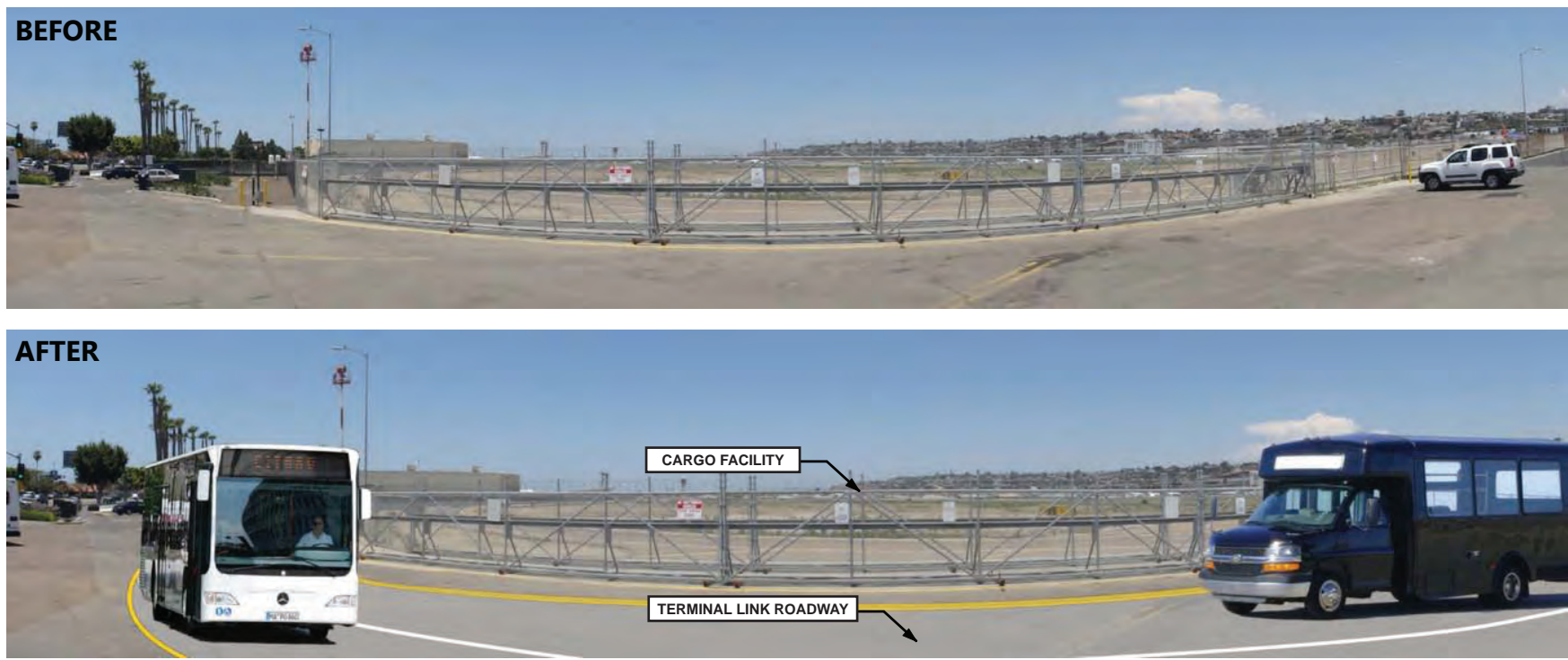
### Key View 6: Pacific Highway and Washington Street

This view is looking south/southeast towards the Airport. As shown in **Figure 4-10**, existing scenic resources include views of the downtown skyline and largely obstructed views of San Diego Bay. Other features within view from this location are Airport operations/facilities, most notably on-Airport surface parking, and the Port of San Diego administrative building. As illustrated in Figure 4-10, based on conceptual visual simulations of the proposed RCC, the proposed RCC would partially obstruct views of a portion of the downtown skyline and would not alter views of San Diego Bay. Although the RCC would be of a somewhat greater overall scale relative to existing surrounding structures and uses within this view, the facility would be similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. Nonetheless, as indicated in Table 4-10, it was determined that the proposed improvements would have a "medium" or moderate adverse change to views from this location as the RCC would be highly visible and may result in a view impact that some viewers would consider significant while others might not. Overall, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

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<sup>29</sup> The Visual Simulation for Key View 5 in Figure 4-9 depicts the alignment of the Terminal Link Roadway as originally proposed. The subsequent refinement of the alignment of the Terminal Link Roadway to avoid impacts to the Solar Turbines employee parking lot, as proposed in this EA, does not change the conclusion that the proposed improvements would have a "low" adverse change to views from this location and impacts to aesthetics and visual resources associated with views from this location would not be significant.

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**LOCATION:** Harbor Drive and Coast Guard Crossing

**VIEWER GROUP:** Users of North Harbor Drive

**VIEW DESCRIPTION:** This view is looking north towards the Airport at the location of the proposed Terminal Link Roadway. There are no existing scenic resources included in the view. Features within view from this location are Airport operations/facilities, including surface parking, airfield facilities (runway/taxiways, access road), California least tern nesting areas, and the easternmost building of the former Teledyne Ryan facility. The Port of San Diego administrative building and residential areas to the northeast of the Airport are visible in the background.

SOURCE: San Diego International Airport, *Final Supplemental Environmental Impact Report*, August 2011.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-9**

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**BEFORE**



**AFTER**



**LOCATION:** Pacific Highway and Washington Street

**VIEWER GROUP:** Users of public streets

**VIEW DESCRIPTION:** This view is looking south/southeast towards the Airport. Existing scenic resources include views of the downtown skyline and largely obstructed views of San Diego Bay. Other features within view from this location are Airport operations/facilities, most notably on-Airport surface parking, and the Port of San Diego administrative building.

SOURCE: San Diego County Regional Airport Authority, April 2013.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-10**

Not to Scale.

Visual Simulation - Key View 6

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### Key View 7: Pacific Highway – Southbound Lane #2

This view is looking south towards the Airport. As shown in **Figure 4-11**, existing scenic resources include views of the downtown skyline and largely obstructed views of San Diego Bay. Other features within view from this location are Airport operations/facilities, most notably on-Airport surface parking, and the Port of San Diego administrative building. As illustrated in Figure 4-11, although the proposed RCC would block distant views of the San Diego Bay, impacts to the distant views of the bay would be "medium" since views of this visual resource are currently highly obscured by existing vegetation and Airport facilities. Although the RCC would be of a somewhat greater overall scale relative to existing surrounding structures and uses within this view, the facility would be similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. Nonetheless, as indicated in Table 4-10, it was determined that the proposed improvements would have a "medium" or moderate adverse change to views from this location as the RCC would be highly visible and may result in a view impact that some viewers would consider significant while others might not. Overall, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

### Key View 8: I-5 Southbound Lane #1

This view is looking south towards the Airport. As shown in **Figure 4-12**, existing scenic resources include partially obstructed views of the downtown skyline, San Diego Bay, and the Point Loma peninsula. Other features within view from this location are transportation facilities, the Port of San Diego administrative building, and Airport operations/facilities, most notably on-airport surface parking. As illustrated in Figure 4-12, based on conceptual visual simulations of the proposed RCC, existing views of the downtown skyline, San Diego Bay, and the Point Loma peninsula would not be altered or blocked as a result of the proposed improvements. The proposed RCC would be visible from this location. Although the RCC would be of a somewhat greater overall scale relative to existing surrounding structures and uses within this view, the facility would be substantially shorter than the existing Port of San Diego administrative building and similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. Nonetheless, as indicated in Table 4-10, it was determined that the proposed improvements would have a "medium" or moderate adverse change to views from this location as the RCC would be highly visible and may result in a view impact that some viewers would consider significant while others might not. Overall, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

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**LOCATION:** Pacific Highway – Southbound Lane #2

**VIEWER GROUP:** Users of public streets

**VIEW DESCRIPTION:** This view is looking south towards the Airport. Existing scenic resources include views of the downtown skyline and largely obstructed views of San Diego Bay. Other features within view from this location are Airport operations/facilities, most notably on-Airport surface parking, and the Port of San Diego administrative building.

SOURCE: San Diego County Regional Airport Authority, April 2013.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-11**

Not to Scale.

Visual Simulation - Key View 7

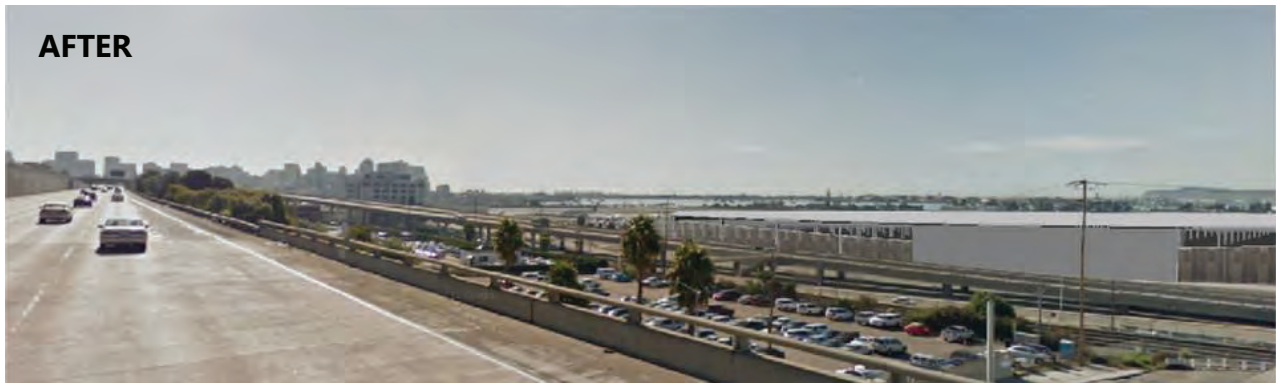
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**BEFORE**



**AFTER**



**LOCATION:** I-5 Southbound Lane #1

**VIEWER GROUP:** Users of interstate highway

**VIEW DESCRIPTION:** This view is looking south towards the Airport. Existing scenic resources include partially obstructed views of the downtown skyline and San Diego Bay, and the Point Loma peninsula. Other features within view from this location are transportation facilities, the Port of San Diego administrative building, and Airport operations/facilities, most notably on-airport surface parking.

SOURCE: San Diego County Regional Airport Authority, April 2013.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-12**

Not to Scale.

Visual Simulation - Key View 8

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### Key View 9: I-5 Southbound Lane #3

This view is looking west towards the Airport. As shown in **Figure 4-13**, existing scenic resources include partially obstructed views of San Diego Bay and the Point Loma peninsula. Other features within view from this location are transportation facilities, utility lines, commercial facilities, the Port of San Diego administrative building, and Airport operations/facilities, most notably on-airport surface parking. As illustrated in Figure 4-13, based on conceptual visual simulations of the proposed RCC, existing views of San Diego Bay and the Point Loma peninsula would not be altered or blocked as a result of the proposed improvements. The proposed RCC would be visible from this location. Although the RCC would be of a somewhat greater overall scale relative to existing surrounding structures and uses within this view, the facility would be substantially shorter than the existing Port of San Diego administrative building and similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. Nonetheless, as indicated in Table 4-10, it was determined that the proposed improvements would have a “medium” or moderate adverse change to views from this location as the RCC would be highly visible and may result in a view impact that some viewers would consider significant while others might not. Overall, impacts to aesthetics and visual resources associated with views from this location were determined to not be significant.

### *Surrounding Area's Land Use Plans and Policies*

#### Port Master Plan

The *Port Master Plan* outlines general goals addressing the design of new development.<sup>30</sup> The goals relevant to the Proposed Action deal with view preservation. The above section regarding visual resources and key views demonstrates that the proposed Northside Improvements would not have a significant impact on existing views of San Diego Bay or the downtown skyline.

While the *Port Master Plan* is not responsible for the urban design guidelines for SDIA, it does outline general goals that address the design of new development for property within its own jurisdiction. The primary goals of the *Port Master Plan* concern the preservation of views, access and use of the Bay, and maintaining the Bay and tidelands as an attractive physical and biological entity. The proposed Northside Improvements would not prohibit any of these goals from being implemented.

In summary, the Proposed Action would be consistent with the Port Master Plan's goals that address aesthetics and development design and impacts would not be significant.

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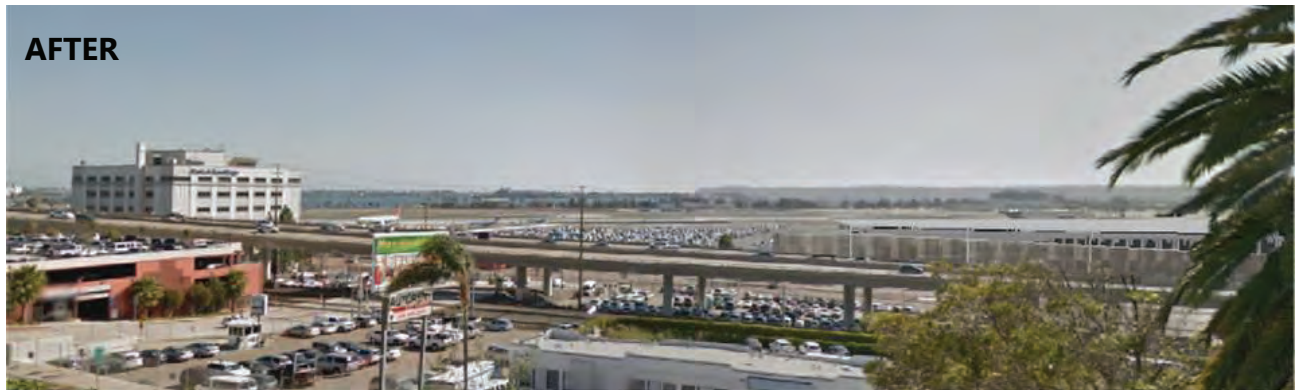
<sup>30</sup> San Diego Unified Port District (District). *San Diego Unified Port District, Port Master Plan*. As Amended through 2009. <<http://www.portofsandiego.org/>>

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**BEFORE**



**AFTER**



**LOCATION:** I-5 Southbound Lane #3

**VIEWER GROUP:** Users of interstate highway

**VIEW DESCRIPTION:** This view is looking west towards the Airport. Existing scenic resources include partially obstructed views of San Diego Bay and the Point Loma peninsula. Other features within view from this location are transportation facilities, utility lines, commercial facilities, the Port of San Diego administrative building, and Airport operations/facilities, most notably on-airport surface parking.

SOURCE: San Diego County Regional Airport Authority, April 2013.  
PREPARED BY: Ricondo & Associates, Inc., April 2013.

**FIGURE 4-13**

Not to Scale.

Visual Simulation - Key View 9

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### California Coastal Act

The primary goals of Section 30251 of the California Coastal Act are to preserve scenic resources along the coastal areas, minimize landform alteration and to be visually compatible with the character of the surrounding area. As discussed earlier in this section, implementation of the proposed Northside Improvements would not result in any significant impacts to key views, and the Proposed Action is in keeping with the existing character of the area which is currently an airport facility. Therefore, the Proposed Action would not result in significant impacts related to these guidelines.

### City of San Diego Community Plans

As described above, the proposed Northside Improvements would not result in any significant impacts to views of scenic resources from public viewing locations to the east and south of the APE. Further, the proposed Northside Improvements would not conflict with the current character of the APE because proposed improvements, including the RCC and cargo facilities, would be consistent and compatible with the existing surrounding transportation and commercial/light industrial uses. Although the RCC would be of a somewhat greater overall scale relative to existing surrounding structures and uses, the facility would be substantially shorter than the existing Port of San Diego administrative building and would be similar in nature and architectural style to, and compatible with, existing commercial and aviation facilities adjacent to the APE. Therefore, the Proposed Action would be consistent with the applicable urban design guidelines and view corridor preservation policies included in Midway/Pacific Highway Corridor Community Plan and Uptown Community Plan and impacts would not be significant.

### Construction Impacts

Construction activities, including storage and use of materials and equipment, truck traffic, and stockpiling of soils, associated with implementation of the Proposed Action would be visible by the public from I-5, Pacific Highway, connector ramps, and other roadways to the east of the APE, and from Laurel Street and North Harbor Drive to the south. In addition, construction activities would be visible from distant views along some streets within residential areas along the Point Loma peninsula. The following measure would be incorporated during construction of the proposed Northside Improvements to ensure that short-term aesthetics impacts would not be significant:

- During construction activity, the construction contractor shall ensure that construction material, equipment, and staging areas are screened from the public wherever feasible. Appropriate screening material, such as temporary fencing with opaque material, shall be used to buffer and screen views of construction activity and the construction site.

In summary, the Proposed Action would not result in any significant impacts to aesthetic and visual resources.

Further, as indicated in Chapter 5, five comment letters on the Northside Improvements Draft EA were received during the agency/public review and comment period: one comment letter each from the San Diego County Archaeological Society, Inc., the San Diego Association of Governments, and the Peninsula Community Planning Board; and two comment letters from the City of San Diego (refer to Appendix G of this Final EA).

No comments on the Light Emissions and Visual Impacts section of the Northside Improvements Draft EA were received from any of the above-listed agencies and local groups.

#### 4.13.4 MITIGATION MEASURES

The Proposed Action would not result in significant light emission or visual impacts; therefore, no mitigation measures are required.

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## 4.14 Natural Resources and Energy Supply

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In accordance with FAA Order 1050.1E, the alternatives were examined to identify any resulting measurable effect on local supplies of energy or natural resources.

#### 4.14.1 METHODOLOGY

FAA Order 1050.1E does not establish any significance thresholds for energy supply or natural resources. The Order requires the proposed action to be examined to identify any proposed major changes that would have a measurable effect on local supplies of energy or natural resources. However, the Order states that "[t]he use of natural resources other than for fuel need be examined only if the action involves a need for unusual materials or those in short supply." The Order further states that "[f]or most actions, changes in energy demands or other natural resource consumption will not result in significant impacts."

#### 4.14.2 NO ACTION ALTERNATIVE

The No Action alternative would not have any impacts related to energy supply and natural resources.

#### 4.14.3 PROPOSED ACTION

SDIA is underlain by artificial fill and bay deposits and is designated as 'Urban Land' and 'Made Land' by the U.S. Department of Agriculture. SDIA is not listed as a mineral resource recovery site. As such, SDIA does not contain a known mineral resource of value to the region or residents of California. The Proposed Action would have no impact on mineral resources.

Construction associated with the Proposed Action would require the long-term commitment of nonrenewable and renewable natural resources. These resources include, but are not limited to: petrochemical construction material; lumber; sand and gravel; asphalt; steel; copper; lead, and other metals and construction materials. Fossil fuels for construction equipment and vehicles would also be consumed. Implementation of the proposed facilities would increase the need for resources used in construction; heating and cooling of commercial and office spaces; water; transportation of people and goods; lighting and other associated energy needs. However, SDIA is committed to construct the proposed Northside Improvements to meet high standards for efficiency and environmental design, consistent with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standards. Implementation of LEED standards that emphasize strategies for sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality would reduce the use of renewable and nonrenewable resources that would

continue over time through construction and long-term operation of proposed improvements. Additionally, the Memorandum of Understanding between SDCRAA and the State Attorney General as well as the AQMP for SDIA, include numerous measures involving reduced fuel consumption and resource utilization, which serve to reduce GHG emissions. As such, the increase in the demand for natural resources and energy is expected to not be significant.

#### 4.14.4 MITIGATION MEASURES

Because the Proposed Action would not result in significant impacts on natural resources or energy supplies, no mitigation is required.

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## 4.15 Hazardous Materials, Pollution Prevention, and Solid Waste

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This section includes information regarding the potential to generate, disturb or dispose of hazardous materials, and the potential to generate or dispose of additional solid waste.

### 4.15.1 METHODOLOGY

#### 4.15.1.1 Hazardous Materials

FAA Order 1050.1E states that "FAA actions to fund, approve, or conduct an activity may require consideration of hazardous material, pollution prevention, and solid waste impacts in NEPA documentation." In addition, Executive Order 12088, as amended, directs federal agencies to comply with applicable pollution control standards.

- In accordance with FAA Order 1050.1E, a proposed action would have a significant impact if it were to involve a property on or eligible for the NPL.

#### 4.15.1.2 Solid Waste

FAA Order 1050.1E states that "FAA actions to fund, approve, or conduct an activity may require consideration of solid waste impacts in NEPA documentation." However, the Order does not establish any significance thresholds for solid waste.

### 4.15.2 NO ACTION ALTERNATIVE

#### 4.15.2.1 Hazardous Materials

The No Action alternative would not involve construction or other subsurface activities that could encounter hazardous materials or environmental contamination nor would it have any effect on the types or quantities of hazardous materials currently used at the Airport.

#### 4.15.2.2 Solid Waste

Adoption of the No Action alternative would not generate additional solid waste due to construction, demolition, or other operations, and therefore would not have any impacts on solid waste at SDIA.

### 4.15.3 PROPOSED ACTION

#### 4.15.3.1 Hazardous Materials

A variety of hazardous materials typically associated with the operation of a commercial airport, including those of airport tenants, are used at SDIA. Such use and activities are strictly regulated by numerous federal, state, and local safety regulations. Because the types of uses proposed under the Proposed Action would not involve the generation, use, or storage of hazardous materials in quantities or types that are substantially different from those that are currently associated with the Airport, the Proposed Action would not create additional long-term risks to the public or the environment from these substances. Further, development of new facilities at the Airport would be subject to current safety management requirements and design standards that serve to minimize, if not avoid, the potential for the occurrence of, and significant hazards from, upset and accident conditions. Potential impacts would, therefore, not be significant.

The proposed uses, which include rental car facilities and cargo facilities, may involve the handling of hazardous materials/wastes; however, such materials/wastes would generally be of a common nature, such as fuels, lubricants, paints, cleansers/solvents, and the like. No acutely hazardous materials, substances, or wastes are anticipated for the proposed uses. As indicated above, the handling of hazardous materials/wastes at the Airport is subject to a number of federal, state, and local safety regulations. Based on the nature of the materials/wastes associated with the proposed uses and the existing regulatory framework that applies to the handling of such materials/wastes, potential impacts, if any, to uses in the nearby area would not be significant.

Additionally, the fueling system for the rental car facilities would include several design features to prevent exposure to fuel leaks, spills, and vapors. As described in Section 4.5, the fueling system would include a vapor recovery system to prevent fuel vapors from escaping into the atmosphere during storage tank refills. As described in Section 4.6, several features will be incorporated into the fueling system design to prevent the escape of hazardous materials including double-walled storage and piping and a leak detection and monitoring system.

As indicated in Chapter 3, Affected Environment, there are eight sites/facilities at and near the northern and southern portion of the Airport that are known, or have the potential, to contain hazardous wastes or environmental contamination. Figure 3-7 shows the location and Table 3-5 describes the sites and facilities reported or with the potential to contain hazardous materials or environmental contamination in the vicinity of SDIA. Eight sites/facilities are located within or in close proximity to the APE and are described below.

Relative to the northern portion of the Airport, Sites No. 8 and No. 9 are located within the area proposed for future development, but Sites No. 6, No. 7, and No. 16 are removed from the development area. Relative to the southern portion of the Airport, Site No. 5 is located within the area through which the proposed Terminal



Link Roadway would extend, but Sites No. 11 and No. 12 are removed from the subject improvement area. The SDCRAA has plans already in place or under development to avoid or mitigate any potential impacts associated with these sites. Recent environmental assessment of Site No. 8 provides additional information to further define the extent of contamination and to identify the appropriate mitigation measures required by statute and/or regulation.<sup>31</sup> Thus, potential impacts would not be significant.

In summary, the Proposed Action would not involve the generation, use or storage of hazardous materials in quantities or types that are substantially different from those that are currently associated with the Airport and would not create a significant long-term hazard to the public or the environment. Moreover, the proposed improvements are not located within 2,000 feet of an NPL site.

#### 4.15.3.2 Solid Waste

Operation of the new development proposed at SDIA is anticipated to result in an increase of solid waste generated at SDIA. This increase would be negligible in comparison to the available disposal capacity. Construction and demolition activities would result in a substantial temporary increase of solid waste generation at SDIA. However, recycling, salvage, reuse, and disposal options would be identified in a Solid Waste Management Plan in advance of all activities in order to minimize the amount of debris directed to local landfills. This plan would include the identification of locations for sorting of materials for reuse and recycling. At least 50 percent of all waste generated during construction and demolition activities would be recycled in accordance with the City of San Diego's Construction and Demolition Debris Diversion Ordinance. The two most notable uses are the RCC and the cargo facility, each of which would be a new facility to consolidate and replace existing facilities dispersed outside the Airport. The combination of improved waste management efficiencies in having new consolidated facilities and the extension of the Airport's highly successful recycling/waste reduction program is expected to reduce potential impacts to landfill capacity well beyond the reduction associated with ordinance compliance. Due to the beneficial effects of consolidation of existing facilities and implementation of the SDCRAA recycling policies, the particular improvements under review would not increase materially the off-site disposal requirements of these functions at SDIA. As such, the Proposed Action would not have a significant impact on the solid waste disposal system.

The disposal of municipal (non-hazardous) waste would occur at Miramar Landfill in accordance with applicable state and local requirements. Any hazardous waste resulting from construction, demolition, and operations at SDIA would not be disposed at Miramar Landfill and would instead be disposed at a landfill approved to receive hazardous waste, as required by local and state regulations, or otherwise treated/managed in accordance with federal, state, and local requirements. The Proposed Action's potential impacts related to the regulation of solid waste would not be significant.

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<sup>31</sup> Kleinfelder, Inc., Phase II Environmental Assessment Report, Former General Dynamics Lindbergh Field Plant Facility, San Diego, California, December 2009.

#### 4.15.4 MITIGATION MEASURES

Because the Proposed Action would not cause significant impacts related to hazardous materials and solid waste, no mitigation is required.

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## 4.16 Construction Impacts

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Construction impacts result directly and solely from construction activities and are, therefore, limited to the construction period. Additionally, the construction period is of relatively short duration in comparison to the design life of a facility, and the impacts from such operations can be mitigated using appropriately designed and phased construction techniques. Specific effects of construction activities have the potential to cause air and noise impacts, as well as soil and water quality impacts, resulting from onsite construction equipment operations and material deliveries. Most of these impacts can be mitigated using proper construction techniques, many of which are regulated. The Proposed Action would be constructed in accordance with the applicable state and local ordinances and regulations, and FAA Advisory Circular 150/5370-10F, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control*.

In accordance with FAA Order 1050.1E, the sponsor must follow local, state, tribal, or federal ordinances and regulations to address the impacts of construction activities, including construction noise, dust and noise from heavy equipment traffic, disposal of construction debris, and air and water pollution. Although construction activities have the potential to create impacts that are temporary in nature, the severity of potential impacts diminish as work progresses and generally disappear after the construction phase. Also, construction impacts alone are rarely significant pursuant to NEPA.

As no construction activities would occur under the No Action alternative, the following analysis of construction-related impacts is specific to the Proposed Action.

#### 4.16.1 EROSION AND SEDIMENTATION

Proposed short-term grading, excavation and construction activities would increase the potential for erosion and the off-site transport of eroded material (sedimentation). Discussion of erosion control requirements under NPDES standards is provided in Section 4.6, Water Quality, due to the relationship between this issue and water quality concerns.

#### 4.16.2 SHALLOW GROUNDWATER

Shallow groundwater is present within the SDIA at approximate depths of between 5 and 12 feet below the surface, and would likely be encountered during construction of the Proposed Action. The occurrence of shallow groundwater within the APE could potentially affect construction activities such as excavation and grading. Specifically, the presence of shallow groundwater in proposed cuts or excavations could require temporary dewatering to allow access by construction equipment and/or personnel. Dewatering activities would require conformance with applicable NPDES permit requirements as previously discussed under Section 4.6, Water Quality. The majority of these requirements are associated with water quality concerns such as

potential erosion/sedimentation effects (e.g., if extracted groundwater is discharged onto graded or unstabilized areas), and the occurrence of contaminants in local aquifers. Conformance with identified discharge requirements in the NPDES Groundwater Permit would avoid or reduce these associated potential impacts and such impacts would not be significant.

The presence of shallow groundwater could also potentially affect the stability of proposed excavations (e.g., trench walls), resulting in safety or damage impacts to construction workers and equipment from caving. Project construction would be conducted in accordance with applicable Occupational Safety and Health Administration (OSHA) and CAL/OSHA standards related to (among other issues) the stability of excavations (e.g., 29 CFR Part 1926, *Occupational Health Standards-Excavations*). Conformance with these (or other appropriate) requirements would avoid or reduce potential impacts related to the stability of open excavations and such impacts would not be significant.

#### 4.16.3 SHALLOW BEDROCK/OVERSIZE MATERIALS

The generation of oversize rock fragments during grading and excavation can pose potential development hazards if improperly handled or placed onsite. Specifically, the presence of oversize materials in engineered fills can result in effects such as differential compaction and settlement, with related issues including adverse effects to overlying structures, pavement, or drainage. The SDIA and adjacent areas typically encompass approximately 20 feet of artificial fill, with underlying bay deposits consisting of unconsolidated silt and clay materials. Based on these conditions and the nature of proposed grading and excavation, bedrock is not expected to be encountered during construction, and no significant impacts related to shallow bedrock or oversize materials are anticipated from implementation of the Proposed Action.

#### 4.16.4 NOISE

Construction noise sources do not always correspond to 24-hour community noise standards because they occur only during selected times and the source strength varies with the type of equipment in use. As a result, the San Diego City municipal code regulates construction noise in terms of time of day and maximum noise levels. This analysis evaluates construction noise in this context.

The Proposed Action would have a significant construction noise impact if:

- Construction noise levels exceed 75 decibels (dB) in residential areas, or
- Construction with the project would result in excessive ground-borne vibration and/or changes in temporary or periodic ambient noise levels

Under the Proposed Action, construction activity with the greatest potential for off-site noise impacts would be associated with improvements proposed in the northside of the Airport; construction noise from development of the Terminal Link Roadway is not anticipated to result in substantial off-airport effects. There are no sensitive receptors, such as homes, schools, or hospitals, in proximity to the improvements proposed on the northside of the Airport; the nearest noise-sensitive uses are the residences on the other (east) side of I-5, approximately 1,500 feet to the northeast.

Because construction is not a chronic, permanent noise source, the environmental setting in the vicinity of SDIA is not currently affected by construction-related noise on a regular basis.

**Table 4-11** shows the maximum noise level by the equipment types that would be used in construction of the proposed Northside Improvements, as well as the resulting noise at various distances from the construction zones. Among the various equipment types, the maximum noise levels would be produced by the pile drivers, with resulting noise levels in residential areas of 62.8 dB to 48.0 dB at distances of 1,500 to 4,000 feet from the sources, respectively. Relative to the APE, the projected noise level of 62.8 dB would be most applicable, based on the proximity of existing residences located across I-5.

**Table 4-11 Construction Noise Levels by Equipment Type and Distance**

EQUIPMENT	MAXIMUM NOISE (DB) AT 50FT	NOISE (DB) AT RECEIVER BY DISTANCE (FEET)								
		1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000
Compacter/Roller	88	52.2	45.8	41.2	37.6	34.8	32.8	31.0	29.3	27.8
Front Loader	97	61.2	54.8	50.2	46.6	43.8	41.8	40.0	38.3	36.8
Backhoe	93	57.2	50.8	46.2	42.6	39.8	37.8	36.0	34.3	32.8
Scraper/ Grader	96	60.2	53.8	49.2	45.6	42.8	40.8	39.0	37.3	35.8
Paver	92	56.2	49.8	45.2	41.6	38.8	36.8	35.0	33.3	31.8
Truck	97	61.2	54.8	50.2	46.6	43.8	41.8	40.0	38.3	36.8
Concrete Mixer	90	54.2	47.8	43.2	39.6	36.8	34.8	33.0	31.3	29.8
Concrete Pump	85	49.2	42.8	38.2	34.6	31.8	29.8	28.0	26.3	24.8
Crane (Movable)	96	60.2	53.8	49.2	45.6	42.8	40.8	39.0	37.3	35.8
Crane (Derrick)	88	52.2	45.8	41.2	37.6	34.8	32.8	31.0	29.3	27.8
Pump	80	44.2	37.8	33.2	29.6	26.8	24.8	23.0	21.3	19.8
Generator	83	47.2	40.8	36.2	32.6	29.8	27.8	26.0	24.3	22.8
Compressor	88	52.2	45.8	41.2	37.6	34.8	32.8	31.0	29.3	27.8
Jackhammer/Drill	99	63.2	56.8	52.2	48.6	45.8	43.8	42.0	40.3	38.8
Pile Drivers	105	69.2	62.8	58.2	54.6	51.8	49.8	48.0	46.3	44.8

NOTE: Atmospheric adsorption calculated for 1,000 Hz. at 60.4-degrees F, 72.7% relative humidity, and 28.44-inches Hg atmospheric pressure.

SOURCES: HNTB analysis using: Equipment noise levels: Handbook of Noise Control, Cyril Harris, 1979. Ground Attenuation: Ground to Ground Lateral Attenuation, INM 6.0 Technical manual, page 55. Atmospheric Adsorption: Absorption of Sound in Air versus Humidity and Temperature, Cyril Harris, 1966, and <http://www.csgnetwork.com/atmossndabsorbcalc.html>.

PREPARED BY: CDM Smith, April 2012.

Based upon this analysis, the construction noise would not exceed 75 dB in residential areas. The construction noise would be lower than the aircraft and highway noise that occurs in the residential areas near the construction zones. Due to the louder noise levels and more frequent events that occur with aircraft operations and surface vehicle traffic and in consideration of the logarithmic quantities of noise measured in decibels, aircraft and highway noise would continue to be the determinative sources in the noise environment. Thus, the ambient noise levels would not be expected to increase due to the construction activity.

Additionally, the construction work would not be expected to result in excessive ground-borne vibration to home sites. Therefore, the construction work would not cause significant impacts in regard to noise associated with the Proposed Action.

#### 4.16.5 AIR QUALITY

Construction activities would include site preparation, grading, structure construction, and paving. These construction activities would require the use of heavy trucks, excavating and grading equipment, material loaders, dozers, cranes, and paving equipment. From these activities, emissions would occur as the result of: (1) engine exhaust from construction worker vehicle trips to and from the site; (2) truck trips hauling raw materials, supplies and fill material, and the operation of construction equipment at the site; and (3) fugitive dust emissions during ground-disturbing activities, materials handling, and equipment use on unimproved surfaces. The construction period would extend from 2013 through approximately 2017.<sup>32</sup>

##### 4.16.5.1 Methodology

For this analysis, construction emissions were estimated using the California Air Resources Board OFFROAD2011, EMFAC2011, and URBEMIS 2007 (Version 9.2.4) emission models and other appropriate guidance combined with information on construction schedule, equipment type, fuel type, equipment hours of operation, size (in horsepower), and load factors. These models and guidance were accepted by the FAA as appropriate means for estimating emissions.<sup>33</sup> Secondly, these models are approved by the California Air Resources Board for conducting emission inventories. **Appendix E** contains the detailed assumptions and methodologies used for the construction emissions inventory.

##### 4.16.5.2 Results

The estimated annual construction emissions over the construction period for the Proposed Action are presented in **Table 4-12**. As shown, maximum annual construction-related emissions would occur in 2013 (for VOC) and 2014 for all other pollutants, and would include 4.06 tons of volatile organic compounds (VOC), 15.9 tons of carbon monoxide (CO), 21.5 tons of nitrogen oxide (NO<sub>x</sub>), 12.0 tons of particulate matter less than 10 micrometers (coarse or PM<sub>10</sub>) and 3.19 tons of particulate matter less than 2.5 micrometers (fine or PM<sub>2.5</sub>). A majority of the emissions would be related to construction of the RCC (approximately 32 percent), air cargo warehouse (approximately 22 percent), and the terminal link roadway (approximately 21 percent).

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<sup>32</sup> Based on recent updates to the construction program anticipated to occur for the Northside Improvements, it is possible that construction of some elements may extend beyond 2017. Should that occur, the amounts of construction-related pollutant emissions that would occur within each year of construction would be less than described in this section and delineated in Table 4-12 (i.e., the same amount of overall construction activity would be spread over a longer period, consequently resulting in lower annual emissions).

<sup>33</sup> Letter from David F. Cushing, Manager, Los Angeles Airports District Office, Federal Aviation Administration to Ms. Thella Bowens, President/CEO, San Diego County Regional Airport Authority, July 26, 2013.

**Table 4-12 Construction Emissions Inventory (tons per year)**

YEAR	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2013	4.06	12.4	21.5	12.0	3.19
2014	2.15	15.9	18.0	11.3	2.95
2015	0.91	5.57	7.62	10.9	2.50
2016	0.67	3.76	7.11	10.8	2.41
2017	0.22	1.29	1.98	10.6	2.26
Maximum	4.06	12.4	21.5	12.0	3.19
General Conformity Thresholds	100	100	100	-	-

NOTES: VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with diameter equal to or less than 2.5 microns.

SOURCE: KB Environmental Sciences, Inc., February 2013.

PREPARED BY: KB Environmental Sciences, Inc., February 2013.

#### 4.16.5.3 Clean Air Act Conformity Evaluation

Air pollutant and pollutant precursor emissions inventories were prepared to determine the applicability of the General Conformity regulations of the CAA to the proposed improvements. The procedures used to evaluate CAA applicability are described in Title 40, Part 93 of the Code of Federal Regulations (40 CFR 93, *Determining Conformity of Federal Actions to State or Federal Implementation Plans*).

The General Conformity Rule requires that all reasonably foreseeable *direct* and *indirect* emissions occurring due to federally-supported actions be quantified and compared against *de minimis* thresholds in what is known as an applicability test. If annual direct and/or indirect emissions are within these *de minimis* thresholds for each year considered, the project would conform to the State Implementation Plan to improve air quality in the nonattainment area; if these emissions exceed the *de minimis* thresholds, project sponsors are required to demonstrate that the project's impacts have been either fully offset or mitigated.

The applicable *de minimis* thresholds for the pollutants CO, NO<sub>x</sub>, and VOC<sup>34</sup> are 100 tons for each pollutant. As shown in Table 4-12, the construction emissions would be below the General Conformity Rule *de minimis* thresholds.

<sup>34</sup> NO<sub>x</sub> and VOC are considered precursors to ozone formation.

#### 4.16.5.4 Emission Reduction Measures

Although the construction emissions would be below the applicable thresholds, the following additional actions would be implemented as part of the construction plans and process:

- Prevent construction equipment and delivery trucks from excess idling during periods of inactivity
- Substitute low- and zero emissions equipment, whenever feasible
- Implement a construction employee shuttle service, rideshare program, and on-site food service to reduce vehicle trips
- Use electrical drops in place of temporary electrical generators, whenever feasible
- Apply non-toxic soil stabilizers to all inactive construction areas including areas with disturbed soils and stockpiles of raw materials
- Stabilize on-site haul truck routes and staging areas with dust-prevention materials
- Reduce truck speeds on haul trucks to minimize dust entrainment
- Permanently cover all ground surfaces with vegetation or impervious materials as soon as practicable
- Curtail and/or modify construction activities on extremely windy days

#### 4.16.6 WATER QUALITY

As discussed in Section 4.6.3.2 above, construction activities associated with improvements under the Proposed Action pose the potential to generate water quality pollutants such as sediments from grading/ground disturbance, fuels, oil, grease, and solvents from construction equipment fueling and servicing, metals from steel/iron work, paints, and miscellaneous chemicals stored and used during construction use, and trash and debris. Potential water quality impacts would, however, be addressed through compliance with the construction activity requirements specified in the SDIA SWMP and through the state's General NPDES Permit for Storm Water Discharges Associated with Construction Activities (2009-0009-DWQ), which requires the preparation and implementation of a SWPPP specific to the proposed construction activities.

#### 4.16.7 WETLANDS

As discussed in Section 4.7 above, no wetlands occur within the APE; hence, no construction impacts to wetlands would occur.

#### 4.16.8 COASTAL RESOURCES

With the implementation of water quality BMPs and other stormwater pollution measures identified in the SWPPP (see Section 4.6, Water Quality), construction activities would not have a significant effect on coastal act policies.

#### 4.16.9 FISH, WILDLIFE, AND PLANTS

As discussed in Section 4.10 above, the majority of the APE is developed and/or essentially devoid of notable flora and fauna, with the exception of a California least tern nesting area. Two areas of the APE with biotic resources that could be affected by construction activities associated with the Proposed Action include the California least tern nesting areas located in the southeastern portion of the airport, in proximity to the west end of the proposed Terminal Link Roadway, and the Navy Boat Channel area located at the west end of the Airport, where the storm drain force main outlet is proposed to be constructed. Regarding potential construction impacts to the California least tern nesting area, construction activities associated with the Terminal Link Roadway and associated guard post and fencing would be completed in compliance with the existing Biological Opinion and the mitigation measures specified in Section 4.10.4.1. No direct impacts to California least tern nesting areas would occur under the Proposed Action.

Regarding potential impacts at the Navy Boat Channel area, construction activities associated with the Proposed Action would impact approximately 570 square feet of intertidal mudflat and shallow subtidal unvegetated habitat; however, the impacts would be temporary when the existing riprap revetment is removed and ameliorated when the revetment is replaced during installation of the storm drain. No direct impacts to subtidal vegetated habitat (eelgrass) are anticipated, although indirect impacts associated with increased turbidity during construction or the possibility of accidental damage during the placement of the riprap energy dissipater apron could occur. Mitigation measures addressing such impacts are proposed. There were no sensitive species observed within the project site area during the baseline eelgrass survey or recent field inspection. The project site area does not feature unique or rare habitats for which alteration would significantly impact sensitive species in the area. No construction-related significant impacts to sensitive species are anticipated to occur.

#### 4.16.10 DEPARTMENT OF TRANSPORTATION: SECTION 4(F)/303(C) PROPERTIES

Construction would not directly affect Section 4(f) properties. Specifically, the Proposed Action would not encroach into existing or planned recreational areas. With regard to indirect effects, the streets most likely to be affected by construction traffic include Pacific Highway and nearby I-5 ramps, Sassafras Street near Pacific Highway, and Washington Street near Pacific Highway, away from recreational uses along North Harbor Drive, such as Spanish Landing Park, and the multi-use pathway. If construction traffic were to use segments of North Harbor Drive, recreational areas may experience a temporary increase in traffic noise levels. Because these are urban parks/walkways located along a major road, traffic noise is not unexpected, and construction traffic noise generally would not be discernible from the overall level of Airport-related and other North Harbor Drive traffic. Accordingly, this short-term effect would not be significant. There are no Section 6(f) properties on or adjacent to SDIA.

#### 4.16.11 HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

All impacts identified for the Proposed Action would be the result of construction (as opposed to operation). As discussed in Section 4.12.3 above, only one existing structure, the Allied Aerospace Building, remains within the APE that was determined to be eligible for listing on the NRHP and California Register of Historical Resources. This historic resource is not in the area proposed to be disturbed and the Proposed Action would not cause any adverse effect to this resource.



No traditional cultural properties, Native American heritage sites or other culturally important sites or areas have been identified within the APE; therefore, no impacts to such resources would occur under the Proposed Action.

#### 4.16.12 LIGHT EMISSIONS AND VISUAL IMPACTS

As discussed in Section 4.13.3.1 above, construction activities could create light or glare impacts during both daylight and non-daylight hours if safety and security lights were not positioned correctly. Inclusion of the following measure as a component of the proposed improvements would ensure that light emission impacts during construction would not be significant:

- During construction activities, the construction contractor shall ensure that temporary construction-related lighting shall be arranged so that direct rays would not shine on or produce glare for adjacent street traffic, or community, biological, or scientific resources.

Construction activities, including storage and use of materials and equipment, truck traffic, and stockpiling of soils, associated with implementation of the Proposed Action would be visible by the public from I-5, Pacific Highway, connector ramps, and other roadways to the east of the APE, and from Laurel Street and North Harbor Drive to the south. In addition, construction activities would be visible from distant views along some streets within residential areas along the Point Loma peninsula. The following measure would be incorporated during construction of the Proposed Action to ensure that short-term aesthetics impacts would not be significant:

- During construction activity, the construction contractor shall ensure that construction material, equipment, and staging areas are screened from the public wherever feasible. Appropriate screening material, such as temporary fencing with opaque material, shall be used to buffer and screen views of construction activity and the construction site.

#### 4.16.13 NATURAL RESOURCES AND ENERGY SUPPLY

As discussed in Section 4.14.3 above, construction associated with the Proposed Action would require natural resources including, but not limited to: petrochemical construction material; lumber; sand and gravel; asphalt; steel; copper; lead; and other metals and construction materials. Fossil fuels for construction equipment and vehicles would also be consumed. However, SDIA is committed to construct the proposed Northside Improvements to meet high standards for efficiency and environmental design, consistent with LEED standards. Implementation of LEED standards that emphasize strategies for sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality would reduce the use of renewable and nonrenewable resources that would continue over time through construction, as well as long-term operation of proposed improvements. Additionally, the Memorandum of Understanding between SDCRAA and the State Attorney General as well as the AQMP for SDIA, include numerous measures involving reduced fuel consumption and resource utilization, which serve to reduce GHG emissions. As such, the increase in the demand for natural resources and energy from construction activities would not be significant.

In addition, construction of the alternatives would require water for dust suppression, and would generate small amounts of construction waste and construction debris. Minimal wastewater is expected to be generated during construction. These utility and service needs would be within the capacity of the respective utility and service systems and would not cause a significant impact.

Construction of the Proposed Action could also require that existing utility infrastructure be relocated. Prior to severing existing utility lines, replacement lines would be brought into service. Accordingly, disruptions in service would be avoided or limited to the short amount of time necessary to make new connections. All utility relocation would be conducted in close coordination with (or by) the respective service providers. Accordingly, construction impacts on utilities and service systems would not be significant.

#### 4.16.14 HAZARDOUS MATERIALS, POLLUTION PREVENTION, AND SOLID WASTE

As discussed above in Section 4.15.3, the proposed improvements are located in, or adjoining, areas of the Airport that contain hazardous materials and/or environmental contamination. The former Teledyne Ryan Facility (Site No. 5), former General Dynamics Facility (Site No. 8), and Jimsair UST (Site No. 9) already have plans in place or under development to avoid or mitigate any potential impacts associated with these sites. The recent environmental assessment of Site No. 8 provides additional information to further define the extent of contamination and to identify the appropriate mitigation measures required by statute and/or regulation.<sup>35</sup>

Contaminated soil and/or groundwater associated with the sites above may be encountered by the construction contractor. Therefore, the plans and specifications for the Proposed Action would require the contractor(s) to include provisions for handling and disposing of these materials in accordance with state and local regulations, if it becomes necessary.

A comprehensive Burn Ash Management Plan was prepared in April 2005 for the former Naval Training Center landfill site. The Burn Ash Management Plan summarizes the protocol for the excavation, temporary stockpiling/storage, handling, and re-use or disposal of material excavated from within the landfill extent, or potentially contaminated soil within the construction envelope. The Green Build project (initiated in 2009) dealt with mitigation of burn ash; the mitigation measures from The Green Build remain in place. If burn ash is encountered during construction related activities the SDCRAA would contact the City's Local Enforcement Agency and comply with all applicable regulations governing the handling of burn ash. All excavation, handling, stockpiling, characterizing, loading and hauling of material from the project site would be performed in accordance with all applicable laws, regulations and guidelines. The Airport would coordinate with the City of San Diego during design to ensure drainage during construction is appropriate. Upon completion of construction activities, no potential encounters with burn ash are anticipated since an underground storm drain would be in place.

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<sup>35</sup> Kleinfelder, Inc., Phase II Environmental Assessment Report, Former General Dynamics Lindbergh Field Plant Facility, San Diego, California, December 2009.

During the construction of the proposed improvements, hazardous materials (i.e., fuel, waste oil, solvents, paint, and other hydrocarbon-based products) would be used in quantities that are typical of the construction industry. Again, the construction contract documents would require these materials be stored, labeled and disposed of in accordance with state and local regulations. The contractors would also be held responsible for reporting any discharges of hazardous materials or other similar substances (in amounts above their reportable quantities). Lastly, contractors will be required to stop work in the event that previously unknown contaminants are discovered during construction, or a spill occurs during construction, until the National Response Center is notified.

Construction and demolition activities would result in a substantial temporary increase of solid waste generation at SDIA. However, recycling, salvage, reuse, and disposal options would be identified in a Solid Waste Management Plan in advance of all activities in order to minimize the amount of debris directed to local landfills. This plan would include the identification of locations for sorting of materials for reuse and recycling. At least 50 percent of all waste generated during construction and demolition activities would be recycled in accordance with the City of San Diego's Construction and Demolition Debris Diversion Ordinance. As such, construction of the proposed improvements would not have a significant impact on the solid waste disposal system.

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## 4.17 Cumulative Impacts

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As described in Section 3.9, Past, Present, and Reasonably Foreseeable Future Actions, cumulative impacts to environmental resources result from incremental effects of future actions combined with other past, present, and reasonably foreseeable actions in the area. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (federal, state, and local) or individuals.

In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or planned for implementation in the near future, is required. For purposes of this analysis, projects implemented within the last 5 years or proposed to be implemented within the next 5 years located within 1-mile of the APE were identified (see Table 3-6). The proposed Northside Improvements site has been previously developed and used for Airport purposes; it currently contains aircraft parking aprons, general aviation facilities, and surface parking. Areas surrounding the APE are characterized by Airport operations and facilities (SDIA) to the south and west and commercial/light industrial and transportation (I-5, Pacific Highway, connector ramps, and the Palm Avenue Trolley Station) facilities to the north and east.

Construction of the proposed Northside Improvements is estimated to take approximately three to five years to complete, with construction commencing in late 2013. Seven known projects that are not part of the planned development assessed in this EA, but are within the general vicinity of the APE, are anticipated to be constructed at the Airport within the same timeframe as the Proposed Action. They are:

- Construct new parking structure and vehicle circulation serving Terminal 2

- Rehabilitation of the Existing SDIA Runway 9 Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR)
- Demolish the existing general aviation facilities to improve airport safety and circulation on airfield
- Proposed Runway 9 Displaced Threshold Relocation

In addition, several other projects in areas surrounding the Airport are ongoing or are scheduled to be initiated within the same timeframe as the Proposed Action. These include:

- Pacific Highway Trunk Sewer Project
- Residential Project Block 2E (utilities undergrounding program)
- Shelter Island/America's Cup Harbor Redevelopment
- San Diego County Park
- Palm Project
- Pacific Beach Pipeline South
- Water Group 954

Anticipated impacts from construction of these projects include:

- Increases in air pollutant emissions during construction and operation;
- Temporary increases in noise from construction equipment activity;
- Increases in generation of solid waste during construction and operation;
- Potential impacts to water quality during construction and operation;
- Potential impacts to local surface transportation patterns resulting from an increase in traffic on local roadways during construction and operation; and
- Increases in consumption of natural resources and energy during construction and operation.

Temporary increases in air pollutant emissions at the Airport during construction would be controlled through implementation of emission control measures identified in Section 4.5.11. Conservatively high background concentrations levels were modeled to account for air emission sources outside of the APE; therefore, cumulative impacts were assessed. In this way, the impacts discussion is reflective of the combined impacts from both Airport and non-Airport sources of air emissions on existing and future-year ambient air quality conditions. With regard to cumulative construction emissions impacts related to general conformity thresholds, specifically as related to those activities within the control of the federal lead agency (i.e., the FAA), the vast majority of improvements listed above that are anticipated to be constructed at the Airport within the same timeframe as the Proposed Action were addressed in the *San Diego International Airport Master Plan – Near Term Improvements Final Environmental Assessment* (April 2009). Construction activities not included in the Near Term Improvements Final Environmental Assessment include the rehabilitation of the existing SDIA Runway 9 MALSR and the currently proposed Runway 9 displaced threshold relocation project, both of which

have separate utility from the Near Term Improvements, are subject to their own NEPA review, and, moreover, are of a nature that involve negligible construction activities and associated emissions. Tables 5-18.2 through 5-18.6 of the Near Term Improvements Final Environmental Assessment provide estimates of emissions associated with construction of the Near Term Improvements during each year of the anticipated 5-year construction program. The maximum emissions were projected to occur in the third year of construction, and include 20 tons of CO, 4.7 tons of VOC, and 37 tons of NO<sub>x</sub>. When combined with the maximum emissions associated with the currently Proposed Action, which are delineated in Table 4-12 above, the cumulative construction emissions of 32.4 tons of CO, 9.3 tons of VOC, and 58.5 tons of NO<sub>x</sub> would still be less than the general conformity thresholds of 100 tons for each pollutant. As such, cumulative construction-related air quality impacts are not anticipated to be significant.

Regarding construction noise from projects at and adjacent to the Airport, due to the louder noise levels and more frequent events that occur with aircraft operations and surface vehicle traffic, as well as train/trolley noise, and in consideration of the logarithmic quantities of noise measured in decibels, aircraft and highway noise would continue to be the determinative sources in the noise environment. Thus, the ambient noise levels would not be expected to increase due to the construction activity. Additionally, the construction work at and adjacent to the Airport would not be expected to result in excessive ground-borne vibration off-site. Construction of off-airport projects is subject to local noise ordinances to minimize construction and vibration noise impacts to noise-sensitive use. As such, cumulative construction noise impacts are not anticipated to be significant.

Construction and demolition activities of the Proposed Action and other projects at the Airport would result in a substantial temporary increase of solid waste generation at SDIA. However, recycling, salvage, reuse, and disposal options would be identified in a Solid Waste Management Plan in advance of all activities in order to minimize the amount of debris directed to local landfills. This plan would include the identification of locations for sorting of materials for reuse and recycling. At least 50 percent of all waste generated during construction and demolition activities would be recycled in accordance with the City of San Diego's Construction and Demolition Debris Diversion Ordinance. Although construction and operation of the Proposed Action and projects listed above would result in an increase of solid waste generated, this increase would be negligible in comparison to the available disposal capacity. Further, extension of the Airport's highly successful recycling/waste reduction program is expected to reduce potential impacts to landfill capacity well beyond the reduction associated with ordinance compliance. In addition, it is anticipated that the projects listed in Table 3-6 would also implement solid waste management plans to reduce potential impacts to landfill capacity. Therefore, cumulative solid waste impacts, as they relate to increases in solid waste, would not be significant.

Construction activities associated with the Proposed Action and projects listed above would result in more petroleum products and hazardous materials handled and more potential for releases of these materials. These projects could also potentially affect water quality in the area as a result of erosion or contaminant exposure from construction areas. However, adherence to federal and State waste regulations and storm water pollution prevention practices, coupled with best management practices, would be in place to prevent any significant impacts from these projects. Therefore, no significant cumulative impacts to water quality are expected.

Construction associated with the Proposed Action would result in temporary increases in construction traffic and minor changes in surface transportation patterns; however, these volumes are not anticipated to be significant and would not cause significantly cumulative impacts.

Construction associated with the Proposed Action and other projects on the Airport would require the long-term commitment of nonrenewable and renewable natural resources. Implementation of LEED standards that emphasize strategies for sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality would reduce the use of renewable and nonrenewable resources that would continue over time through construction and long-term operation of proposed improvements. Additionally, the Memorandum of Understanding between SDCRAA and the State Attorney General as well as the AQMP for SDIA, include numerous measures involving reduced fuel consumption and resource utilization. In addition, it is anticipated that some or most of the projects listed in Table 3-6 would also implement sustainability plans to reduce consumption of natural resources and energy. Further, it is anticipated that regional energy and aggregate supplies would be able to accommodate proposed SDIA improvements and the projects listed above. Therefore, cumulative impacts to natural resources and energy supply would not be significant.

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## 4.18 Other Considerations

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The Proposed Action is not likely to be environmentally controversial and no known organized opposition to the Proposed Action exists. The Proposed Action is consistent with the plans, goals, and policies of San Diego County. In addition, the Proposed Action is not likely to directly, indirectly, or cumulatively create a significant impact on the human environment.

## 5. Agency and Public Involvement

Public and agency involvement meetings are conducted to ensure that information about the Sponsor's Proposed Action is provided to the general public and public agencies. This section discusses the consultation with the public, interested parties, and public agencies completed to fulfill the requirements of the NEPA process.

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### 5.1 Public Scoping Meeting

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A public scoping meeting was held on November 16, 2011 at the San Diego County Regional Airport Authority's offices at San Diego International Airport.<sup>1</sup> Presentation boards describing the proposed project were displayed in the lobby for public review, and Airport and consultant staff were available to describe the project and answer questions. A presentation of the proposed project was also given. A notice of the scoping meeting was published in the *San Diego Daily Transcript* and the *San Diego Union-Tribune* and a total of 5 people attended the scoping meeting.

Only one scoping comment letter on the proposed project was received. The letter was from the City of San Diego Development Services Department. **Appendix F** contains a copy of the scoping meeting notice, presentation materials, sign-in sheets, and comment letter received.

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### 5.2 Comments and Responses on Draft EA

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The Draft EA was circulated for a 30-day public review and comment period, commencing on May 31, 2013 and concluding on July 1, 2013. During this time, interested parties, responsible agencies, and the general public were allowed to review the document and provide comments on its contents. The Draft EA was available for public review as follows:

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<sup>1</sup> At the time of the scoping meeting, relocation of the Runway 9 displaced threshold was being examined along with the proposed northside improvements. At the request of FAA, the displaced threshold project was advanced separately, based on its independent utility from the northside improvements and the distinct purpose and need specific to the displaced threshold project.

- At the SDCRAA, with offices located in the Commuter Terminal at San Diego International Airport, 3225 North Harbor Drive, San Diego, CA, during the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.
- At four local libraries:
  - Science, Industry, Government Publications Section, City of San Diego Central Library, 820 "E" Street, San Diego, CA 92101
  - Mission Hills Branch Library, 925 W. Washington Street, San Diego, CA 92103
  - Ocean Beach Branch Library, 4801 Santa Monica Avenue, San Diego, CA 92107
  - Point Loma Hervey Branch Library, 3701 Voltaire Street, San Diego, CA 92107
- At the office of the Los Angeles Airports District Office, Federal Aviation Administration, 15000 Aviation Boulevard, Lawndale, CA 90261.
- The Draft EA was also made available at [www.san.org](http://www.san.org) under Airport Projects/Environmental Affairs/Environmental Review/NEPA.

**Appendix G** provides a list of the federal agencies, state agencies, local agencies, organizations, planning groups, and other interested parties that were sent a Notice of Availability of the Draft EA.

This Final EA includes, as part of Appendix G, all comments submitted on the Draft EA during the public comment period and responses to these comments. Five comment letters on the Draft EA were received during the public review and comment period: one comment letter each from the San Diego County Archaeological Society, Inc., the San Diego Association of Governments, and the Peninsula Community Planning Board; and two comment letters from the City of San Diego.

The comments received on the Draft EA did not require additional analysis to develop the Final EA. The Final EA will be made available to the same locations, listed above, that the Draft EA was made available for public review.



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# 7. List of Abbreviations and Acronyms

## 7.1 List of Abbreviations and Acronyms

### A

- AB – Assembly Bill
- AC – Advisory Circular
- ACRP – Airport Cooperative Research Program
- ADP – Airport Development Program
- AEOZ – Airport Environs Overlay Zone
- AIP – Airport Improvement Program
- ALP – Airport Layout Plan
- ALUCP – Airport Land Use Compatibility Plan
- AMP – Airport Master Plan
- AOA – Air Operations Area
- APE – Area of Potential Effect
- APU – Auxiliary Power Units
- AQMPD – Air Quality Modeling Protocol Document
- AST – Aboveground Storage Tank
- ATCT – Airport Traffic Control Tower

### B

- BMP – Best Management Practices
- BO – Biological Opinion

### C

- CAA – Clean Air Act
- CAAA – Clean Air Act Amendments of 1990
- CAAQS – California Ambient Air Quality Standards
- CAEP – Committee on Aviation and Environmental Protection
- Cal-EPA – California Environmental Protection Agency
- CAL/OSHA – California Division of Occupational Safety and Health
- CARB – California Air Resources Board
- CCMP – California Coastal Management Program
- CDFW – California Department of Fish and Wildlife
- CEQ – Council on Environmental Quality

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

CFC - chlorofluorocarbon

CFR – Code of Federal Regulations

CH<sub>4</sub> – Methane

CIWMB – California Integrated Waste Management Board

CNEL – Community Noise Equivalent Level

CO – Carbon Monoxide

CO<sub>2</sub> – Carbon dioxide

CPA – Community Plan Area

CPIOZ – Community Plan Implementation Overlay Zone

CUPA – Certified Unified Program Agency

CWA – Clean Water Act

CZMA – Coastal Zone Management Act

CZMPs – Coastal Zone Management Programs

**D**

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dB – decibel

DEH – Department of Environmental Health

DNL – Day-Night Average Sound Level

DOE – Department of Energy

DOT – Department of Transportation

DTSC – Department of Toxic Substances Control

**E**

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EA – Environmental Assessment

EFH – Essential Fish Habitat

EIR – Environmental Impact Report

EO – Executive Order

EPA – Environmental Protection Agency

EPCRA – Emergency Planning & Community Right to Know Act

**F**

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FAA – Federal Aviation Administration

FBO – Fixed Base Operator

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Map

FONSI – Finding of No Significant Impact

**G**

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GA – General Aviation

GAO – General Accounting Office

GHGs – Greenhouse Gases

GSE – Ground Support Equipment

**H**

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H<sub>2</sub>O – Water

HAPs – Hazardous Air Pollutants

HCFC - hydrochlorofluorocarbon



HHWE – Household Hazardous Waste Element

HMTA – Hazardous Materials Transportation Act

HU – Hydrologic Unit

**I**

ICAO – International Civil Aviation Organization

ILS – Instrument Landing System

ITC – Intermodal Transportation Center

IWMA – Integrated Waste Management Authority

**J**

**K**

**L**

L&WCF Act – Land and Water Conservation Fund Act of 1965

LEA – Local Enforcement Agency

LEED – Leadership in Energy and Environmental Design

LID – Low Impact Development

LOS – Level of Service

**M**

MALSR – Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights

MCRD – U.S. Marine Corps Recruit Depot

MLLW – Mean Lower Low Water Elevation

MOU – Memorandum of Understanding

msl – Mean Sea Level

MTS – Metropolitan Transit System

**N**

N<sub>2</sub>O – Nitrous oxide

n.a. – not available

n/a – not applicable

NAAQS – National Ambient Air Quality Standards

NAHC – California Native American Heritage Commission

NASA – National Aeronautics and Space Administration

NCP – Noise Compatibility Program

NCTD – North County Transit District

NDFE – Non-Disposal Facility Element

NEM – Noise Exposure Map

NEPA – National Environmental Policy Act

NEVP – North Embarcadero Visionary Plan

NHPA – National Historic Preservation Act

NMFS – National Marine Fisheries Service

NO<sub>2</sub> – Nitrogen Dioxide

NO<sub>x</sub> – Oxides of Nitrogen

NOAA – National Oceanic and Atmospheric Administration

NPDES – National Pollutant Discharge Elimination System

NPIAS – National Plan of Integrated Airport Systems

NPL – National Priorities List

NRHP – National Register of Historic Places

NTC – Naval Training Center

**O**

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O<sub>3</sub> – Ozone

OEHHA – Cal-EPA Office of Environmental Health Hazard Assessment

OHWM – Ordinary High Water Mark

OSHA – Occupational Safety and Health Administration

**P**

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PARTNER – Partnership for Air Transportation Noise & Emissions Reduction

Pb – Lead

PCB – polychlorinated biphenyl

PFC – Passenger Facility Charges

PM<sub>10</sub> – Particulate Matter

PM<sub>2.5</sub> – Fine Particulates

PMP – Port Master Plan

**Q**

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QTA – Quick Turn Around

**R**

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RCC – Rental Car Center

RCRA – Resource Conservation and Recovery Act

RDC – Receiving and Distribution Center

RE – Resident Engineer

RON – Remain-Over-Night

RSA – Runway Safety Area

RTP – Regional Transportation Plan

RWQCB – Regional Water Quality Control Board

**S**

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SANDAG – San Diego Association of Governments

SCEMP – Southern California Eelgrass Mitigation Policy

SDAPCD – San Diego County Air Pollution Control District

SDCRAA – San Diego County Regional Airport Authority

SDCRAA Act – San Diego Regional Airport Authority Act

SDIA – San Diego International Airport

SDDWA – Safe Drinking Water Act

SF<sub>6</sub> – sulfur hexafluoride

SHPO – State Historic Preservation Officer

SIP – State Implementation Plan

SO<sub>2</sub> – Sulfur Dioxide

SO<sub>x</sub> – Oxides of Sulfur

SRRE – Source Reduction and Recycling Element

SUSMP – Standard Urban Stormwater Mitigation Plan

SWMP – Stormwater Management Plan

SWPPP – Stormwater Pollution Prevention Plan

**T**

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TIS – Traffic Impact Study

TRB – Transportation Research Board

TSA – Transportation Security Administration

**U**

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USACE – U.S. Army Corps of Engineers

U.S.C. – United States Code

USDA – U.S. Department of Agriculture

USEPA – U.S. Environmental Protection Agency

USFWS – U.S. Fish and Wildlife Service

UST – Underground Storage Tank

**V**

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VOCs – Volatile organic compounds

**W**

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**X**

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**Y**

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**Z**

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## 8. List of Preparers

### 8.1 List of Preparers

The following individuals prepared the EA. Information provided includes the organizations for which each individual works, a brief synopsis of their relative experience and qualifications, and their responsibilities in the preparation of this EA document.

#### 8.1.1 PRINCIPAL FEDERAL AVIATION ADMINISTRATION REVIEWERS

Western-Pacific Region Airports Division  
Los Angeles Airports District Office  
15000 Aviation Boulevard, Room 3000  
Lawndale, California 90261

Victor Globa, Environmental Protection Specialist, FAA Los Angeles Airports District Office:

B.S., Business Administration. 24 years of experience. Responsible for the FAA review of the Environmental Assessment and coordination with the California State Historic Preservation Office, Native American Tribes, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers and National Marine Fisheries Service.

#### 8.1.2 SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

Ted Anasis, AICP, Manager, Airport Planning

Environmental and Regional Planner with over 20 years of planning and environmental compliance experience. Sponsor's contracting project manager. Overall review and coordination with FAA Los Angeles Airports District Office; SDCRAA divisions; consultant team; and stakeholders.

George Condon, Director, Aviation Operations & Public Safety

Over 25 years of airport operations experience. Responsible for all aviation operations and public safety programs at San Diego International Airport.

### **Richard Gilb, Manager, Environmental Affairs**

Environmental Specialist and Manager with over 20 years of experience. Responsible for environmental compliance with federal, state and local regulatory requirements for San Diego International Airport.

### **Henry Peters, Manager, Technical Services**

Manager of Technical Services in Facilities Development Department with over 25 years of experience. Management of the Airport Layout Plan for San Diego International Airport.

### **Dean Robbins, Manager, Airside Operations**

Over 20 years of airport operations experience. Responsible for management of aviation operations and airfield safety for San Diego International Airport.

### **Lynda Tamura, Staff Assistant, Airport Planning**

Staff assistant with over 20 years of experience in administrative services and report preparation. Assists in project administration and management including environmental review documents.

## **8.1.3 RICONDO & ASSOCIATES, INC.**

### **Stephen D. Culberson, Director**

- Qualifications – Over 20 years of experience in airport environmental and planning studies, with significant experience in preparing and managing environmental assessments and environmental impact statements, airport master planning projects, and activity forecasts.
- Responsibilities – Project management, NEPA documentation, purpose and need, alternatives, affected environment, and environmental consequences.

### **Marine Ladner, Consultant**

- Qualifications – Three years of experience in airport planning, nav aids, and airspace.
- Responsibilities – NEPA documentation, purpose and need, and alternatives.

### **Brian Philiben, Consultant**

- Qualifications – Over 5 years of environmental consulting, with particular expertise in land-use planning.
- Responsibilities – Responsible for managing documentation and project records.

### **Casey Venzon, Consultant**

- Qualifications – Over 5 years of airport environmental and sustainability consulting experience, with particular expertise in preparing NEPA documentation and airport sustainability analyses.
- Responsibilities – Responsible for addressing comments and documentation.

#### 8.1.4 CDM SMITH

##### Anthony J. Skidmore, AICP

- Qualifications – Over 30 years of experience in urban planning and environmental studies, with emphasis in NEPA and CEQA compliance. Experience includes preparation and review of NEPA documents, ranging from focused environmental assessments to comprehensive programmatic environmental impact statements, for numerous airport projects.
- Responsibilities – Assist in preparation and review of NEPA document sections including purpose and need, alternatives, affected environment, and environmental consequences.

#### 8.1.5 COOPER ECOLOGICAL MONITORING, INC.

##### Daniel S. Cooper, President

- Qualifications – Former Director of Bird Conservation, Audubon California. Author of *Important Birds of California* and numerous papers and studies regarding the distribution and ecology of southern California avifauna.
- Responsibilities – Impacts to California least tern and other bird species.

#### 8.1.6 JBG ENVIRONMENTAL CONSULTING

##### Julie Gaa, Principal

- Qualifications – Over 24 years of professional environmental consulting experience with an emphasis in CEQA and NEPA document preparation. Managed and contributed to the preparation of environmental documents for projects that included airports, light rail transit, wastewater conveyance systems, hazardous and solid waste treatment facilities, recreational/park facilities, institutional facilities, commercial facilities, and residential development.
- Responsibilities – Assist in preparation and review of NEPA document sections including purpose and need, alternatives, affected environment, and environmental consequences.

#### 8.1.7 KB ENVIRONMENTAL SCIENCES, INC.

##### Michael A. Kenney, Vice President

- Qualifications – Over 30 years of experience in airport environmental studies, air quality monitoring, air emissions inventories, and climate change studies.
- Responsibilities – Construction air emissions inventory.

##### Michael A. Ratte, Air Quality Scientist

- Qualifications – Over 20 years of experience in airport environmental planning, air emissions inventories, atmospheric dispersion modeling, and health risk assessments.
- Responsibilities – Construction air emissions inventory.

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**Appendix A**  
Agency Coordination





## A. Agency Coordination

This appendix includes correspondence with federal, state, and local agencies concerning the proposed project. Correspondence includes:

- Letter to South Coastal Information Center, San Diego State University, dated October 25, 2011
- Letter to California Native American Heritage Commission, dated October 25, 2011
- U.S. Fish & Wildlife Service Meeting Notes, dated November 16, 2011
- Letter to U.S. Fish & Wildlife Service, dated January 14, 2013
- Letter to U.S. Army Corps of Engineers, dated January 15, 2013
- Letter to National Oceanic and Atmospheric Administration, dated January 16, 2013
- Letter to California State Historic Preservation Office, dated January 17, 2013
- Letter from the State Historic Preservation Office, dated June 14, 2013
- Letter to Federal Aviation Administration, dated July 16, 2013
- Letter to Federal Aviation Administration, dated August 2, 2013
- Letter from U.S. Fish & Wildlife Service, dated August 20, 2013

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October 25, 2011

**VIA E-MAIL**

Ms. Jaime Lennox, Coordinator  
South Coastal Information Center  
San Diego State University  
4283 El Cajon Boulevard, Suite 250  
San Diego, California 92105

RE: Priority Response Records Search for Northside Improvements  
San Diego International Airport, San Diego, San Diego County, California

Dear Ms. Lennox:

On behalf of the San Diego County Regional Airport Authority, Ricondo & Associates, Inc. (R&A), is preparing an Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and Federal Aviation Administration (FAA) guidance for proposed northside improvements at the San Diego International Airport (Airport) in San Diego, California. The FAA has requested that we contact the South Coastal Information Center to identify any National Register sites within or near the proposed work site (within ¼- mile).

The northside improvements are proposed to be constructed primarily on Airport property located on the north and east sides of the Airport. The Area of Potential Effect for the proposed project is shown on the attached U.S. Geological Survey 7.5' Quadrangle map (Point Loma Quad Map). The approximate limits of the project, in UTM (Zone 11) coordinates, are:

480574E	3622451N
483854E	3622451N
483854E	3620790N
480574E	3620790N

The Airport address is 3225 North Harbor Drive, San Diego, California. A completed Access Agreement is also attached to this letter. Due to the fast-track nature of this project, I would like to request a Priority Response – we agree to pay the 50 percent surcharge associated with a Priority Response.



Ms. Lennox  
South Coastal Information Center  
October 25, 2011  
Page 2

Please send all correspondence, including invoicing for the cost of the Records Search, to my attention at the address below. I can also be reached by phone (312.212.8812 – direct line) or via email (s\_culberson@ricondo.com).

Sincerely,

RICONDO & ASSOCIATES, INC.

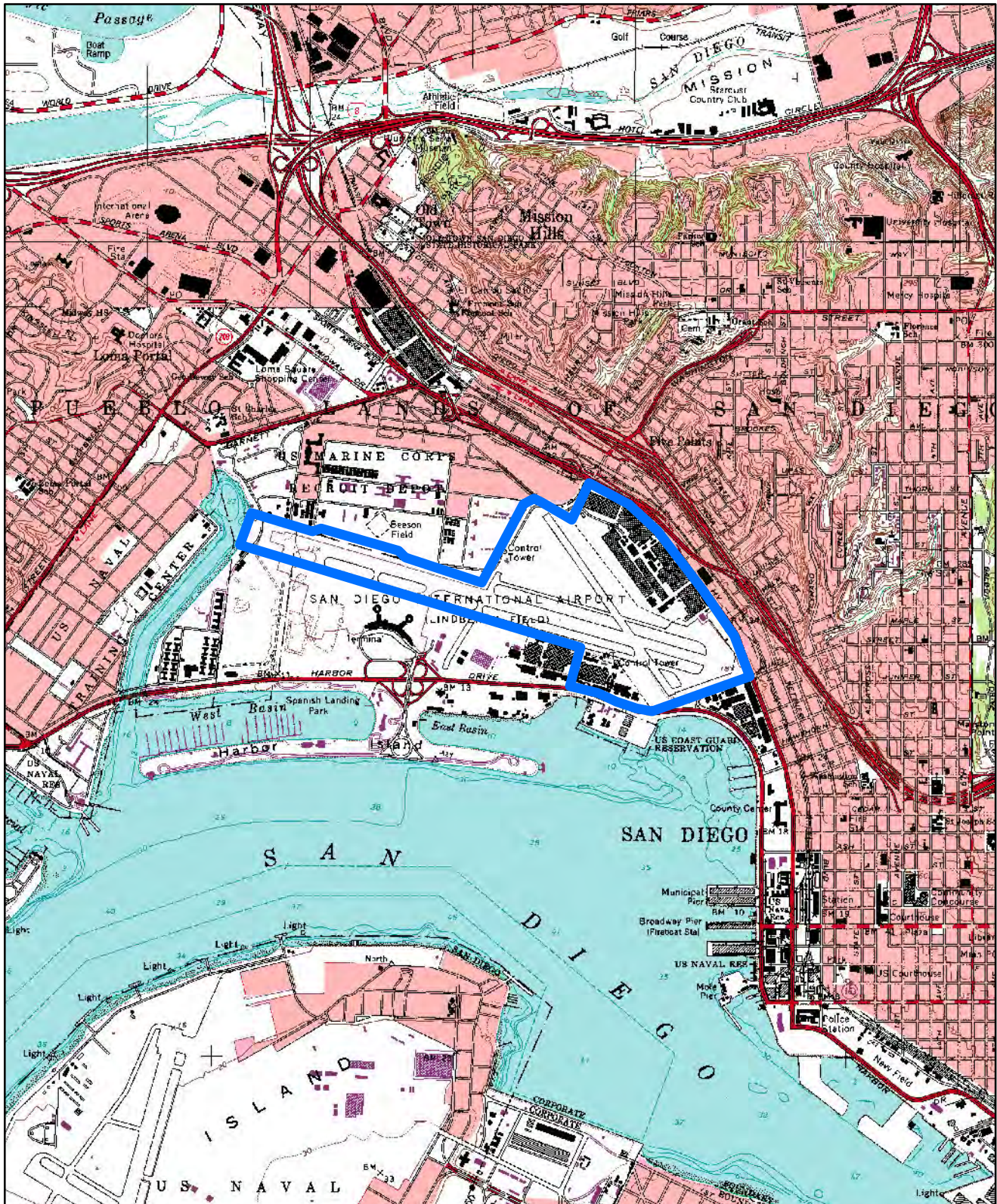
A handwritten signature in black ink that reads "Stephen Culberson". The signature is written in a cursive, flowing style.

Stephen D. Culberson  
Director

Enclosures

cc: 11140699-06.5  
Read File

document2



Source: U.S. Geological Survey, 1994 (QUAD Map, O32117f2, Point Loma)  
Prepared by: Ricondo & Associates, Inc., October 2011.


 Area of Potential Effect

Exhibit 1



## Area of Potential Effect

California Historical Resources Information System

**ACCESS AGREEMENT**

Number: \_\_\_\_\_

I, the undersigned, have been granted access to historical resources information on file at the South Coastal Information Center of the California Historical Resources Information System.

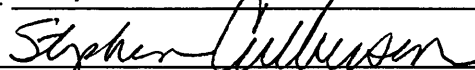
I understand that any CHRIS Confidential Information I receive shall not be disclosed to individuals who do not qualify for access to such information, as specified in Section III(A-E) of the CHRIS Information Center Rules of Operation Manual, or in publicly distributed documents without written consent of the Information Center Coordinator.

I agree to submit historical Resource Records and Reports based in part on the CHRIS information released under this Access Agreement to the Information Center within sixty (60) calendar days of completion.

I agree to pay for CHRIS services provided under this Access Agreement within sixty (60) calendar days of receipt of billing.

I understand that failure to comply with this Access Agreement shall be grounds for denial of access to CHRIS Information.

Print Name: Stephen Culberson Date: October 25, 2011

Signature: 

Affiliation: Ricondo & Associates, Inc.

Address: 20 N. Clark St., Suite 1500 City/State/Zip: Chicago, IL 60602

Billing Address (if different from above): \_\_\_\_\_

Telephone: 312.212.8812 Fax: 312.606.0706 Email: s\_culberson@ricondo.com

Purpose of Access: Identify historic/cultural resources for NEPA documentation

Reference (project name or number, title of study, and street address if applicable): Northside Improvements, San Diego

International Airport, 3225 N. Harbor Drive, San Diego, CA

County: San Diego Township/Range/Section or UTM's: see letter

USGS 7.5' Quad: Point Loma





October 25, 2011

VIA E-MAIL

California Native American Heritage Commission  
915 Capitol Mall, Room 364  
Sacramento, California 95814

RE: Environmental Assessment for Northside Improvements  
San Diego International Airport

To whom it may concern:

On behalf of the San Diego County Regional Airport Authority, Ricondo & Associates, Inc. (R&A), is preparing an Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and Federal Aviation Administration (FAA) guidance for proposed northside improvements at the San Diego International Airport (Airport) in San Diego, California. The FAA has requested that we contact the California Native American Heritage Commission to identify any Native American traditional cultural properties or land interests in the vicinity of the Airport that may be affected by the project.

The northside improvements are proposed to be constructed primarily on Airport property located on the north and east sides of the Airport. The Area of Potential Effect for the proposed project is shown on the attached U.S. Geological Survey 7.5' Quadrangle map (Point Loma Quad Map). The approximate limits of the project, in UTM (Zone 11) coordinates, are:

480574E	3622451N
483854E	3622451N
483854E	3620790N
480574E	3620790N

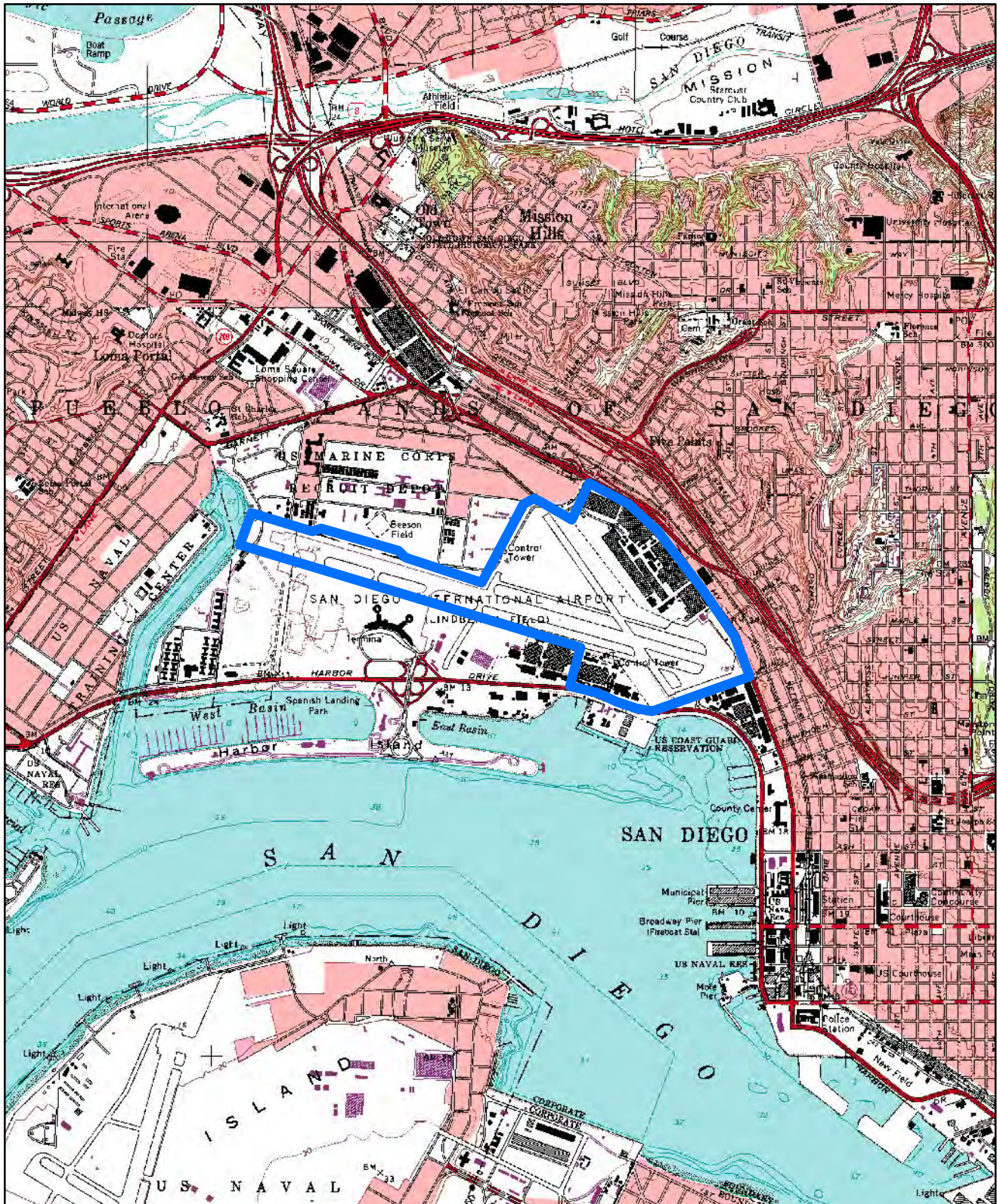
The San Diego County Regional Airport Authority is in the process of developing the EA, and plans to release the draft EA for public and agency review in early 2012. The EA will document the project's purpose and need, the proposed action and alternatives to the proposed action, the affected environment, and environmental consequences. Could you please search your records and let us know if there are any Native American traditional cultural properties or land interests in the vicinity of the San Diego International Airport that may be affected by the project? If so, please provide contact information for potentially affected Native American tribes to my attention at the address below. I can also be reached by phone (312.212.8812 – direct line) or via email (s\_culberson@ricondo.com).

Sincerely,

RICONDO & ASSOCIATES, INC.

A handwritten signature in black ink that reads "Stephen Culberson". The signature is written in a cursive, flowing style.

Stephen Culberson  
Director



Source: U.S. Geological Survey, 1994 (QUAD Map, O32117f2, Point Loma)  
Prepared by: Ricondo & Associates, Inc., October 2011.


 Area of Potential Effect

Exhibit 1



## Area of Potential Effect

**Northside Improvements Environmental Assessment**  
**U.S. Fish & Wildlife Service**  
**November 16, 2011 Meeting Summary**

1. Participants
  - a. San Diego County Regional Airport Authority (SDCRAA): Ted Anasis
  - b. U.S. Fish & Wildlife Service (USFWS): Sandy Vissman
  - c. Ricondo & Associates (R&A): Steve Culberson
  - d. Cooper Ecological Management: Dan Cooper
2. Project Background
  - a. SDCRAA is starting the National Environmental Policy Act (NEPA) process evaluating potential environmental effects on proposed projects on the northside of the San Diego International Airport (Airport). The projects are termed “Northside Improvements”. The Federal Aviation Administration (FAA) will be the federal agency responsible for the NEPA document. Victor Globa will be the lead official for FAA.
  - b. Scoping Meeting. SDCRAA is holding a scoping meeting the evening of November 16 to kickoff the NEPA project. Ted Anasis reviewed the presentation, which discusses the Airport Master Plan and Airport Land Use Plan adopted in 2008. These documents described the plans for the Airport and identified projects for implementation.
  - c. An Environmental Impact Report (EIR) on the Master Plan and Environmental Assessment (EA) for Near Term Improvements were prepared in 2008 and 2009. A Finding of No Significant Impact (FONSI) on the EA was issued in 2009 which contains stipulations for SDCRAA to adhere to in relation to minimizing potential effects to the California Least Tern. Ted Anasis stated that he believes similar conditions would apply to the Northside Improvements projects.
  - d. A Supplemental EIR was completed in September 2011 that examined the Northside Improvement projects. These are:
    - i. Relocate the area for general aviation (GA) facilities approved in the Near Term Improvements EA to a 12.4-acre site (same size as previously approved.).
    - ii. Consolidated Rental Car Facility (CONRAC). A four-story, 52-foot parking structure would be constructed and operated as a consolidated rental car facility. All of the rental car companies that operate in separate locations around the Airport would be located here. Each rental car company currently operates their own shuttle buses to pick up and drop off Airport passengers at the terminal. With the CONRAC, the individual rental car company shuttle buses would be replaced with a consolidated shuttle that would operate on a dedicated Terminal Link Roadway between the CONRAC and the terminal.
    - iii. Terminal Link Roadway. This dedicated roadway was originally proposed to run south of the Airport fence through the Solar Turbines parking lot, but due to opposition from the Port of San Diego and Solar Turbines, the SDCRAA modified the alignment of the roadway to keep it on Airport property. The realigned Terminal Link Roadway would require the perimeter fence to be

moved north of the existing Airport service road along the southern edge of the Airport by the end of Runway 27. This roadway would be used by CONRAC shuttle buses and parking lot shuttle buses, but would not be open for public use.

- Options to minimize effects on the California Least Tern nesting colony in this area will need to be examined. For example, screening of the fence may be desirable immediately adjacent to the colony. Barbed wire would be placed on top of the fence to minimize potential perching sites for avian predators.
  - A T-intersection will be added with a gate in the southwest corner. The Airport service road will be re-routed slightly west (away from the nesting ovals), and a security gate would be added. The Airport service road around Runway 27 is primarily used by Airport operations/supervisors inspecting the airfield and by lavatory disposal trucks that collect the lavatory waste from aircraft and dispose of it in a triturator located east of Runway end 27. The triturator is being relocated closer to the passenger terminal area, so trips from the lavatory waste trucks on the Airport service road adjacent to the California Least Tern nesting areas will be eliminated.
  - Sandy Vissman wondered whether the security gate would be taller than the surrounding fence and how noisy it would be. She requested that options be explored with the gate design to minimize potential effects to the nesting colony.
- iv. Other elements of the Northside Improvements project include relocated and reconfigured public parking (surface parking lot), air cargo facilities, central receiving and distribution center, utility improvements, and shifting the displaced threshold on Runway 09 by 300 feet.
3. Potential Effects to California Least Tern. Potential effects to the California Least Tern nesting colony will need to be examined in the NEPA document, including:
- a. Ensuring adequate chick fencing
  - b. Possibly have visual obscurement of relocated fence.
  - c. Vehicle emissions
  - d. Security gate moving at irregular intervals may result in flushing of terns. Need to look at ways to obscure, reduce noise and vibration.
  - e. Eliminate potential perching sites for avian predators
  - f. U.S. Coast Guard crossing will need to be maintained, but that gate is only used about once a year for fixed wing U.S. Coast Guard aircraft.
4. Stormwater Force Main
- a. There are no utilities serving the northside of the Airport. To capture stormwater during heavy rain events, SDCRAA is proposing to construct a new stormwater force main that would run north of Runway 09-27 and discharge into the Navy Boat Channel.

- b. The SDCRAA is committed to implementing best management practices (BMPs) to manage stormwater including permeable pavement and other BMPs, but during heavy rain events, a stormwater force main would be required. The Airport has a policy to achieve zero negative effects from stormwater runoff. They also have an aggressive sampling program at all of the outfalls.
  - c. Stormwater from the Airport currently makes its way to 14 outfalls spread between San Diego Bay and the Navy Boat Channel (some of which are shared with the Marine Corps and the City of San Diego).
  - d. The proposed design of the outfall would avoid existing eelgrass beds (SDCRAA recently completed an eelgrass survey in this area).
  - e. Sandy Vissman wondered whether the outfall would affect hydrology, erosion, or water quality in the Navy Boat Channel. She stated that the Navy Boat Channel is one of the rare shallow intertidal areas in North San Diego Bay. Ted Anasis stated that the Airport's goal is to capture and filter as much stormwater as possible before it makes it to the outfall.
  - f. SDCRAA has just begun the permitting process with the Regional Water Control Certification Board. The outfall will also require 401(b) and 404 permits.
  - g. Sandy Vissman wondered whether a treated wetland could be installed as an alternative. Ted Anasis stated that the Coastal Commission also asked this question. There is no land available in this area to construct a treatment wetland, would also be bird attractant near the runway which the FAA would not approve. The SDCRAA also looked at constructing an underground storage vault or stormwater storage area, but because this would necessitate underground vaults beneath the taxiway and runway, determined that it was not feasible due to pavement strength requirements (to bear the weight of aircraft traveling on the pavement, and landing and taking off). One other alternative would be to construct the stormwater force main alignment underneath the runway and discharge to Convair Lagoon. However, the SDCRAA does not want to construct anything else that crosses underneath the runway due to maintenance issues nor contend with the contaminants in the Convair Lagoon sediment.
5. Site Tour
- a. Ted Anasis took everyone on a site tour of the Airport to look at the California Least Tern nesting areas and where the perimeter security fence and Terminal Link Roadway would be located.
  - b. Sandy Vissman wondered what effect relocating the fence closer to the nesting areas would have on the terns – whether the terns would view it as an encroachment (blocking their views, restricting open vistas they require for nesting), and in effect displace some nesting. She believes that either informal or formal consultation will be required but is not sure which form of consultation is necessary in this case. She will discuss with others in U.S. Fish & Wildlife.
  - c. Sandy Vissman asked whether the SDCRAA had examined routing the Terminal Link Roadway to the west (around Runway 09) and into the terminal area, thus, completely avoiding the nesting colony. Ted Anasis stated that they had briefly considered it, but a) it would require acquisition of federal land or an easement from the Marine Corps Recruit Depot, and b) it would be a longer route and significantly higher cost that would not be

supported. For these reasons SDCRAA does not believe it is a viable option. Sandy requested that the SDCRAA reconsider this alternative.

- d. It was agreed that a separate site visit with other U.S. Fish & Wildlife Service personnel to view the proposed stormwater outfall would be a good idea. Sandy and Ted agreed to try to set that up in the next couple of weeks.

6. Action Items:

<b>Item #</b>	<b>Action Item</b>	<b>Responsible Party</b>	<b>Status</b>
1116-01	Investigate security gate designs to minimize potential effects on CLT nesting colony.	SDCRAA	
1116-02	Determine type of consultation required to examine potential effects on CLT nesting colony.	USFWS	
116-03	Re-examine alternative routing of roadway connecting CONRAC with terminal area.	SDCRAA	
1116-04	Setup meeting with USFWS to view proposed stormwater main outfall.	SDCRAA & USFWS	



U.S Department  
of Transportation  
**Federal Aviation  
Administration**

Western-Pacific Region  
Los Angeles Airports District Office

P O Box 92007  
Los Angeles, CA 90009

January 14, 2013

Mr. David Zoutendyk  
U.S. Fish & Wildlife Service  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Road, Suite 101  
Carlsbad, California 92011

Dear Mr. Zoutendyk:

San Diego International Airport  
Draft Environmental Assessment Northside Improvements  
San Diego, California  
Section 7 Consultation

The Federal Aviation Administration (FAA) and the San Diego Regional Airport Authority (Authority) are in the process of preparing an Environmental Assessment (EA) for proposed Northside Improvements at San Diego International Airport (SDIA) in the City of San Diego, San Diego County, California. The Authority must request the Federal Aviation Administration's (FAA) approval to change the existing Airport Layout Plan (ALP) and to get federal funding for the proposed improvements. The airport is a public use airport managed by the Authority. The FAA is the lead federal agency thereby charged with conducting Section 7 consultation with the U.S. Fish & Wildlife Service (USFWS).

Consultation Initiation

In an effort to ensure compliance with the *Endangered Species Act of 1973*, (ESA) as amended, the potential effects of the proposed project on special status fish, wildlife, and plant species were evaluated. The biological analysis provides information and comparative analyses to determine if the proposed action would result in potentially significant adverse effects to listed species or designated critical habitat. Species listed as Threatened or Endangered under the ESA are under the jurisdiction of USFWS that may occur in the vicinity of the project sites. The FAA is initiating Section 7 consultation with your office, effective by the date of this letter.

Project Information

The proposed improvements consist of airfield, support facilities, and ground transportation improvements primarily located on the north and east portions of SDIA. Though, there is a proposed storm drain going westward that will create a new outfall into the Navy Boat Channel. These improvements are needed to allow SDIA to effectively continue its mission of serving San Diego's commercial air transportation needs and demand forecasted through

2020. The proposed improvements that will be analyzed in this Environmental Assessment are located in the *Area of Potential Effect* identified in Figure 3-1, and depicted in Figure 1-3, *Proposed Action*.

- Air cargo warehouse facilities and associated improvements

No permanent cargo aircraft parking areas currently exist at SDIA. In the current Airport layout, cargo operators must park, load, and unload aircraft on taxiways or empty apron space, primarily in areas located on the north part of the airfield. The need for a dedicated parking and servicing facility for cargo aircraft is essential to safe and efficient cargo operations and to accommodate expanding demand for air cargo capacity and services. Due to the lack of existing warehouse space at SDIA, all air cargo operations (including the sorting and staging of pallets/containers) are currently conducted out in the open on former runway/taxiway and apron areas in the northern portion of the airfield. There is a need for a dedicated facility to handle air cargo, which would increase the efficiency of air cargo operations and reduce airfield congestion. The new facilities would provide an enclosed area (warehouse) within which incoming and outgoing cargo can be sorted and staged prior to being transferred between trucks and aircrafts.

- Consolidated Rental Car (CONRAC) facility

Currently the rental car companies are spread out along Rental Car Road and the Pacific Highway corridor and each operates individual shuttle services. This is an inconvenience to passengers and also contributes to road and curbside congestion because of the need for individual shuttle service and a lack of a dedicated right-of-way for shuttle buses. The CONRAC facility would accommodate all rental car companies that operate at the Airport and provide a consolidated shuttle to the terminals. The CONRAC would reduce the number of rental car shuttle trips as individual company shuttles would be replaced by a consolidated shuttle serving all companies.

- New Terminal Link Roadway

The existing Airport service road located at the southeast corner of the Airport would become the Terminal Link Roadway, from the point where Laurel Street and North Harbor Drive intersect east around Runway 27 and then to the point where the existing Airport service road turns northwest to parallel Runway 9-27 on the north (see enclosed Figure 4-2, *Terminal Link Roadway Detail*). The relocation of the perimeter security fence is required because vehicles utilizing the Terminal Link Roadway will include CONRAC shuttle buses and parking lot shuttle buses. Although the Terminal Link Roadway would not be open for public use, the shuttles will transport unsecured passengers (passengers that have either not gone through passenger screening or passengers that have exited secure areas of the Airport); thus the Terminal Link Roadway has to be located outside of the secured area of the airfield. The conversion of the Airport service road to the Terminal Link Roadway in this location would require the existing perimeter security fence to be moved approximately 20-feet north of the road along the southern edge of the Airport by the end of Runway 27. Additionally, minor modifications to the Airport service road would occur to allow for safe turning movements onto and off of the Terminal Link Roadway. This would result in the closure of a portion of the Airport service road and a new alignment. Airport service vehicles (primarily maintenance and security vehicles) that currently utilize the Airport service road to drive to areas located in



the southeast corner of the airfield would have to exit through a new vehicle access gate, turn left onto the Terminal Link Roadway, and then enter through a relocated vehicle access gate on the north side of the runway (see enclosed Figure titled Terminal Link Roadway Detail).

- Central Receiving and Distribution Center

A CRDC is needed to provide for the efficient storage and distribution of incoming deliveries of products at the Airport. The existing loading dock facilities at Terminal 2 West have been closed due to the passenger terminal expansion. Existing truck deliveries use public streets (primarily North Harbor Drive) to deliver products to the terminals on the south side of the Airport. The proposed CRDC on the northside of the Airport would replace existing vehicle trips using North Harbor Drive with consolidated truck deliveries that would use the secure airfield perimeter road to deliver products to the secure side of the terminals.

- Utilities Improvements (including storm drain force main and outfall to Navy Boat Channel)

Development of the improvements described above would include local utilities expansion to provide water, sewer, natural gas, power, and communications infrastructure for each of the planned facilities. The main trunk lines, or "backbone system," of the new utilities would generally be located within the new on-site access road right-of-way proposed to extend west from Sassafras Street at Pacific Highway, with the smaller service lines extending generally north and south from the backbone system. The new utility lines would connect to the existing utility infrastructure located nearby, with the majority of the new connections occurring in the vicinity of Pacific Highway and Sassafras Street. Some utilities such as water lines, natural gas lines, and telecommunication lines would also have connections to existing utilities at both the east side and the west side of the proposed development area. No major improvements to existing off-site utilities are currently anticipated to be necessary for the proposed development.

Storm drain lines would need to be constructed to collect and divert stormwater runoff from the proposed northside development areas. The storm drain lines would range in diameter from 18 to 36 inches and would route stormwater, via gravity flow, to a collection point near the airport traffic control tower (ATCT). A pump station at this location would convey the flows into a 24- to 30-inch diameter force main pipeline. The force main system would extend west along the north side of the runway to a new outfall into the Navy Boat Channel. The new outfall would consist of a 36-inch diameter reinforced concrete pipe storm drain structure, including a 10-foot long baffle/energy dissipater to reduce flow velocity, beyond which the flow would descend along a concrete channel that would be sloped between the mean higher water level and the mean lower water level within the Navy Boat Channel.

On April 20, 2009, the FAA issued a Finding of No Significant Impact (FONSI) for the Near Term Improvements Environmental Assessment that included projects to be completed by 2013. During implementation of the approved projects, the SDCRAA determined that certain elements analyzed in the earlier EA needed refinement and thus are including them as part of this analysis.

- Reconfiguration of SAN Park Pacific Highway

The Near Term Improvements EA analyzed the expansion and relocation of the existing SAN Park Pacific Highway parking facility, as shown in Figure 1-2, *Projects Approved in Near Term Improvements EA*. As planning for the northside of the Airport progressed, it was decided that portions of the relocated SAN Park Pacific Highway parking facility should be moved to the north and west to allow for improved access and utilization of the CONRAC facility. The public parking assumed to be part of the CONRAC facility is now proposed to be part of the SAN Park Pacific Highway parking facility instead.

- Construct northside circulation access road from Sassafras Street/Pacific Highway intersection

The Near Term Improvements EA included provisions for an access road to the northside area of the Airport from the Sassafras Street/Pacific Highway intersection. This on-Airport circulation road would provide access to the proposed General Aviation (GA)/Fixed Base Operator (FBO) facilities, CONRAC facility, and the relocated SAN Park Pacific Highway parking facility.

- Reconfiguration of proposed general aviation and fixed base operator facilities

The Near Term Improvements EA identified the need to relocate and consolidate the existing GA and FBO facilities due to safety concerns associated with jet blast and the inefficient layout of these facilities. The enclosed Figure 1-2, *Projects Approved in Near Term Improvements EA* shows the location proposed for these facilities in the Near Term Improvements EA. As planning for the northside of the Airport has progressed, changes to the site configuration and location for the proposed GA and FBO facilities has occurred, necessitated by refinements to the access road system to the northside area and the addition of the proposed Terminal Link Roadway. The total size of the proposed GA and FBO facilities has not changed only the location and configuration in order to maximize efficiency of the northside airfield and improve circulation.

### Species Evaluation

The habitat surrounding and including SAN supports a limited number of biological resources. The California least tern (*Sterna antillarumbrowni*, federal and state listed as endangered); the peregrine falcon (*falco peregrines anatum*, state listed as endangered, federal delisted as endangered); and, the California brown pelican (*Pelecanus occidentalis californicus*). Because the vast majority of SDIA is developed or highly disturbed, this effort focused on two areas: (1) the California least tern nesting areas (“ovals”) at the southeast portion of SDIA and (2) the shoreline and intertidal areas in the Navy Boat Channel near the proposed storm drain outfall.

### California Least Tern

The Airport has supported a significant percentage of the nesting population of the state in multiple years. Terns have nested at several locations around the Airport with Oval 3 South (O-3S) being the area used most consistently (locations are indicated in Figure 3-6, *California Least Tern Nests, Lindbergh Field, 2003-2011*). Various projects have obligated tern

management efforts at SDIA and a Biological Opinion (BO) prepared by the USFWS requires reasonable and prudent measures for protecting terns at SDIA. The BO stated a number of conditions/protective measures, which included, among others, the following:

- The FAA and the SDCRAA will maintain in perpetuity Ovals 0-1S, 0-2S, 0-3S, and 0-4S as nesting habitat for California least tern.
- The FAA and SDCRAA placed tern fledgling nest barriers/fencing around the perimeter of the above ovals to prevent the movement of fledglings outside these areas onto runways and taxiways. The fence is inspected and maintained during the breeding season by a qualified tern biologist with the appropriate endangered species permit issued by the USFWS.
- The FAA and SDCRAA provide annual funding for a predator control program; however, no shooting of tern predators at SDIA is allowed and non-lethal means are preferred.
- The FAA and SDCRAA will prepare and maintain in perpetuity a minimum of 6.2 acres of contiguous supratidal habitat at the Chula Vista Wildlife Reserve in south San Diego Bay for tern nesting.
- The FAA and SDCRAA are responsible for assuring ongoing monitoring of tern populations at SDIA and at Chula Vista Wildlife Reserve by qualified tern biologist(s).
- In addition, the BO specified certain practices for construction crews working on facility improvements, including educating workers on prohibitions to applying materials, storing equipment, or performing maintenance near the ovals, constraining ingress and egress routes to specific locations during the nesting season (greater than 1,200 feet from the ovals), lowering crane booms when not in use, ensuring that trash would be properly disposed and that workers would not feed potential tern predators in the area.

Furthermore, the following mitigation measures identified in the April 10, 2009, informal Section 7 response regarding Taxiway Improvements Project and Master Plan Near Term Improvements would be implemented to avoid effects to California least tern during construction proposed to occur within 1,200 feet (but not closer than 800 feet) of ovals 0-3S and/or 0-2S during the California least tern nesting season (April 1 through September 15).

- The Projects will be phased so that all project construction within 800 feet of tern nesting Oval O-3S will occur from September 15 to March 31 to avoid the tern nesting season.
- The Projects' staging area will be located on the north side of the Airport runway at least 1,200 feet from tern nesting Oval O-3S or on the former Teledyne Ryan property to the west. Construction vehicles will approach the staging area and construction area from the north side of the Airport runway and will not use roads that pass through the tern nesting areas located on the south side of the Airport runway. Any construction

vehicles will be parked on paved areas on the north side of the Airport runway or on the former Teledyne Ryan property during work hours.

- Beginning April 1, the Authority will hire a qualified tern biologist to monitor daily for the arrival of the tern into San Diego Bay and to nesting sites at the Airport, and immediately notify the FAA and USFWS (collectively, Agencies) upon their arrival. The biological monitor will coordinate with other tern monitors in San Diego Bay. The Authority will notify the Agencies via email on a daily basis as to the presence or absence of the least tern in San Diego Bay and at nesting sites at the Airport. The notifications will be sent to FAA and USFWS.
- The Authority will hire a qualified biological monitor with least tern experience (e.g., can identify the tern and can recognize their vocalization) to be onsite on all days when construction activities are conducted within 1,200 feet of ovals 0-3S and/or 0-2S and the tern is present on the Airport after the tern arrives to San Diego Bay to ensure that activities and personnel do not disrupt the tern. The biological monitor will monitor the tern during construction and will immediately notify the Resident Engineer (RE; or acting RE) of any construction activity that may lead to, or likely result in, the disruption of the tern, its young, or its eggs. The biological monitor will immediately notify the RE of all construction-related events that result in the tern showing agitated or stressed behavior. The RE will immediately modify the activity or incorporate protective measures to avoid disruption of the tern so the potential to have to stop construction activities is reduced. Construction activities can be carried out that do not result in individual terns or groups of terns displaying agitated or stressed behavior and/or suddenly leaving their nest(s) and not resettling on the nest(s) for more than 5 minutes. The biological monitor may or may not remain onsite during each entire construction day depending on whether or not, in his/her expert opinion and based upon direct observations, the construction activities to be conducted during the day may adversely affect the tern. If the biological monitor determines that adverse effects to the tern have occurred, the Resident Engineer will be notified and all project construction activities will cease immediately, except those activities necessary to make the Airport safe and operational. The biological monitor, in coordination with the Resident Engineer, will contact the Agencies immediately after construction has been stopped. Construction will not resume until approved by the Agencies. The biological monitor will submit daily field reports to the Agencies on the status of the nesting activity, any construction-related incidents that disrupted tern nesting, and any action taken by the RE to avoid further incidents, within 24 hours of each monitoring date. The biological monitor will also submit a final summary report of monitoring to the Agencies by October 1.
- Covered trash dumpsters or other suitable containers will be provided for construction personnel. All food items or containers that previously held food items will be immediately disposed of in these dumpsters or containers so as not to attract avian or mammalian predators of the tern.
- Construction personnel will not be permitted to feed cats, gulls, ravens, etc. as this may result in an increase in the numbers of these potential predators in the vicinity of tern chicks and eggs.

- Crane booms or similar equipment that have heights of 25 feet or greater will be lowered at the close of each construction day if possible. The use of such equipment in the zone between the nesting ovals and the Bay shore will be avoided to the maximum extent possible during the nesting season (April 1 - September 15), to avoid potential disturbance and/or impacts to foraging terns.
- A pre-construction meeting will be held to make all contractor personnel, including all construction staff, aware of the tern nesting issue and the specific conditions of construction. Project status meetings will be regularly held to remind all involved personnel of the measures required to protect the tern as well as any modifications made to ensure their effectiveness. The USFWS will be notified of the date and time of the pre-construction and status meetings in order to attend should it so desire.
- Nighttime construction will be limited to those activities that are necessary to maintain airfield operations during normal operational times. Should nighttime construction be required, the biological monitor will be onsite and perform the duties specified above.
- Additional/novel lighting will be kept to a minimum around the construction area at night during the least tern nesting season (April 1 - September 15), and will not be used unless active construction or other essential work is occurring.
- SDCRAA, in consultation with USFWS and CDFG, will identify a vehicle access gate design that minimizes noise and movement to the extent possible for installation adjacent to the California least tern nesting areas. Attention will also be given to ensure that the vehicle access gate does not provide openings for the potential ingress and egress of mammalian predators to the California least tern nesting areas. The SDCRAA will maintain existing design features to minimize perching locations for potential predators on the fence. Additionally, the FAA and SDCRAA, in consultation with USFWS and CDFG, will examine potential design features that could be incorporated into the fence to provide screening of vehicle movement along the Terminal Link Roadway, if deemed beneficial to the nesting California least terns.

#### Storm Drain Force Main Outfall

Storm drain lines would need to be constructed to collect and divert stormwater runoff from the proposed northside development areas. Enclosed is a copy of the *San Diego International Airport Northside Utilities Storm Drain Force Main Project Marine Biological Resources Assessment and Essential Fish Habitat Assessment*, April 2012 that studies biological resources and impacts to the Navy Boat Channel. The study determined that "Although several threatened and endangered species occur in the San Diego Bay and may utilize the Navy Estuary Small Boat Channel, construction of a new outfall in the area specified does not possess the potential to adversely affect these species. The proposed outfall pipe will not physically alter or encroach on existing floral or faunal habitats and will not degrade embayment water quality."

Even so, as a result of the potential for marine habitat, the SDCRAA will implement the following mitigation measures to prevent impacts to sensitive species:

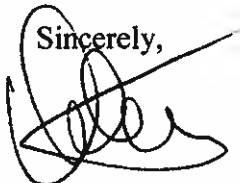
- To ensure that the turbidity from project construction is maintained at a low and contained level anticipated within this analysis, a temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift.
- To protect marine reptiles and mammals, project construction shall temporarily halt if any individual is observed within 100 feet of the project construction area. Work shall resume once the individual animal has left the area.

It should be noted that the forthcoming EA does not include an evaluation of the former Teledyne Ryan property. The EA currently being developed considers only development necessary to accommodate aviation growth through 2020. SDCRAA has recently initiated a new Airport Master Plan which will include the Teledyne-Ryan property.

The FAA has determined that the proposed undertaking with the mitigation measures identified in the 1993 USFWS Biological Opinion for San Diego International Airport's proposed master plan improvements and 2009 concurrence for the Taxiway Improvements Project and Master Plan Near Term Improvements that the proposed Northside Improvements projects may affect, but not likely adversely affect endangered or threatened species or designated critical habitat. We request your written concurrence with our determination. Please provide your response within 30-days, or we will presume you have no comments regarding the proposed undertaking.

If you have any additional questions concerning this matter, please feel free to contact me at 310/725-3637 or [victor.globa@faa.gov](mailto:victor.globa@faa.gov).

Sincerely,



Victor Globa  
Environmental Protection Specialist

5 Enclosures



SOURCE: Environmental Systems Research Institute, Map (Map Area) 1991  
PREPARED BY: Ricardo & Associates, Inc., April 1992



Area of Potential Effect

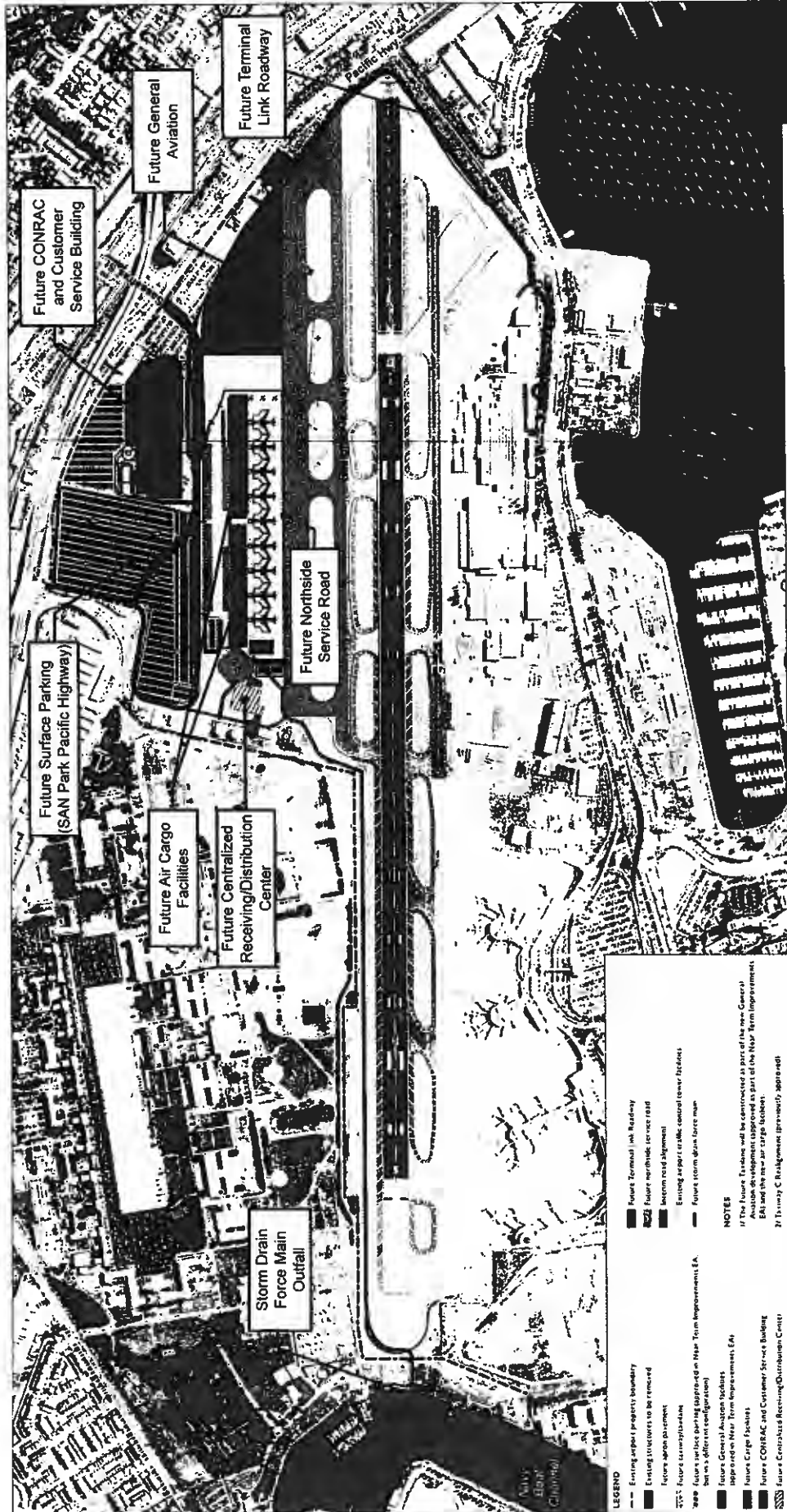


FIGURE 1-3

**LEGEND**

- Existing airport property boundary
- Existing taxiways to be removed
- Future airport
- Future apron pavement
- Future taxiway/stopway
- Future taxiway/stopway (approved in Near Term Improvements EIA, but not different configuration)
- Future General Aviation facilities
- Future CONRAC and Customer Service Building
- Future Centralized Receiving/Distribution Center
- Future Terminal Link Roadway
- Future northside service road
- Existing road alignment
- Existing airport traffic control tower facilities
- Future storm drain force main

**NOTES**

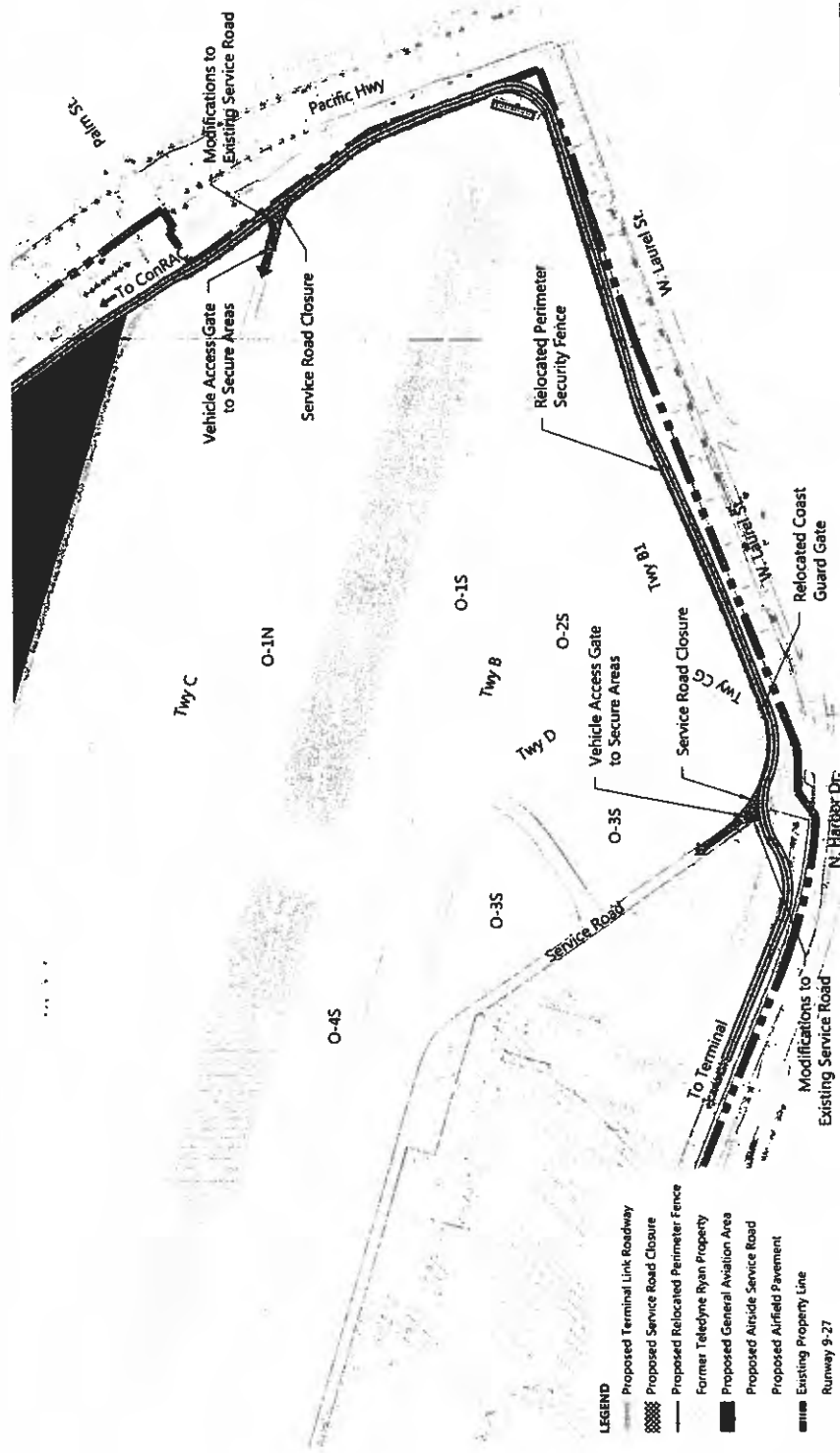
If the Future Terminal will be constructed as part of the near-General Aviation program, the Future Terminal will be shown as part of the Near Term Improvements EIA and the near air traffic facilities.

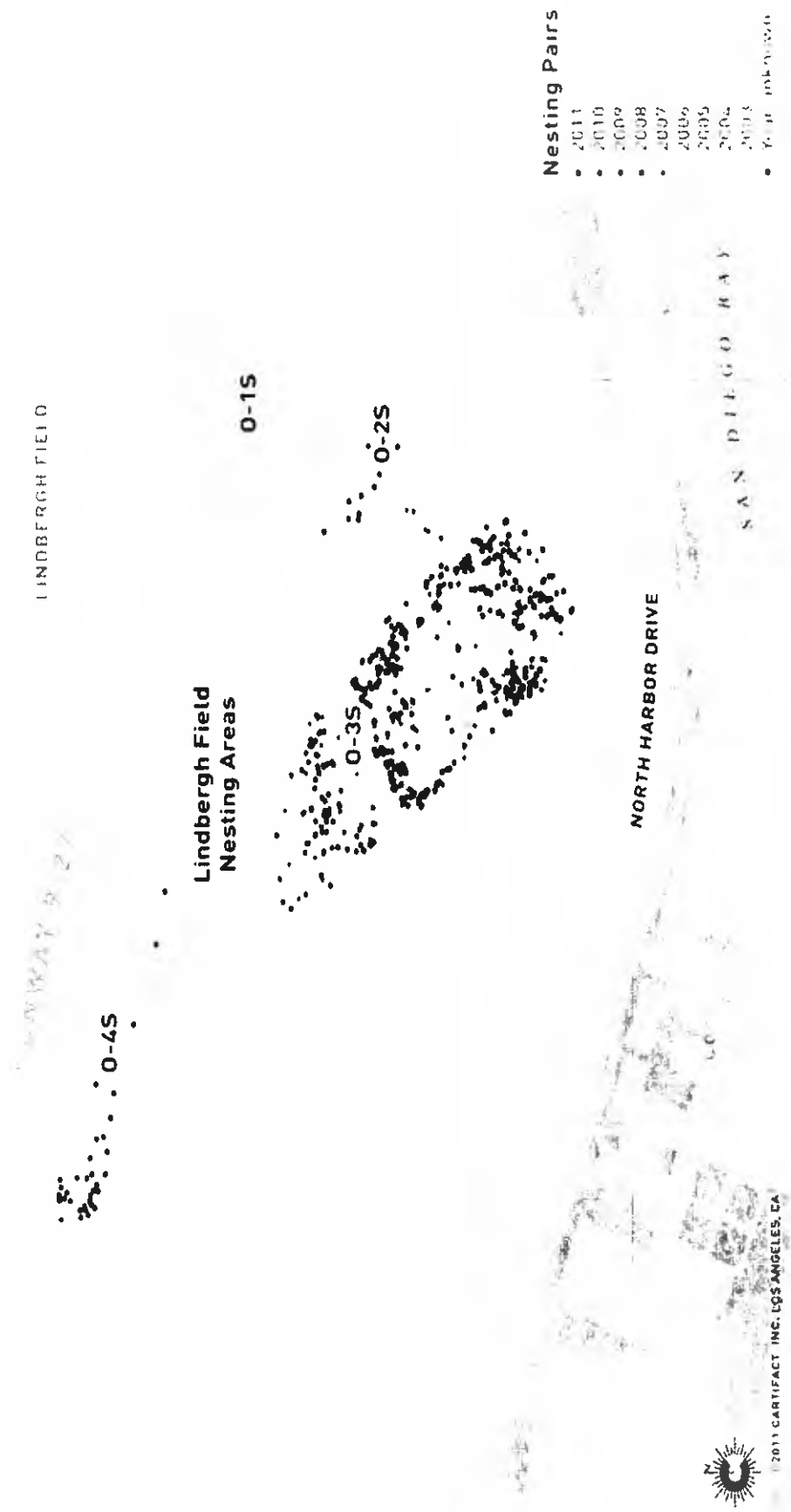
If Future C-Development (proposed) applies.

Proposed Action



SAN DIEGO INTERNATIONAL AIRPORT - NORTHSIDE IMPROVEMENTS





**Figure 3-6 California Least Tern Nests, Lindbergh Field, 2003-2011**

NOTE  
 The four open gravel ovals (0-1S, 0-2S, 0-3S, and 0-4S) that provide potential nesting habitat for the California Least Tern, and the location of nests from 2003-present!  
 SOURCE: Robert Patton, August 2011  
 PREPARED BY: Hamilton Biological, Inc., August 2011

**SAN DIEGO COUNTY AIRPORT NORTHSIDE UTILITIES  
STORM DRAIN FORCE MAIN PROJECT  
MARINE BIOLOGICAL RESOURCES ASSESSMENT AND  
ESSENTIAL FISH HABITAT ASSESSMENT**

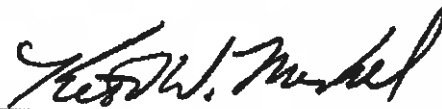
*Prepared for:*

**San Diego County Regional Airport Authority**  
Environmental Affairs  
P O Box 82776  
San Diego, CA 92138-2776  
*Phone: (619) 400-2790*  
Attention: Mr. Richard Gilb

*Prepared by:*

**Merkel & Associates, Inc.**  
5434 Ruffin Road  
San Diego, California 92123  
*Phone: (858) 560-5465*  
*Fax: (858) 560-7779*

**April 2012**



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Keith Merkel, Principal Consultant



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Holly Henderson, Project Biologist



U.S Department  
of Transportation  
**Federal Aviation  
Administration**

Western-Pacific Region  
Los Angeles Airports District Office

PO Box 92007  
Los Angeles, CA 90009

January 15, 2013

Mr. Robert Revo Smith Jr., P.E., M. ASCE  
Environmental Engineer/Civil Engineer  
U.S. Army Corps of Engineers  
Regulatory Project Manager Carlsbad Field Office  
6010 Hidden Valley Rd, Suite 105  
Carlsbad, CA 92011-4213

Dear Mr. Smith:

San Diego International Airport  
Draft Environmental Assessment Northside Improvements  
San Diego, California  
Section 7 Consultation

The Federal Aviation Administration (FAA) and the San Diego Regional Airport Authority (Authority) are in the process of preparing an Environmental Assessment (EA) for proposed Northside Improvements at San Diego International Airport (SDIA) in the City of San Diego, San Diego County, California. The Authority must request the FAA's approval to change the existing Airport Layout Plan (ALP) and to get federal funding for the proposed improvements. The airport is a public use airport managed by the Authority. The FAA is the lead federal agency for the EA and is thereby charged with conducting consultation with your agency.

Consultation Initiation

In an effort to ensure compliance with Executive Order 11990, the Clean Water Act (1972, as amended) (CWA) or Section 10 of the Rivers and Harbor Act, that the potential effects of the proposed action do not result in the loss or degradation of wetlands or will result in any obstruction or alteration in a navigable water the FAA is initiating Section 7 consultation with your agency. The enclosed *San Diego County Airport Northside Utilities Storm Drain Force Main Project Marine Biological Resources Assessment and Essential Fish Habitat Assessment* dated April 2012 includes a jurisdictional wetlands determination and potential impacts with the proposed action. The FAA is initiating consultation with your office, effective by the date of this letter. The purpose of this consultation effort is to seek concurrence as to whether or not there is a potential need for a Clean Water Act Section 404 Permit or Section 10 Permit of the Rivers and Harbor Act, which is under the jurisdiction of the U.S. Army Corps of Engineers (Corps).

### Project Information

The FAA has determined that the Area of Potential Effect (APE) is identified within the area outlined in blue in the attached Figure 3-1, *Area of Potential Effect*. Additionally, I have enclosed Figure 1-3, Proposed Action which depicts the locations of the proposed projects. These improvements include:

- Air cargo warehouse facilities and associated improvements
- Consolidated Rental Car (CONRAC)
- New Terminal Link Roadway
- Central Receiving and Distribution Center
- Utilities Improvements (including storm drain and outfall to Navy Boat Channel)
- Reconfiguration of SAN Park Pacific Highway
- Construct northside circulation access road from Sassafras Street/Pacific Highway intersection
- Reconfiguration of proposed general aviation and fixed base operator facilities

### Project Consultation

The Army Corps is responsible for the determination of Jurisdictional Waters, including wetlands (Special Aquatic Sites), under the CWA. The 1987 *Corps of Engineers Wetlands Delineation Manual* provides specific directions for the determination of jurisdictional wetlands, as defined in Section 404 of the CWA. Additionally, Section 10 of the Rivers and Harbors Act requires authorization from the U.S. Army Corps of Engineers (Army Corps) for the construction of any structure in or over any navigable water of the United States, the excavation/dredging or deposition of material in this water or any obstruction or alteration in navigable water. Structure or work outside the limits defined for navigable waters of the U.S. require a Section 10 permit if the structure or work affects the course, location, condition, or capacity of the water body.

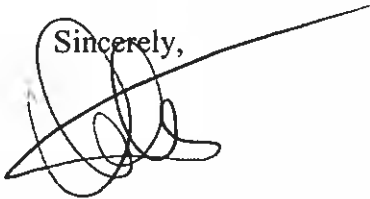
The jurisdictional determination concluded that the project study area does not support wetlands or waters of the U.S. that would be regulated under Section 404 of the CWA. Construction of the new outfall will not affect the navigability of the water way. The proposed outfall pipe and stabilizing riprap will extend approximately 30-feet from the toe of the existing riprap, and would be constructed primarily over intertidal mudflat. The new outfall will consist of a 36-inch diameter reinforced concrete pipe storm drain structure, including a 10-foot long baffle/energy dissipater that reduces the flow velocity, beyond which the flow will descend along a concrete channel that is sloped between the mean higher level and the mean lower water level within the Navy boat channel. Construction of the new outfall will not alter the existing channel nor will it result in unnavigable water depths by depositing sediment or fill in the existing channel or by removing water from the embayment. We

request your written concurrence with the APE and our determination of no effect and seek a written No Permit Required letter from the Army Corps prior to construction. Please provide your written response within thirty days, or we will presume you have no comments regarding the proposed undertaking.

FAA Contact Information

If you have any questions or require additional information, please feel free to contact me at (310)725-3637 or [victor.globa@faa.gov](mailto:victor.globa@faa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Victor Globa', written over a horizontal line.

Victor Globa  
Environmental Protection Specialist

3 Enclosures



Area of Potential Effect

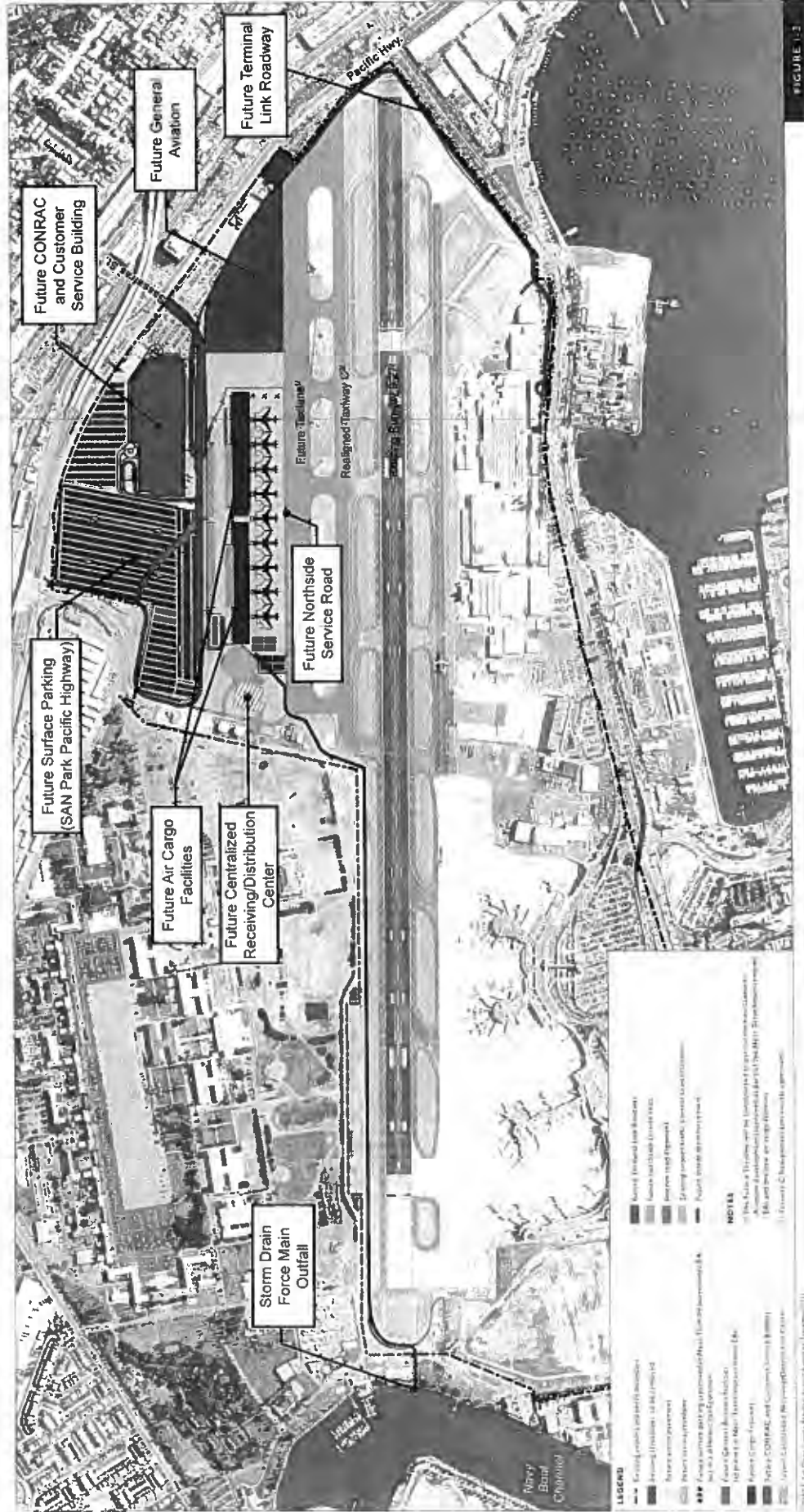


FIGURE 1-3

Proposed Action



**SAN DIEGO COUNTY AIRPORT NORTHSIDE UTILITIES  
STORM DRAIN FORCE MAIN PROJECT  
MARINE BIOLOGICAL RESOURCES ASSESSMENT AND  
ESSENTIAL FISH HABITAT ASSESSMENT**

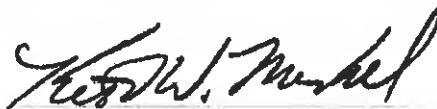
*Prepared for:*

**San Diego County Regional Airport Authority**  
Environmental Affairs  
P O Box 82776  
San Diego, CA 92138-2776  
*Phone: (619) 400-2790*  
Attention: Mr. Richard Gilb

*Prepared by:*

**Merkel & Associates, Inc.**  
5434 Ruffin Road  
San Diego, California 92123  
*Phone: (858) 560-5465*  
*Fax: (858) 560-7779*

**April 2012**



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Keith Merkel, Principal Consultant



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Holly Henderson, Project Biologist



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Western-Pacific Region  
Los Angeles Airports District Office

P.O. Box 92007  
Los Angeles, CA 90009

January 16, 2013

Mr. Bryant Chesney  
U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

Dear Mr. Chesney:

San Diego International Airport  
Draft Environmental Assessment Northside Improvements  
San Diego, California  
Section 7 Consultation

The Federal Aviation Administration (FAA) and the San Diego Regional Airport Authority (Authority) are in the process of preparing an Environmental Assessment (EA) for proposed Northside Improvements at San Diego International Airport (SDIA) in the City of San Diego, San Diego County, California. These improvements are necessary to accommodate existing and forecasted demand for air transportation and air cargo services. The Authority must request the FAA's approval to change the existing Airport Layout Plan (ALP) and to get federal funding assistance for the proposed improvements. The airport is a public use airport managed by the Authority. The FAA is the lead federal agency for the EA and is thereby charged with conducting consultation with your agency.

**Consultation Initiation**

In accordance with Section 7 of the Endangered Species Act, and pursuant to the essential fish habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), this letter is initiating consultation, pursuant to Section 7 of the Endangered Species Act, on behalf of the FAA, for proposed Northside Improvements at SDIA.

**Project Information**

The proposed undertaking includes a number of improvements that will predominantly occur on the north and east side of SDIA, though a storm drain and outfall will be directed to the west off airport property which is generating this consultation effort. The FAA has determined that the Area of Potential Effect (APE) is identified within the area

outlined in blue in the attached Figure 3-1, *Area of Potential Effect*. I have also enclosed Figure 1-3, Proposed Action which depicts the locations of the proposed projects. These improvements include:

- Air cargo warehouse facilities and associated improvements
- Consolidated Rental Car (CONRAC)
- New Terminal Link Roadway
- Central Receiving and Distribution Center
- Reconfiguration of SAN Park Pacific Highway
- Construct northside circulation access road from Sassafras Street/Pacific Highway intersection
- Reconfiguration of proposed general aviation and fixed base operator facilities
- Utilities Improvements (including storm drain and outfall to Navy Boat Channel)

As a result of the proposed action, storm drain lines would need to be constructed to collect and divert stormwater runoff from the proposed northside development areas. The storm drain lines would range in diameter from 18 to 36 inches and would route stormwater, via gravity flow, to a collection point near the airport traffic control tower (ATCT). A pump station at this location would convey the flows into a 24- to 30-inch diameter force main pipeline. The force main system would extend west along the north side of the runway to a new outfall into the Navy Boat Channel. The proposed outfall pipe and stabilizing riprap will extend approximately 30-feet from the toe of the existing riprap, and would be constructed primarily over intertidal mudflat. This proposed outfall would consist of a 36-inch diameter reinforced concrete pipe storm drain structure, including a 10-foot long baffle/energy dissipater to reduce flow velocity, beyond which the flow would descend along a concrete channel that would be sloped between the mean higher water level and the mean lower water level within the Navy Boat Channel.

### **Species Evaluation**

Enclosed is a copy of the *San Diego County Airport Northside Utilities Storm Drain Force Main Project Marine Biological Resources Assessment and Essential Fish Habitat Assessment (BA&EFHA)* dated April 2012. The area of the proposed storm drain outlet improvements is similar to other shallow water environments with armored shorelines within San Diego Bay with regard to distribution of habitats, biological features, and sediment characteristics. The impacts analysis completed for the Proposed Action focused on stressors associated with the improvements and their potential impact to EFH (i.e. subtidal [vegetated and unvegetated] habitat, intertidal mudflat, open water, intertidal/shallow subtidal riprap revetments) within the APE. Pursuant to 50 CFR 600.910(a), an "adverse effect" on EFH is defined as any impact that reduces the quality and/or quantity of EFH. Factors that were considered in this analysis include the duration,

frequency, intensity, and spatial extent of the impact; the sensitivity/vulnerability of the habitat; the habitat functions that might be altered by the impact; and the timing of the impact relative to when the species or life stages may use or need the habitat.

- Intertidal/Shallow Subtidal Riprap Revetments

The Proposed Action would result in an increase of riprap substrate, which would consist of existing shoreline riprap, along with installation of approximately 500 square feet of riprap placed along what is currently intertidal mudflat and subtidal unvegetated habitat in order to protect the outfall and prevent erosion. Temporary impacts to the riprap fish community would occur during removal and replacement of shoreline riprap during outfall installation. Some fish would temporarily avoid the work area and move to adjacent riprap during construction, while other species may be expected to form local feeding aggregations where encrusting communities are damaged by the work. More opportunistic fish species would be expected to temporarily move just outside of the effective range of the impact, then immediately return to forage on the released or damaged biota.

San Diego Bay currently contains 45.4 miles of armored shoreline (74 percent of the total shoreline) within the Bay. Riprap armoring along the approximately 30 foot-long construction zone for the Proposed Action represents a small fraction of the total riprap within the Bay. Because of the temporary nature of disturbance and replacement of shoreline riprap within the outlet improvement site area, the availability of extensive riprap shoreline within San Diego Bay, and the net increase in overall riprap from project installation, the impact of riprap disturbance on EFH and managed species is considered minimal and less than significant.

- Intertidal Mudflat

Project construction would result in a net decrease of approximately 250 to 300 square feet intertidal mudflat due to placement of riprap in the intertidal and shallow subtidal zone to protect the outfall and prevent erosion. The mudflat in the vicinity of the proposed outlet improvement site area exists as a narrow band bordered by riprap and does not contain a substantial source of organic material (such as found at river and creek mouths and adjacent to coastal salt marshes in south San Diego Bay). As a result, this mudflat is anticipated to have lower productivity than the large mudflats elsewhere in San Diego Bay. Direct impacts on the benthic community would include the loss or mortality of any benthic infauna and epifauna in the construction footprint. Fish species that forage along the mudflat during high tides are anticipated to utilize adjacent mudflat habitats during and after project construction. Of the managed fish species, intertidal mudflat is only suitable for English sole. Due to the rarity or absence of this species from San Diego Bay, and the small impact to intertidal mudflat relative to availability of high quality mudflat elsewhere in the Bay, the impact of construction on intertidal mudflat EFH and managed fish species due to the Proposed Action is considered to be minimal and less than significant.

- Subtidal Unvegetated Habitat

Subtidal unvegetated habitat would not be permanently impacted by the proposed outlet improvements construction. Temporary impacts during construction could include increased turbidity in the vicinity of the outfall and newly placed riprap. It is anticipated that fish species utilizing this habitat would move away to adjacent habitat during construction, and return to the outlet improvements site area following construction. As a result, the impact of the Proposed Action on subtidal unvegetated EFH and managed fish species is considered to be minimal and less than significant.

- Subtidal Vegetated Habitat

Eelgrass vegetated habitats are an essential component of southern California's coastal marine environment. Eelgrass beds function as important habitat for a variety of invertebrate, fish, and avian species. For many fish species, eelgrass beds are an essential biological habitat component for at least a portion of their life cycle, providing structured habitat and nursery sites for numerous species of fish. The Southern California Eelgrass Mitigation Policy offers specific guidelines for appropriate responses and mitigation measures for activities that threaten eelgrass vegetated habitats. Based on the eelgrass survey conducted at the proposed outfall area that is in the enclosed BA&EFHA, eelgrass at the site was found to extend from a depth of 0 feet to approximately -9 feet mean lower low water elevation (MLLW), with the majority being at depths greater than -2 feet MLLW. Eelgrass does not occur within the proposed outfall site area footprint and direct impacts to eelgrass are not anticipated; however, unanticipated impacts during construction could occur, either through increased turbidity associated with the construction work or from accidental damage during placement of riprap. Long-term impacts may occur as a result of increased turbidity or sedimentation from the outfall. Protective measures are proposed below to prevent impacts to EFH.

- Open Water

Effects from construction of the proposed outfall improvements would include temporary and localized increases in turbidity and sedimentation within the water column. It is anticipated that the effects of these construction-related impacts on fish would be temporary and minor. Most species of demersal and pelagic fish would avoid construction areas, resulting in the displacement of, followed by post-construction recolonization by, these species. Some sedentary demersal fishes may be affected by the temporary increase in sediment loads within the water column during construction, while more opportunistic fish species would be expected to temporarily move just outside of the effective range of the impact, then immediately return to forage on the released or damaged biota. Use of BMPs, including construction-related erosion/sediment control measures as described above, as well as installation of silt curtains during construction, would minimize the extent of construction-related turbidity. With the use of BMPs the impact of the project on open water EFH and the four managed pelagic fish species (Northern Anchovy (*Engraulis mordax*), Pacific Sardine (*Sardinops sagax*), Pacific Mackerel (*Scomber japonicus*) and Jack Mackerel (*Trachurus symmetricus*)) is considered to be minimal.

## **Marine Habitat & EFH Protective Measures**

The following protective measures are proposed to prevent impacts to marine habitats and EFH.

- Due to the close proximity of eelgrass beds to the proposed outfall construction zone, the shoreward edge of eelgrass shall be staked with ridged PVC markers or self-centering buoys visible at all periods of construction in the Bay outfall work area prior to initiation of project construction in the Bay.
- A temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift. It shall consist of a hanging weighted curtain with a surface float line. The turbidity curtain shall be kept a minimum of 10 feet away from existing eelgrass beds and the curtain shall be anchored to temporary driven pipe corners in order to prevent damage to eelgrass beds from curtain drag or movement.
- The project shall conform to the survey requirements of the Southern California Eelgrass Mitigation Policy (SCEMP) (NMFS 1991, revision 11). In accordance with the requirements of the SCEMP, a pre-construction eelgrass survey shall be completed by a qualified biologist within 60 days prior to initiation of construction activities at the project site. This survey shall include both area and density characterization of the beds. A post-construction survey shall be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts shall then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, would require mitigation as defined in the SCEMP. If required following the post-construction survey, a mitigation planting plan shall be developed, approved by the SDCRAA and National Marine Fisheries Service (NMFS), and implemented to offset losses to eelgrass.
- Because the outfall has the potential to result in operational impacts associated with drainage from the discharge pipe, the discharge shall be monitored for two years following construction to assess any adverse changes that may result from the presence and operations of the proposed storm drain force main. Any impacts identified shall be mitigated in accordance with the SCEMP.
- The Proposed Action shall conform to the approved SWPP and shall incorporate construction-related erosion/sediment control Best Management Practices. These include: removal of silt and debris from the storm drain system following a rainfall event, covering stockpiled material prior to rain events, and providing equipment and staff as required to repair and/or implement erosion/sediment control measures.
- The following protective measures are proposed to prevent impacts to sensitive species.
- To ensure that the turbidity from project construction is maintained at a low and contained level anticipated within this analysis, a temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift.

- To protect marine reptiles and mammals, project construction shall temporarily halt if any individual is observed within 100 feet of the project construction area. Work shall resume once the individual animal has left the area.

Therefore, based on information and recommendations contained in the BA&EFHA , the FAA has determined that the proposed improvements at San Diego International Airport, *may affect but is not likely to adversely affect*” marine habitat or essential fish habitat located in the Navy Boat Channel.

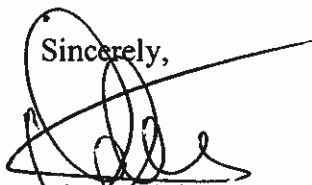
### **Project Consultation**

In an effort to incorporate the results of this consultation effort into the Draft Environmental Assessment, we respectfully request your timely concurrence with our determinations. We request your written concurrence with our determination. Please provided your response within 30-days, or we will presume you have no comments regarding the proposed undertaking.

### **FAA Contact Information**

Please call me at 310/725-3637 if you have any questions concerning this matter or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor Globa", written over the word "Sincerely,".

Victor Globa

Environmental Protection Specialist

3 Enclosures







**SAN DIEGO COUNTY AIRPORT NORTHSIDE UTILITIES  
STORM DRAIN FORCE MAIN PROJECT  
MARINE BIOLOGICAL RESOURCES ASSESSMENT AND  
ESSENTIAL FISH HABITAT ASSESSMENT**

*Prepared for:*

**San Diego County Regional Airport Authority**  
Environmental Affairs  
P O Box 82776  
San Diego, CA 92138-2776  
*Phone: (619) 400-2790*  
Attention: Mr. Richard Gilb

*Prepared by:*

**Merkel & Associates, Inc.**  
5434 Ruffin Road  
San Diego, California 92123  
*Phone: (858) 560-5465*  
*Fax: (858) 560-7779*

**April 2012**



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Keith Merkel, Principal Consultant



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Holly Henderson, Project Biologist



U.S Department  
of Transportation

Federal Aviation  
Administration

Western-Pacific Region  
Los Angeles Airports District Office

PO Box 92007  
Los Angeles, CA 90009

January 17, 2013

Ms. Carol Roland-Nawi, Ph.D.  
State Historic Preservation Officer  
California Department of Parks and Recreation  
Office of Historic Preservation  
1725 23<sup>rd</sup> Street, Suite 100  
Sacramento, California 95816

Dear Ms. Roland-Nawi:

**San Diego International Airport  
Draft Environmental Assessment Northside Improvements  
San Diego, California  
Section 106 Consultation**

The Federal Aviation Administration (FAA) and the San Diego County Regional Airport Authority (SDCRAA) are in the process of preparing an Environmental Assessment evaluating the potential impacts resulting from the proposed San Diego International Airport Northside Improvements in the City of San Diego, San Diego County, California. The SDCRAA is the sponsor for San Diego International Airport and must request the Federal Aviation Administration's (FAA) approval to change the existing Airport Layout Plan (ALP) depicting the proposed improvements and for its request for federal funding assistance. The airport is a public use airport managed by the SDCRAA. The FAA is the lead federal agency thereby charged with conducting Section 106 consultation with the State Historic Preservation Office.

Project Information

The proposed improvements consist of airfield, support facilities, and ground transportation improvements primarily located on the north and east portions of San Diego International Airport. Though, there is a proposed storm drain going westward that will create a new outfall into the U.S. Navy Boat Channel. These improvements are needed to allow San Diego International Airport to effectively continue its mission of serving San Diego's commercial air transportation needs and demand forecasted through 2020.

On April 20, 2009, the FAA issued a Finding of No Significant Impact (FONSI) for the Near Term Improvements Environmental Assessment that included projects to be completed by 2013. During implementation of the approved projects, the SDCRAA determined that certain elements analyzed in the earlier EA needed refinement and thus are including them as part of this analysis.

The proposed improvements that will be analyzed in this Environmental Assessment are depicted in the attached exhibit *Proposed Action*. They are as follows:

- Reconfiguration of proposed general aviation and fixed base operator facilities
- Air cargo warehouse facilities and associated improvements
- Consolidated Rental Car (CONRAC) facility
- Reconfiguration of SAN Park Pacific Highway
- New Terminal Link Roadway
- Construct northside circulation access road from Sassafras Street/Pacific Highway intersection
- Central Receiving and Distribution Center
- Utilities Improvements (including storm drain force main and outfall to Navy Boat Channel)

Enclosed is an exhibit that shows the *Area of Potential Effect* to help illustrate where the proposed undertaking is located.

#### Project Consultation

The FAA is initiating Section 106 consultation with your office, effective the date of this letter. The purpose of this consultation effort is to seek concurrence that there are no historic architectural, archaeological or cultural resources impacts of the proposed project that occur or are likely to occur in the vicinity of the project site.

The South Coastal Information Center at San Diego State University was contacted and they conducted a records search for the proposed undertaking to identify any known historic, archaeological, architectural, or cultural resources within ½-mile of the APE. The records search identified no archaeological resources, no California historical landmarks, and no historical resources listed on the National Register of Historic Places (NRHP) or the California Register of Historical Resources within the APE. Additionally, the records search found no cultural resources within the APE. The records search did identify historic resources within the APE and ½-mile of the APE, which are discussed below.

Seven archaeological sites have been recorded within a ½-mile radius of the SAN property line, none within the APE. Two of these sites were recorded in the early part of the 20th century and were already quite disturbed at that time. One site (CA-SDI-53) was described as traces of probable camp sites. The second site (CA-SDI-54) was described as traces of a refuse heap on a bluff, which washed away as the bluff receded. The site's documentation was based on observations of a gully. The only other prehistoric or Native American site in the vicinity is a light shell scatter that may have been redeposited from SDM-W-291, which Malcolm Rogers considered to be associated with the ethnohistoric village of Kosoy. The remaining four sites are historic archaeological sites, which include the Barth Foundry Dump

site; two historic artifact scatters from the early part of the 20th century; and a historic dump used circa 1900-1930.

An enclosed *Archaeological Survey Report San Diego International Airport, February 2006*, was completed as part of the California Environmental Quality Act (CEQA) review for elements of the Airport Master Plan. The survey examined the entire Airport property including the former Naval Training Center (NTC) and Teledyne Ryan manufacturing complex, and consisted of a records search at the South Coastal Information Center, review of archaeological reports for other projects in the vicinity of SAN, and a driving tour of the Airport. The current topography of the APE has been achieved through decades of dredging and placement of fill soils in an area of bay and mudflats. In addition, the APE consists of portions of the existing SAN and a small portion of the U.S Marine Corps Recruit Depot San Diego, (MCRD) located west of the Airport; the APE contains no undisturbed ground surface. Based on the information from the *Archaeological Survey Report San Diego International Airport, February 2006*, and the results of the enclosed *2011 South Coastal Information Center records search*, archaeological resources would not be anticipated in the APE.

A number of historic structures have been recorded within ½-mile of the APE, including buildings at the former NTC and at the MCRD, as well as buildings and structures associated with the Consolidated Aircraft Plant No. 1, almost all of which have been removed. A *Historic Architectural Survey Report: San Diego International Airport, May 2006*, is enclosed, and was completed as part of the California Environmental Quality Act (CEQA) review for elements of the Airport Master Plan. The survey examined the entire Airport property including the former NTC and Teledyne Ryan manufacturing complex. Research was conducted at the archives of the San Diego Aerospace Museum and the San Diego Historical Society, to prepare a historical overview that would identify important themes and contexts against which to evaluate buildings and structures located in the APE. These included: (1) early airport development, (2) development of the airline industry, (3) development of the aircraft manufacturing industry at Lindbergh Field (San Diego International Airport), and (4) contributions of Lindbergh Field aircraft manufacturers to World War II and the early Cold War.

SDCRAA provided dates of construction for buildings and structures in the previously mentioned *Historic Architectural Survey Report*. This information was augmented by research conducted for the historic background study. All buildings older than 45 years old or that would be 50 years old by 2015 were recorded and assessed for significance as historic resources based on their potential eligibility for listing on the NRHP, California Register of Historical Resources, or local City of San Diego Historic Resources Board List. A qualified historian inspected each potentially significant historic resource within the study area and took field notes and photographs. State of California Department of Parks and Recreation Primary and District, or Building, Structure, and Object Record forms were completed for each of the buildings evaluated. Only one existing structure, the Allied Aerospace Building, remains within the APE for the proposed Northside Improvements project that was determined to be eligible for listing on the NRHP and California Register of Historical Resources (the former Teledyne Ryan structures were demolished in 2010). The Allied Aerospace Building was constructed in 1945 and is located on the eastern edge of the Airport, east of Pacific Highway between Sassafras and West Palm Streets, north of Landmark Aviation (the existing Fixed Base Operator at SAN). This structure would not be affected by the proposed undertaking. Thus, the FAA has determined that the proposed undertaking

would have no effect on historic resources within the Study Area. FAA seeks the California SHPO's concurrence with these determinations.

On January 16, 2013, the FAA initiated formal Section 106 consultation with numerous Native American tribes. These letters were an attempt to apprise these organizations of the proposed project and inquire as to whether they had concerns about the project as it may relate to historic properties of a traditional religious or cultural significance. To date, no responses have been received. Any comments received will be addressed in the Environmental Assessment.

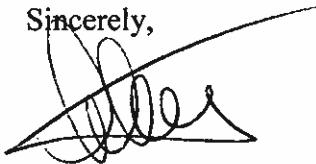
In accordance with 36 CFR 800, the FAA has determined that the proposed undertaking for the proposed improvements at San Diego International Airport will have no adverse effect any prehistoric, historic, archaeological, or cultural resources. We request your written concurrence for:

- the APE;
- or finding that there are no properties on or eligible for inclusion in the National Register of Historic Places in the APE;
- and a No Historic Properties Affected Determination.

Please provide your written response within thirty days of receiving this letter, or we will presume you have no comments regarding the proposed undertaking.

If you have any questions or require additional information, please feel free to contact me at (310)725-3637 or [victor.globa@faa.gov](mailto:victor.globa@faa.gov).

Sincerely,



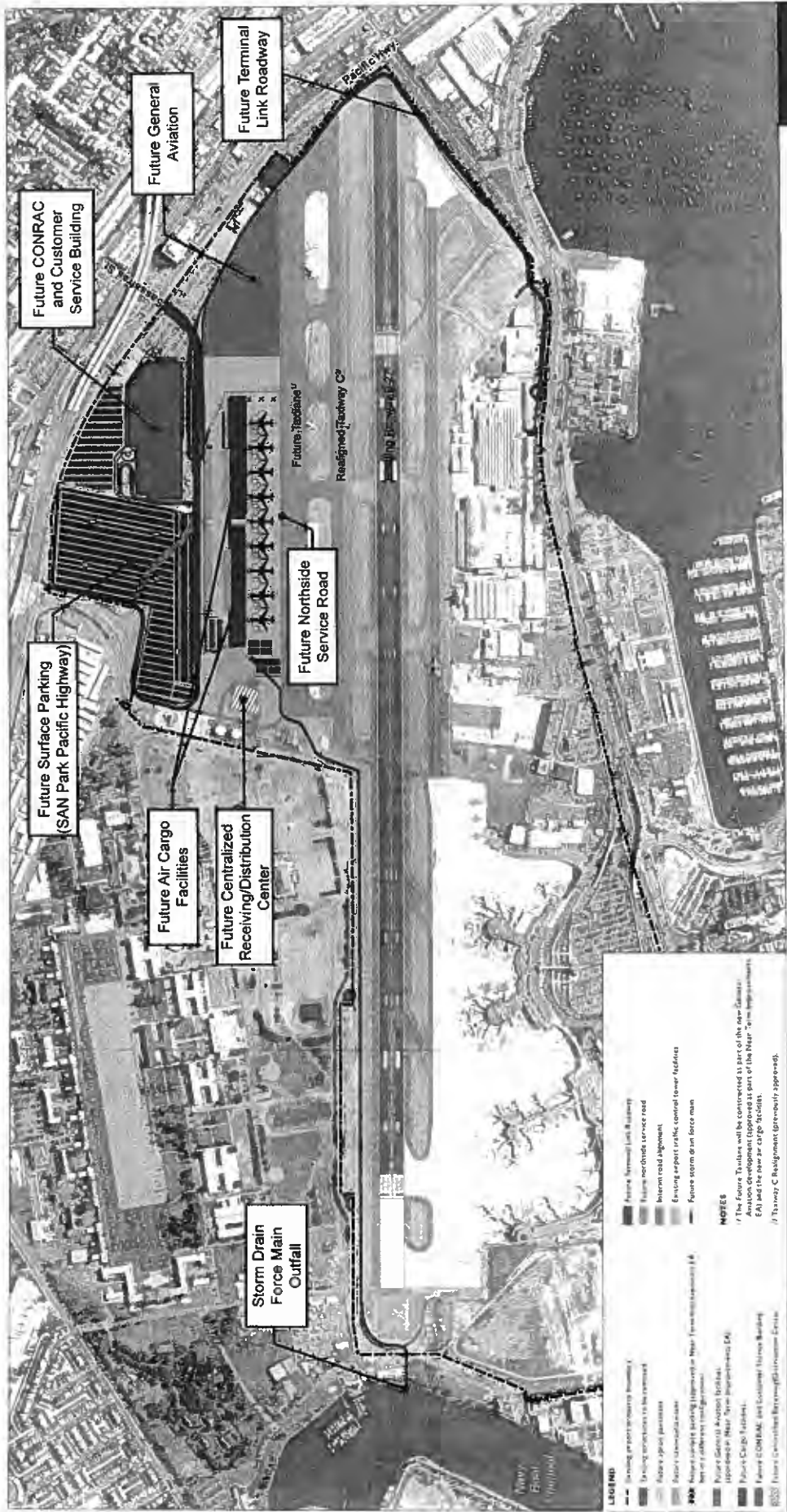
Victor Globa  
Environmental Protection Specialist

6 Enclosures



SOURCE: Environmental Systems Research Institute, Inc. (ESRI) Aerial (2011)  
REPAIRED BY: Jacobs & Associates, Inc. (JACOBS) (April 2012)

Area of Potential Effect



**LEGEND**

- Future Runway Link & Runway
- Future northside service road
- Future pavement
- Future parking
- Future Air Cargo Facilities
- Future Centralized Receiving/Distribution Center
- Future CONRAC and Customer Service Building
- Future General Aviation
- Future Terminal Link Roadway
- Future Surface Parking (SAN Park Pacific Highway)
- Future Northside Service Road
- Storm Drain Force Main Outfall
- Future Runway C<sup>2</sup> Reassigned Runway C<sup>2</sup>
- Future Runway C<sup>1</sup>
- Future Runway B<sup>2</sup>
- Future Runway B<sup>1</sup>
- Future Runway A<sup>2</sup>
- Future Runway A<sup>1</sup>
- Future Runway A<sup>0</sup>
- Future Runway A<sup>-1</sup>
- Future Runway A<sup>-2</sup>
- Future Runway A<sup>-3</sup>
- Future Runway A<sup>-4</sup>
- Future Runway A<sup>-5</sup>
- Future Runway A<sup>-6</sup>
- Future Runway A<sup>-7</sup>
- Future Runway A<sup>-8</sup>
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- Future Runway A<sup>-13</sup>
- Future Runway A<sup>-14</sup>
- Future Runway A<sup>-15</sup>
- Future Runway A<sup>-16</sup>
- Future Runway A<sup>-17</sup>
- Future Runway A<sup>-18</sup>
- Future Runway A<sup>-19</sup>
- Future Runway A<sup>-20</sup>

**NOTES**

1/ The Future Terminals will be constructed as part of the new Gates 1 through 12 project at part of the 'New' Airside Improvement Program (EA) and the new air side station.

2/ Runway C Reassignment (Propensity) 2000-06.



**HISTORIC ARCHITECTURAL SURVEY REPORT:  
SAN DIEGO INTERNATIONAL AIRPORT  
MASTER PLAN**

**Prepared for:**

**San Diego County Regional Airport Authority**

**P.O. Box 82776**

**San Diego, California 92138-2776**

**Prepared by:**

**Affinis**

**847 Jamacha Road**

**El Cajon, California 92019**

**and**

**Walter Enterprises**

**238 Second Avenue**

**Chula Vista, California 91910**

**Stephen R. Van Wormer**

**Architectural Historian**

**Mary Robbins-Wade**

**Director of Cultural Resources**

**May 2006**

**Affinis Job No. 2026**



South Coastal Information Center  
4283 El Cajon Blvd., Suite 250  
San Diego, CA 92105  
Office: (619) 594-5682  
Fax: (619) 594-4483  
www.scic.org  
nick@scic.org

## CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM RECORDS SEARCH

**Company:** Wilbur Smith Associates, Inc.  
**Company Representative:** Tracey Sandefur  
**Date Processed:** 12/7/2011  
**Project Identification:** Northside Improvements at the San Diego International Airport  
**Search Radius:** 1/4 mile

**Historical Resources:** ND

Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

**Previous Survey Report Boundaries:** ND

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

**Historic Addresses:** ND

A map and database of historic properties (formerly Geofinder) has been included.

**Historic Maps:** ND

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Summary of SHRC Approved CHRIS IC Records Search Elements	
Address-Mapped	yes
Shapes:	20
Spatial Features:	75
Searchable Pages:	47
Standard Pages:	144
Aerial Photos:	0
Quads:	1
Hours:	1
RUSH:	no

*This is not an invoice. Please pay from the monthly billing statement*

**DRAFT**

**ARCHAEOLOGICAL SURVEY REPORT  
SAN DIEGO INTERNATIONAL AIRPORT  
AIRPORT MASTER PLAN  
SAN DIEGO, CALIFORNIA**

**Prepared for:**

**San Diego County Regional Airport Authority  
P.O. Box 82776  
San Diego, California 92138-2776  
(619) 400-2400**

**Prepared by:**

**Affinis  
Shadow Valley Center  
847 Jamacha Road  
El Cajon, California 92019  
(619) 441-0144**

**Mary Robbins-Wade, MA, RPA  
Director of Cultural Resources**

**Affinis Job No. 2026**

**February 2006**



**OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION**

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calshpo@parks.ca.gov  
www.ohp.parks.ca.gov

RECEIVED



JUN 18 2013

LAX-ADO

June 14, 2013

Reply In Reference To: FAA\_2013\_0118\_001

Victor Globa  
Regional Environmental Protection Specialist  
Federal Aviation Administration  
Los Angeles Airports District Office  
P. O. Box 92007  
Los Angeles, California 90009

RE: San Diego International Airport, Northside Improvements Project, San Diego, CA

Dear Mr. Globa:

Thank you for consulting with me. You do so on behalf of the Federal Aviation Administration (FAA) in order to comply with Section 106 of the *National Historic Preservation Act of 1966* (16 U.S.C. 470f), as amended, and its implementing regulation at 36 CFR Part 800. You are requesting I concur with a finding of No Historic Properties Affected.

San Diego County Regional Airport Authority's (SDCRAA) plans to improve airfields, support facilities, and ground transportation facilities, primarily on the north and east portions of the San Diego International Airport. Project components include the following:

- Reconfiguration of proposed general aviation and fixed base operator facilities
- Construction of air cargo warehouse facilities and associated improvements
- Construction of consolidated car rental facility
- Reconfiguration of San Diego (SAN) Park Pacific Highway
- Construction of terminal link roadway
- Construction of a circulation access road from Sassafras Street/Pacific Highway intersection
- Construction of a central receiving and distribution center
- Various utilities improvements, including the construction of a storm drain force main and outfall to the Navy Boat Channel

The Area of Potential Effects (APE) for the proposed undertaking consists of paved runways, hangars, and other airport infrastructure, as depicted on the map included with your submittal. The current topography of the APE has been achieved through decades of dredging and placement of fill soils in an area formerly containing a portion of the San Diego Bay and mudflats.

In addition to your letter, you have provided maps, photographs, evidence of Native American consultation, and the following studies in support of this undertaking:

- *Draft: Archaeological Survey Report, San Diego International Airport, Airport Master Plan, San Diego, California* (Mary Robbins-Wade, Affinis: February 2006)
- *Historic Architectural Survey Report: San Diego International Airport Master Plan* (Stephen R. Van Wormer, Affinis: May 2006)

The FAA performed a records search at the South Central Coastal Information Center. Seven archaeological sites have been recorded within a ½-mile radius of the Airport property line. Two of

the sites, a prehistoric camp site and a refuse dump, were recorded in the early 20<sup>th</sup> century. Another of the sites is a sparse shell scatter. The remaining four sites are historic archaeological sites, including the Barth Foundry Dump site, two historic artifact scatters, and a historic dump used between 1900 and 1930. No sites have been recorded within the APE.

A pedestrian survey was not possible because of FAA's regulations governing access to active portions of commercial airports. However, the principal archaeologist was driven around the APE by airport personnel and shown where ground disturbing activities would occur. Because of the existing infrastructure, ground visibility was zero percent.

Three hangars and a support building will be removed or demolished as a part of this undertaking. In 2009, SHPO staff concurred that the buildings were ineligible for listing on the National Register of Historic Places. The dates of construction for the buildings range from 1968 to 1978; none of the properties meet the minimum age requirement for National Register eligibility consideration, nor do buildings exhibit architectural merits or historical associations that might qualify them for inclusion on the National Register under Criteria G.

After consulting with the Native American Heritage Commission (NAHC), request for comment letters were sent on January 16, 2013, to the twelve tribes or tribal groups identified by NAHC. No responses were received from any of the tribes or tribal groups.

Having reviewed the information submitted with your letter, I offer the following comments:

- 1) I have no objections to your identification and delineation of the APE, pursuant to 36 CFR Parts 800.4(a)(1) and 800.16(d);
- 2) I concur that the undertaking will not affect historic properties;
- 3) Please be reminded in the event of a change in project description or an unanticipated discovery, you may have additional responsibilities under 36 CFR Part 800.

Thank you for considering historic resources during project planning. If you have any questions or comments, please contact Tristan Tozer of my staff at (916) 445-7027 or by email at [Tristan.Tozer@parks.ca.gov](mailto:Tristan.Tozer@parks.ca.gov).

Sincerely,



Carol Roland-Nawi, Ph.D.  
State Historic Preservation Officer

# SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

P.O. BOX 82776, SAN DIEGO, CA 92138-2776  
619.400.2400 WWW.SAN.ORG

July 16, 2013

Mr. Victor Globa  
Los Angeles Airports District Office  
Federal Aviation Administration  
P.O. Box 92007  
Los Angeles, California 90009

RE: Air Quality Models for Northside Improvements Environmental Assessment  
San Diego International Airport, San Diego County, California

Dear Mr. Globa:

During our discussion today, you requested that we submit a letter requesting approval for the use of air quality models other than the Federal Aviation Administration's (FAA) Emissions and Dispersion Modeling System (EDMS) for the air quality analyses associated with the proposed Northside Improvements at San Diego International Airport. All air quality analyses were conducted in accordance with FAA guidance, specifically FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and the *Air Quality Procedures for Civilian Airports and Air Force Bases* (Air Quality Handbook).

The following models/emission factors were used in the analyses for the different emission source types (also identified) analyzed (the most recent version of the model available at the time the analysis was conducted was used):

- EDMS – aircraft emissions, auxiliary power units (APU), ground support equipment (GSE), stationary sources, and all dispersion modeling
- California Air Resources Board (CARB) EMFAC2007 – on-road motor vehicles
- CARB OFFROAD 2007 – off-road motor vehicles
- URBEMIS2007 – fugitive dust and asphalt paving
- USEPA AP-42 – stationary sources emission factors

Please note that these same models were used to analyze these emission source types for the 2009 Near Term Improvements Environmental Assessment (EA) at San Diego International Airport. Please confirm that the use of these models to analyze the source types identified is acceptable to the FAA. If you need any additional information, please contact me at (619) 400-2478 or [tanasis@san.org](mailto:tanasis@san.org).



SAN DIEGO  
INTERNATIONAL  
AIRPORT

Mr. Victor Globa  
FAA, Los Angeles Airports District Office  
July 16, 2013  
Page 2

Sincerely,

A handwritten signature in black ink, appearing to read 'Ted Anasis', with a long horizontal flourish extending to the right.

Ted Anasis  
Manager, Airport Planning  
San Diego County Regional Airport Authority

cc: David Cushing, FAA



# SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

P.O. BOX 82776, SAN DIEGO, CA 92138-2776  
619.400.2400 WWW.SAN.ORG

August 2, 2013

Mr. David F. Cushing  
Manager, Los Angeles Airports District Office  
Federal Aviation Administration  
P.O. Box 92007  
Los Angeles, California 90009

RE: Northside Improvements Environmental Assessment  
San Diego International Airport, San Diego County, California

Dear Mr. Cushing:

In a letter dated June 26, 2013, the Federal Aviation Administration (FAA) requested that the San Diego County Regional Airport Authority (SDCRAA) create an Air Quality Modeling Protocol document (AQMPD) stating the models and databases utilized for the air quality analysis documented in the Northside Improvements Environmental Assessment (EA). The SDCRAA had prepared an AQMPD<sup>1</sup> for the Airport Master Plan EA (*Final Environmental Assessment, San Diego International Airport Master Plan, Near Term Improvements, April 2009*), which is attached to this letter. The AQMPD contains information pertaining to how the air quality analyses were to be conducted including (but not limited to) the analysis years, the emission sources (e.g., operational and construction emissions), methodology, and the models to be used. The AQMPD for the Near Term Improvements EA was circulated to pertinent federal, State, and local agencies including the FAA Western Pacific Region, U.S. Environmental Protection Agency (EPA) Region 9, the California Air Resources Board (CARB), and the San Diego Air Quality Management District (AQMD). The AQMPD was reviewed with these agencies during coordination meetings with little or no comments received. In particular, coordination with Mr. Jim Lerner (CARB, 8/15/2005) and Mr. Carl Selnick (San Diego AQMD, 7/28/2005) occurred. The air quality analyses for the Near Term Improvements EA followed this AQMPD, but as is required, the most recent version of the models available when the analyses were conducted were used (e.g., EDMS 5.02, EMFAC2007, OFFROAD2007, URBEMIS2007).

At the time the AQMPD for the Near Term Improvements EA was drafted, the proposed improvements under consideration included generalized land uses for the northside of San Diego International Airport. These were specified as including air cargo, fixed base operator improvements, airside improvements, and surface parking in the AQMPD, all of which are components of the

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<sup>1</sup> HNTB Corporation and KB Environmental Sciences, Inc., *San Diego International Airport Master Plan, Federal Air Quality Assessment Protocol, August 24, 2006.*



SAN DIEGO  
INTERNATIONAL  
AIRPORT

Mr. David F. Cushing  
FAA, Los Angeles Airports District Office  
August 2, 2013  
Page 2

proposed Northside Improvements project. The attainment status of the San Diego area has not changed at the federal level since the AQMPD was drafted; thus, the qualitative and quantitative criteria identified in the AQMPD are still relevant. However, the quantitative limits for fine particulates (PM<sub>2.5</sub>) were updated to reflect existing National Ambient Air Quality Standards as documented in the Northside Improvements EA. As noted above, the models that were specified in the AQMPD were utilized for the Northside Improvements air quality analyses; the only difference was that, as required, the most recent version of the models were used at the time the air quality analysis was conducted (e.g., EMFAC2011, OFFROAD2011, URBEMIS2011).

In addition, a scoping meeting was held for the proposed Northside Improvements project on November 16, 2011, and the Draft EA was circulated for agency and public review from May 31 through July 1, 2013. The Notice of Scoping and Notice of Availability for the Draft EA were both published in local newspapers. In addition, both the Notice of Scoping and the Notice of Availability for the Draft EA were mailed to the U.S. EPA, California EPA, CARB, and San Diego AQMD on the dates of October 28, 2011 and May 30, 2013, respectively. All of these agencies had the opportunity to comment on the methodology, scope of analysis and the results during both the scoping period and the Draft EA review period, but no comments from these agencies were received.

For all of these reasons, the SDCRAA believes that the AQMPD prepared for the Near Term Improvements EA is applicable to the Northside Improvements project. Thus, SDCRAA followed that protocol (but used the most recent versions of the models available at the time the analyses were conducted) for the air quality analysis of the proposed Northside Improvements. Finally, it should be noted that no exceedance of the National Ambient Air Quality Standards or the federal Clean Air Act *de minimis* levels would occur with implementation of the proposed Northside Improvements, as documented in the EA. In fact, the emissions associated with the Northside Improvements project are orders of magnitude less than the *de minimis* levels, ranging from 2.35 to over 25 orders of magnitude less than the applicable *de minimis* thresholds. Thus, no significant impact to air quality from SDCRAA's Proposed Action would occur. Based on all of the above, the SDCRAA believes that the attached AQMPD meets your request for an AQMPD that has been circulated for review amongst reviewing agencies that have an interest in air quality evaluation, as stated in your letter, and no additional action is warranted.

Mr. David F. Cushing  
FAA, Los Angeles Airports District Office  
August 2, 2013  
Page 3

The SDCRAA has also been in contact with Ms. Sandy Vissman, U.S. Fish & Wildlife Service (USFWS), concerning the informal consultation on potential effects to California least terns from the proposed Northside Improvements. Ms. Vissman indicated that the SDCRAA has adequately addressed USFWS concerns and that she is preparing a response letter to that effect, which should be transmitted to FAA within the next week or so. The results of the consultation and the USFWS response letter will be incorporated into the Final EA.

Finally, the SDCRAA is working to address the other FAA comments expressed during our telephone conversations over the last couple of days, and will submit a revised document that addresses those concerns to you by August 6, 2013. If you have any additional questions or would like to discuss the attached AQMPD, please feel free to contact me at (619) 400-2461.

Sincerely,



Keith Wilschetz  
Director of Planning

ATTACHMENT: San Diego international Airport Master Plan, Federal Air Quality Assessment Protocol

cc: Thella Bowens, SDCRAA  
Bryan Enarson, SDCRAA  
Mark McClardy, FAA  
Angela Shafer-Payne, SDCRAA

# **SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN**

## **FEDERAL AIR QUALITY ASSESSMENT PROTOCOL**



**AIRPORT MASTER PLAN**  
SAN DIEGO INTERNATIONAL AIRPORT

***Prepared for the:***

**San Diego County Regional Airport Authority (SDCRAA)  
and the  
Federal Aviation Administration (FAA)**

***Prepared by:***

**HNTB Corporation  
and  
KB Environmental Sciences, Inc.**

**AUGUST 24, 2006**

## Executive Summary

The San Diego County Regional Airport Authority (SDCRAA) is preparing an Environmental Assessment (EA) for proposed Master Plan improvements to San Diego International Airport (SAN). Prepared in accordance with the National Environmental Policy Act (NEPA), the EA will address the potential environmental impacts (including those to air quality) associated with the proposed projects.

The purpose of this document, referred to as the *Federal Air Quality Assessment Protocol*, is to outline and briefly describe the overall approach for conducting the air quality analysis for the EA. The intended outcome is to advise reviewing agencies of the methodology for conducting the analysis and to obtain their feedback and concurrence.

The proposed improvements to SAN are summarized below and take into account the ongoing *Site Selection Study* by SDCRAA to evaluate potentially new airport sites in the San Diego.

### Proposed Improvements to SAN

- Expansion of the existing passenger terminal concourse and ten new aircraft gates;
- New aircraft aprons;
- Expansion of curb front in front of the terminal expansion;
- Terminal 2 East/West Parking structure and surface parking;
- Taxi-lane north of Terminal 2 West; and
- North Area generalized land use including cargo, fixed base operator improvements, airside improvements and surface parking.

Following NEPA guidelines, future year conditions, both with (“build”) and without (“no-build”) the proposed improvements to SAN, will be analyzed. The focus of the air quality assessment is on the U.S. EPA “criteria” air pollutants including nitrogen oxides (NO<sub>2</sub>), carbon monoxide (CO) and particulate matter (PM). Ozone-forming (O<sub>3</sub>) emissions are addressed through the analysis of volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>). Hazardous (or “toxic”) air pollutants (HAPs) are also evaluated.

Consistent with Federal Aviation Administration (FAA) guidelines, the assessment is conducted following the FAA Order 1050.1E - *Environmental Impacts: Policies and Procedures* and the FAA *Air Quality Procedures for Civilian Airports and Air Force Bases*. The analysis comprises the preparation of emissions inventories, completion of atmospheric dispersion modeling and interpretation of results for both the construction and operational phases of the projects. Sources of airport operational emissions evaluated include aircraft, ground support equipment (GSE), motor vehicles, fuel storage facilities and other stationary sources. Construction emissions associated with heavy equipment, earth moving activities and site preparation are also addressed.

The results of the assessment will be compared to appropriate regulatory standards and criteria including the applicable National Ambient Air Quality Standards (NAAQS) and the Federal Clean Air Act (CAA) General Conformity Rule. The overall goal is to help ensure that the proposed projects will be constructed and operated in compliance with NEPA, the CAA and other applicable air quality regulations.

In the event that the results of the emissions inventories and dispersion analyses described above indicate that mitigation measures are necessary, emissions-reduction measures are to be identified and assessed for their emissions-reduction potential.

The information provided in this document should be treated as a synopsis of the technical approach for the air quality assessment and will be expanded upon in the EA. Review comments should be provided to the SDCRAA contact person below:

Ted Anasis, AICP  
Manager - Airport Planning  
San Diego County Regional Airport Authority  
P.O. Box 82776, San Diego, CA 92138-2776

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## I. INTRODUCTION

The San Diego County Regional Airport Authority (SDCRAA) is preparing an Environmental Assessment (EA) for planned improvements to San Diego International Airport (SAN).<sup>1</sup> These improvements are included in the latest *SAN Airport Master Plan* and are discussed in the following section [SDCRAA, 2006]. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA).

The purpose of this document, referred to as the *Federal Air Quality Assessment Protocol*, is to outline and briefly describe the overall approach for conducting the air quality analysis for the EA. In preview, this analysis consists of the preparation of an air emission inventory, conducting atmospheric dispersion modeling and the presentation of results. Emissions associated with the operation and construction of the planned improvements will be assessed and the analysis will address U.S. EPA "criteria" and hazardous (or "toxic") air pollutants. To the extent necessary, air quality mitigation measures will also be evaluated and discussed in the EA.

The methods and models described herein are purposely selected for this assessment as they are considered to be the most appropriate for the task, are the most up-to-date and make maximum utilization of data and other input parameters specifically developed for the airport. In this way, the results will be as accurate and informative as possible.

The primary objectives for producing this document are to advise reviewing agencies of the methodology for conducting the analysis and to obtain their feedback and concurrence. This will help ensure that the work is completed in an acceptable manner and the planned improvements to SAN comply with applicable air quality regulations.

## II. PROJECT DESCRIPTION

The current *SAN Airport Master Plan* will guide the development of the airport through 2015 and takes into account the ongoing *Site Selection Study* by SDCRAA to evaluate potentially new airport sites in the San Diego area as a means of meeting the region's long term air transportation needs. As part of this plan, the year 2015 has been identified as the earliest point at which a new facility could be in place to replace SAN.

In the near term the *SAN Master Plan* also calls for specific improvements to the existing airport to accommodate increased passenger demand. These plans include airside, landside and roadway projects and together are referred to herein as the "proposed project". The proposed project involves two alternative concepts identified and briefly described below in Table 1.

**Table 1: SAN Master Plan Improvement Alternatives**

<b><u>Proposed Airport Implementation Plan</u></b>
<ul style="list-style-type: none"><li>• Expansion of existing passenger terminal concourse and processing areas and ten (10) new aircraft gates on the west side of existing Terminal 2 West;</li><li>• New aircraft apron;</li><li>• Expansion of curb front in front of the terminal expansion;</li><li>• Terminal 2 East/West Parking structure and surface parking;</li><li>• Taxi-lane north of Terminal 2 West; and</li><li>• North Area generalized land use including cargo, fixed base operator improvements, airside improvements and surface parking (see <b>Fig. 1</b>).</li></ul>

<sup>1</sup> A Draft Environmental Impact Report (EIR) for the SAN Airport Master Plan has already been prepared under the California Environmental Quality Act (CEQA) and is published separately [SDCRAA, 2006]. The EIR also contains an air quality assessment similar to the one proposed in this document.



Table 1 (Continued): Proposed SAN Improvement Alternatives

**Proposed Airport Implementation Plan Alternative**

- Linear expansion of the existing passenger Terminal 1 on the east side of the terminal to include five (5) repositioned gates and seven (7) new gates;
- Terminal 2 West rotunda expansion for the addition of 3 new gates;
- New aircraft apron;
- Expansion of curb front on in front of the terminal expansion;
- Parking structure at Terminal 1 and surface parking; and
- North Area generalized land use including cargo, fixed base operator improvements, airside improvements and surface parking (see Fig. 2).

It is assumed that the improvements will be in place and operational by 2010 under both alternatives.

For the purposes of the EA, the “No-Project Alternative” represents the conditions that would occur at SAN without near term Master Plan improvements. This alternative would not include any new facilities or improvements to existing facilities other than those that are under development or approved for development at the time the EA is initiated. Importantly, this alternative would not provide an acceptable level of service to accommodate increased passenger demand at the airport.

### III. REGULATORY BACKGROUND INFORMATION AND CRITERIA

This section provides information pertaining to air quality management in the San Diego area and the applicable regulatory criteria that will potentially be applied to the results of this assessment. This information is provided as summary background material and will be expanded upon in the EA for the proposed project.

#### A. Air Quality Regulatory and Management Agencies

The U.S. Environmental Protection Agency (U.S. EPA), the California Air Resources Board (CARB) and the San Diego Air Pollution Control District (SDAPCD) are primarily responsible for the regulation and management of air quality in the San Diego area<sup>2</sup>. The San Diego Association of Governments (SANDAG) is also involved in transportation planning activities related to air quality.

Under NEPA, the FAA is responsible for the assessment of air quality impacts associated with airport improvement projects as well as their compliance with the General Conformity Rule under the federal Clean Air Act (CAA).

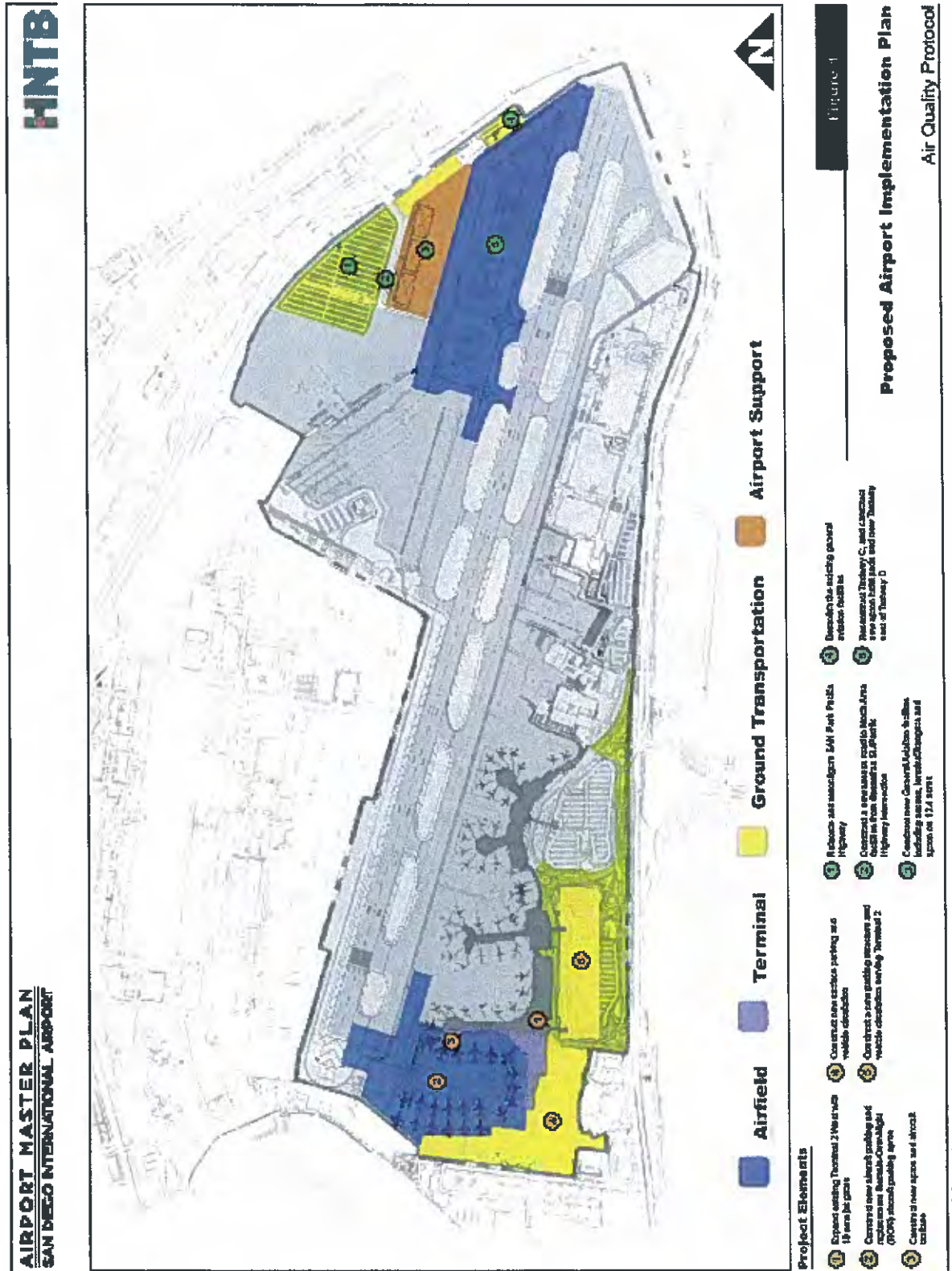
#### B. Attainment / Non-Attainment Designations

SDIA is located within the City of San Diego, San Diego County and the San Diego Air Pollution Control District. Presently, this air basin is designated by the U.S. EPA as being in “attainment” with all of the National Ambient Air Quality Standards<sup>3</sup> (NAAQS); with the exception of the new eight-hour standard for

<sup>2</sup> San Diego is located in U.S. EPA Region 9. CARB is primarily responsible for mobile sources of air emissions throughout California. SDAPCD is responsible for stationary and area sources, air quality monitoring, and the development of State Implementation Plan / Regional Air Quality Strategies in the San Diego area.

<sup>3</sup> The U.S. EPA has set human health- and welfare-based standards for six pollutants, called *criteria* pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>x</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and sulfur oxides (SO<sub>x</sub>). The NAAQS can be found at <http://www.epa.gov/air/criteria.html>.

Figs. 1 and 2: Proposed SAN Improvement Plan and Airport Implementation Plan Alternative





ozone (O<sub>3</sub>). This “non-attainment” designation signifies that violations of the NAAQS for this pollutant and timeframe have occurred in the San Diego area since the new standard was promulgated in 2002. The area was recently reclassified from non-attainment to attainment for the 1-hour NAAQS for O<sub>3</sub> and is classified as an “attainment/maintenance” area for carbon monoxide (CO).

Importantly, the San Diego area has been designated as “attainment” for the new NAAQS for PM<sub>2.5</sub> (particles less than 2.5 microns in diameter) [U.S. EPA, 2004].

On the state level, the San Diego area is in attainment of all the California Ambient Air Quality Standards<sup>4</sup> (CAAQS), again with the exception of O<sub>3</sub> and particulate matter less than ten microns (PM<sub>10</sub>).

These federal and state non-attainment designations are further defined below in Table 2.

**Table 2: San Diego Air Quality Designations Summary<sup>a</sup>**

<b>Standards</b>	<b>Pollutants</b>	<b>Comments</b>
National Ambient Air Quality Standards (NAAQS)	Ozone (8-hour)	<ul style="list-style-type: none"> <li>Classified in 2004 as Subpart 1 (“Basic”) <b>non-attainment</b> area (the least severe designation for O<sub>3</sub>).</li> <li>Based on violations of the new 8-hour standard at one location (Alpine).</li> <li>Calls for SIP in 2007 and attainment by 2009 - 2014.</li> </ul>
	Ozone (1-hour)	<ul style="list-style-type: none"> <li>Previously classified as non-attainment, reclassified as “<b>attainment</b>” in 2003.</li> <li>New 8-hour standard for O<sub>3</sub> pre-empts the 1-hour designations discussed above.</li> </ul>
	Carbon monoxide (8-hour)	<ul style="list-style-type: none"> <li>Currently designated as “<b>attainment/maintenance</b>” following redesignation in 1998.</li> </ul>
California Ambient Air Quality Standards (CAAQS)	Ozone	<ul style="list-style-type: none"> <li>Designated as “<b>serious non-attainment</b>”.</li> </ul>
	PM <sub>10</sub>	<ul style="list-style-type: none"> <li>Designated as <b>non-attainment</b>.</li> </ul>

<sup>a</sup> The San Diego area is in “attainment” for all other pollutants for which there are NAAQS and CAAQS.

### C. Air Quality Management Plans

Because of the non-attainment designations described above, air quality management plans have been developed to help bring the San Diego area back into compliance with the NAAQS and CAAQS. Prepared jointly by the SDAPCD and SANDAG, these plans establish emission budgets, control strategies and timeframes for achieving the requisite attainment statuses. On the local level the plans are called the “Regional Air Quality Strategies” (RAQS) and when combined with plans from other non-attainment areas in California they become part of the State Implementation Plan (SIP).

The last SIP developed for the San Diego air basin and approved by the U.S. EPA is called the “1994 SIP” [SDAPCD, 1994]. This plan was later re-designated as a “*Maintenance Plan*” in 2003 when the area achieved attainment for the one-hour O<sub>3</sub> NAAQS [SDAPCD, 2002, Federal Register, 2003]. Triennial updates to the SIP (called RAQS) were also developed for the area and the latest one is entitled the 2004 RAQS [SDAPCD, 2004].

<sup>4</sup> The CAAQS are similar to the NAAQS but also include other pollutants (e.g. sulfates, hydrogen sulfides, vinyl chloride and visibility-reducing particles) and can be stricter. They can be found at <http://www.arb.ca.gov/aqs/aaqs2.pdf>.

As stated above, in 2004 the U.S. EPA classified the San Diego area as a “Subpart 1” (or “Basic”) Non-Attainment area for the new 8-hour NAAQS for O<sub>3</sub> [U.S. EPA, 2004]<sup>5</sup>. Under the federal CAA, the SDAPCD/SANDAG must submit a SIP to the U.S. EPA in 2007 demonstrating how the area will attain the 8-hour standard by either 2009 or 2014. This plan will call for the continued control of nitrogen oxides (NOx) and volatile organic compounds (VOC) – the two primary contributors to O<sub>3</sub> formation.

The San Diego area is also classified as “attainment/maintenance” for the 8-hour CO NAAQS and is under the *CO Maintenance Plan* developed by SDAPCD/SANDAG in 1998. As there have been no violations of the CO standard in several years, it is expected that the San Diego area will become a full attainment area by 2008 [SDAPCD, 1998].

There is no SIP or RAQS in place in San Diego for the State of California PM<sub>10</sub> non-attainment designation.

#### **D. Regulatory Standards and Criteria for Air Quality**

As discussed above, under NEPA and the Federal CAA, both qualitative and quantitative regulations are used to protect and manage air quality conditions in the San Diego area. Based upon these regulations and the emission characteristics of the proposed improvements to SAN, the following criteria will be used to evaluate the potential air quality associated with the proposed improvements to SAN<sup>6</sup>.

<sup>5</sup> A Subpart 1 (or “Basic”) classification is the least severe of the six degrees of O<sub>3</sub> non-attainment.

<sup>6</sup> Thresholds of Significance under the California Environmental Quality Act (CEQA) are also assessed, but done so separately in support of the EIR for this project.

**Table 3: NEPA & Federal CAA Air Quality Criteria**

Qualitative		
Basis	Criteria <sup>1</sup>	
Based on demonstrating that the project(s) will not:	a.) Cause or contribute to a new violation of any air quality standard in any area.	
	b.) Increase the frequency or severity of any existing violation of any air quality standard in any area.	
	c.) Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.	
Quantitative		
Pollutant	Emissions <sup>2</sup>	Concentrations <sup>3</sup>
CO	100 t/y	1-Hr. – 40 mg/m <sup>3</sup> ; 8-Hr – 10 mg/m <sup>3</sup>
NOx/NO <sub>2</sub>	50 t/y	Annual Avg. – 0.1 mg/m <sup>3</sup>
VOCs	50 t/y	n/a
PM <sub>2.5</sub>	100 t/y	24-Hr. – 65 ug/m <sup>3</sup> ; Annual Avg. – 15 ug/m <sup>3</sup>

<sup>1</sup> Criteria taken from FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, Section 2. Air Quality, Federal Aviation Administration, June 8, 2004.

<sup>2</sup> Emission values based on applicable “de-minimus” levels established under the Federal Clean Air Act (CAA) General Conformity Rule. For San Diego, these values correspond to the following federal designations: Maintenance Area for CO, formally Moderate Non-attainment area for O<sub>3</sub> (one-hour) and attainment area for PM<sub>10</sub>/PM<sub>2.5</sub>, sulfur dioxide, nitrogen dioxide and lead. The one-hour standard for O<sub>3</sub> has been rescinded and replaced by the eight-hour standard for which the San Diego area is also designated as “basis” non-attainment. However, the State Implementation Plan (SIP) for the new standard is not scheduled for approval until 2007, so the former SIP and di-minimus levels still apply.

<sup>3</sup> Concentrations of pollutants in the outside air based on the National Ambient Air Quality Standards (NAAQS).

Abbreviations:

NEPA - National Environmental Policy Act

CO – carbon monoxide

PM – particulate matter

VOCs –volatile organic compounds

NOx/NO<sub>2</sub> – nitrogen oxides / nitrogen dioxide

t/y – tons/year

mg/m<sup>3</sup> – milligrams per cubic meter

ug/m<sup>3</sup> – micrograms per cubic meter

#### IV. AIR QUALITY ASSESSMENT

This section describes the approach and methodology used to assess the emissions associated with both the operational and construction phases of the proposed *SAN Master Plan* improvements.

The assessment is to be conducted following the FAA Order 1050.1E - *Environmental Impacts: Policies and Procedures* updated FAA *Air Quality Procedures for Civilian Airports and Air Force Bases* [FAA, 2004, 2005]. Therefore, the analysis comprises the preparation of emissions inventories, completion of any required dispersion modeling and the interpretation of the results for both the construction and operational phases of the project. The majority of the technical analysis will also be accomplished using the latest version of the FAA-required and EPA-preferred model, the *Emissions and Dispersion Modeling System* [FAA, 2006].

Sources of airport operational emissions to be evaluated include aircraft, ground support equipment (GSE), motor vehicles, fuel storage facilities and other stationary sources. Construction emissions associated with

heavy equipment, earth moving activities and site preparation are also addressed.

## **A. Emissions Inventory**

In general terms the emissions inventory is a quantification of the amount, or mass, of pollutants emitted from a source (or combination of sources) over a period of time. The outcome is a product of source activity levels (i.e. aircraft operations) combined with appropriate emission factors (i.e. grams of pollutant / operation). The results are segregated by pollutant type (i.e. NO<sub>x</sub>, VOC, etc.), emission source (i.e. aircraft, ground support equipment, etc.) and project phase or operational threshold. The data are commonly reported in units of kilograms/day or tons/year (tpy).

The computed quantity of each pollutant is used, in turn, to compare (a.) the No-Action (or No-Build) conditions to the proposed project alternatives and (b.) the proposed project-related emissions to appropriate regulatory criteria or thresholds (see Section III.D, above).

For this assessment, the U.S. EPA "criteria"<sup>7</sup> pollutants to be included in the emissions inventory are CO, VOC, NO<sub>x</sub> and PM. Because emissions of O<sub>3</sub> cannot be calculated directly, VOC and NO<sub>x</sub> (the primary precursors to O<sub>3</sub> formation) will be used as surrogates for this pollutant<sup>8</sup>. For PM, it will be assumed that the emissions are the same for PM<sub>10</sub> and PM<sub>2.5</sub>.<sup>9</sup> The criteria air pollutants lead and sulfur dioxide will not be included in this emissions inventory because airports are not considered as potentially significant sources of these pollutants. Emissions of sulfates, hydrogen sulfides and vinyl chloride regulated under the CAAQS will also not be included for the same reason.

The sources of emission factors and operational data to be used for this assessment are briefly described below. The approach for preparing the emissions inventories of construction-related criteria pollutants (and their precursors) and HAPs are discussed in Sections V and VI, respectively.

### **1. Aircraft**

**Emissions Factors and Models** - Aircraft emissions of CO, NO<sub>x</sub>, PM<sub>10/2.5</sub> and VOCs will be calculated using the EDMS. This model contains up-to-date emissions factors for the vast majority of aircraft at SAN, by engine type and operational mode<sup>10</sup> (e.g., take-off, climbout, approach, and taxi/idle).

**Operational Data** – Aircraft movements that taken together make up the typical landing-and-takeoff cycle (LTO) are divided into four modes: 1) approach, 2) taxi/idle (including delay, taxi-in, and taxi-out), 3) takeoff and 4) climbout. EDMS automatically calculates the times-in-mode (TIM) for approach, takeoff, and climbout for each aircraft based on its category (e.g., commercial, heavy, passenger jet, etc.). These pre-set EDMS TIM data, which are based on U.S. EPA guidance, will be used in this analysis. The number of LTOs, by aircraft type, and aircraft taxi/idle times will be derived from actual operational data at SAN and simulated modeling (e.g. "SIMMOD") forecasts of the airport developed for each project alternative and analysis year [HNTB, 2005].

<sup>7</sup> Criteria pollutants are pollutants for which there are NAAQS.

<sup>8</sup> Because ozone is a secondary pollutant (i.e., formed from other substances), its precursors (i.e., VOCs and NO<sub>x</sub>) are used to assess the impacts. This approach is discussed further in the FAA guidance publications provided in the References section.

<sup>9</sup> For this analysis, it is assumed that all combustion-related PM is both PM<sub>10</sub> and PM<sub>2.5</sub>.

<sup>10</sup> EDMS may not contain emissions data for all of the aircraft and aircraft engine combinations currently in operation or forecasted to use at SAN. Therefore, when supplemental information is required, it will come from the EDMS database if an aircraft can be found to have the same engine type, number of engines and aircraft category. Should representative substitutes not be found in this fashion, emissions factors based on the ICAO Engine Exhaust Emissions Data Bank or engine manufacturer data will be used.

## **2. Ground Service Equipment (GSE) and Auxiliary Power Units (APUs)**

**Emissions Factors and Models** - GSE represents an array of specially designed vehicles and equipment that support and service aircraft in the gate and terminal areas. At SAN, the GSE fleet typically includes baggage tugs, belt loaders, fuel trucks and aircraft tugs. APUs are also used to provide power to an aircraft while its engines are shut down and gate-power / pre-conditioned air (PCA) not used. For this analysis, emissions of CO, NO<sub>x</sub>, VOC, and PM<sub>10/2.5</sub> from GSE, including any applicable APUs, will be calculated using EDMS. Emissions factors for any GSE using alternative fuels such as compressed natural gas will be derived separately and added to the EDMS database.

**Operational Data** - EDMS allows for user-created GSE and APU fleets which can account for airport-specific operating conditions. Therefore, this analysis will utilize the results of a GSE inventory recently conducted at SAN [SDCRAA, 2005]. Wherever necessary, this GSE/APU fleet data will be supplemented with EDMS default data (including time-in-mode) or operational data from other airports of similar size and function.

## **3. Motor Vehicles**

**Emissions Factors and Models** - On-airport and off-site motor vehicles include privately owned vehicles (cars, vans, trucks, cabs, rental cars, etc.), mass transit vehicles (buses and vans), government vehicles and cargo-related vehicles (trucks). CARB has developed an on-road mobile source emissions factor model called EMFAC. For this assessment, the latest version of EMFAC (EMFAC 2002, Version 2.2) will be used. [CARB, 2002].

EMFAC produces emissions factors for VOCs, CO, PM<sub>10/2.5</sub> and NO<sub>x</sub> as well as exhaust PM (PMEX), PM-tire wear (PMTW), and PM-brake wear (PMBW). For the purposes of this analysis, once EMFAC2002 has been run with the proper inputs, the resultant emission factors will be entered into EDMS.

**Operational Data** - Site-specific data for on-site motor vehicles at the airport include forecasted vehicle-miles-traveled (VMT), traffic volumes on primary roadways, vehicle speeds and fleet mix. For this analysis, these data will be obtained from the traffic analysis developed for this project. Off-site motor vehicles are those that are traveling to and from the airport on the regional and local roadway networks. This airport traffic is considered to be part of the background traffic and usually accounted for as part of the region-wide transportation improvement plan (TIP) for San Diego [SANDAG, 2005]. To avoid "double-counting" the potential effects of this traffic on air emissions, coordination with SANDAG will first be conducted to insure that it is included in the TIP emissions inventories.

## **4. Stationary Sources**

Stationary sources associated with SAN are limited to back-up generators and fuel distribution systems. These sources are subject to individual permits and make up only a small portion of the overall airport emissions inventory. Other stationary sources at the airport such as the storage and use of deicing chemicals, industrial solvents, paints and other coatings that contain VOC, also constitute a minor portion of the emissions inventory.

**Emissions Factors and Models** - EDMS includes emissions factors for stationary sources based on the amount of fuel or material consumed. Depending on the type of source, emissions will be calculated for some or all of the following pollutants: CO, VOC, NO<sub>x</sub>, and PM<sub>10</sub>. For any stationary emissions sources for EDMS does not contain emissions factors, other appropriate EPA-accepted data, such as AP-42 (*Compilation of Air Pollutant Emission Factors*), will be used [EPA, 1995].

**Operational Data** - To the extent it is known, the operational characteristics, fuel types, etc. of the individual stationary sources at the airport will be used to estimate emissions. Where this information is unavailable, emissions will be based projections of airport activity or capacity levels at other similar-sized airports.



## **5. Analysis Years**

Consistent with the SAN *Master Plan* and EA process for the proposed project, the future year emissions inventories will be conducted for the years 2005 (existing conditions), the interim year 2010 and the horizon year of 2015. From this, the emissions for any interim years (e.g. 2006, 2009, 2012 etc.) will be based on interpolation among the 2005, 2010 and 2015 emissions inventory results.

This approach is consistent with the FAA guidelines, which call for emissions inventory results coincident with (1) the year(s) of maximum proposed project-related emissions, (2) the attainment year or furthest forecast year contained in the SIP, and (3) the CAP or SIP interim budget years [FAA, 2004]. The analysis years for the construction phase of the proposed project are discussed in Section IV.

### **C. Dispersion Analysis**

If it is determined necessary to meet the expectations of regulatory agencies or the general public, atmospheric dispersion modeling will be conducted to predict the effects of the proposed project on local air quality conditions. The results of the dispersion analysis will be used to evaluate the ambient (“outdoor”) concentrations of select criteria pollutants at locations both on, and in the vicinity of, the airport site. As discussed below, all standard methods will be used except where project-specific conditions and inputs will be more appropriate and allowable under FAA and EPA modeling conventions. The results will be expressed as milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ) for gases and micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) for PM for ease in comparison to the NAAQS.

#### **1. Background Concentrations**

Because the dispersion modeling will address emissions from the airport and the surrounding roadway network, background concentrations will be added to the results to account for air pollutants generated by other sources or originating from outside the study area. These background concentrations will be derived from existing air monitoring data collected by the SDAQMD and CARB.

Two air quality monitoring stations exist in the general vicinity of SAN: one several miles to the south on Union Street and the other a few blocks away on 12<sup>th</sup> Avenue. Because the monitoring stations are some distance away and potentially subject to nearby non-airport sources of air emissions and conditions, an analysis will also be undertaken to help insure that the selected background values are appropriate for this assessment. (Monitoring data from other sites will also be evaluated for appropriateness and used to the extent possible.)

These background concentrations will be added to the modeled concentrations to reflect the total ambient concentrations at a specific site or receptor. The basis and derivations of the background levels used in the dispersion analyses will be provided in the EA appendices.

#### **2. Meteorological and Physical Conditions**

To the fullest extent possible, meteorological and physical conditions in and around the airport will be used in support of the dispersion modeling. These parameters are discussed below.

- Mixing height

The atmospheric mixing height for the airport area will be based on atmospheric data collected at the nearby Miramar Weather Station.

- Temperature

The average temperature of the airport will be based on data collected at SAN.

- o Wind speed
  - Actual wind speed data from SAN will be used.
- o Wind direction
  - As with wind speed, actual wind directional data from the airport will be used.
- o Atmospheric stability class and dispersion coefficients
  - Similar to wind speed and direction, stability class will be obtained from actual meteorological data from SAN.
- o Airfield layout
  - Runway, taxiway, and terminal locations will be obtained from up-to-date scaled drawings of the airport layout and the proposed project design plans.

For this analysis, one full year of meteorological data will be used.

### **3. Pollutants to Model**

The dispersion modeling will be conducted for CO, NO<sub>2</sub>, and PM. The reasons for selecting these three pollutants and other supporting information are described below.

- o Carbon monoxide (CO)
  - As stated above, SAN is located in a federal attainment/maintenance area for CO. Therefore, to help determine if emissions associated with the proposed project will cause (or contribute to) a new violation, CO modeling will be conducted.
- o Nitrogen Dioxide (NO<sub>2</sub>)
  - NO<sub>2</sub> has been identified as a potential indicator of aircraft emissions due to the high temperature / high pressure combustion conditions under which it is formed. However, the output from EDMS is in the form of total NO<sub>x</sub>. Therefore, the modeling of NO<sub>2</sub> concentrations will also incorporate the Tier 2 Ambient Ratio Method recommended by the U.S. EPA for correcting total NO<sub>x</sub> to NO<sub>2</sub> values [EPA, 2001]. The NAAQS for NO<sub>2</sub> is based on an annual arithmetic mean<sup>11</sup>.
- o Particulate Matter (PM)
  - As stated above, the San Diego area is also designated as being non-attainment for the CAAQS for PM<sub>10</sub> and the NAAQS/CAAQS for PM<sub>2.5</sub>. Because most combustion-related emissions of PM are classifiable as PM<sub>2.5</sub>, this pollutant will be modeled to determine if the proposed project will cause or contribute to violations of this standard.
- o Volatile Organic Compounds (VOCs)
  - There are no ambient standards for VOCs on either the federal or state level. However, VOCs are used as the basis for the HAPs modeling, should the modeling of these pollutants be conducted.

Finally, even though the San Diego area is classified as non-attainment for both the federal and state

<sup>11</sup> The NAAQS is for NO<sub>2</sub>, therefore NO<sub>x</sub> is not reported as part of the dispersion analysis.

standards for O<sub>3</sub>, this is a regional pollutant that requires comprehensive modeling of VOCs and NO<sub>x</sub> sources throughout the airshed. For this reason, it is traditionally modeled by state and local air quality management agencies in support of the SIP and RAQS. Therefore, it is inappropriate to perform O<sub>3</sub> dispersion modeling as part of this air quality assessment. Rather, the proposed project's effects on O<sub>3</sub> formation will be evaluated as part of the General Conformity Rule Applicability Determination discussed below.

#### **4. Receptors**

Pollutant concentrations will be based upon a sufficient number of receptor locations to identify the maximum concentrations on or near the airport. (The term *receptor* generically describes outdoor land uses or activities where the public can reasonably be expected to occupy for a period ranging from 1 to 24 hours.) Because EDMS is designed to handle only a moderate number of receptors, a strategy will be developed to help limit the run time of the model while optimizing the results. Overall, the analysis is expected to use no more than 50 receptors, selected as follows:

- Sensitive receptors - Sensitive receptors will include schools, parks, residential areas and health- / day-care centers located in the vicinity of the airport based on current and future land use plans.
- Worst-case receptors will be selected in close proximity to air emissions sources such as near runway ends, terminal area access/egress roads and off-site intersections. These receptors represent sites where the pollutant concentrations are expected to be the highest and the public has access.

#### **5. Dispersion Model**

Consistent with FAA and EPA guidance for conducting dispersion modeling for airports, the EDMS will be used. The most current versions of EDMS contains AERMOD, the new and most advanced dispersion model developed by the U.S. EPA [FAA, 2006].

#### **D. Microscale "Hot-Spot" Modeling for CO**

If there are off-site roadway intersections where airport traffic is forecasted to cause poor levels of service, large traffic volumes, or otherwise negatively and significantly affect air quality, up to five (5) intersections will also be subject to dispersion analysis for CO. The specific intersections to be modeled will be selected based on the results of the off-airport transportation analysis performed for the EA.

Where applicable, the effects of off-airport motor vehicle CO emissions at intersections will be modeled using the California Department of Transportation (Caltrans) recommended CAL3QHC model, which is approved by the EPA [EPA, 1995a and EPA, 2001].

#### **E. Soot and Odor**

Because there are no models that simulate the effects of soot and odor from airports, the assessment of these potential impacts will be addressed qualitatively. This information will be based on studies undertaken at other airports (e.g., T.F. Green, Providence, Rhode Island, Boston-Logan, etc.) that involved the monitoring of atmospheric deposition and the assessment of odors in close proximity to the airport and adjoining neighborhoods.

## V. HAZARDOUS AIR POLLUTANTS

Hazardous air pollutants (HAPs) are pollutants that do not have established NAAQS, but present potential adverse human health risks from short-term (acute) or long-term (chronic) exposures. Because the analysis of HAPs is not an FAA requirement, the approach described herein is designed to address state and local agency concerns as well as those of the general public. (For the purposes of this discussion, the terms HAPs, toxic air pollutants and air toxics are considered to be synonymous.)

It should also be noted that according to a recent FAA publication, currently there is very little testing, modeling or other supporting information available that affirmatively identifies and quantifies the types of HAPs associated with airports, in general, and aircraft, in particular [FAA, 2003]. This situation is no more apparent than when dealing with HAPs emission factors for aircraft. Moreover, the combined human health and environmental effects of airport-related HAPs with HAPs from other sources are also not well documented.

For these and other reasons, the results of the HAPs analysis discussed below are almost certainly lacking the levels of accuracy and confidence normally expected with this type of assessment. Rather, this information is based on the best data, information and modeling techniques currently available but still potentially subject to a high degree of imprecision and uncertainty.

### A. Assessment Approach

For this analysis, the same emissions sources (i.e. aircraft, GSE, etc.) that will be evaluated for the EPA "criteria pollutants" (discussed in Section 1.2) will be assessed for HAPs. The tools and techniques proposed to accomplish this analysis are discussed below.

### B. HAPs to be Evaluated

Based on the FAA's publication of airport-related HAPs, there are about ten compounds that represent the vast majority (>96%) of HAPs that are reported to occur in aircraft and GSE exhaust [FAA 2003]. From this list is added diesel particulate matter, which altogether will serve as the basis for the HAPs analysis. These compounds are identified as follows:

- Acetaldehyde
- Acrolein
- Benzene
- 1,3-butadiene
- Formaldehyde
- Toluene
- Naphthalene
- Lead
- Xylene
- Propionaldehyde
- Diesel particulate matter

The basis and rationale for the selection of these HAPs for this analysis will be discussed in further detail in the EA.

### C. Impacts Assessment

For consistency, the same operational data and information used to conduct the criteria air pollutant emissions inventory will be used for the HAPs analysis. However, for this application total VOCs and PM will initially serve as the surrogates for HAPs.<sup>12</sup> The results will then be converted to the selected HAPs based on the individual VOC (or PM)-to-HAPs speciation ratios obtained from the sources information identified

<sup>12</sup> VOCs and PM are calculated first and then individual HAPs are computed based on the fraction that these pollutants represent relative to the primary compounds. This is achieved using VOC/PM-to-HAPs speciation profiles.

above.

The emission inventory results (expressed in unit of lbs./day or tons/year) will be summarized by individual HAPs (e.g. formaldehyde, benzene, etc.) and source (aircraft, GSE, etc.). In this way, the most significant sources and types of HAPs associated with the proposed airport can be identified.

Importantly, airports do not meet the U.S. EPA definition of major or area sources of HAPs. Therefore, the inventory will not be compared to the 10 to 25 tons/year thresholds regulated under Section 112 of the CAA.

Consistent with FAA guidelines, the HAPs analysis will be limited to an emissions inventory of these pollutants. Appropriate emission factors for aircraft will be obtained from the O'Hare (Chicago) Enhancement Program EIS (FAA, 2005b)<sup>13</sup>. HAPs emission factors for GSE will be obtained from the EPA NON-ROAD Model and motor vehicle emission factors will be obtained from the CARB EMFAC2002 program. The results of this assessment will be used to compare the types and amounts of HAPs associated with each alternative.

## VI. CONSTRUCTION EMISSIONS

The construction requirements for the proposed project will involve a variety of air emissions sources including on- and off-road construction vehicles, machinery and equipment. Construction activities are associated with site preparation, earth-moving and material handling. Specifically, the project will likely call for the following construction activities:

- transport and placement of fill;
- leveling and grading;
- construction of the runway, taxiway and apron decks;
- storage and movement of raw and construction materials;
- preparation of off-site environmental mitigation areas; and
- other miscellaneous construction operations (e.g., roadway paving, installation of lighting systems, installation of navigational aids, etc.)

This section outlines the procedures, data sources, and other analytical parameters to be used in developing the air emissions estimates for constructing the proposed project.

### A. Emissions Inventory

The purpose and application of the emissions inventory of operational activities are discussed in Section 1.1, above. For construction-related emissions, the same goal and objective apply: to compare project-related emissions to appropriate regulatory criteria such as the CAA general conformity *de minimis* levels. Again, the pollutants to be included in this inventory will be CO, NO<sub>x</sub> and VOC. HAPs will not be included in this inventory of construction emissions.

The derivation of construction emissions levels also relies on a combination of reference materials, data sources, and other supporting information. The sources of these materials and their application to this assessment are discussed below.

#### 1. Construction Equipment Types

For the purposes of this analysis, the construction equipment types will be subdivided into two categories: off-road equipment and on-road vehicles. These construction equipment types are further characterized as

<sup>13</sup> The Chicago O'Hare EIS Air Quality Analysis contains HAPs speciation profiles that are considered by the FAA to be the best currently available.

follows.

## **2. Off-road equipment**

Off-road equipment will be used to move and grade fill materials, install utilities, pave runway/taxiway/apron surfaces, construct buildings and install other miscellaneous airfield support features. These include a wide array of scrapers, loaders, dozers, cranes and off-road haul trucks.

## **3. On-road vehicles**

The use of on-road vehicles will include transport trucks for the delivery raw materials, supplies and equipment, as well as the personnel vehicles used by the construction workers. Typical on-road vehicles proposed to be used in construction include automobiles, vans and trucks of various sizes and functions.

## **4. Activity Levels and Load Factors**

Activity levels are defined as the hours of operation for a piece of equipment over a given time, and load factors are the engine performance demands, as a percent of maximum power. Equipment activity levels will be based on the construction requirements and schedule for the proposed project. Knowledgeable construction engineers associated with the project will review the work cycles for each type of equipment to arrive at an estimated average activity level for each piece of equipment. These estimated activity levels for the construction equipment will vary depending on the individual project elements and phase. Some of the other construction-related variables important to this assessment are discussed in this section, by equipment type. Average load factors will be taken from the CARB OFFROAD model [CARB, 2000g].

## **5. Operational Data**

Construction scheduling software will be used to estimate the number of hours of operation required for each piece of equipment, as well as the total number of days each piece of equipment is required to be on-site. Knowledgeable construction engineers will review the work cycles for each type of equipment to arrive at an estimated average activity level for each piece of equipment. The estimated activity level for each piece of equipment may vary depending on the project construction phase and individual element.

## **6. Equipment & Vehicle Emissions Factors**

Emissions factors for all non-road equipment will be obtained from the CARB OFFROAD model. Emissions rates for the various kinds of equipment are dependent on equipment characteristics, including the age, design, and performance characteristics of the engine. On-road emission factors will be obtained from the EMFAC2002 database of motor vehicle emission factors, also provided by the CARB. These emission factors will vary by vehicle type, fuel type, speed and age.

## **7. Fugitive Dust**

Fugitive dust emissions during construction will be estimated based on the surface area disturbed, expected duration of activity in a given area, and an EPA emissions factors and an emissions reduction based on expected control measures (AP-42) [EPA, 1995b]. This emissions factor will account for fugitive dust emissions from land clearing, ground excavation, cut and fill operations, vehicle travel over construction areas, and wind erosion of exposed areas.

## **REFERENCES**

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- U.S. EPA, 2004, Green Book, available at <http://www.epa.gov/air/oaqps/greenbk/index.html>.



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Ecological Services  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008

In Reply Refer To:  
FWS-SDG-11B0105-13I0384

AUG 20 2013

Mr. Victor Globa  
Federal Aviation Administration  
Western Pacific Region  
Los Angeles Airports District Office  
P.O Box 92007  
Los Angeles, California 90009

Subject: Informal Section 7 Consultation for San Diego International Airport Northside Improvements Project, San Diego County, California

Dear Mr. Globa:

This is in response to the Federal Aviation Administration's (FAA) January 14, 2013, letter requesting our concurrence pursuant to section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.), that the proposed San Diego International Airport (SDIA) Northside Improvements project is not likely to adversely affect the federally endangered California least tern (*Sternula antillarum browni*, tern). The FAA is providing funding for, and must approve of, the proposed project.

The San Diego County Regional Airport Authority (Airport Authority) proposes to construct improvements to the SDIA airfield, support facilities, and ground transportation. The following improvements at SDIA may affect the tern: construction and operation of the Terminal Link Roadway and new Transportation Security Administration (TSA) fence; construction and operation of a security gate on a realigned portion of the existing Vehicle Service Road; and construction of a stormwater outfall into the Navy Boat Channel. The stormwater outfall was addressed in a previous consultation with the U.S. Army Corps of Engineers (FWS-SDG-11B0105-12I0503), and is not considered further in this consultation.

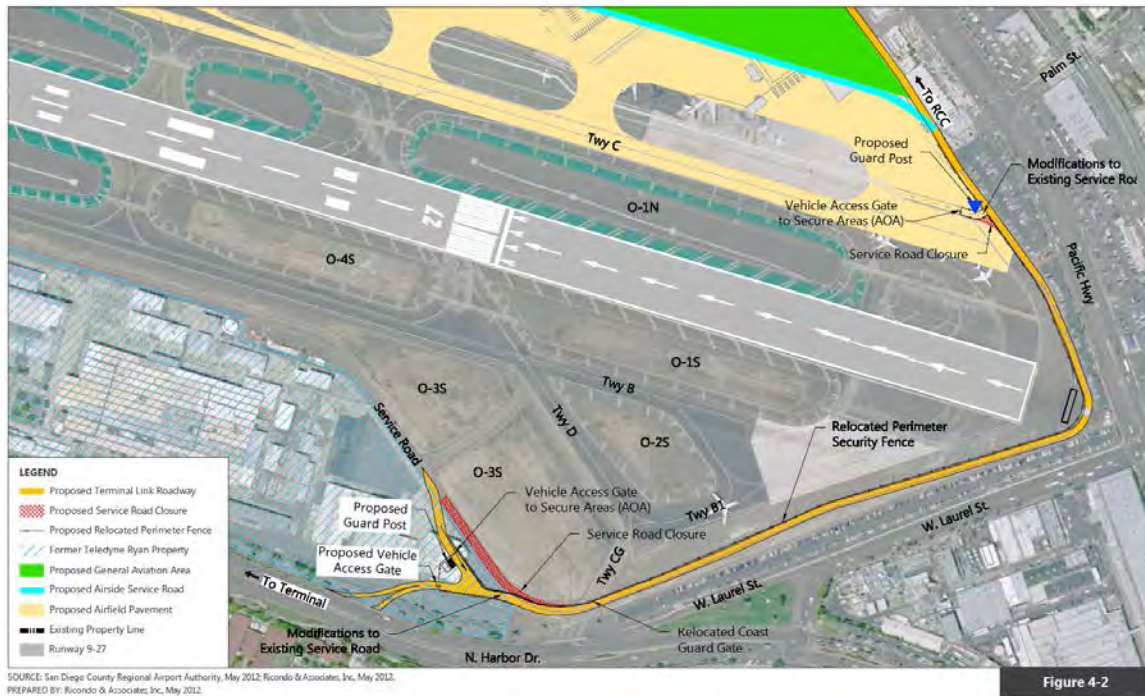
We have coordinated with FAA and Airport Authority staff during meetings, conference calls, and site visits, to revise the project to reduce potential impacts to the tern. This consultation is based upon information provided in: your January 14, 2013, letter; a July 11, 2013, email from Kevin Clark (Clark 2013); and the *May 2013 Draft Environmental Assessment for San Diego International Airport Northside Improvements*.

The Terminal Link Roadway will be a SDIA-controlled road between the Northside development area and south terminal area. The roadway will run south from the Sassafras Street and Pacific



Highway intersection to the eastern end of Runway 9-27, then turn west and proceed to a new intersection at the entrance to the U.S. Coast Guard facility and North Harbor Drive (Figure 1). Portions of the Terminal Link Roadway will be located on top of the existing Vehicle Service Road south and east of Runway 9-27. The co-location of these two roadways will require construction of a new TSA fence along the edge of the existing Vehicle Service Road, and relocation of a backup triturator for lavatory waste disposal currently located to the southwest of Runway 9-27 to a more central terminal location within the SDIA. The Terminal Link Roadway will lie between the TSA fence and the existing SDIA boundary fence. Construction of the TSA fence will also include the relocation of the existing automatic sliding Coast Guard gate. The Terminal Link Roadway will be dedicated to Airport Authority vehicles, passenger shuttle buses, and other authorized vehicles; no public vehicles will be permitted to use the roadway. Once operational, approximately 45 vehicles every hour (possibly increasing to 80 vehicles per hour by 2020) will travel on the Terminal Link Roadway during peak traffic hours. Vehicles will travel at a maximum speed of 25 miles per hour. A vehicle security gate will also be constructed at the entrance/exit to the realigned portion of the Vehicle Service Road near its intersection with the Terminal Link Roadway that will include an electronic gate, a manned guard shack, lighting, and camera system.

SAN DIEGO INTERNATIONAL AIRPORT - NORTHSIDE IMPROVEMENTS



SOURCE: San Diego County Regional Airport Authority, May 2012; Ricordo & Associates, Inc., May 2012.  
PREPARED BY: Ricordo & Associates, Inc., May 2012.



Terminal Link Roadway Detail

Drawing: 3-San Diego SDIA On-Collaborative EIR/ACIS Terminal Link Roadway (Final) 20120305\_Series\_1.dwg, Fig 4.2, Aug 11, 2011, 11:00am

Draft EA

Environmental Consequences

**Figure 1. Terminal Link Roadway and Vehicle Service Road Improvements**

The Terminal Link Roadway, TSA fence, security gate and guard shack will be developed in close proximity to the SDIA tern nesting area (Figures 1 and 2), that was established in 1993 and will be maintained in perpetuity by the FAA and Airport Authority, pursuant to biological opinion 1-6-93-F-29 . The SDIA least tern nesting area includes four runway ovals: Oval 1-South (O-1S, 6.2 acres); Oval 2-South (O-2S, 2.7 acres); Oval 3-South (O-3S, 7.8 acres); Oval 4-South (O-4S, 7.3 acres). The runway ovals that comprise the SDIA tern nesting area lie immediately adjacent to active taxiways, and are subject to the visual stimuli, vibrations, and sounds associated with aircraft traffic. The southern and western edge of O-3S is adjacent to the existing Vehicle Service Road, which experiences regular, but infrequent vehicle use during airport hours, primarily to service an existing triturator. The heavily travelled North Harbor Drive is also approximately 110 feet from O-3S. Existing fences lie within approximately 40 feet of the southern and western edge of O-3S. Even with these existing constraints and the potential for disturbance, the SDIA tern nesting area has supported an average estimate of 105 breeding pairs from 2003 to 2012 (EA), and supported 105 nests in 2013 (Patton, pers. comm.). Most nesting occurs in O-3S.

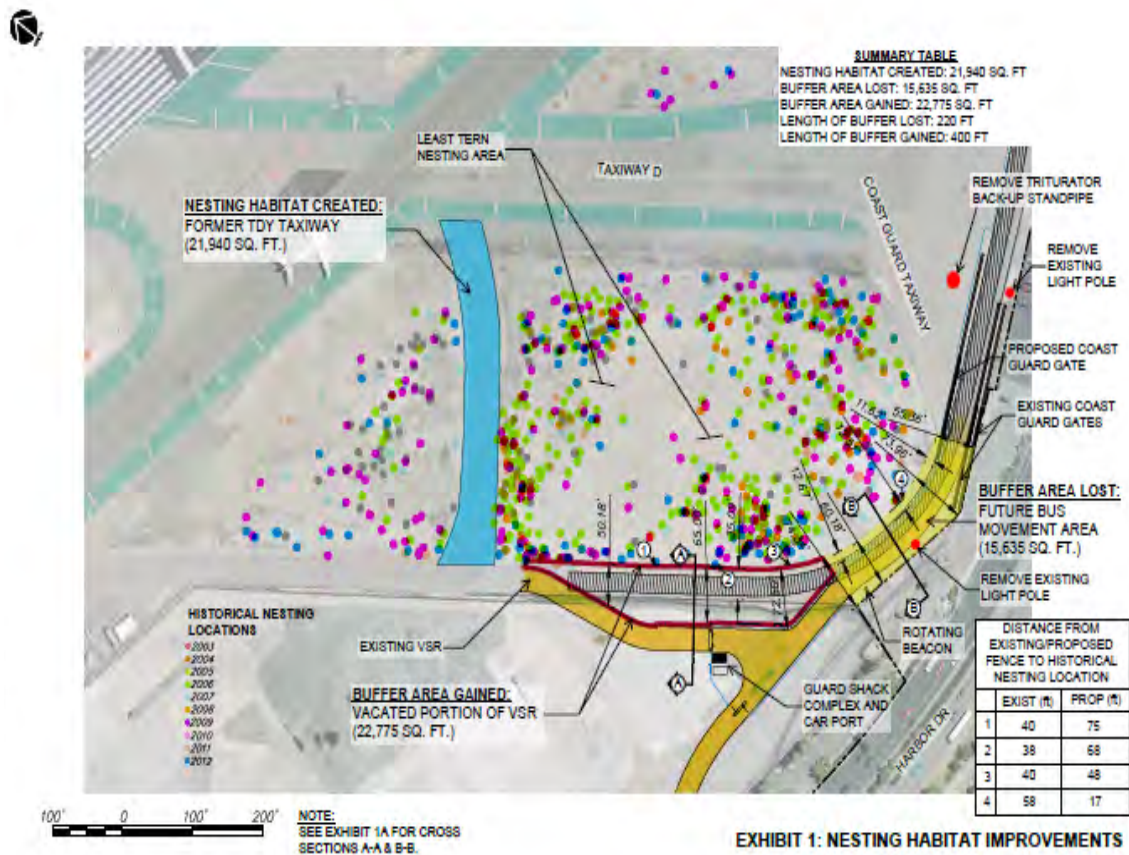


Figure 2. Tern Nesting Area Improvements

The Terminal Link Roadway and TSA fence will be constructed immediately adjacent to the south edge of O-3S for approximately 200 feet, which will eliminate the 40-foot separation between O-3S and the existing fence line (Figures 1 and 2). However, the realigned Vehicle

Service Road will veer up to 65 feet away from the west edge of OS-3 for approximately 400 feet. The security gate and guard shack on the realigned Vehicle Service Road will begin at approximately 65 feet and 100 feet from O-3S, respectively.

If done during the tern nesting season, project construction could result in disturbance to terns nesting in the SDIA least tern nesting area, especially in O-3S. To minimize potential impacts to nesting terns, the project will incorporate conservation measures as modified from informal consultation FWS-SDG-08B0752-09I0019, including that project construction within 800 feet of the SDIA least tern nesting area will occur between September 15 and March 31 to avoid the tern nesting season.

While the Terminal Link Roadway, TSA fence, realigned Vehicle Service Road and security gate/guard shack construction footprint will not extend into the SDIA least tern nesting area, operation of these facilities may affect the tern due to the: significant increase in adjacent vehicle traffic, lighting, noise, regular gate movement, and human activity; and proximity of the TSA fence to the southern end of the SDIA least tern nesting area. Light and noise from increased vehicle traffic on the Terminal Link Roadway and security gate/guard shack may disturb nesting terns or discourage them from using portions of the SDIA tern nesting area, especially O-3S. Vehicle and security gate lights may also increase the visibility of terns to potential predators. The TSA fence and Coast Guard gate will be approximately 40 feet closer to the O-3S than the existing fence/gate, and may discourage tern nesting in portions of O-3S, consistent with the “shadow effect” observed at other tern nesting sites (Clark 2013). The TSA fence may also increase the availability of avian perches, and contribute to the potential for predation within the SDIA tern nesting area.

The FAA and Airport Authority have coordinated with the U.S. Fish and Wildlife Service to: 1) realign the existing Vehicle Service Road up to 65 feet to the west for 400 feet to provide a 22,775-square foot buffer between the roadway/security gate/guard shack and the O-3S (Figure 2); 2) reduce the visibility of the security gates/guard shack to the terns by incorporating a visual barrier into the TSA fence, which may be extended to the new U.S. Coast Guard gate if it is later determined that traffic along the south edge of O-3S has an adverse effect on the tern; remove two 25-foot light poles that lie within 65 feet of O-3S; 3) and reduce the potential for illumination of and predation in the SDIA tern nesting area from the security gates/guard shack by reducing the number and height of lights and cameras. The Airport Authority and FAA also propose to restore the 0.5-acre Teledyne-Ryan Taxiway that bisects O-3S to conditions suitable for tern nesting (Figure 2). Restoration of the Teledyne-Ryan Taxiway will increase the area suitable for nesting within O-3S by approximately 6 percent, and is expected to help offset the impacts to portions of the SDIA least tern nesting area adjacent to the Terminal Link Roadway and security gate/guard shack. In addition, the Airport Authority will continue to support predator management activities at the SDIA tern nesting areas, remove two lights that currently provide potential predator perches (Figure 1), and install anti-perch materials to all segments of the TSA fence that could provide predator perches. The backup triturator will also be relocated from its current location directly east of O-3S, to a more central terminal location on the SDIA, which will partially reduce traffic on the realigned Vehicle Service Road near O-3S.

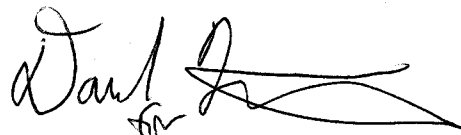
In summary, the Airport Authority will implement significant conservation measures (Enclosure) as part of the project to avoid and minimize potential impacts to the tern. Based on the site and species information described above and Airport Authority's commitment to implement the conservation measures, we concur that all project impacts to the tern will be avoided or reduced to a level of insignificance supporting a determination that SDIA Northside Improvements project is not likely to adversely affect the tern. Therefore, the interagency consultation requirements of section 7 of the Act have been satisfied. Should project plans change or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered and further section 7 consultation may be required.

During our consultation, we discussed potential future changes at the SDIA unrelated to the Northside Improvements project that may benefit terns. One is for the FAA to relocate or remove a deteriorating communications tower that lies to the west of O-3S, which could reduce tern predator perches in the vicinity of the SDIA tern nesting area. Although not possible as part of the Northside Improvements project, we recommend that the FAA prioritize relocation or removal of the tower in the future. Another potential future change is to resurface the buffer area between the Vehicle Service Road and O-3S, to increase the potential for this area to support tern nesting. We wish to continue evaluation of resurfacing the buffer, and recommend that it be implemented if it would benefit the tern. Finally, we recommend that the FAA and the Airport Authority consider using a portion of the former Teledyne Ryan site for tern nesting to help offset potential impacts of future development at SDIA.

During our consultation we also expressed concerns regarding the ability to remove or realign the Vehicle Service Road and security gate/guard shack if a tern nesting area could be established at the Teledyne Ryan site as part of future development at SDIA. In response to our concerns, the FAA and Airport Authority stated that these facilities could be removed if it was decided to establish a tern nesting area at the Teledyne Ryan site.

Thank you for your coordination on this project, and your continued efforts to conserve the tern at SDIA. If you have any questions or concerns regarding this consultation, please contact Sandy Vissman at 760-431-9440.

Sincerely,

A handwritten signature in black ink, appearing to read 'Karen Goebel', with a stylized flourish extending to the right.

Karen Goebel  
Assistant Field Supervisor

Enclosure

**Literature Cited:**

Clark, Kevin. 2013. E-mail requesting informal consultation and detailing effects analysis of Terminal Link Roadway, as modified during consultation. 9 pp.

Patton, Robert. 2013. E-mail providing status of least terns at Lindbergh Field during 2013 season. 1 p.

## ENCLOSURE

The San Diego International Airport (SDIA) Northside improvements project includes the following conservation measures that the San Diego County Regional Airport Authority (Airport Authority) has committed to implement to avoid and minimize potential adverse effects to the tern to an insignificant level. These measures support the U.S. Fish and Wildlife Service's (Service) concurrence with the Federal Aviation Administration's (FAA) "not likely to adversely affect" determination for the tern with regard to the FAA's proposed action to fund and approve of the project.

1. The Airport Authority will restore the 0.5-acre Teledyne-Ryan Taxiway in Oval-3 South (O-3S) to conditions suitable for tern nesting. The Teledyne-Ryan Taxiway will be maintained in condition suitable for tern nesting for the life of the Northside Improvements project.
2. The Airport Authority and FAA, in coordination with the Service and California Department of Fish and Wildlife (CDFW), will incorporate an 8-foot high by 165-foot long visual barrier into the Transportation Security Administration (TSA) fence to reduce the potential for visual disturbance related to activities at the Vehicle Service Road security gates and guard shack. The visual barrier will consist of heavy shade cloth that is attached to or incorporated into the fencing. The Airport Authority will install anti-perch material (e.g., Nixalite) on any TSA fence segments or posts that do not include razor wire.
3. The Airport Authority will extend the visual barrier on the TSA fence approximately 345 feet to the east along the Terminal Link Roadway to reduce illumination of the SDIA nesting area from vehicle headlights, if deemed beneficial by the Service and CDFW and tern monitors retained by Airport Authority.
4. The Vehicle Service Road in the area of the security gate will be realigned up to 65 feet to the west to provide a 22,775 square foot buffer between the roadway/security gate and O-3S (Figure 1). In addition, the guard shack will be constructed on the west side of the Vehicle Service Road to maximize the distance away from O-3S.
5. The Airport Authority, in consultation with the Service and CDFW, will identify a security gate and guard shack design that minimizes light, noise and movement to the extent possible, and does not provide openings for the potential ingress of mammalian predators into the SDIA least tern nesting area. For this design, the height of security cameras, lighting, and fences will be reduced as much as possible and include predator perch barriers. In addition, lighting will be minimized in and around the guard shack. The light at the guard shack will be angled to shine down towards the security gate. The Airport Authority will submit draft designs for the security gate and guard shack to the Service for review and approval prior to finalizing the designs.
6. The Airport Authority will not install street lights along the Terminal Link Roadway.

7. The Airport Authority will remove two 25-foot light poles that lie within 65 feet of O-3S.
8. The backup triturator for lavatory waste disposal will be relocated from its current location directly east of O-3S, to the west side of the airport, which will partially reduce traffic on the Vehicle Service Road near O-3S.
9. The Airport Authority will implement project components that are beneficial to the tern, including: creation of nesting habitat at Teledyne-Ryan taxiway, re-location of the backup triturator and removal of light poles, before the 2014 nesting season. Construction of the Terminal Link Roadway, realigned Vehicle Service Road, and security gate/guard shack will not begin until after the 2014 tern nesting season.
10. The Airport Authority will implement the following conservation measures as modified from informal consultation FWS-SDG-08B0752-09I0019:
  - a. All project construction within 800 feet of the SDIA least tern nesting area will occur from September 15 to March 31 to avoid the tern nesting season.
  - b. The staging area will be located on the north side of the Runway 9-27 at least 1,200 feet from tern nesting oval O-3S or on the former Teledyne Ryan Property at least 800 feet from O-3S during the tern nesting season. Construction vehicles will not use roads adjacent to the tern nesting areas located on the south side of the Runway 9-27. Any construction vehicles will be parked on paved areas on the north side of Runway 9-27 or on the Teledyne Ryan property at least 800 feet from O-3S during work hours;
  - c. Beginning April 1, the Airport Authority will hire a tern biologist (*i.e.*, can identify the tern, recognize their vocalizations, and identify agitated or distressed tern behavior) to monitor daily for the arrival of terns into San Diego Bay and to the SDIA nesting sites and immediately notify the FAA and Service (collectively, Agencies) upon their arrival. The tern biologist will coordinate with other tern monitors in San Diego. The Airport Authority will notify the Agencies via email on a daily basis as to the presence or absence of terns in San Diego Bay and at the SDIA nesting sites. The notifications will be sent to Victor Globa (FAA) and Sandy Vissman (Service) unless otherwise notified by the Agencies;
  - d. The Airport Authority will hire a tern biologist (*i.e.*, can identify the tern, recognize their vocalizations, and identify agitated or distressed tern behavior) to be onsite during the breeding season on all days when construction activities are conducted within 1,200 feet of SDIA least tern nesting area to ensure that activities and personnel do not disrupt the tern. Construction activities will be conducted in a manner that prevents individual terns or groups of terns from displaying agitated or stressed behavior and/or suddenly leaving their nest(s) and not resettling on the nest(s) within 5 minutes. The tern biologist will monitor the

tern during construction and will immediately notify the Resident Engineer (RE; or acting RE) of any construction activity that may lead to, or likely result in, the disruption of the tern, its young, or its eggs. If the tern biologist determines that adverse effects to the tern have occurred, the RE will be notified and all project construction activities will cease immediately, except those activities necessary to make the SDIA safe and operational. The tern biologist, in coordination with the RE, will contact the Agencies immediately after stopping construction.

Construction will not resume until approved by the Agencies. The biological monitor will submit daily field reports to the Agencies on the status of the nesting activity, any construction-related incidents that disrupted tern nesting, and any action taken by the RE to avoid further incidents, within 24 hours of each monitoring date. The tern biologist will also submit a final summary report of monitoring to the Agencies by October 1;

- e. Covered trash dumpsters or other suitable containers will be provided for construction personnel. All food items or containers that previously held food items will be immediately disposed of in these dumpsters or containers so as not to attract avian or mammalian predators of the tern;
- f. Construction personnel will not be permitted to feed cats, gulls, ravens, etc. as this may result in an increase in the numbers of these potential predators in the vicinity of tern chicks and eggs;
- g. Crane booms or similar equipment that have heights of 25 feet or greater will be lowered at the close of each construction day, if possible;
- h. A pre-construction meeting will be held to make all contractor personnel, including all construction staff, aware of the tern nesting issue and the specific conditions of construction. Project status meetings will be regularly held to remind all involved personnel of the measures required to protect the tern as well as any modifications made to ensure their effectiveness. The Service will be notified of the date and time of the pre-construction and status meetings in order to attend, if needed or desired;
- i. Nighttime construction will be limited to those activities that are necessary to maintain airfield operations during normal operational times. Should nighttime construction be required, the biological monitor will be onsite and perform the duties specified above.
- j. Night lighting for project construction more than 800 feet from the SDIA least tern nesting area will be kept to a minimum during the tern nesting season (April 1- September 15), and will not be used unless active construction or other essential work is occurring.



## **Appendix B**

### Noise Methodology





## B. Noise Methodology

Noise exposure maps (NEMs) for SDIA were completed in 2009 as part of the *San Diego International Airport Part 150 Update*.<sup>1</sup> The Part 150 Update generated CNEL contours for existing conditions (2009) and future conditions (2014). For purposes of this EA, the 2014 NEM was used to analyze potential effects of the Proposed Action when compared to the No Action alternative. Because the Proposed Action would not affect flight tracks or aircraft activity levels, and no changes to the airfield would occur under the Proposed Action, the 2014 No Action and Proposed Action alternative noise contours are the same. The methodology utilized to create the NEM noise contours, described in the *San Diego International Airport Part 150 Update, Noise Exposure Maps* report (pages 41-55), are reproduced and included in this appendix.

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<sup>1</sup> San Diego County Regional Airport Authority, *San Diego International Airport Part 150 Update, Noise Exposure Maps*, August 2009.

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## 5.2 Development of Noise Contours

The CNEL contours for this study were prepared using the most recent release of the FAA's Integrated Noise Model (INM), Version 7.0a.

The INM requires inputs in the following categories:

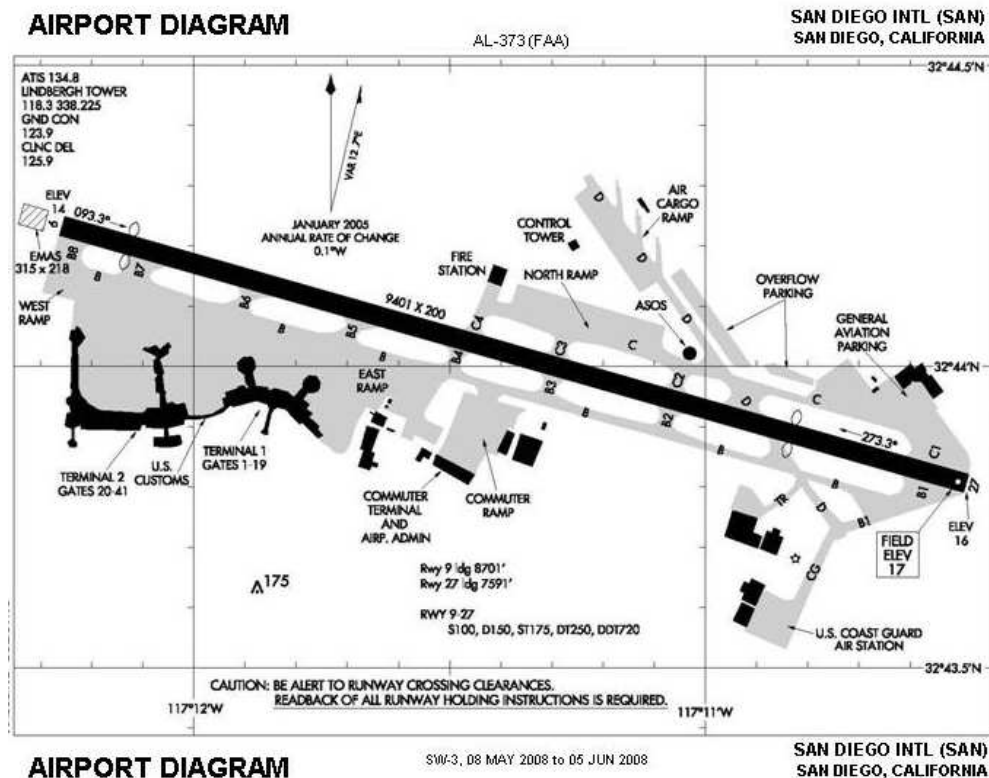
- Physical description of the airport layout;
- Number and mix of aircraft operations;
- Day-evening-night split of operations (by aircraft type);
- Runway utilization rates;
- Prototypical flight track descriptions; and
- Flight track utilization rates.

Contour input was developed using RealContours™, a proprietary program that provides greater detail to the modeling process by improving the precision of modeling individual aircraft flight tracks and is further described in Section 5.2.5.

### 5.2.1 Airport physical parameters

SAN is located in the City of San Diego, California. SAN has a single operational runway: Runway 9/27 at 9,401 feet long and 200 feet wide. Runway 9 has a displaced landing threshold of 700 feet. Runway 27 has a displaced landing threshold of 1,810 feet. The published airport elevation is 17 feet above mean sea level. The existing SAN airport layout is shown in Figure 5.

**Figure 5 Existing SAN Airport Layout**  
Source: FAA, 2008



The INM includes an internal database that contains the airport layout, including runway locations, orientation, start-of-takeoff roll points, runway end elevations, landing thresholds, approach angles, etc. HMMH verified and corrected, when necessary, the information in the INM database, using the existing SAN Airport Layout Plan (ALP).

**5.2.2 Aircraft operations**

As a result of a discussion with the FAA ADO, the Airport Authority, and HMMH representatives at the first Noise Technical Advisory Group (NTAG) meeting for this project, it was decided that calendar year 2007 operations would form the basis for the representative operations of the existing condition for submittal in 2008. Radar data for calendar year 2007 (January 1, 2007 through December 31, 2007) was scaled to the 2007 operations reported by the Airport Authority (SAN activity records). The total number of modeled operations for the base case is 229,486 as shown in Table 5 along with the Air Traffic Activity Data System (ATADS) and the Air Traffic Control Tower (ATCT) counts.

**Table 5 2007 Aircraft Operations**

Source: 2007 FAA Air Traffic Activity Data System (ATADS), FAA TRACON & Tower Counts, Airport Authority

Source	Itinerant				Local		Total
	AC	AT	GA	MIL	GA	MIL	
FAA ATADS	161,896	54,788	16,644	1,042	1,659	1,545	237,574
Tower Counts	172,057	53,542	13,545	460	*	*	239,604
<b>SAN Counts<sup>6</sup></b>	<b>177,404</b>	<b>27,582</b>	<b>24,284</b>	<b>216</b>	*	*	<b>229,486</b>
Notes: AC denotes air carrier operations AT denotes air taxi operations GA denotes general aviation operations MIL denotes military operations * denotes data "not available" – local and itinerant traffic not separated by the source.							

Due to the extended time in preparing documentation and obtaining the required approval for user-specified noise model inputs, the year of submission is 2009. The 12 months of operational data for calendar year 2008, 221,993, were reviewed and compared to the original 2007 baseline, 229,486 in accordance with 14 CFR Part 150, Subpart B, §150.21. The major reductions (nearly 7,000 operations) occurred for the Air Taxi and General Aviation categories together. Air Carriers decreased approximately 600 operations or less than two operations per day. This difference in operations would not create a significant reduction in noise exposure over existing noncompatible land uses as the resulting decrease in CNEL is less than 1.5 dB. Based on this review, the operations and general aircraft fleet mix for 2007 were determined to be representative of the existing condition operations for the 2009 NEMs submittal.

The 2013 forecast of 251,360 operations provided by SH&E (as a subcontractor to HMMH) utilizes calendar year 2007 SAN activity records and data from the FAA Aircraft Situation Display to Industry (ASDI) database as its starting point. Forecast results include an estimate of 2008 operations (reflecting data available for the first two months of the year) as well as a forecast of operations for the year 2013.

The forecast is generally consistent with the Master Plan forecasts prepared in June 2004. Specifically, the forecast uses High Scenario 2009-2014 growth rates to project future airline

<sup>6</sup> For SAN Counts, the designated categories are slightly different from the FAA (which uses FAAO 7210.3). The SAN four categories are Commercial Operations, Commuter Operations, General Aviation, & Military/Governmental.

passenger demand, and Low Scenario growth rates to project future general aviation aircraft activity. As a result, the forecast results are consistent with the economic analysis that provides the foundation for the Master Plan forecasts. Because factors including the rapid increase in fuel prices have changed airline operating strategies since 2004, the forecast differs from the Master Plan forecasts in terms of fleet mix and number of operations. To better reflect recent economic developments, the Part 150 Update forecast uses North American growth rates from the most recent Boeing World Air Cargo Forecast as the basis for future air cargo aircraft activity.

A similar review of the forecast data (presented in Appendix I) representing the year of submittal plus five years determined that, due to the recent reductions in airline capacity, the growth in operations originally forecast for 2013 is expected to be delayed until 2014. No additional changes are anticipated in the aircraft fleet mix. Therefore, the operations and general aircraft fleet mix forecast for 2013 were determined to be representative of the 2014 forecast condition operations for the 2009 NEMs submittal.

The detailed modeled average daily aircraft operations for 2009 and 2014 are presented in Table 6 and Table 7, respectively.

**Table 6 Existing (2009) Modeled Average Daily Aircraft Operations**

Aircraft Category	INM Aircraft Type	Arrivals			Departures			Total
		Day	Evening	Night	Day	Evening	Night	
Air Carrier	717200	0.9904	0.5849	0.0299	1.5999	0.0027	0.0000	3.2079
	727EM2	1.3837	0.0312	0.0139	1.3765	0.0363	0.0151	2.8568
	737300	27.1640	7.0452	2.7512	27.9422	7.0718	1.7329	73.7072
	7373B2	7.1435	1.5365	1.0091	7.8578	1.3678	0.6642	19.5789
	737400	3.2918	0.9684	0.8809	4.3530	0.9302	0.6581	11.0825
	737500	3.0311	1.0312	0.3918	3.3413	0.3156	0.7730	8.8839
	737700	42.6253	10.2141	5.4501	45.9806	9.6450	3.6350	117.5501
	737800	9.6379	2.7943	1.5998	11.1334	1.0148	1.8665	28.0466
	737900 <sup>1</sup>	0.9005	0.0354	0.1252	1.0747	0.0626	0.0082	2.2065
	737N17	0.0000	0.0000	0.0033	0.0033	0.0000	0.0000	0.0067
	74720B	0.0088	0.0054	0.0061	0.0169	0.0000	0.0033	0.0405
	757300	0.0296	0.0054	0.0082	0.0290	0.0000	0.0142	0.0865
	757PW	7.2862	3.7504	3.0034	10.5827	0.1343	3.2329	27.9900
	757RR	2.1690	1.5774	0.1907	3.1961	0.2275	0.5543	7.9150
	767300	1.8229	2.6636	0.7836	3.4772	0.7074	1.0176	10.4723
	767400	0.0082	0.0027	0.0000	0.0054	0.0054	0.0000	0.0218
	767CF6	0.1067	0.0027	0.5785	0.1040	0.6067	0.0000	1.3985
	767JT9	0.0109	0.0000	0.1017	0.0055	0.0790	0.0027	0.1999
	A300-622R	1.3413	0.0272	1.0774	0.7265	1.0883	0.6067	4.8674
	A310-304	0.5605	0.0054	0.6748	0.0408	0.6802	0.5251	2.4868
	A319-131	10.5216	2.6826	1.7140	11.1737	1.6869	2.1140	29.8929
	A320-211	3.0255	1.6439	0.2465	4.1189	0.0085	0.7552	9.7985
	A320-232	7.5200	5.5987	1.9084	8.5413	2.3613	4.0823	30.0120
	A321-232	1.6053	1.4338	0.1306	1.7848	0.8570	0.5170	6.3286
	A330-301	0.0027	0.0000	0.0000	0.0000	0.0000	0.0027	0.0054
	DC1010	0.1411	0.0000	0.1326	0.1224	0.1297	0.0299	0.5558
	DC1030	0.0412	0.0109	0.0470	0.0408	0.0336	0.0054	0.1789
	DC870	0.0054	0.0027	0.0000	0.0082	0.0000	0.0000	0.0163
	DC93LW	0.0067	0.0000	0.0000	0.0033	0.0033	0.0000	0.0133
	DC95HW	0.0027	0.0000	0.0000	0.0027	0.0000	0.0000	0.0054
	MD11GE	0.0054	0.0000	0.0000	0.0000	0.0036	0.0009	0.0100
	MD11PW	0.0054	0.0000	0.0027	0.0000	0.0073	0.0018	0.0172
MD81	0.0027	0.0000	0.0000	0.0027	0.0000	0.0000	0.0054	
MD82	3.3140	0.7772	0.7620	4.3181	0.0354	0.5415	9.7481	
MD83	8.9321	1.8918	1.8228	10.0043	0.6774	1.8663	25.1949	
MD9025	0.8325	0.0680	0.0163	0.8135	0.0272	0.0707	1.8283	
<b>Air Carrier Subtotal</b>		<b>145.4768</b>	<b>46.3911</b>	<b>25.4623</b>	<b>163.7815</b>	<b>29.8070</b>	<b>25.2978</b>	<b>436.2165</b>
Commuter	1900D	0.1932	0.0000	0.0000	0.0109	0.1333	0.0000	0.3374
	CL601	2.7173	0.0893	0.0967	2.7042	0.1374	0.0940	5.8389
	DHC6	2.7914	0.2985	0.1199	2.5835	0.6774	0.2585	6.7293
	DHC8	0.0000	0.0033	0.0000	0.0000	0.0000	0.0000	0.0033



Aircraft Category	INM Aircraft Type	Arrivals			Departures			Total
		Day	Evening	Night	Day	Evening	Night	
	DHC830	0.0027	0.0000	0.0000	0.0027	0.0000	0.0000	0.0054
	EMB120	14.3385	2.4269	0.7128	14.3596	2.8760	0.2394	34.9532
	EMB145	9.0369	1.9252	1.5720	9.1733	1.8406	1.5966	25.1447
	EMB14L	8.8445	1.7191	0.0950	9.1385	0.7109	0.7119	21.2197
	J328 <sup>1</sup>	0.0300	0.0033	0.0000	0.0200	0.0100	0.0000	0.0633
	SF340	9.3077	2.3071	1.4991	8.6546	3.0853	1.3659	26.2197
<b>Commuter Subtotal</b>		<b>47.2623</b>	<b>8.7727</b>	<b>4.0955</b>	<b>46.6473</b>	<b>9.4709</b>	<b>4.2662</b>	<b>120.5150</b>
General Aviation	B206L	0.1375	0.0000	0.0000	0.1365	0.0000	0.0000	0.2741
	BEC58P	0.6360	0.0433	0.0233	0.5395	0.0866	0.0599	1.3886
	CIT3	1.1491	0.1496	0.0384	1.1342	0.1018	0.0579	2.6310
	CL600	1.1083	0.0974	0.0420	1.1344	0.0878	0.0581	2.5280
	CNA172	0.1732	0.0300	0.0233	0.1632	0.0366	0.0433	0.4695
	CNA206	0.2364	0.0157	0.0033	0.2250	0.0133	0.0133	0.5071
	CNA20T	0.0466	0.0010	0.0000	0.0247	0.0200	0.0000	0.0923
	CNA441	0.4928	0.0433	0.0133	0.4762	0.0466	0.0200	1.0923
	CNA500	2.5751	0.2526	0.1382	2.6241	0.3043	0.1382	6.0325
	CNA55B	0.1106	0.0000	0.0000	0.0524	0.0092	0.0300	0.2023
	CNA750	1.7225	0.1932	0.0871	1.8157	0.1425	0.1004	4.0613
	DC3	0.0033	0.0000	0.0000	0.0000	0.0033	0.0000	0.0067
	FAL20	0.0577	0.0000	0.0000	0.0665	0.0044	0.0033	0.1320
	FAL50	0.2164	0.0333	0.0200	0.2531	0.0167	0.0033	0.5428
	FAL900	0.2631	0.0366	0.0067	0.2930	0.0133	0.0100	0.6227
	GASEPF	2.9315	0.0254	0.0221	2.6564	0.0387	0.3105	5.9846
	GASEPV	0.7493	0.0932	0.0167	0.7593	0.1099	0.0500	1.7783
	GII	0.0641	0.0321	0.0067	0.0838	0.0083	0.0000	0.1950
	GIIB	0.2323	0.0312	0.0200	0.2825	0.0283	0.0100	0.6042
	GIV	1.0138	0.1220	0.0553	1.0388	0.0910	0.0653	2.3864
	GV	4.5038	0.3231	0.2771	3.9655	1.0545	0.3168	10.4407
	IA1125	1.5687	0.2095	0.0705	1.6520	0.1300	0.0938	3.7245
	LEAR25	0.1199	0.0100	0.0000	0.1247	0.0033	0.0000	0.2579
	LEAR35	2.7478	0.2468	0.1852	2.8321	0.2698	0.1252	6.4069
	MU3001	7.3507	0.7583	0.3599	7.8654	0.6671	0.3403	17.3418
	PA28	0.0400	0.0033	0.0000	0.0333	0.0033	0.0000	0.0799
PA31	0.0160	0.0067	0.0033	0.0160	0.0033	0.0033	0.0487	
SABR80	0.0000	0.0000	0.0000	0.0085	0.0000	0.0000	0.0085	
SA350D	0.1375	0.0000	0.0000	0.1365	0.0000	0.0000	0.2741	
SD330	0.8359	0.0733	0.0200	0.8259	0.0866	0.0433	1.8848	
<b>General Aviation Subtotal</b>		<b>31.2400</b>	<b>2.8308</b>	<b>1.4323</b>	<b>31.2195</b>	<b>3.3807</b>	<b>1.8963</b>	<b>71.9996</b>
<b>Total<sup>2</sup></b>		<b>223.9791</b>	<b>57.9947</b>	<b>30.9901</b>	<b>241.6483</b>	<b>42.6587</b>	<b>31.4603</b>	<b>628.7311</b>

Notes: <sup>1</sup> 737900 and J328 are a user defined aircraft. See Appendices C and E for additional information, project specific request, and FAA approval.  
<sup>2</sup> Any discrepancies between the total number of operations from the forecast and the average daily operations are due to rounding.

**Table 7 Forecast (2014) Modeled Average Daily Aircraft Operations**

Aircraft Category	INM Aircraft Type	Arrivals			Departures			Total
		Day	Evening	Night	Day	Evening	Night	
Air Carrier	717200	0.4395	0.2596	0.0133	0.7099	0.0012	0.0000	1.4234
	727EM2	0.0993	0.0037	0.0010	0.0991	0.0033	0.0018	0.2082
	737300	19.9661	5.1785	2.0223	20.5400	5.1984	1.2737	54.1789
	7373B2	5.2506	1.1294	0.7417	5.7762	1.0055	0.4882	14.3916
	737400	2.6411	0.7811	0.7082	3.4962	0.7448	0.5278	8.8992
	737500	0.6833	0.2325	0.0883	0.7532	0.0711	0.1743	2.0028
	737700	86.3679	20.6980	11.0423	93.1556	19.5483	7.3669	238.1790
	737800	19.5122	5.6630	3.2424	22.5350	2.0568	3.7827	56.7920
	737900 <sup>1</sup>	1.6365	0.0643	0.2274	1.9530	0.1137	0.0148	4.0098
	737N17	0.0000	0.0000	0.0033	0.0033	0.0000	0.0000	0.0066
	74720B	0.0033	0.0000	0.0033	0.0033	0.0000	0.0033	0.0133
	757300	0.0263	0.0043	0.0065	0.0251	0.0000	0.0120	0.0743
	757PW	5.3607	2.7577	2.2077	7.7827	0.0997	2.3767	20.5852
	757RR	1.5957	1.1597	0.1402	2.3505	0.1688	0.4075	5.8225
	767300	1.9791	2.7466	0.9024	3.5904	0.8438	1.1158	11.1782
	767400	0.0084	0.0028	0.0000	0.0056	0.0056	0.0000	0.0224
	767CF6	0.0792	0.0033	0.6934	0.0752	0.7258	0.0000	1.5768
	767JT9	0.0081	0.0000	0.1220	0.0040	0.0945	0.0033	0.2318
	A300-622R	1.6079	0.0326	1.2915	0.8708	1.3046	0.7273	5.8347
	A310-304	0.6718	0.0065	0.8088	0.0489	0.8154	0.6294	2.9809
	A319-131	13.5351	3.4358	2.1549	14.2662	2.1453	2.6829	38.2202
	A320-211	3.9818	2.1635	0.3244	5.4205	0.0112	0.9938	12.8952
	A320-232	9.8968	7.3683	2.5114	11.2405	3.1074	5.3723	39.4968
	A321-232	2.1125	1.8870	0.1719	2.3490	1.1279	0.6803	8.3287
	A330-301	0.0033	0.0000	0.0000	0.0000	0.0000	0.0033	0.0065
	DC1010	0.1691	0.0000	0.1589	0.1468	0.1555	0.0359	0.6662
	DC1030	0.0494	0.0130	0.0563	0.0489	0.0402	0.0065	0.2144
	DC93LW	0.0066	0.0000	0.0000	0.0033	0.0033	0.0000	0.0133
	DC95HW	0.0033	0.0000	0.0000	0.0033	0.0000	0.0000	0.0065
	MD11GE	0.0065	0.0000	0.0000	0.0000	0.0043	0.0011	0.0120
	MD11PW	0.0065	0.0000	0.0033	0.0000	0.0087	0.0022	0.0207
	MD81	0.0033	0.0000	0.0000	0.0033	0.0000	0.0000	0.0065
MD82	0.7077	0.1660	0.1627	0.9224	0.0076	0.1157	2.0821	
MD83	1.9073	0.4041	0.3894	2.1361	0.1447	0.3986	5.3802	
MD9025	0.1778	0.0145	0.0035	0.1737	0.0058	0.0151	0.3905	
<b>Air Carrier Subtotal</b>		<b>180.5040</b>	<b>56.1759</b>	<b>30.2027</b>	<b>200.4921</b>	<b>39.5632</b>	<b>29.2132</b>	<b>536.1512</b>
Commuter	1900D	0.2316	0.0000	0.0000	0.0130	0.1598	0.0000	0.4044
	CL601	0.6626	0.0618	0.0448	0.6931	0.0718	0.0421	1.5761
	DHC6	2.3290	0.2935	0.1193	2.4407	0.3510	0.2584	5.7919
	DHC8	0.0000	0.0033	0.0000	0.0000	0.0000	0.0000	0.0033
	DHC830	6.0000	0.0000	0.0000	6.0000	0.0000	0.0000	12.0000

Aircraft Category	INM Aircraft Type	Arrivals			Departures			Total
		Day	Evening	Night	Day	Evening	Night	
	EMB145	10.8101	2.3129	1.8875	10.9708	2.2070	1.9178	30.1060
	EMB14L	10.6310	2.0664	0.1142	10.9841	0.8545	0.8557	25.5059
	J328 <sup>1</sup>	0.0298	0.0033	0.0000	0.0199	0.0099	0.0000	0.0630
<b>Commuter Subtotal</b>		<b>30.6941</b>	<b>4.7411</b>	<b>2.1658</b>	<b>31.1216</b>	<b>3.6540</b>	<b>3.0740</b>	<b>75.4506</b>
General Aviation	B206L	0.1426	0.0000	0.0000	0.1416	0.0000	0.0000	0.2842
	BEC58P	0.6331	0.0431	0.0232	0.5370	0.0862	0.0597	1.3822
	CIT3	1.2168	0.1594	0.0404	1.1925	0.1073	0.0621	2.7786
	CL600	1.1032	0.0969	0.0418	1.1292	0.0874	0.0578	2.5162
	CNA172	0.1724	0.0298	0.0232	0.1624	0.0365	0.0431	0.4674
	CNA206	0.2353	0.0156	0.0033	0.2240	0.0133	0.0133	0.5048
	CNA20T	0.0464	0.0009	0.0000	0.0246	0.0199	0.0000	0.0919
	CNA441	0.4906	0.0431	0.0133	0.4740	0.0464	0.0199	1.0872
	CNA500	2.5632	0.2515	0.1375	2.6120	0.3029	0.1375	6.0045
	CNA55B	0.1101	0.0000	0.0000	0.0522	0.0092	0.0298	0.2013
	CNA750	1.9170	0.2150	0.0969	2.0207	0.1586	0.1117	4.5199
	DC3	0.0033	0.0000	0.0000	0.0000	0.0033	0.0000	0.0066
	FAL20	0.0576	0.0000	0.0000	0.0663	0.0044	0.0033	0.1316
	FAL50	0.2154	0.0331	0.0199	0.2519	0.0166	0.0033	0.5403
	FAL900	0.2619	0.0365	0.0066	0.2917	0.0133	0.0099	0.6198
	GASEPF	3.3704	0.0262	0.0229	3.0493	0.0395	0.3572	6.8655
	GASEPV	0.7458	0.0928	0.0166	0.7557	0.1094	0.0497	1.7700
	GII	0.0471	0.0236	0.0049	0.0616	0.0061	0.0000	0.1433
	GIIB	0.1707	0.0229	0.0147	0.2076	0.0208	0.0073	0.4442
	GIV	1.0091	0.1215	0.0551	1.0340	0.0906	0.0650	2.3753
	GV	5.3482	0.3745	0.4437	4.6837	1.2690	0.4892	12.6082
	IA1125	1.5614	0.2085	0.0701	1.6443	0.1294	0.0933	3.7071
	LEAR25	0.0835	0.0070	0.0000	0.0868	0.0023	0.0000	0.1796
	LEAR35	2.6962	0.2426	0.1823	2.7801	0.2675	0.1237	6.2925
	MU3001	8.1617	0.8424	0.3990	8.7283	0.7417	0.3776	19.2508
	PA28	0.0398	0.0033	0.0000	0.0331	0.0033	0.0000	0.0796
PA31	0.0165	0.0066	0.0033	0.0165	0.0033	0.0033	0.0496	
SABR80	0.0000	0.0000	0.0000	0.0059	0.0000	0.0000	0.0059	
SA350D	0.1426	0.0000	0.0000	0.1416	0.0000	0.0000	0.2842	
SD330	0.8320	0.0729	0.0199	0.8220	0.0862	0.0431	1.8761	
<b>General Aviation Subtotal</b>		<b>33.3939</b>	<b>2.9698</b>	<b>1.6386</b>	<b>33.2308</b>	<b>3.6742</b>	<b>2.1611</b>	<b>77.0683</b>
<b>Total<sup>2</sup></b>		<b>244.5920</b>	<b>63.8869</b>	<b>34.0071</b>	<b>264.8445</b>	<b>46.8914</b>	<b>34.4482</b>	<b>688.6701</b>

Notes: <sup>1</sup> 737900 and J328 are a user defined aircraft. See Appendices C and E for additional information, project specific request, and FAA approval.  
<sup>2</sup> Any discrepancies between the total number of operations from the forecast and the average daily operations are due to rounding.

**5.2.3 Aircraft noise and performance characteristics**

Specific noise and performance data must be entered for each aircraft type operating at the airport. Noise data is included in the form of sound exposure level (SEL – see Appendix B) at a range of distances (from 200 feet to 25,000 feet) from a particular aircraft with engines at a specific thrust level. Performance data includes thrust, speed and altitude profiles for takeoff and landing operations. The INM database contains standard noise and performance data for over one hundred different fixed wing aircraft types, most of which are civilian aircraft. The program automatically accesses the applicable noise and performance data for departure and approach operations by those aircraft.

This study included many different aircraft types. While many aircraft could be modeled by direct assignments from the standard INM database, many were not in the INM database. For those aircraft types not in the INM standard database, FAA approved substitutions were used to model the aircraft with a similar type that was in the database, or a user-defined aircraft was created for that specific aircraft type. FAA approved substitutions came from the following three sources:

- INM Version 7.0a includes the current list of standard FAA substitutions;
- SAN Part 150 specific request to the FAA for non-standard substitutions and user-defined aircraft (request and FAA approval documented in Appendices C, D, and E);
- INM 5.0 User’s Guide for pre-approved user defined aircraft, specifically three-engine business jets.

**5.2.4 Runway utilization**

The SAN operations database contains a record of each flight detected by passive radar and collected and retained by ANOM™. Each record in the database contains the date and time of flight and the runway used. From these records, overall runway usage tables for 2009 and 2014 were compiled by arrival or departure, day or night, and aircraft type. Table 8 presents the runway utilization rates that HMMH developed for this study.

**Table 8 Runway Utilization**  
 Source: ANOMS™, HMMH

Runway	Runway Use					
	Arrivals			Departures		
	Day	Evening	Night	Day	Evening	Night
Runway 09	1.36%	1.24%	4.73%	.94%	1.13%	0.86%
Runway 27	98.64%	98.76%	95.27%	99.06%	98.87%	99.14%
Total	100%	100%	100%	100%	100%	100%

**5.2.5 Flight track geometry**

As discussed earlier, RealContours™ provides increased precision in modeling INM flight tracks. RealContours™ uses individual flight tracks taken directly from radar systems rather than relying on consolidated, representative flight tracks data. This provides the advantage of modeling each aircraft operation on the specific runway it actually used and at the actual time of day of the arrival or departure. RealContours™ then sets up an INM study for each day using INM standard data. Each day is then modeled in the INM and the results for each day combined and averaged to get the annual contour.

Sample model tracks for Runway 9 and Runway 27 are provided in Figure 6 and Figure 7, respectively. The Runway 9 flight tracks were recorded on November 30, 2007 and the Runway 27 tracks on August 10, 2007. Due to the incompleteness of the helicopter flight tracks in the radar data, HMMH produced modeled flight tracks in the conventional INM method by using a sample of radar data from helicopters to determine predominant flight paths. The resulting modeled flight tracks for helicopters are shown in Figure 8. A total of 215,099 individual flight tracks were modeled for the 2009 and 2014 NEMs and 999 of these model tracks are presented in Figure 6 and Figure 7. No changes to the airfield or airspace are expected within the 5-year time frame for this project and therefore, no changes to the flight tracks resulted from the 2009 base year to the 2014 forecast year.

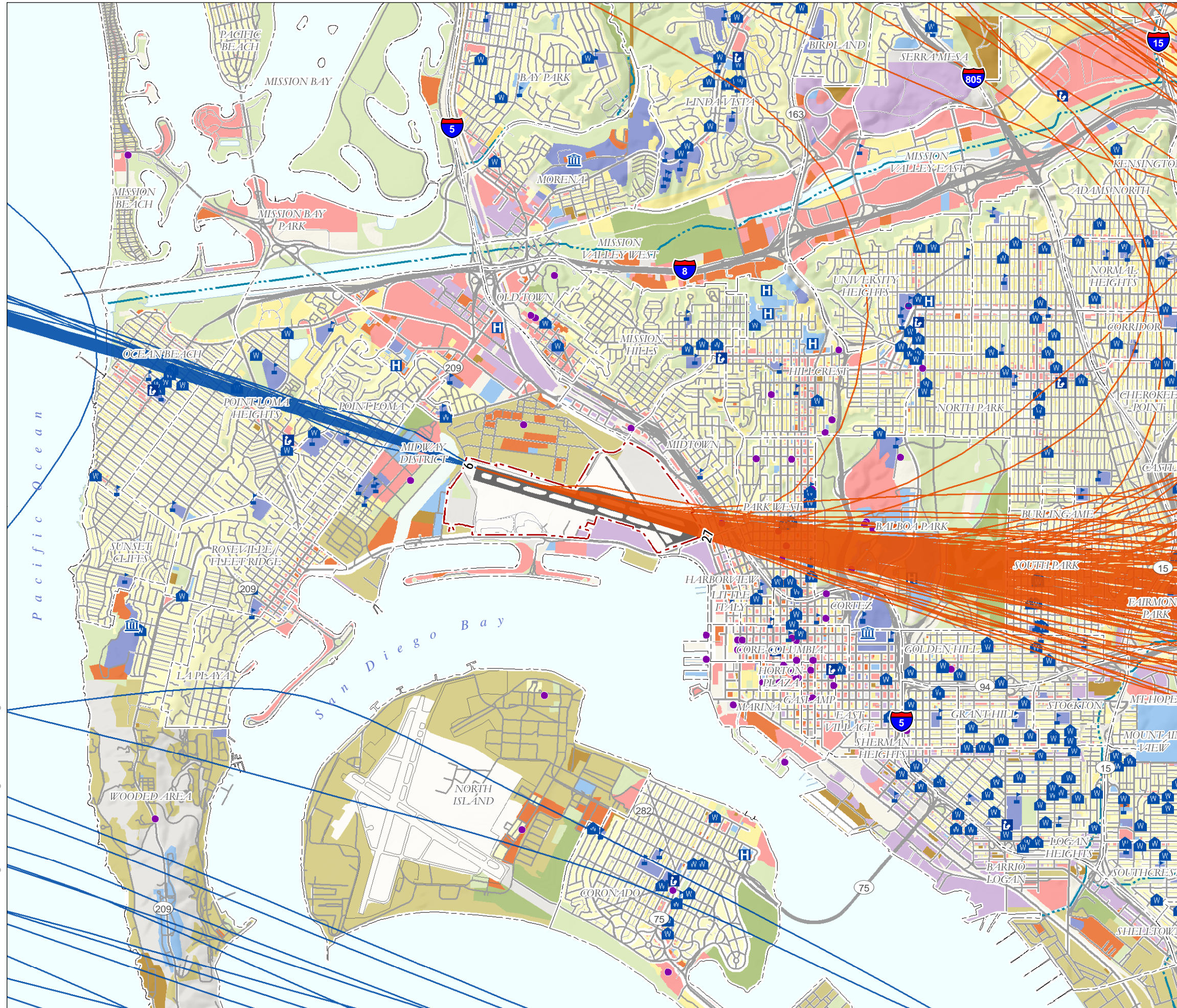
The SAN approach angle for Runway 27 is 3.5 degrees. The standard INM7.0a aircraft approach profiles assume a 3.0-degree approach angle. To compensate for this difference, the FAA approved the use of an approach grid that applies a noise level correction for the difference in altitude based on the greater approach angle (Appendices C, D, and E). The approach grid was applied to the INM7.0a modeled contours to derive both NEMs.

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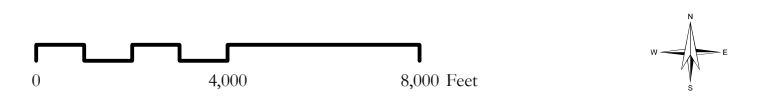
### Runway 9 Departure and Arrival Tracks

Figure 6



- Departure Flight Track
- Arrival Flight Track
- Airport Property
- SAN Airport Runways
- Roads
- River / Stream
- Single Family Residential
- Golf Courses
- Multi-Family Residential
- Public Service
- Mobile Home Parks
- Schools
- Hotel/Motel, Group Quarters
- Military Use
- Commercial
- Transportation/Communication/Utilities
- Industrial
- Land Under Construction
- Agriculture
- Vacant and Undeveloped Land
- Parks
- Water
- Hospital
- Library
- Schools
- College / University
- Place of Worship
- National Register of Historic Places

Data Sources: San Diego International Airport; San Diego Association of Governments (SANDAG); City of San Diego and County of San Diego (SanGIS); Environmental Systems Research Institute, Inc. (ESRI).



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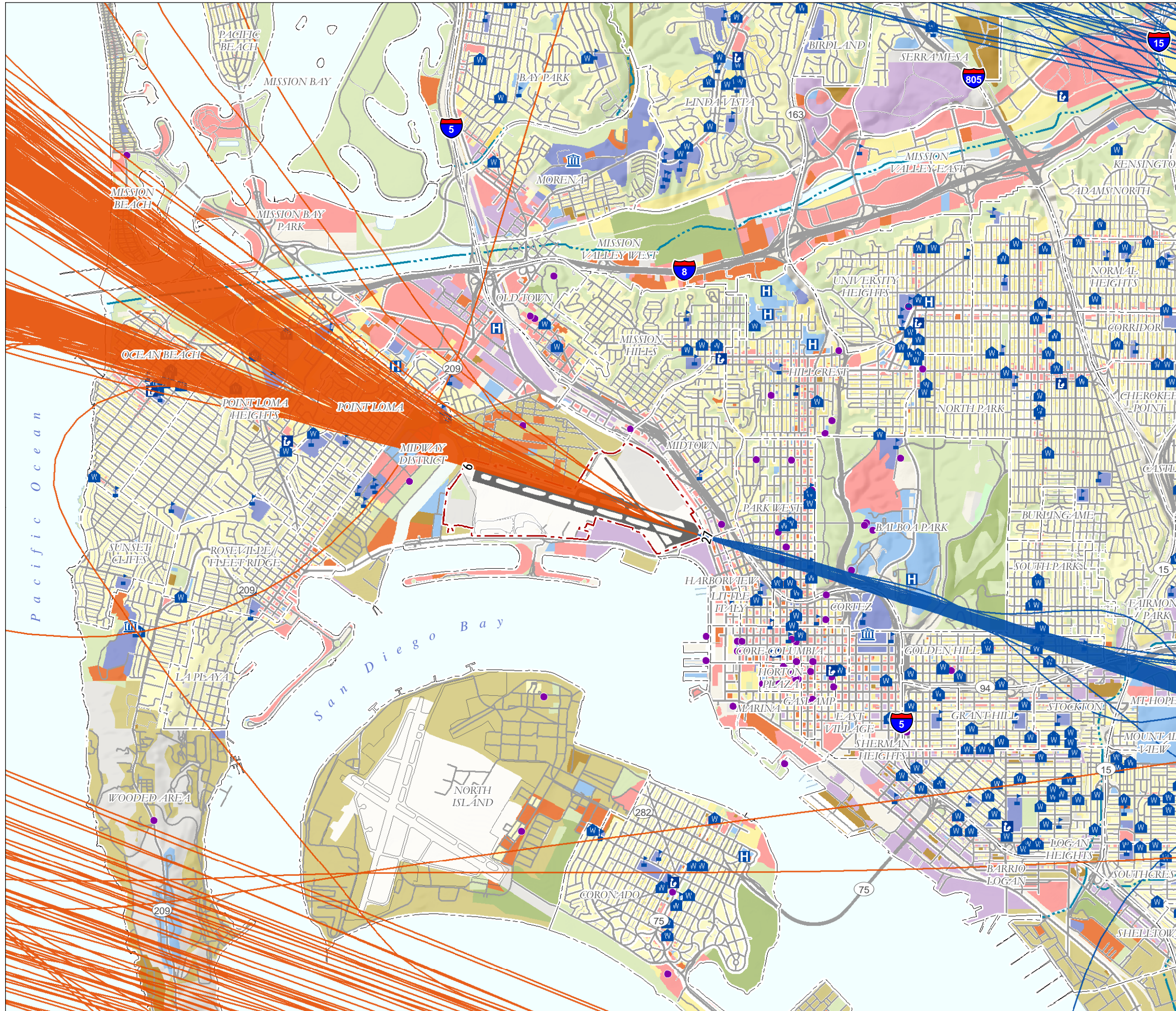






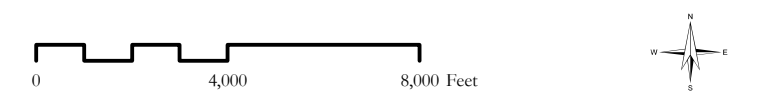
### Runway 27 Departure and Arrival Tracks

Figure 7



- |                                      |  |
|--------------------------------------|--|
| Departure Flight Track               | Arrival Flight Track                   |
| Airport Property                     | SAN Airport Runways                    |
| Roads                                | River / Stream                         |
| Single Family Residential            | Golf Courses                           |
| Multi-Family Residential             | Public Service                         |
| Mobile Home Parks                    | Schools                                |
| Hotel/Motel, Group Quarters          | Military Use                           |
| Commercial                           | Transportation/Communication/Utilities |
| Industrial                           | Land Under Construction                |
| Agriculture                          | Vacant and Undeveloped Land            |
| Parks                                | Water                                  |
| Hospital                             | Library                                |
| Schools                              | College / University                   |
| Place of Worship                     |  |
| National Register of Historic Places |  |

Data Sources: San Diego International Airport; San Diego Association of Governments (SANDAG); City of San Diego and County of San Diego (SanGIS); Environmental Systems Research Institute, Inc. (ESRI).



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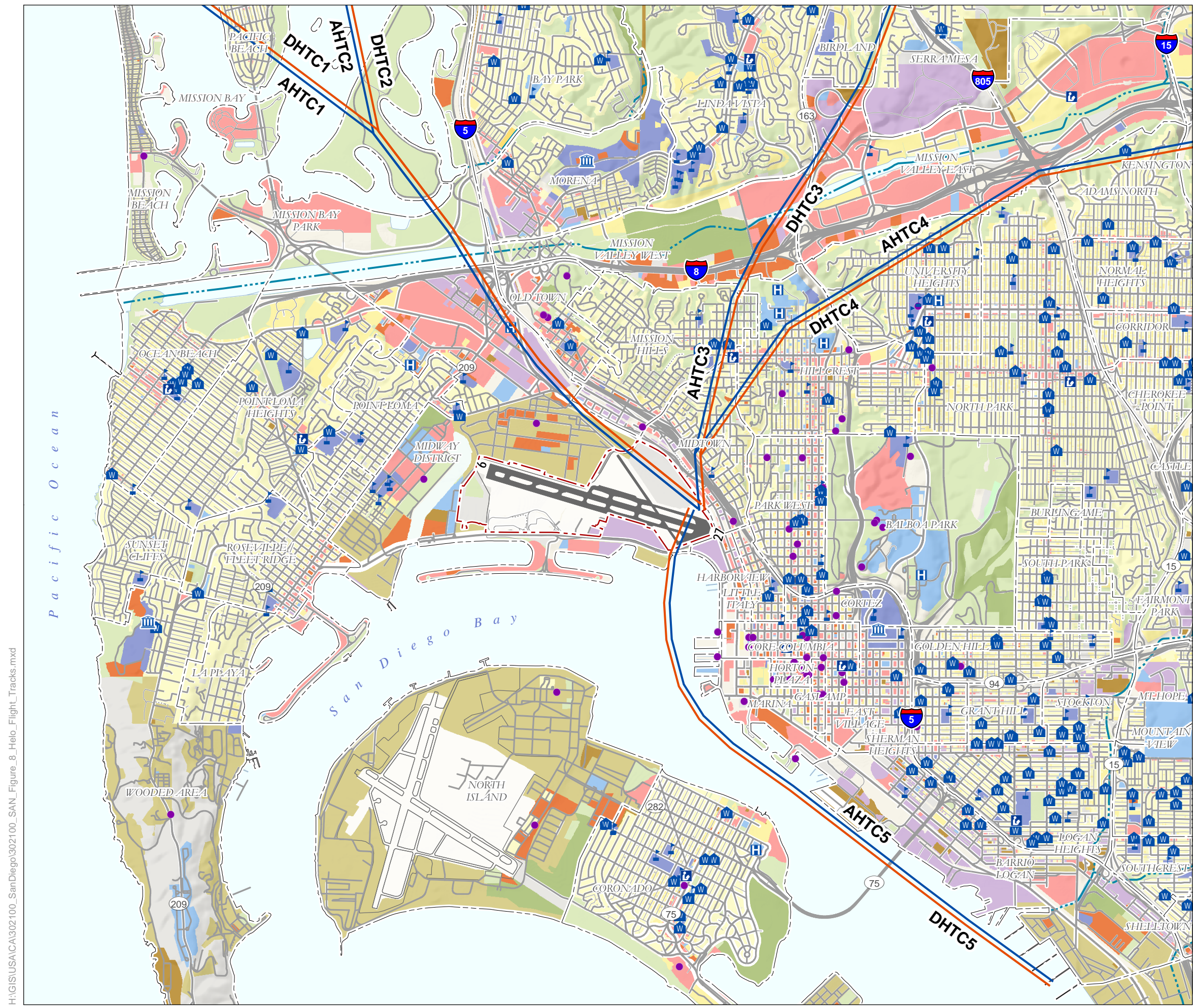




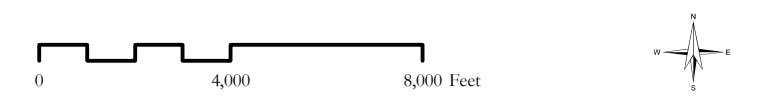
### Helicopter Departure and Arrival Tracks

Figure 8

- Departure Flight Track
- Arrival Flight Track
- Airport Property
- SAN Airport Runways
- Roads
- River / Stream
- Single Family Residential
- Multi-Family Residential
- Mobile Home Parks
- Hotel/Motel, Group Quarters
- Commercial
- Industrial
- Agriculture
- Parks
- Golf Courses
- Public Service
- Schools
- Military Use
- Transportation/Communication/Utilities
- Land Under Construction
- Vacant and Undeveloped Land
- Hospital
- Schools
- Place of Worship
- National Register of Historic Places
- Library
- College / University



Data Sources: San Diego International Airport; San Diego Association of Governments (SANDAG); City of San Diego and County of San Diego (SanGIS); Environmental Systems Research Institute, Inc. (ESRI).



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**Appendix C**  
Land Use Assurance for  
San Diego International Airport





SAN DIEGO COUNTY  
REGIONAL AIRPORT AUTHORITY

P.O. BOX 82776, SAN DIEGO, CA 92138-2776  
619.400.2400 WWW.SAN.ORG

August 28, 2012

Mr. Mark McClardy  
Manager, Airports Division – Western Pacific Region  
Federal Aviation Administration  
AWP 600  
P.O. Box 92007  
Los Angeles, CA 90009-2007

Re: Land Use Assurance for San Diego International Airport

Dear Mr. McClardy:

49 U.S.C. §47107(a)(10)<sup>1</sup> of the Airport and Airway Improvement Act of 1982, as amended, (“the Act”) provides:

“The Secretary of Transportation may approve a project grant application under this subchapter for an airport development project only if the Secretary receives written assurances, satisfactory to the Secretary, that...appropriate action, including the adoption of zoning laws, has been or will be taken to the extent reasonable to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations...”

The San Diego County Regional Airport Authority, operator of San Diego International Airport (“Airport”) in San Diego, California, makes the following statement of compatible land use assurance as required by the Act.

The Authority provides assurance that appropriate action has or will be taken, including consultation with the adjacent land use jurisdiction of the City of San Diego, to encourage the adoption of zoning laws, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the Airport to activities and purposes compatible with normal airport operations.

If you have any questions regarding this matter, please contact me at (619) 400-2444.

Sincerely,



Thella F. Bowens  
President/CEO

TFB/TA/ljt

cc: Mr. Victor Globa, Federal Aviation Administration

<sup>1</sup> Originally §511(a)(5) of the Airport and Airway Improvement Act of 1982.



SAN DIEGO  
INTERNATIONAL  
AIRPORT





## **Appendix D**

# Marine Biological Resources Assessment and Essential Fish Habitat Assessment





## D. Marine Biological Resources Assessment and Essential Fish Habitat Assessment

An assessment of the marine biological resources and an assessment of Essential Fish Habitat (EFH) related to the proposed construction of the storm drain force main outlet into the U.S. Navy Boat Channel was conducted by Merkel & Associates, Inc. in April 2012. Their assessment is reproduced and included in this appendix.

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**SAN DIEGO COUNTY AIRPORT NORTHSIDE UTILITIES  
STORM DRAIN FORCE MAIN PROJECT  
MARINE BIOLOGICAL RESOURCES ASSESSMENT AND  
ESSENTIAL FISH HABITAT ASSESSMENT**

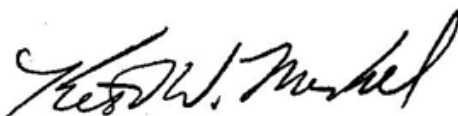
*Prepared for:*

**San Diego County Regional Airport Authority**  
Environmental Affairs  
P O Box 82776  
San Diego, CA 92138-2776  
*Phone:* (619) 400-2790  
Attention: Mr. Richard Gilb

*Prepared by:*

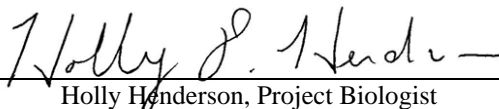
**Merkel & Associates, Inc.**  
5434 Ruffin Road  
San Diego, California 92123  
*Phone:* (858) 560-5465  
*Fax:* (858) 560-7779

**April 2012**



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Keith Merkel, Principal Consultant



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Holly Henderson, Project Biologist

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Appendix A. Baseline Eelgrass Report

**SAN DIEGO COUNTY AIRPORT NORTHSIDE UTILITIES  
STORM DRAIN FORCE MAIN PROJECT:  
MARINE BIOLOGICAL RESOURCES ASSESSMENT AND  
ESSENTIAL FISH HABITAT ASSESSMENT**

*Merkel & Associates, Inc.*  
**April 2012**

**1.0 INTRODUCTION**

The San Diego County Regional Airport Authority (Authority) has contracted Merkel & Associates, Inc. (M&A) to conduct an assessment of the marine biological resources and to prepare an Essential Fish Habitat (EFH) Assessment for the Northside Utilities Storm Drain Force Main Project (Project) in San Diego Bay, CA (Figure 1). The following report includes a brief project description followed by existing conditions information, EFH background information, impact analysis, and conclusions.

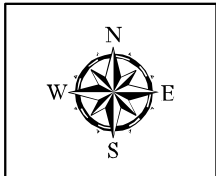
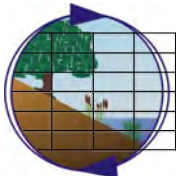
**1.1 PROJECT DESCRIPTION**

The Northside Utilities Storm Drain Force Main Project involves construction of multiple storm drain lines, generally ranging in diameter from 18 to 36 inches, to divert storm water runoff associated with improvements being made to the north side of the San Diego International Airport. These drain lines will intercept the storm water runoff that will not be retained on the site(s) of the Northside improvements. Storm water will be routed, via gravity flow, to a collection point near the airport air traffic control tower, where a pump station will convey the flows into a 24- to 36-inch diameter force main pipeline (Figure 1).

The force main system will extend west along the north side of the runway to a newly constructed outfall into the Navy Estuary Small Boat Channel portion of San Diego Bay. The new outfall will consist of a 36-inch diameter reinforced concrete pipe storm drain structure, including a 10-foot long baffle/energy dissipater that reduces the flow velocity, beyond which the flow will descend along a concrete channel that is sloped between the mean higher water level and the mean lower water level within the Navy Estuary Small Boat Channel.

The Navy Estuary Small Boat Channel separates the airport from the Liberty Station development to the north (Fig 1). The channel is at the west end of the airport runway and is subject to daily air traffic and noise during airport departures from 6:30 AM to 11:30 PM. The channel also supports some marina facilities and boat traffic accessing these facilities. This report focuses on the marine resources in the vicinity of the proposed Northside Utilities Storm Drain Force Main storm water outfall to be constructed within the Navy Estuary Small Boat Channel.





**Project Vicinity Map**  
Northside Utilities Storm Drain  
Force Main Project

**Figure 1**

## 2.0 SURVEY METHODS

Merkel & Associates Inc. (M&A) was retained by the San Diego County Airport Authority to conduct a baseline eelgrass survey in support of the Project; this survey and report were completed in September 2011. An assessment of in-water habitats was conducted using interferometric sidescan sonar, which provided an acoustic backscatter image of seafloor within the entire project area. Interpretation of the backscatter data allowed for an assessment of the distribution of eelgrass (*Zostera marina*) within the project area as well as unvegetated soft and hard bottom habitats. M&A biologists completed in-water surveys utilizing SCUBA to assess the marine environment and to collect density data for eelgrass. Complete methods for this survey are included in the pre-construction eelgrass survey report (Appendix A).

Results of this 2011 survey have been utilized to determine current environmental conditions at the Project outfall site. It is anticipated that this baseline survey will be superseded by a pre-construction eelgrass survey conducted within 60 days of the start of Project construction, according to the Southern California Eelgrass Mitigation Policy (SCEMP) (NMFS 1991, revision 11). Actual Project impacts to eelgrass, if any, and associated mitigation needs will be quantified from a comparison of the pre-construction survey with the post-construction survey to be completed within 30 days of project completion.

In addition to the above work, M&A senior biologist, Holly D. Henderson, completed a wetlands assessment at the Project outfall site on March 26, 2012. The purpose of this assessment was to further characterize marine resources at the Project site and to determine the boundary of jurisdictional waters at the outfall site and surrounding areas.

## 3.0 MARINE RESOURCE ASSESSMENT

### 3.1 PHYSICAL SITE CONDITIONS

The Project area is located within the Navy Estuary Small Boat Channel. The shoreline within the Project area consists of supratidal and intertidal riprap, which abuts a narrow swath of unvegetated intertidal mudflat at the toe. Subtidal habitat consists primarily of unvegetated mud bottom, transitioning to vegetated habitat (eelgrass). The slope of the bottom within the Project area is relatively gentle extending from an approximate elevation of +1 feet Mean Lower Low Water (MLLW) at the toe of the riprap, to a depth of approximately -2.5 feet MLLW at the bayward edge of the outfall. The following text describes the three habitat types present within the project area.

### 3.2 MARINE HABITATS WITHIN THE PROJECT AREA

#### Intertidal/Supratidal Riprap Revetments

The shoreline within, and adjacent to, the Project area is armored with concrete block riprap revetment that extends from approximately +9 feet MLLW down to +1 foot MLLW, where it transitions to unvegetated intertidal mudflat. Both intertidal rip rap (between +1 foot MLLW and +7.79 feet MLLW) and supratidal rip rap (above +7.79 feet MLLW) are free of vascular vegetation, with the exception of hottentot fig (*Carpobrotus edulis*) that creeps down from the adjacent uplands. The intertidal riprap within the project area is predominantly free of algae or a substantial macrofaunal community. Typical invertebrate organisms occupying this riprap habitat include molluscs, such as limpets (*Collisella spp.*) and littorine snails (*Littorina spp.*), as well as arthropods,

such as the lined shore crab (*Pachygrapsus crassipes*), barnacles (*Balanus* sp.), and several species of amphipods and isopods.

### Intertidal Mudflat

A narrow band of unvegetated intertidal mudflat occurs at the toe of the riprap slope. Within the Project area, this habitat extends from a depth of approximately +1 to -2.2 feet MLLW. When exposed at lowest tides, this habitat creates a band of habitat between 10 and 20 feet wide. The flat is seasonally covered with green algae (such as *Enteromorpha* and *Ulva* spp.). At high tides, fish species including three species of gobies (Family Gobiidae), California killifish (*Fundulus parvipinnus*), round stingray (*Urobatis halleri*), and juvenile flatfish are likely to forage along the flat. At low tides, when the flat is exposed, shorebirds forage for benthic invertebrates.



Supratidal and intertidal riprap habitat at the Project outfall site

### Subtidal Unvegetated Habitat

The Draft San Diego Bay Integrated Natural Resources Management Plan (INRMP) differentiates between shallow and deep subtidal habitat based on the biological values of these habitats (U.S. Navy et al. 2007). According to the INRMP, shallow subtidal habitat is considered to be between -2.2 and -12 feet MLLW. Deep and moderately deep habitats maintain similar biological functions, while shallow habitat has the potential to support greater primary productivity, and overall greater diversity of habitats and ecological communities.

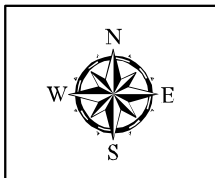
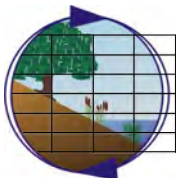
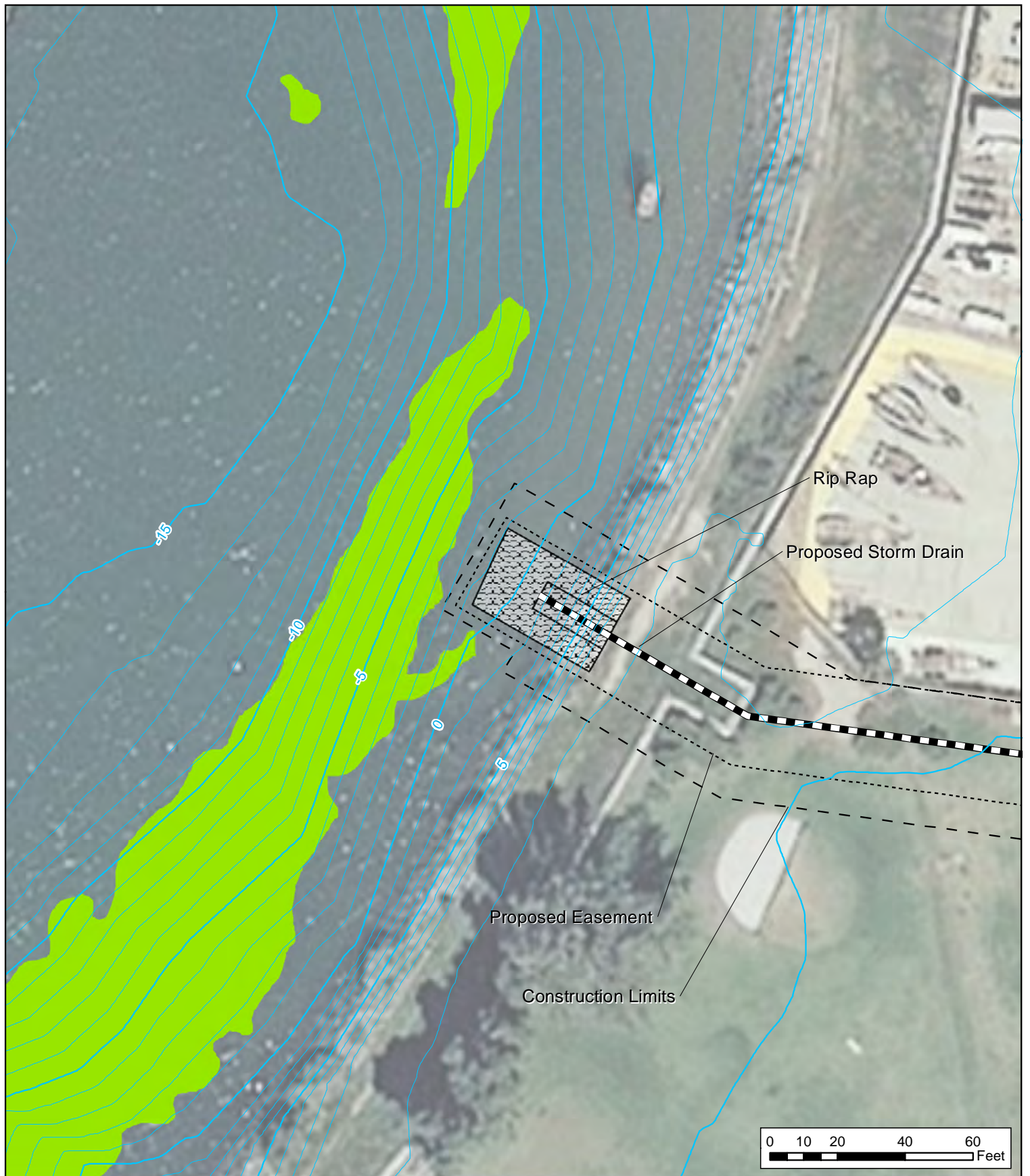
At the Project outfall site, a small amount of shallow unvegetated subtidal habitat occurs along the transition between intertidal mudflat and eelgrass habitat, extending between -2.2 feet and -4 feet MLLW. This habitat consists of mud and silt, containing occasional clumps of a red algae (*Gracilaria* spp., *Ceramium* spp.) and loose clumps of a ephemeral green algae (*Ulva* spp.). No fish were observed utilizing this habitat at the time of the 2011 eelgrass survey (E. J. Reeves, pers. com.). However, based on the location of this habitat within San Diego Bay and its proximity to eelgrass, species likely to occur include topsmelt (*Atheriniops affinis*), round stingray, juvenile California halibut (*Paralichthys californicus*), bay blenny (*Hypsoblennius gentilis*), barred sand bass (*Paralabrax nebulifer*), spotted sand bass (*Paralabrax maculatofasciatus*), gobies, and surfperch (Family Embiotocidae).

### Subtidal Vegetated Habitat

Eelgrass was mapped along the intertidal and shallow subtidal shoreline (at depths ranging between approximately 0 feet and -9 feet MLLW) adjacent to proposed Project outfall (Figure 2). The baseline eelgrass survey conducted by M&A on August 22 and 23, 2011 documented approximately 24,384 ft<sup>2</sup> (0.56 acre) of eelgrass within the Project area and no eelgrass within the direct footprint of the proposed work (M&A 2011, Appendix A).



Eelgrass (*Zostera marina*) located at the base of the proposed Project outfall.



**Baseline Eelgrass Distribution - August 23, 2011**  
Northside Utilities Storm Drain  
Force Main Project

**Figure 2**

Eelgrass vegetated habitats are an essential component of southern California's coastal marine environment. Eelgrass beds function as important habitat for a variety of invertebrate, fish, and avian species. For many species, eelgrass beds are an essential biological habitat component for at least a portion of their life cycle, providing resting and feeding sites along the Pacific Flyway for avian species, and nursery sites for numerous species of fish and invertebrates. The only fish species observed within the eelgrass were topsmelt and round stingray (E. J. Reeves pers. com.) However, other typical eelgrass associates include pipefish (*Syngnathus* spp.), kelpfish (Family Clinidae), surfperch (Family Embiotocidae), as well as schooling fish such as topsmelt and anchovy (*Anchoa* spp.).

### Open Water

Species that commonly occur in the shallow open waters of San Diego Bay that are likely to occur in the Naval Estuary Small Boat Channel include topsmelt, northern and deepbody anchovy (*Engraulis mordax* and *Anchoa compressa*), and mullet (*Mugil cephalus*). The occurrence of these species in open water is important to several species of piscivorous birds including pelicans, terns, loons, grebes, cormorants, and mergansers. None of these avian species were observed during the survey, but all are known to forage in the boat channel.

### 3.3 SENSITIVE SPECIES WITHIN THE PROJECT AREA

Species identified as protected, rare, sensitive, threatened or endangered by the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or California Department of Fish and Game (CDFG), that may be expected in the Project area at various times include three bird species, one reptile, and two marine mammals (Table 1). None of these species was observed within the project area at the time of the current survey effort. However, it is anticipated that California brown pelicans (*Pelecanus occidentalis californicus*) and double crested cormorants (*Phalacrocorax auritus*) loaf on piers and forage in waters adjacent to the Project area. California least terns (*Sternula antillarum browni*) are known to forage within the channel on a regular seasonal basis. None of these avian species nest within the project area. The nearest least tern nesting colony is located at the San Diego International Airport, approximately 1.5 miles to the east of the Project site. In recent years, the airport colony has maintained a high ratio of least tern fledglings per pair, making it among the most productive colonies in San Diego Bay (Marschalek 2011).

Weekly waterbird surveys were conducted in 1993 of the adjacent West Basin of Harbor Island (Ogden 1994) (Figure 1). The Project site is approximately 3,000 feet from the West Basin. During these 1993 surveys, least terns were present during eight of the 16 weekly surveys conducted during late April through July. The number of terns detected averaged 3.6 least terns per survey. The median was 0.5 least terns per survey. The largest number detected during a single survey was a flock of 40 least terns on April 27, 1993. Least terns were absent during eight of the 16 surveys.

Use of the West Basin by brown pelican was much lower and infrequent. Typically only two or three pelicans were present on only 15 of 60 weekly surveys. The maximum single day count was 12 pelicans on January 12, 1993. The majority of pelicans were observed resting on boats and structures in the West Basin. Nine pelicans (23% of all observed) were recorded as actively foraging during the surveys. The West Basin was nominally used by both least tern and brown pelican. Ogden (1994) assigned a LOW use index for the West Basin for both least terns and brown pelicans. The Navy Estuary Small Boat Channel has more shallow water habitat, calmer more protected waters, and less human traffic than the West Basin. As such, the channel is expected to support slightly higher use by

**Table 1. Protected Species with Potential to Occur within the Study Area**

Common Name	Scientific Name	Status	Occurrence at Project Site
California Brown Pelican	<i>Pelecanus occidentalis californicus</i>	CDFG FP	Likely
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	CDFG WL	Likely
California Least Tern	<i>Sternula antillarum browni</i>	SE, FE	Likely*
Green Sea Turtle	<i>Chelonia mydas</i>	FT	Not expected
Harbor Seal	<i>Phoca vitulina</i>	MMPA	Not expected
California Sea Lion	<i>Zalophus californianus californianus</i>	MMPA	Uncommon

**SE** – State Endangered; **FE**- Federally Endangered; **FT** – Federally Threatened; **CDFG SSC**- CDFG Species of Special Concern; **CDFG-FP** – CDFG Fully Protected Species; **CDFG-WL**- CDFG Watch List; **MMPA** – species protected by the Marine Mammal Protection Act

\*Least terns are a migratory species found in the area from approximately April 1 through September 1 of each year.

foraging terns and brown pelicans. There are limited opportunities for roosting terns or pelicans in the channel, so the primary value of the channel is as potential foraging habitat with some roosting occurring on over water structures located at the head of the basin. Anecdotal observations made while conducting eelgrass investigations and small project surveys suggest that this assumption of higher channel use by terns and pelicans is likely correct.

While double-crested cormorants were not a target species counted during the 1993 waterbird surveys, this species was counted as part of a “column-diving foraging guild”. Cormorants in general were observed most frequently loafing on mainland marinas and piers. Ogden (1994) assigned a LOW use index for this guild for the West Basin, and a similarly low to a potentially moderate pattern of usage is expected for the Navy Estuary Small Boat Channel.

Baywide avian surveys were conducted in 2006-2007 and again in 2009-2010 in support of updates to the INRMP. Unlike the 1993 waterbird surveys, the 2009-2010 surveys included both waterbird and shorebird counts, and included surveys within the Navy Estuary Small Boat Channel (Tierra Data 2011). Surveys revealed a density of between 1 to 20 birds per month per hectare within this channel, a relatively low density compared to areas with broad mudflats, marshes, and/or saltworks located in the southern portion of the Bay. Species richness was similarly low within the Navy Estuary Small Boat Channel, averaging between 1 to 10 unique species in the deeper portions of the channel, and 11 to 25 unique species along the shoreline (Tierra Data 2011). Species-specific surveys were not completed for California least tern and brown pelican. However, the data illustrate the Navy Estuary Small Boat Channel does provide good quality foraging habitat for both shorebirds and waterbirds when compared to other north bay areas.

South San Diego Bay supports a population of eastern pacific green sea turtles (*Chelonia mydas*) that primarily remain in the warm waters of south San Diego Bay, though some are believed to leave the

bay to nest on the beaches of offshore islands of Mexico. Despite long-term acoustic tagging and GPS tracking studies by NMFS, no turtles have been noted in the Project area, but they may occasionally pass by the Navy Estuary Small Boat Channel as they exit the bay. Harbor seals (*Phoca vitulina*) and sea lions (*Zalophus californianus californianus*) do not breed at the Project site but forage throughout San Diego Bay and are observed in the bay year round. Both species are most common at the north end of the Bay, decreasing in occurrence towards the southern portions of the Bay. Sea lions are more likely to be found around the small marinas and piers of the Navy Estuary Small Boat Channel than are seals, however all marine mammals are expected to be very uncommon to rarely encountered in the project vicinity.

### **3.4 POTENTIAL IMPACTS TO MARINE RESOURCES**

#### **Marine Habitats**

The proposed Project would result in impacts to approximately 570 ft<sup>2</sup> of intertidal mudflat and shallow subtidal unvegetated habitat. These impacts would occur as a result of placement of riprap to dissipate energy and prevent erosion at the storm drain outlet. Temporary impacts would occur to a small amount of intertidal and supratidal riprap revetment that would be removed and replaced during installation of the storm drain.

No impacts to subtidal vegetated habitat (eelgrass) are anticipated. However, unanticipated impacts during construction could occur, either through increased turbidity associated with the in-water construction work or from accidental damage during placement of the riprap energy dissipater apron that may occur as a result of equipment maneuvering or slumping of the dissipater excavation prior to placement of rock. Long-term impacts may occur as a result of storm drain discharge from the outfall. Because the drain is anticipated to discharge predominantly clear water as a result of upstream inlet BMPs, it is not expected that substantial sediment or organic detrital (typically leaf litter and landscape mulch) deposition will occur at the storm drain outlet.

#### **Sensitive Species**

There were no sensitive species observed within the project site during the baseline eelgrass survey or recent field inspection. The project site does not feature unique or rare habitats for which alteration would significantly impact sensitive species in the area.

Sensitive bird species that could potentially occur in the project site are the California brown pelican, double-crested cormorant, and California least tern. During its breeding season, April 1 through September 1, the endangered California least tern is observed in San Diego Bay, nesting at San Diego International Airport, North Island Naval Station, the Naval Amphibious Base Delta Beach, D Street Fill, the Chula Vista Wildlife Reserve and within the South Bay Saltworks in the South San Diego Bay Unit of the San Diego National Wildlife Refuge. The closest of these nesting sites to the project site is within runway ovals of the San Diego International Airport, approximately 1.5 miles to the east of the Project site.

Least terns are sight foraging species that plunge dive in open water or swoop dive on mudflat pools to opportunistically capture small fish. Surface turbidity has the potential to adversely affect the capacity of terns to locate forage fish. Conversely, turbidity generated by bottom disturbance tends to attract small fish that forage on benthic organisms suspended in the turbidity plume. As a result, it is not uncommon to observe increased foraging activities by sight foraging species, including least

terns on the margins of turbidity plumes. As a result of the interactions between enhancement of prey items and reduction of foraging effectiveness, minor turbidity generation tends not to produce any foraging area avoidance by terns and may even enhance foraging success on a local scale. However, extensive turbidity generation may render an area unsuited to foraging by least terns or other site foraging species. This may lead to area avoidance or other inefficiencies in foraging such as low capture success. Because terns are opportunistic in their foraging, low forage efficiency will generally result in terns moving to other areas where foraging is more successful. This relocation to other foraging areas may take birds further from nest colonies or delay the collection and delivery of food to the nest, thereby exposing the nest to greater potential for predation, or depressed feeding levels. These effects would be considered an adverse impact to terns. As such, widespread turbidity generation has the potential to render a foraging area unsuitable to use by terns.

Project construction for the Northside Utilities Storm Drain is likely to result in a minor and temporary increase in turbidity rather than large-scale turbidity generation that would be of concern to foraging terns. In addition, slight turbidity elevation may occur while the pipe is placed through the slope and the bare soil on the slope is exposed. The generation of turbidity during the least tern breeding would be expected to occur for a period of not greater than two weeks. With bayside construction being conducted at low tides and a construction period turbidity containment being placed around the in-water work, turbidity generating activities would be expected to be limited to an area of less than approximately 500 square feet while the excavation for the dissipater apron and the placement of dissipater rock is undertaken. This would result in elevated turbidity within an area of less than 0.02 percent of the total area of the Navy Small Boat Channel and less than  $1.0 \times 10^{-8}$  percent of the overall bay area. At these levels, the proposed work is not anticipated to result in significant adverse effects on foraging terns.

The California brown pelican has been delisted from its prior federal endangered species status. Brown pelicans do not breed on the mainland California coast; therefore, the Project would not have an impact on nesting activities. Similarly, the Project area does not support breeding populations of double-crested cormorant, and the Project would not have an impact on nesting activities for this species. California brown pelican and double-crested cormorant are common in San Diego Bay and likely forage and loaf in the vicinity of the proposed Project. However, no roosting aggregations of these species occur in the Project area. Activities associated with Project construction could temporarily disturb loafing pelicans and cormorants, resulting in a temporary relocation from the area. An increase in turbidity could result in a minor and temporary disturbance of the foraging ability of these species if large and persistent turbidity plumes were to be generated. For the same reasons as discussed above for least terns, turbidity is not expected to result in significant impacts to these species.

As discussed above, the southern portion of San Diego Bay supports a year-round population of eastern pacific green sea turtles. Although the turtles are believed to leave the bay to nest on the beaches of offshore islands of Mexico, some individuals are thought to be year round residents within San Diego Bay. In a recent tracking study of green sea turtles within San Diego Bay, the majority of track detections were in south San Diego Bay and were concentrated within the warm water effluent of the South Bay Power Plant. While the study area included tracking activities as far north as the Coronado Bay Bridge, no turtles were detected north of the Sweetwater River Channel (Lewison et al. 2010). However, some turtles presumably pass through the entire bay as they leave to nest in Mexico.

Environmental threats to turtle populations include contamination from coastal runoff, fueling facilities, marina and dock construction, dredging, aquaculture, oil and gas exploration and



extraction, and increased underwater noise and boat traffic that can degrade marine habitats used by marine turtles. Turtles swimming or feeding at or just beneath the surface of the water are particularly vulnerable to boat and vessel strikes, which can result in serious propeller injuries and death. The proposed Project primarily involves shoreline work to install a new storm drain outfall and is not anticipated to result in increased boat traffic or other increased post-construction risks to sea turtles. It is unlikely that green sea turtles occur in the area and it is further unlikely that, if present, turtles would remain in the area during construction.

Harbor seals and California sea lions are observed commonly in northern San Diego Bay. There are no established haul-out, foraging, or breeding areas used by these or other marine mammals within the Project area or vicinity, although individuals may make occasional transient use of the area. Harbor seals are less common in the industrialized areas of the bay than are sea lions. Construction is anticipated to be of a short duration and low impact level with regard to localized turbidity. Marine mammals would be expected to leave the site for adjacent waters if disturbed by project work; thus, it is not expected that any harassment or long-term harm would occur to marine mammals.

### **3.5 PROPOSED PROTECTIVE MEASURES**

The following protective measures are proposed to prevent impacts to marine habitats. These are consistent with protective measures proposed to prevent impacts to EFH as described in Section 5.0 below.

- 1) Due to the close proximity of eelgrass beds to the proposed bay area construction zone, the shoreward edge of eelgrass shall be staked with ridged PVC markers or self-centering buoys visible at all periods of construction in the bay outfall work area prior to initiation of Project construction in the bay.
- 2) A temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift. It shall consist of a hanging weighted curtain with a surface float line. The turbidity curtain shall be kept a minimum of 10 feet away from existing eelgrass beds and the curtain shall be anchored to temporary driven pipe corners in order to prevent damage to eelgrass beds from curtain drag or movement.
- 3) The project shall conform to the survey requirements of the Southern California Eelgrass Mitigation Policy (SCEMP) (NMFS 1991, revision 11). In accordance with the requirements of the SCEMP, a pre-construction eelgrass survey shall be completed by a qualified biologist within 60 days prior to initiation of construction activities at the Project site. This survey shall include both area and density characterization of the beds. A post-construction survey shall be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts shall then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, would require mitigation as defined in the SCEMP. If required following the post-construction survey, a mitigation planting plan shall be developed, approved by the District and NMFS, and implemented to offset losses to eelgrass.
- 4) Because the outfall has the potential to result in operational impacts associated with drainage from the discharge pipe, the discharge shall be monitored for two years following construction to assess any adverse changes that may result from the presence and operations of the Northside Utilities Storm Drain. Any impacts identified shall be mitigated in accordance with the SCEMP.

- 5) The Project shall conform to the approved storm water pollution prevention plan (SWPP) and shall incorporate construction-related erosion/sediment control Best Management Practices as detailed in the Project Plans. These include: removal of silt and debris from the storm drain system following a rainfall event, covering stockpiled material prior to rain events, and providing equipment and staff as required to repair and/or implement erosion/sediment control measures.

The following protective measures are proposed to prevent impacts to sensitive species.

- 1) To ensure that the turbidity from project construction is maintained at a low and contained level anticipated within this analysis, a temporary turbidity curtain shall be deployed around the construction area to limit turbidity drift.
- 2) To protect marine reptiles and mammals, project construction shall temporarily halt if any individual is observed within 100 feet of the Project construction area. Work shall resume once the individual animal has left the area.

## 4.0 WETLANDS ANALYSIS

### 4.1 PRELIMINARY JURISDICTIONAL DETERMINATION

Section 404 of the Clean Water Act provides regulatory authority to the U.S. Army Corps of Engineers (ACOE) over the placement of dredged or fill material, including rock revetments and concrete bulkheads. Under Section 404, the regulatory boundary is the ordinary high water mark plus any adjacent wetlands. In San Diego Bay, the ordinary high water mark (OHWM) is the Highest High Tide, or +7.79 feet MLLW (Port Datum).



Looking northwest at hottentot-fig and quail saltbush and the top of the riprap slope.

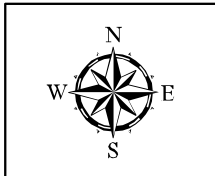
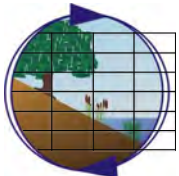
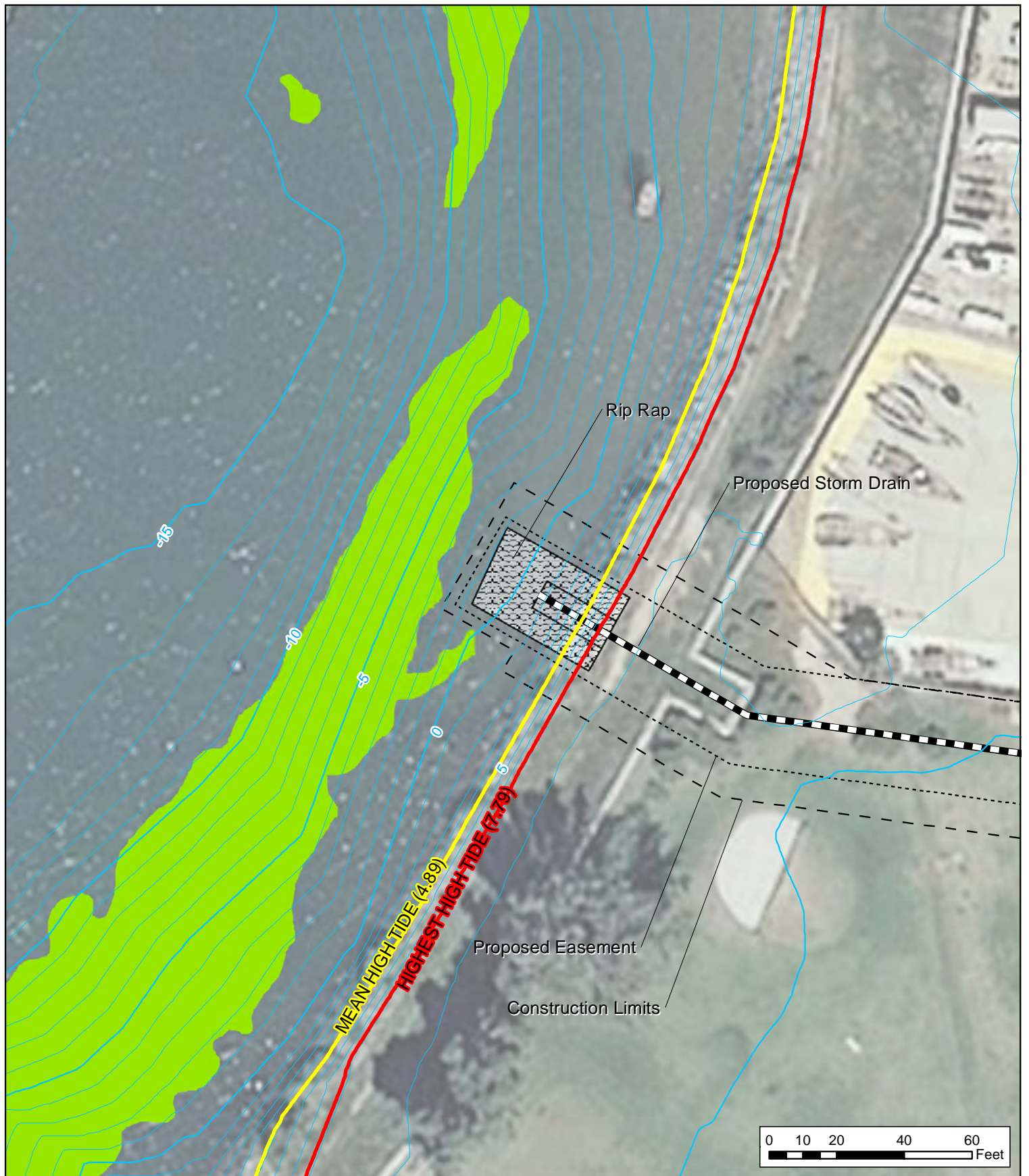
A field survey conducted on March 26, 2012 by M&A biologist, Holly D. Henderson, did not reveal presence of any wetland vegetation within the boundary of the proposed Project outfall, below or above the OHWM. The riprap shoreline and adjacent uplands are free of



Looking southeast at the Project site. Ripgut grass and Bermuda grass along with hottentot-fig dominate the adjacent uplands.

wetland vegetation. The only vegetation on the riprap is hottentot-fig that dominates the uplands and spreads down the riprap. Additional dominant plant species include quail saltbush (*Atriplex lentiformis*) (two large individuals at the top of the riprap slope), Bermuda grass (*Cynodon dactylon*) and ripgut grass (*Bromus diandrus*) interspersed with the hottentot-fig, and English plantain (*Plantago lanceolata*).

The uplands and riprap at the Project outfall site do not contain wetland hydrology or vegetation. Soils at the site consist primarily of fill material. As such, the jurisdictional boundary associated with Section 404 is the Highest High Tide, or 7.79 feet MLLW (Figure 3).



**Preliminary Jurisdictional Determination**  
Northside Utilities Storm Drain  
Force Main Project

**Figure 3**

## 5.0 ESSENTIAL FISH HABITAT ASSESSMENT (EFH)

### 5.1 BACKGROUND INFORMATION

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance EFH for those species regulated under a Federal fisheries management plan (FMP). Section 305(b)(2) of the Magnuson-Stevens Act requires Federal action agencies to consult with NOAA's National Marine Fisheries Service (NMFS) on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH.

The EFH Guidelines (50 CFR 600.05 - 600.930) outline the process for Federal agencies, NMFS and the Fishery Management Councils to satisfy the EFH consultation requirement under Section 305(b)(2)-(4) of the Magnuson-Stevens Act. As part of the EFH Consultation process, the guidelines require Federal action agencies to prepare a written EFH Assessment describing the effects of that action on EFH (50 CFR 600.920(e)(1)). The EFH Assessment is a necessary component for efficient and effective consultations between a Federal action agency and NMFS.

#### Definitions

EFH consist of those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity (16 U.S.C. 1802(10)). The following definitions apply to the sections of this document that address potential project impacts and protective measures:

- Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate (50 CFR 600.10).
- Substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities (50 CFR 600.10).
- Necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem (50 CFR 600.10).
- Healthy ecosystem means an ecosystem where ecological productive capacity is maintained, diversity of the flora and fauna is preserved, and the ecosystem retains the ability to regulate itself. Such an ecosystem should be similar to comparable, undisturbed ecosystems with regard to standing crop, productivity, nutrient dynamics, trophic structure, species richness, stability, resilience, contamination levels, and the frequency of diseased organisms (50 CFR 600.810(a)).
- Adverse effect means any impact that reduces quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810(a)).

### **Habitat Areas of Particular Concern**

EFH guidelines published in Federal regulations identify habitat areas of particular concern (HAPC) as types or areas of habitat within EFH that are identified based on one or more of the following considerations:

- The importance of the ecological function provided by the habitat.
- The extent to which the habitat is sensitive to human-induced environmental degradation.
- Whether, and to what extent, development activities are or will be stressing the habitat type.
- The rarity of the habitat type. (50 CFR 600.815(a)(8))

Applicable designated HAPCs for the project area include estuarine and seagrass habitat (NMFS 1999). Estuaries are protected nearshore areas such as bays, sounds, inlets, and river mouths, influenced by ocean and freshwater. Because of tidal cycles and freshwater runoff, salinity varies within estuaries and results in great diversity, offering freshwater, brackish and marine habitats within close proximity (NMFS 1999). Seagrasses are vascular plants, not seaweeds, forming dense beds of leafy shoots year-round in the lower intertidal and subtidal areas. Eelgrass is seagrass found on soft-bottom substrates in intertidal and shallow subtidal areas of estuaries and occasionally in nearshore areas. Studies have shown seagrass beds to be among the areas of highest primary productivity in the world (NMFS 1999).

### **5.2 NMFS MANAGED ICHTHYOFAUNA PRESENT IN SAN DIEGO BAY**

The ichthyofauna in San Diego Bay has been previously studied (M&A 2000, Allen 1999, Hoffman 2006). These studies have identified 78 species of fish in San Diego Bay. The following analysis makes extensive use of Allen's (1999) data set because it is both recent and comprehensive (surveys were completed quarterly for five and a half years, at four stations throughout San Diego Bay, utilizing six sampling gear types) with a total of 78 species identified. The other studies reviewed for this analysis are utilized primarily to confirm the presence of fish species and to identify any additional species not captured by Allen.

Of these 78 species, six are managed by the NMFS under two Fishery Management Plans (FMPs)-the Coastal Pelagics and Pacific Groundfish Management Plans (Table 2) (NMFS 1998 and 2008). Four of the fish species managed under the Coastal Pelagics FMP are represented in San Diego Bay. The northern anchovy and pacific sardine are the most abundant pelagics identified by Allen, ranking 1st and 4th in abundance, and 3rd and 10th in biomass, respectively (Table 2). Together, these two species accounted for 46.3% of the total abundance and 11.6% of the total biomass of fish enumerated by Allen (1999). The pacific mackerel and jack mackerel are the other two coastal pelagics of potential concern in the project area. These two species were much less abundant than the northern anchovy and pacific sardine (Allen 1999), and were ranked by Allen as 32nd and 52nd in total abundance and 24th and 73rd in total biomass, respectively. Together the two species accounted for less than 1% of total abundance and biomass of fish captured in Allen's comprehensive study.

**Table 2. Table of NMFS managed fish species previously found in San Diego Bay.**

Common Name	Scientific Name	Rank*	
		Abundance	Biomass
<b><i>Coastal Pelagics FMP</i></b>			
Northern Anchovy	<i>Engraulis mordax</i>	1 <sup>st</sup>	3 <sup>rd</sup>
Pacific Sardine	<i>Sardinops sagax</i>	4 <sup>th</sup>	10 <sup>th</sup>
Pacific Mackerel	<i>Scomber japonicus</i>	32 <sup>nd</sup>	17 <sup>th</sup>
Jack Mackerel	<i>Trachurus symmetricus</i>	52 <sup>nd</sup>	29 <sup>th</sup>
<b><i>Pacific Groundfish FMP</i></b>			
California Scorpionfish	<i>Scorpaena guttata</i>	41 <sup>st</sup>	24 <sup>th</sup>
English Sole	<i>Parophrys vetulus</i>	76 <sup>th</sup>	73 <sup>rd</sup>

\*(Rank refers to the relative rankings among 78 fish species observed by Allen (1999). Ranks are total abundance and biomass, respectively.)

Of the 89 species managed under the Pacific Groundfish FMP (NMFS 2008), two have been found in San Diego Bay during the studies analyzed for this assessment: California scorpionfish and English sole. These species were observed only rarely in San Diego Bay during the five and a half years of Allen’s study, ranking 41st and 76th by abundance and 24th and 73rd by biomass, respectively (Table 1). Together these two species accounted for less than 0.5% of the total abundance and biomass of fish captured (Allen 1999). In eighteen years of sampling in San Diego Bay, Hoffman (2006) never captured English sole and captured only four California scorpionfish, though the habitat sampled was not typical of scorpionfish or sole.

### 5.3 BIOLOGICAL DESCRIPTIONS FOR MANAGED SPECIES

The following descriptions of the life histories of the six managed species listed above provide the background information required to make a determination of the suitability of the project area to support and provide essential habitat for these species.

#### Northern Anchovy

Northern anchovy historically ranged from the Queen Charlotte Islands, British Columbia south to Cape San Lucas, Baja California. More recently, populations have moved into the Gulf of California, Mexico. Larvae and juveniles are often abundant in nearshore areas and estuaries with adults being more oceanic. However, adults can be abundant in shallow nearshore areas and well-circulated estuaries, and eggs and larvae have been found offshore. Northern anchovy are non-migratory but do make extensive inshore-offshore movements and along-shore movements. In some populations, juveniles and adults are observed moving into estuaries during spring and summer and then back out during the fall. Spawning occurs throughout the year dependent upon the population. In southern California, spawning occurs between January and May. Larvae consume copepod eggs and nauplii, naked dinoflagellates, rotifers, ciliates, and foraminiferans. Adults and juveniles typically consume phytoplankton, planktonic crustaceans, and fish larvae. Northern anchovy are one of the most abundant fish in the California current and are important prey for a variety of fish, birds,

and marine mammals. Finally, they are considered an indicator of environmental stress, being affected by low dissolved oxygen and water-soluble fractions of crude oil (Emmett et al. 1991).

### **Pacific Sardine**

Pacific sardine is a pelagic species. Individuals can be found in estuaries, but are most common in open coastal habitats and offshore. The Pacific sardine is wide ranging with sardines in the Alguhas, Benguela, California, Kuroshio, and Peru currents, and off New Zealand and Australia being considered the same species. Changes in distribution are common and linked to environmental conditions. In California, sardines are highly mobile and move seasonally. Older adults move from southern California and northern Baja spawning grounds to feeding grounds off the Pacific Northwest and Canada. Younger individuals (two to four years old) migrate to feeding grounds in central and northern California. Juveniles occur in nearshore habitats off northern Baja and southern California. Although numbers vary greatly, at times sardines are the most abundant fish species in the California current. In southern populations spawning occurs year-round with a peak from April to August between Point Conception and Magdalena Bay. Eggs and larva are found everywhere adults are found. Sardines are planktivores consuming both phytoplankton and zooplankton. They are themselves prey for a variety of predators. Eggs and larvae are consumed by numerous planktivores with juvenile and adults being consumed by a variety of fish, birds, and mammals (NMFS 1998).

### **Pacific Mackerel**

Pacific mackerel is a pelagic species. In the northeastern Pacific, Pacific mackerel range from Banderas Bay, Mexico to southeastern Alaska. As a group they are the same species as mackerel of a variety of names occurring elsewhere in the Pacific, Atlantic, and Indian oceans. Pacific mackerel usually occur within 20 miles of shore. Local populations spawn from Eureka, California south to Cabo San Lucas, Baja California between 2 and 200 miles from shore with peak spawning occurring between late April and July. However, fecundity is more closely tied to sufficient food and environmental conditions than to season. Pacific mackerel larvae eat zooplankton including copepods and fish larvae. Juveniles and adults consume small fishes, fish larvae, squid and pelagic crustaceans. Pacific mackerel larvae are predated by numerous invertebrate and vertebrate planktivores. Juveniles and adults are important prey for many large fishes, marine mammals, and birds. Due to their larger size, they are likely less important as forage than Pacific sardine or northern anchovy which are available to a wider variety of predators and are more abundant (NMFS 1998).

### **Jack Mackerel**

Jack mackerel is a schooling fish that ranges widely throughout the northeastern Pacific. Individuals are found along the mainland coasts to an offshore limit approximated by a line running from Cabo San Lucas, Baja California, to the eastern Aleutian Islands, Alaska. Typically, small jack mackerel (< 6 years of age) are most abundant near the mainland coast and islands in the Southern California Bight. Older individuals fill out the geographic range and are generally found offshore in deep water and along the coastline north of Point Conception, California. Jack mackerel spawn in nearshore oceanic waters between February and October in California, with peak spawning activity between March and July. Larvae eat primarily copepods with the small jack mackerel found off southern California consuming large zooplankton, juvenile squid and anchovy. Jack mackerel are prey items for large predators such as tunas and billfish.

### **California Scorpionfish**

The California scorpionfish ranges from Santa Cruz, California south to Uncle Sam Bank, Baja California. It is a benthic species found in both sandy and rocky habitats. Individuals are predominantly solitary, but are known to aggregate near prominent features both natural and man-made. Young fish live in shallow habitats typically hidden within dense algae and bottom-encrusting organisms. Spawning occurs between May and September and peaks in July. Eggs are laid in a gelatinous mass that floats near the surface. The primary food items include juvenile crabs, small fishes (e.g. northern anchovy), octopus, isopods, and shrimp (Core Team 1998).

### **English Sole**

English sole range from central Baja California to Unimak Island, Alaska. They occur in greatest numbers north of Point Conception, California. Juveniles are found in all Pacific coast estuaries from San Pedro Bay, California to Puget Sound with Elkhorn Slough, California being the southernmost estuary where they are abundant. Adults make limited movements with a northward migration in the spring to summer feeding grounds, returning in the fall. Spawning occurs over soft-bottom substrates at depths of 165-230 feet. Spawning occurs between December and April for southern stocks. Eggs are buoyant and larvae are pelagic. Adults and juveniles prefer soft sand and mud bottoms generally in less than 12 m of water. Larvae are planktivorous eating different life stages of copepods and other small planktonic organisms. Juveniles feed on copepods, gammaridean amphipods, cumaceans, mysids, polychaetes, small bivalves, clam siphons, and other benthic invertebrates. Adults eat a variety of benthic organisms, but particularly polychaetes, amphipods, molluscs, ophiuroids, and crustaceans. Larvae are likely eaten by larger fishes, with juveniles falling prey to larger fishes, marine mammals, and birds. Adults may be eaten by marine mammals, sharks and other large fishes. English sole are an indicator of environmental stress, accumulating contaminants and developing cancerous tumors as a result (Emmett et al. 1991).

## **5.4 POTENTIAL IMPACTS TO EFH AND MANAGED FISH SPECIES**

The Northside Utilities Storm Drain Force Main Project area is similar to other shallow water environments with armored shorelines within San Diego Bay with regard to distribution of habitats, biological features, and sediment characteristics. This analysis focuses on stressors associated with the proposed project elements and their potential impact to EFH (i.e. subtidal [vegetated and unvegetated] habitat, intertidal mudflat, open water, intertidal/shallow subtidal riprap revetments) within the project area. Pursuant to 50 CFR 600.910(a), an “adverse effect” on EFH is defined as any impact that reduces the quality and/or quantity of EFH. Factors that were considered in this analysis include the duration, frequency, intensity, and spatial extent of the impact; the sensitivity/vulnerability of the habitat; the habitat functions that might be altered by the impact; and the timing of the impact relative to when the species or life stages may use or need the habitat.

### **Intertidal/Shallow Subtidal Riprap Revetments**

The project would result in an increase of riprap substrate, which would consist of existing shoreline riprap, along with installation of approximately 500 ft<sup>2</sup> of riprap placed along what is currently intertidal mudflat and subtidal unvegetated habitat in order to protect the outfall and prevent erosion. Temporary impacts to the riprap fish community would occur during removal and replacement of shoreline riprap during outfall installation. Some fish would temporarily avoid the work area and move to adjacent riprap during construction, while other species may be expected to form local



feeding aggregations where encrusting communities are damaged by the work. More opportunistic fish species would be expected to temporarily move just outside of the effective range of the impact, then immediately return to forage on the released or damaged biota.

San Diego Bay currently contains 45.4 mi of armored shoreline (74% of the total shoreline) within the Bay (U.S. Navy et al. 2007). Riprap armoring along the approximately 30 foot-long construction zone for the proposed Project represents a small fraction the total riprap within the Bay. Because of the temporary nature of disturbance and replacement of shoreline riprap within the Project area, the availability of extensive riprap shoreline within San Diego Bay, and the net increase in overall riprap from Project installation, impacts of riprap disturbance on EFH and managed species is considered minimal.

### **Intertidal Mudflat**

Project construction would result in a net decrease of approximately 250 to 300 ft<sup>2</sup> due to placement of riprap in the intertidal and shallow subtidal zone to protect the outfall and prevent erosion. The mudflat in the vicinity of the proposed Project area exists as a narrow band bordered by riprap and does not contain a substantial source of organic material (such as found at river and creek mouths and adjacent to coastal salt marshes in south San Diego Bay). As a result, this mudflat is anticipated to have lower productivity than the large mudflats elsewhere in San Diego Bay.

Direct impacts on the benthic community would include the loss or mortality of any benthic infauna and epifauna in the construction footprint. Fish species that forage along the mudflat during high tides are anticipated to utilize adjacent mudflat habitats during and after project construction. Of the managed fish species, intertidal mudflat is only suitable for English sole. Due to the rarity or absence of this species from San Diego Bay, and the small impact to intertidal mudflat relative to availability of high quality mudflat elsewhere in the Bay, the impact of Project construction on intertidal mudflat EFH and managed fish species is considered to be minimal.

### **Subtidal Unvegetated Habitat**

The San Diego Bay Integrated Natural Resources Management Plan (U.S. Navy et al. 2007) defines shallow subtidal unvegetated habitat as occurring between depth of -2.2 to -12 feet MLLW. Based on this definition and the location of eelgrass habitat determined from the August 2011 baseline survey (M&A 2011), subtidal unvegetated habitat would not be permanently impacted by Project construction. Temporary impacts during construction could include increased turbidity in the vicinity of the outfall and newly placed riprap (Figure 2). It is anticipated that fish species utilizing this habitat would move away to adjacent habitat during construction, and return to the Project area following construction. As a result, the impact of the Project on subtidal unvegetated EFH and managed fish species is considered to be minimal.

### **Subtidal Vegetated Habitat**

Eelgrass vegetated habitats are an essential component of southern California's coastal marine environment. Eelgrass beds function as important habitat for a variety of invertebrate, fish, and avian species. For many fish species, eelgrass beds are an essential biological habitat component for at least a portion of their life cycle, providing structured habitat and nursery sites for numerous species of fish. The Southern California Eelgrass Mitigation Policy (NMFS 1991) offers specific guidelines for appropriate responses and mitigation measures for activities that threaten eelgrass vegetated

habitats. As dictated by the SCEMP, a baseline survey was conducted within the Northside Utilities Storm Drain Force Main Project area in August 2011 (Appendix A).

In the project survey area, eelgrass extends from a depth of 0 feet to approximately -9 feet MLLW (Figure 2). The majority of eelgrass occurs at depths greater than -2 feet MLLW; however, a small finger of eelgrass extends shoreward but outside of the proposed Project footprint. Eelgrass does not occur within the proposed Project footprint. Impacts to eelgrass are not anticipated. However, unanticipated impacts during construction could occur, either through increased turbidity associated with the construction work or from accidental damage during placement of riprap. Long-term impacts may occur as a result of increase turbidity or sedimentation from the outfall.

### **Open water**

Effects from Project construction would include temporary and localized increases in turbidity and sedimentation within the water column. It is anticipated that the effects of these construction-related impacts on fish would be temporary and minor. Most species of demersal and pelagic fish would avoid construction areas, resulting in the displacement of, followed by post-construction recolonization by, these species. Some sedentary demersal fishes may be affected by the temporary increase in sediment loads within the water column during construction, while more opportunistic fish species would be expected to temporarily move just outside of the effective range of the impact, then immediately return to forage on the released or damaged biota. Use of BMPs, including construction-related erosion/sediment control measures as described above, as well as installation of silt curtains during construction, would minimize the extent of construction-related turbidity. With the use of BMPs the impact of the project on open water EFH and the four managed pelagic fish species is considered to be minimal.

## **5.5 PROPOSED PROTECTIVE MEASURES**

Impacts associated with project construction are considered temporary and would be minimized through implementation construction-related BMPs including implementation of erosion/sediment control measures, the placement of silt curtains around in-water activities and along the bayward edge of shore work, and staking the boundaries of the adjacent eelgrass bed to identify eelgrass habitat to be avoided. Specifically, these are as follows:

- 1) Construction impacts may be avoided through implementation of Best Management Practices (BMPs) including installation of a hanging turbidity curtain along the bayward edge of construction work to protect the existing eelgrass from turbidity impacts and physical damage.
- 2) As limits of the proposed Project footprint are within ten feet of the existing eelgrass bed, the shoreward boundary of eelgrass shall also be marked, with ridged PVC markers or self-centering buoys, visible at all tide heights prior to initiation of Project construction.
- 3) The Project shall be consistent with the approved storm water pollution prevention plan (SWPP) and shall incorporate construction-related erosion/sediment control Best Management Practices as detailed in the Project Plans. These include: removal of silt and debris from the storm drain system following a rainfall event, covering stockpiled material prior to rain events, and providing equipment and staff as required to repair and/or implement erosion/sediment control measures.

- 4) In accordance with the SCEMP, eelgrass in the vicinity of outfall will be monitored both pre- and post- initial construction to confirm that no proximate damage occurs to existing beds and a post-construction two year monitoring program with mitigation as required if impacts are demonstrated to occur as a result of outfall operations.

With the use of these BMPs and mitigation measures, the impact of the project on subtidal vegetated EFH and managed fish species is considered to be minimal.

## 6.0 BENEFICIAL USES ANALYSIS

### 6.1 EXISTING CONDITIONS

Beneficial uses are defined as the uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals “Beneficial Uses” of the waters of the State that may be protected against include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or groundwater on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. “Beneficial Uses” are equivalent to “Designated Uses” under federal law (California Water Code section 13050(f)).

The San Diego Regional Water Quality Control Board (SDRWQCB) has five policies for management of beneficial uses and water quality in the San Diego Region:

**Policy 1** - Water quality objectives, beneficial uses, and water quality control plans and policies adopted by the State Water Resources Control Board and the Regional Water Quality Control Board shall be an integral part of the basis for water quality management.

**Policy 2** - Water shall be reclaimed and reused to the maximum extent feasible.

**Policy 3** - Point sources and nonpoint sources of pollution shall be controlled to protect designated beneficial uses of water.

**Policy 4** - Instream beneficial uses shall be maintained, and when practical, restored, and enhanced.

**Policy 5** - A detailed and comprehensive knowledge of the beneficial uses, water quality, and activities affecting water quality throughout the Region shall be maintained.

The existing beneficial uses and their definitions for Coastal Waters of San Diego Bay are listed below and were obtained from the SDRWQCB Basin Plan. There are no potential beneficial uses listed for the Coastal Waters of San Diego Bay by the SDRWQCB.

#### **Existing Beneficial Uses**

**Industrial Service Supply (IND)** - Includes uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.

**Navigation (NAV)** - Includes uses of water for shipping, travel, or other transportation by private, or commercial vessels.

**Contact Water Recreation (REC 1)** - Includes uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and SCUBA diving, surfing, white water activities, fishing, or use of natural hot springs. All activities described pertaining to REC 1 are prohibited in San Diego Bay with the exception of angling from shore or boat.

**Non-contact Water Recreation (REC2)** - Includes the uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

**Commercial Sport Fishing (COMM)** - Includes the uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.

**Preservation of Biological Habitats of Special Significance (BIOL)** - Includes uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.

**Estuarine Habitat (EST)** - Includes uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).

**Wildlife Habitat (WILD)** - Includes uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

**Rare, Threatened, or Endangered Species (RARE)** - Includes uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

**Marine Habitat (MAR)** - Includes uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).

**Migration of Aquatic Organisms (MIGR)** - Includes uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.

**Spawning, Reproduction, and/or Early Development (SPWN)** - Includes uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish. This use is applicable only for the protection of anadromous fish.

**Shellfish Harvesting (SHELL)** - Includes uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sport.

## 6.2 POTENTIAL IMPACTS TO BENEFICIAL USES

Potential impacts on Beneficial Uses are discussed by each use.

**IND** - Construction of a new outfall will not affect the availability of water for industrial uses. The outfall will not decrease the amount of water available nor will it impede the acquisition of available water.

**NAV** - Construction of a new outfall will not affect the navigability of the water way. The proposed outfall pipe and stabilizing riprap will extend approximately thirty feet from the toe of the existing riprap, and would be constructed primarily over intertidal mudflat. Construction of the new outfall will not alter the existing channel nor will it result in unnavigable water depths by depositing sediment or fill in the existing channel or by removing water from the embayment.

**REC 1** - Construction of a new outfall pipe will not have an impact on angling in the adjacent water body. Physical access to angling opportunities will not be impeded and water quality in the embayment will not be affected. Construction and implementation of the new outfall will not promote the degradation of water quality and will, therefore, not adversely affect the local fisheries. The outfall is for stormwater runoff and will not be used as a discharge for wastewater or other potentially contaminated water. The proposed outfall will solely discharge storm water runoff from the Northside Utilities Project Area. This storm water possesses the potential to reach the water body under pre-construction conditions and, therefore, will not introduce new sources of water to the embayment.

**REC 2** - The evaluation for potential impacts on REC 2 beneficial uses is similar to the evaluation presented for REC 1. The ability to perform activities listed in the description of REC 2 will not be adversely affected by the construction of the proposed outfall.

**COMM** - The evaluation of potential impacts on COMM beneficial uses is similar to the evaluation presented for beneficial uses REC 1 and REC 2. Existing fisheries will not be introduced to new sources of contamination nor will access to angling opportunities be restricted by the construction of the new outfall. Discussion of potential for adverse affects on Essential Fish Habitat, which could ultimately affect COMM, is discussed above. No adverse effects of COMM will result from this project.

**BIOL** - The SDRWQCB Basin Plan provides a list of areas which are affiliated with BIOL beneficial uses. Listed BIOL areas are not located in the vicinity of the project area. The potential for adverse effects on BIOL beneficial uses does not exist.

**EST** - The evaluation of potential impacts on EST beneficial uses is similar to the evaluation presented for COMM, REC 2, and REC 1 beneficial uses. Further discussion addressing the potential for negative impacts to eelgrass habitat and other Essential Fish Habitat, and foraging sensitive avian species, specifically California least tern and California brown pelican, are provided in the sections above. No adverse effects on EST will result from this project.

**WILD** - Construction of a new outfall will minimally affect terrestrial and shoreline habitats in the area. The storm drain will consist of a 36-inch diameter reinforced concrete pipe. Upland habitat consists of weedy species, and no wetlands vegetation occurs within the Project area. The outfall itself crosses over existing, unvegetated riprap. Wildlife water sources will not be adversely affected by the proposed outfall. The evaluation of potential impacts on wildlife water sources is similar to the water quality issues addressed in the REC 1 impact evaluation. Degradation of existing water quality and subsequent impairment of available wildlife water sources is not anticipated.

**RARE** - Although several threatened and endangered species occur in San Diego Bay and may utilize the Navy Estuary Small Boat Channel, the construction of a new outfall in the area specified does not possess the potential to adversely affect these species. The proposed outfall pipe will not physically alter or encroach on existing floral or faunal habitats and will not degrade embayment water quality as previously discussed. The potential for impact on California least tern and California brown pelican is addressed in previous sections above.

**MAR** - The evaluation for potential impacts on MAR beneficial uses is similar to the evaluation presented for EST beneficial uses. No adverse effects on MAR will result from this project.

**MIGR** - Construction of a new outfall will not adversely affect MIGR beneficial uses. There are no freshwater tributaries to the embayment in question that would allow MIGR. The potential impact on migratory fish species is, therefore, non-existent.

**SPWN** - Construction of a new outfall will not adversely affect SPWN beneficial uses. The evaluation presented for MIGR beneficial uses may similarly be used for SPWN beneficial uses.

**SHELL** - Construction of a new outfall will not adversely affect SHELL beneficial uses. The proposed outfall pipe will not physically alter or encroach upon shellfish habitat nor will it negatively alter water quality in the embayment.

### **6.3 PROPOSED PROTECTIVE MEASURES**

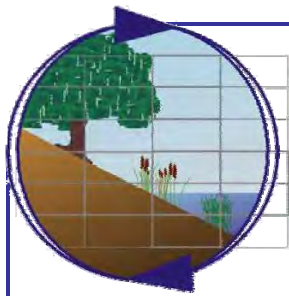
It has been exhibited that potential impacts on beneficial uses related to San Diego Bay have been avoided. Protective measures for sensitive species and Essential Fish Habitat, particularly eelgrass resources, are described in the sections above.

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**Appendix A**  
Baseline Eelgrass Report  
September 2011





## **Merkel & Associates, Inc.**

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September 14, 2011

M&A# 11-056-01

Mr. Richard Gilb  
Environmental Affairs Manager  
San Diego County Regional Airport Authority  
P O Box 82776  
San Diego, CA 92138-2776

### **Pre-Construction Eelgrass Survey in Support of the San Diego County Airport Northside Utilities Storm Drain Force Main Project**

Dear Mr. Gilb:

This letter report serves to transmit information regarding the pre-construction eelgrass (*Zostera marina*) survey completed for the San Diego County Airport Northside Utilities Storm Drain Force Main Project.

#### **INTRODUCTION AND PURPOSE**

Merkel & Associates Inc. (M&A) was retained by the San Diego County Airport Authority to conduct a pre-construction eelgrass survey in support of the Northside Utilities Storm Drain Force Main Project in San Diego Bay. The project involves construction of a new storm drain outfall from a clear water BMP system to be located on properties north of the main Lindbergh Field runways. Relative to eelgrass issues, the project would extend a storm drain into the northern end of the Navy Estuary Small Boat Channel that would convey stormwater runoff from seasonal rain events. It is not anticipated that this project would carry a consistent measurable base flow.

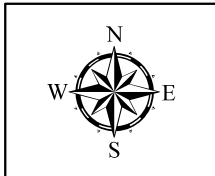
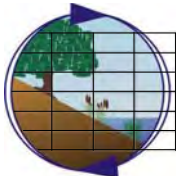
The project purpose was to provide a map of existing eelgrass resources along the shoreline where the storm drain is proposed to enter the channel to assist with environmental and engineering siting of the facility. At your request, M&A has also provided planning level bathymetry for the study area to assist in considering various design options, including extending the pipe in a shallow buried trench to an outlet below the depth of the existing eelgrass beds. Surveys were conducted in conformance with the Southern California Eelgrass Mitigation Policy (SCEMP) survey and mapping standards. This survey provides a baseline for design. Upon construction, provisions of the SCEMP to complete pre-construction and post-construction surveys are anticipated to be required under issued permits.

#### **PROJECT LOCATION**

The Northside Utilities Storm Drain Force Main Project site is located on the south shore of the Navy Estuary Small Boat Channel (former San Diego River Channel), in San Diego Bay. The survey area included approximately 550 feet of shoreline centered on the area identified by Mr. Richard Gilb as the planned area of outfall discharge. The surveyed area ranged from intertidal to the bottom of the channel at -15 feet MLLW (Figure 1).

#### **SURVEY METHODOLOGY**

M&A staff, Alan Merkel, Edward Reeves, and Randy Storaasli conducted the pre-construction eelgrass survey on August 22 and 23, 2011. The survey consisted of eelgrass areal coverage and density investigations within the Study Area. Data were collected using interferometric sidescan sonar, which provided an acoustic backscatter image of the seafloor within the project area.



**Project Vicinity Map**  
Northside Utilities Storm Drain  
Force Main Project

**Figure 1**

Interpretation of the backscatter data allowed for an assessment of the distribution of eelgrass. Sidescan backscatter data were acquired at a frequency of 468 kHz scanning out 35 m on both the starboard and port channels for a 70-m wide swath. The survey was conducted by running parallel transects that were spaced to allow for overlap between adjoining sidescan swaths. Transects were performed until the entirety of the survey area was captured in the survey report. All data were collected in latitude and longitude using the North American Datum of 1983 (NAD 83), converted to the Universal Transverse Mercator system in meters (UTM), and plotted on a geo-rectified aerial image of the project site.

Following completion of the survey, sidescan sonar traces were joined together and geographically registered. Eelgrass was then digitized as a theme over the aerial image to calculate the amount of eelgrass coverage and show its distribution. This method of eelgrass distribution calculation allows for monitoring eelgrass trends at the project site with a substantial degree of accuracy and repeatability over time.

Density data were collected at the Study Area to assess the density and health of eelgrass. Data were collected by randomly placing a 1/16th square meter quadrat within the surveyed eelgrass beds. Eelgrass leaf-shoot densities were calculated by counting the numbers of leaf shoots within the sampled quadrats.

**SURVEY RESULTS**

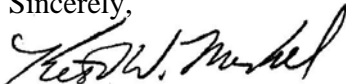
At the time of the survey, 2,266.2 m<sup>2</sup> (0.56 acre) of eelgrass was mapped within the Study Area (Figure 2). Eelgrass turion densities within the Study Area eelgrass beds were 184 ± 64.1 (n=20).

**DISCUSSION AND RECOMMENDATIONS**

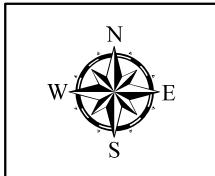
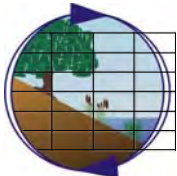
This project memorandum serves to transmit the August 2011 eelgrass surveys to be used for completion of design and environmental review for the Northside Utilities Storm Drain Force Main Project. Because drains that discharge above eelgrass beds typically result in losses of eelgrass due to pipe flows and alteration of sediment transport patterns within the intertidal zone, M&A has suggested that the Airport Authority also consider construction of an outfall that daylight to the channel at a depth below existing eelgrass beds. This design approach has been successfully utilized within the City of San Diego to reduce impacts of storm drains to eelgrass within Mission Bay Park, and an additional example in the Navy Estuary can be seen with the seawater intake system for the City of San Diego Laboratories. The project may potentially be constructed using cut and cover trenching across the eelgrass bed to deeper water or micro-tunneling or jack and bore technologies. Eelgrass impacts from linear utilities that are placed with an impact that is less than 1 meter in width may be excluded from mitigation requirements under the SCEMP. However, if the impact exceeds this width, then mitigation would be required. If impacts are temporary and total less than 100 m<sup>2</sup>, the regulatory agencies shall allow replacement of eelgrass at a 1:1 ratio within the temporarily damaged areas; and agencies can, on a case-by-case basis, exempt losses of less than 10 m<sup>2</sup> from mitigation under the SCEMP. Because of the difficulty in identifying eelgrass mitigation opportunities in northern San Diego Bay, it may be prudent for the Airport Authority to consider means to minimize impacts to the extent that would allow use of exceptions under the SCEMP.

If you have any questions or need additional information, please do not hesitate to call me.

Sincerely,



Keith W. Merkel  
Principal Consultant



**Eelgrass Distribution (August 2011)**  
Northside Utilities Storm Drain  
Force Main Project

**Figure 2**

**LITERATURE CITED**

National Marine Fisheries Service (NMFS), NOAA. 1991 as amended. Southern California Eelgrass Mitigation Policy (revision 11). R.S. Hoffman, ed.



## **Appendix E**

### Air Quality Construction Emissions Inventory







# Appendix E. Air Quality Construction Emissions Inventory

## E.1 Construction Emissions Inventory Methodology

Pollutants included in this assessment comprise carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), particulate matter measuring 10 micrometers or less in diameter (PM<sub>10</sub>), and particulate matter measuring 2.5 micrometers or less in diameter (PM<sub>2.5</sub>). Methodological details pertaining to the estimation of emissions from on-road construction vehicles (haul trucks and employee vehicles), off-road construction equipment, fugitive dust generation, and asphalt paving are discussed.

## E.2 On-Road Construction Vehicles

Activity levels and assignments for on-road construction vehicles have been developed based on a schedule of planned construction activities for the project including the number of vehicle trips, the number of vehicles, and the average trip distance. Emissions due to construction employee commutes to and from the work site were calculated, assuming an average daily commute distance of 20 miles round trip. An average of 100 construction employees would be on-site during any one day, ranging up to 220 employees.

Criteria pollutant emissions associated with on-road construction vehicles (concrete and haul trucks) have been calculated by combining the activity information with emissions factors, in grams per mile, derived using the CARB EMFAC2011 emissions model<sup>1</sup> assuming an average daily transport distance of 35 miles. Emissions calculations were based on **Equation 1**. The EMFAC emissions factors are summarized on **Table 1**, per vehicle type.

### Equation 1

$$\text{Emission Rate (tons/year)} = \text{Emission Factor (gram/mile)} * \text{trips per day} * \text{miles per trip} * \text{days/year} * (453.59/2000 \text{ tons/gram})$$

<sup>1</sup> CARB EMFAC2011 Emissions Model, <http://www.arb.ca.gov/msei/msei.htm>.

**Table 1 On-Road Vehicle Emissions Factors (g/mile)**

VEHICLE TYPE	POLLUTANT	2013	2014	2015	2016	2017
Employee Vehicle	VOC	0.05	0.05	0.04	0.04	0.03
	CO	1.68	1.50	1.36	1.24	1.13
	NO <sub>x</sub>	0.16	0.14	0.13	0.12	0.11
	PM <sub>10</sub>	0.002	0.002	0.002	0.002	0.002
	PM <sub>2.5</sub>	0.002	0.002	0.002	0.002	0.002
Concrete - Diesel	VOC	0.17	0.13	0.11	0.10	0.09
	CO	0.70	0.53	0.43	0.38	0.34
	NO <sub>x</sub>	5.38	4.75	4.03	3.37	2.95
	PM <sub>10</sub>	0.11	0.07	0.05	0.04	0.03
	PM <sub>2.5</sub>	0.10	0.06	0.04	0.04	0.03
Haul Truck - Diesel	VOC	0.17	0.13	0.11	0.10	0.09
	CO	0.70	0.53	0.43	0.38	0.34
	NO <sub>x</sub>	5.38	4.75	4.03	3.37	2.95
	PM <sub>10</sub>	0.11	0.07	0.05	0.04	0.03
	PM <sub>2.5</sub>	0.10	0.06	0.04	0.04	0.03

NOTES:

VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with diameter equal to or less than 2.5 microns.

SOURCE: KB Environmental Sciences, Inc., April 2012.

PREPARED BY: KB Environmental Sciences, Inc., April 2012.

### E.3 Off-Road Construction Equipment

Emission parameters for off-road construction equipment including equipment and fuel type, estimated horsepower and estimated annual hours of operation, were also used. Annual hours of off-road equipment operation were based on materials quantities and production rates required to complete each construction subtask, generally as a result of an eight-hour by five day work week. This information was applied to criteria

pollutant emissions factors, in grams per horsepower-hour, primarily derived using the CARB OFFROAD20112 emissions model.

Because CARB is revising some information contained within the OFFROAD model, and has issued a data update for select diesel equipment (i.e., the Offroad Emissions Inventory [OEI] Database), the OFFROAD emissions information was appended with the OEI Database information, where necessary and applicable.

**Equation 2** outlines how off-road construction equipment emissions were computed, and the emissions factors used in this assessment are summarized, by equipment type and construction year, on **Tables 2 through 6**.

**Equation 2**

$$\text{Emission Rate (tons/year)} = \text{Emission Factor (gram/hp-hour)} * \text{size (hp)} * \text{hours of operation} * \text{Load Factor} * (453.59/2000 \text{ tons/gram})$$

<sup>2</sup> CARB OFFROAD2011 Emissions Model, <http://www.arb.ca.gov/msei/offroad/offroad.htm>

**Table 2 Off-Road Equipment Emissions Factors for 2013**

2013 EMISSION FACTOR (GRAMS/HP-HOUR)								
Equipment	Fuel	HP	LF	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Rollers	D	145	0.38	0.66	3.26	5.32	0.29	0.28
Surfacing Equipment	D	170	0.30	0.59	3.13	5.14	0.26	0.25
Off-Highway Trucks	D	225	0.38	0.48	1.31	4.23	0.14	0.14
Rubber Tired Dozers	D	305	0.40	0.69	3.04	5.86	0.24	0.24
Rubber Tired Loaders	D	130	0.36	0.66	3.35	5.09	0.29	0.28
Pavers	D	350	0.42	0.55	2.25	5.14	0.20	0.19
Generator Sets	D	35	0.74	1.57	4.84	5.26	0.43	0.41
Excavators	D	190	0.38	0.45	1.27	4.08	0.13	0.13
Excavators	D	286	0.38	0.42	1.28	3.59	0.13	0.12
Cranes	D	170	0.29	0.73	3.41	5.50	0.32	0.31
Bore/Drill Rigs	D	145	0.50	0.28	3.04	2.79	0.12	0.12
Pumps	D	350	0.74	0.31	1.23	4.02	0.12	0.12
Rubber Tired Dozers	D	600	0.40	0.69	3.04	5.95	0.24	0.24
Rubber Tired Loaders	D	170	0.36	0.66	3.35	5.09	0.29	0.28
Pavers	D	500	0.42	0.55	2.25	5.14	0.20	0.19
Generator Sets	D	160	0.74	0.53	2.95	4.86	0.23	0.23
Excavators	D	168	0.38	0.61	3.38	4.53	0.26	0.25
Plate Compactors	G	15	0.55	8.82	252.67	4.75	3.60	3.31
Tractors/Loaders/Backhoes	D	120	0.37	0.77	3.88	5.02	0.42	0.41
Light	D	50	0.60	1.50	4.71	5.24	0.41	0.40
Concrete/Industrial Saws	G	15	0.78	7.25	252.44	4.75	3.60	3.31
Air Compressors	G	5	0.56	12.42	135.69	5.01	0.14	0.13

## NOTES:

VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with diameter equal to or less than 2.5 microns; D= Diesel; G = Gasoline; HP = Horsepower; and LF = Load Factor.

SOURCE: KB Environmental Sciences, Inc., April 2012.

PREPARED BY: KB Environmental Sciences, Inc., April 2012.

**Table 3: Off-Road Equipment Emissions Factors for 2014**

2014 EMISSION FACTOR (GRAMS/HP-HOUR)								
Equipment	Fuel	HP	LF	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Rollers	D	145	0.38	0.62	3.25	5.02	0.27	0.26
Surfacing Equipment	D	170	0.30	0.56	3.12	4.86	0.24	0.23
Off-Highway Trucks	D	225	0.38	0.45	1.28	3.78	0.13	0.12
Rubber Tired Dozers	D	305	0.40	0.66	2.85	5.49	0.23	0.22
Rubber Tired Loaders	D	130	0.36	0.63	3.35	4.77	0.26	0.25
Pavers	D	350	0.42	0.53	2.10	4.76	0.18	0.18
Generator Sets	D	35	0.74	1.42	4.68	5.05	0.39	0.38
Excavators	D	190	0.38	0.42	1.25	3.62	0.12	0.12
Excavators	D	286	0.38	0.40	1.24	3.20	0.11	0.11
Cranes	D	170	0.29	0.69	3.40	5.18	0.29	0.28
Bore/Drill Rigs	D	145	0.50	0.27	3.04	2.63	0.10	0.10
Pumps	D	350	0.74	0.29	1.18	3.65	0.11	0.11
Rubber Tired Dozers	D	600	0.40	0.66	2.85	5.58	0.23	0.22
Rubber Tired Loaders	D	170	0.36	0.63	3.35	4.77	0.26	0.25
Pavers	D	500	0.42	0.53	2.10	4.76	0.18	0.18
Generator Sets	D	160	0.74	0.49	2.94	4.56	0.21	0.21
Excavators	D	168	0.38	0.58	3.37	4.22	0.23	0.23
Plate Compactors	G	15	0.55	8.51	252.44	4.75	3.60	3.31

## NOTES:

VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with diameter equal to or less than 2.5 microns; D= Diesel; G = Gasoline; HP = Horsepower; and LF = Load Factor.

SOURCE: KB Environmental Sciences, Inc., April 2012.

PREPARED BY: KB Environmental Sciences, Inc., April 2012.

**Table 4: Off-Road Equipment Emissions Factors for 2015**

Equipment	Fuel	HP	LF	2015 EMISSION FACTOR (GRAMS/HP-HOUR)				
				VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Rollers	D	145	0.38	0.58	3.24	4.60	0.25	0.24
Surfacing Equipment	D	170	0.30	0.52	3.12	4.45	0.22	0.22
Off-Highway Trucks	D	225	0.38	0.43	1.26	3.36	0.11	0.11
Rubber Tired Dozers	D	305	0.40	0.63	2.67	5.14	0.21	0.20
Rubber Tired Loaders	D	130	0.36	0.59	3.34	4.33	0.24	0.23
Pavers	D	350	0.42	0.50	1.97	4.41	0.17	0.16
Generator Sets	D	35	0.74	1.28	4.54	4.87	0.36	0.35
Excavators	D	190	0.38	0.40	1.23	3.21	0.11	0.10
Excavators	D	286	0.38	0.38	1.21	2.83	0.10	0.10
Cranes	D	170	0.29	0.65	3.39	4.74	0.27	0.26
Bore/Drill Rigs	D	145	0.50	0.25	3.04	2.16	0.08	0.08
Pumps	D	350	0.74	0.27	1.13	3.29	0.10	0.10
Rubber Tired Dozers	D	600	0.40	0.63	2.67	5.23	0.21	0.21
Rubber Tired Loaders	D	170	0.36	0.59	3.34	4.33	0.24	0.23
Pavers	D	500	0.42	0.50	1.97	4.41	0.17	0.16
Generator Sets	D	160	0.74	0.44	2.94	4.15	0.19	0.19
Excavators	D	168	0.38	0.53	3.37	3.76	0.21	0.20
Plate Compactors	G	15	0.55	8.32	252.44	4.75	3.60	3.31

## NOTES:

VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with diameter equal to or less than 2.5 microns; D= Diesel; G = Gasoline; HP = Horsepower; and LF = Load Factor.

SOURCE: KB Environmental Sciences, Inc., April 2012.

PREPARED BY: KB Environmental Sciences, Inc., April 2012.

**Table 5: Off-Road Equipment Emissions Factors for 2016**

2016 EMISSION FACTOR (GRAMS/HP-HOUR)								
Equipment	Fuel	HP	LF	VOC	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Rollers	D	145	0.38	0.54	3.23	4.20	0.23	0.22
Surfacing Equipment	D	170	0.30	0.49	3.11	4.07	0.20	0.20
Off-Highway Trucks	D	225	0.38	0.40	1.25	2.97	0.10	0.10
Rubber Tired Dozers	D	305	0.40	0.60	2.50	4.80	0.20	0.19
Rubber Tired Loaders	D	130	0.36	0.55	3.34	3.91	0.22	0.21
Pavers	D	350	0.42	0.48	1.86	4.08	0.16	0.15
Generator Sets	D	35	0.74	1.15	4.42	4.71	0.32	0.31
Excavators	D	190	0.38	0.38	1.21	2.82	0.09	0.09
Excavators	D	286	0.38	0.36	1.18	2.49	0.09	0.09
Cranes	D	170	0.29	0.61	3.38	4.32	0.25	0.24
Bore/Drill Rigs	D	145	0.50	0.23	3.04	1.76	0.06	0.06
Pumps	D	350	0.74	0.26	1.09	2.95	0.09	0.09
Rubber Tired Dozers	D	600	0.40	0.60	2.50	4.89	0.20	0.19
Rubber Tired Loaders	D	170	0.36	0.55	3.34	3.91	0.22	0.21
Pavers	D	500	0.42	0.48	1.86	4.08	0.16	0.15
Generator Sets	D	160	0.74	0.40	2.94	3.77	0.17	0.17
Excavators	D	168	0.38	0.49	3.37	3.33	0.18	0.17
Plate Compactors	G	15	0.55	8.22	252.44	4.75	3.60	3.31

## NOTES:

VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with diameter equal to or less than 2.5 microns; D= Diesel; G = Gasoline; HP = Horsepower; and LF = Load Factor.

SOURCE: KB Environmental Sciences, Inc., April 2012.

PREPARED BY: KB Environmental Sciences, Inc., April 2012.

**Table 6: Off-Road Equipment Emissions Factors for 2017**

2017 EMISSION FACTOR (GRAMS/HP-HOUR)								
Equipment	Fuel	HP	LF	VOC	CO	NOx	PM10	PM2.5
Rollers	D	145	0.38	0.51	3.23	3.82	0.21	0.20
Surfacing Equipment	D	170	0.30	0.46	3.10	3.71	0.19	0.18
Off-Highway Trucks	D	225	0.38	0.38	1.23	2.61	0.09	0.08
Rubber Tired Dozers	D	305	0.40	0.57	2.35	4.48	0.18	0.18
Rubber Tired Loaders	D	130	0.36	0.51	3.33	3.52	0.19	0.19
Pavers	D	350	0.42	0.45	1.76	3.76	0.14	0.14
Generator Sets	D	35	0.74	1.03	4.31	4.55	0.29	0.28
Excavators	D	190	0.38	0.36	1.20	2.47	0.08	0.08
Excavators	D	286	0.38	0.34	1.16	2.19	0.08	0.08
Cranes	D	170	0.29	0.57	3.38	3.93	0.22	0.22
Bore/Drill Rigs	D	145	0.50	0.21	3.04	1.45	0.05	0.05
Pumps	D	350	0.74	0.24	1.06	2.65	0.08	0.08
Rubber Tired Dozers	D	600	0.40	0.57	2.35	4.57	0.18	0.18
Rubber Tired Loaders	D	170	0.36	0.51	3.33	3.52	0.19	0.19
Pavers	D	500	0.42	0.45	1.76	3.76	0.14	0.14
Generator Sets	D	160	0.74	0.36	2.93	3.39	0.15	0.15
Excavators	D	168	0.38	0.45	3.36	2.93	0.16	0.15
Plate Compactors	G	15	0.55	8.20	252.44	4.75	3.60	3.31

NOTES:

VOC = volatile organic compounds; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with diameter equal to or less than 2.5 microns; D= Diesel; G = Gasoline; HP = Horsepower; and LF = Load Factor.

SOURCE: KB Environmental Sciences, Inc., April 2012.

PREPARED BY: KB Environmental Sciences, Inc., April 2012.



## E.4 Fugitive Dust

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Fugitive dust emissions that may occur due to construction were also estimated. The URBEMIS2007 model provides a worst-case, uncontrolled PM<sub>10</sub> emissions rate of 26.4 pounds per acre-day for fugitive dust emissions occurring due to travel on unpaved roads, site preparation, grading activities, wind erosion, and other land disturbance activities. The model also indicates that a maximum of 25 percent of the project acreage would likely be disturbed on any given construction day, and that 20 percent of the PM<sub>10</sub> emissions occur as PM<sub>2.5</sub>. The project acreage is 10 acres but twice the project acreage was assumed subject to disturbance. Lastly, URBEMIS includes 61 percent emissions control efficiency for fugitive dust estimates, which reflects best management practices related to watering and other fugitive dust reduction measures.

## E.5 Asphalt Paving

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From the URBEMIS model, an emission factor of 2.62 pounds of VOC per acre of asphalt material was used to estimate emissions from asphalt placement and curing. The project acreage of 10 acres was used to estimate VOC emissions from asphalt paving.



**Appendix F**  
Public Involvement





## F. Public Involvement

This appendix contains material from the public scoping meeting held on November 16, 2011 at the San Diego County Regional Airport Authority's offices at San Diego International Airport.<sup>1</sup> This appendix contains copies of:

- Scoping Meeting Notice
- *San Diego Daily Transcript* Notice
- *San Diego Union-Tribune* Notice
- Sign-in Sheets
- Presentation
- Speaker Cards
- Transcript
- Comment Log
- Comment letter from City of San Diego Development Services Department

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<sup>1</sup> At the time of the scoping meeting, a displaced threshold project was being examined along with the proposed northside improvements. At the request of FAA, the displaced threshold project was advanced separately, based on its independent utility from the northside improvements and the distinct purpose and need specific to the displaced threshold project.

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**San Diego County Regional Airport Authority**

Mailing Address: P.O. Box 82776, San Diego, CA 92138-2776

Physical Address: 3225 N. Harbor Drive, San Diego, CA 92101

[www.san.org](http://www.san.org)

**NOTICE OF PUBLIC SCOPING MEETING**

**Wednesday, November 16, 2011 – 6:00 p.m.**

**San Diego County Regional Airport Authority**

**Commuter Terminal 3225 North Harbor Drive San Diego, CA 92101**

**DRAFT ENVIRONMENTAL ASSESSMENT (EA)  
SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN  
NORTHSIDE IMPROVEMENTS**

**PROPOSED ACTION:** The San Diego County Regional Airport Authority (SDCRAA) proposes a number of projects at San Diego International Airport (SDIA) which comprise the Northside Improvements for the SDIA Master Plan. SDCRAA has identified specific physical improvements to allow the Airport to effectively continue its mission of serving San Diego's commercial air transportation needs as forecasted through 2020. These Northside Improvements include the following projects:

- Consolidated rental car facility
- Air cargo warehouse facilities
- Terminal link roadway
- On-site road and utilities improvements
- Relocate Runway 9 displaced threshold from 700 to 1,000 feet

**PURPOSE OF PUBLIC SCOPING MEETING:** The meeting will provide an opportunity for public and agency comment concerning the potential environmental effects of the Northside Improvements to be identified in the Draft EA. The public scoping meeting will consist of a brief overview presentation of the project and the environmental review process. Attendees will have an opportunity to provide oral and written comments on the scope and content of the Draft EA.

**INFORMATION REGARDING THE NORTHSIDE IMPROVEMENTS and ENVIRONMENTAL ASSESSMENT:** The EA will be prepared in accordance with the National Environmental Policy Act (NEPA) to examine potential impact categories as required by Federal Aviation Administration Order 5050.4B. Once prepared, the Draft EA will be available for public and agency review and comment at the SDCRAA website [www.san.org](http://www.san.org) under the Environmental Review/CEQA+NEPA webpage.



**San Diego County Regional Airport Authority**

Mailing Address: P.O. Box 82776, San Diego, CA 92138-2776

Physical Address: 3225 N. Harbor Drive, San Diego, CA 92101

[www.san.org](http://www.san.org)

**SCOPING COMMENTS:** Comments should be addressed to the San Diego County Regional Airport Authority. **The deadline for receiving written scoping comments is December 2, 2011.** Comments may be submitted by:

- Mail to the Authority offices at SDCRAA, P.O. Box 82776, San Diego, CA 92138-2776 (these comments must be postmarked by Friday, December 2, 2011).
- E-mail to the Authority offices at [planning@san.org](mailto:planning@san.org). The Airport Authority will accept comments to this notice via e-mail received by 5:00 p.m. on Friday, December 2, 2011, if the comments: (i) contain less than 2,000 words; and (ii) the e-mail comments do not contain any attachments. Any comments or responses to this notice containing more than 2,000 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.
- Delivery to the Authority offices at San Diego International Airport or faxed to (619) 400-2459 by 5:00 p.m. on Friday, December 2, 2011.



# CERTIFICATE OF PUBLICATION

Accounts Payable  
SDCRAA  
P.O. Box 82776  
San Diego CA 92138-2776

## IN THE MATTER OF Public Scoping Meeting

## CASE NO.

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

NOTICE OF PUBLIC SCOPING MEETING  
Wednesday, November 16, 2011 - 6:00 p.m.  
San Diego County Regional Airport Authority  
Commuter Terminal 3225 North Harbor Drive San Diego, CA 92101

DRAFT ENVIRONMENTAL ASSESSMENT (EA)  
SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN  
NORTHSIDE IMPROVEMENTS

**PROPOSED ACTION:** The San Diego County Regional Airport Authority (SDCRAA) proposes a number of projects at San Diego International Airport (SDIA) which comprise the Northside Improvements for the SDIA Master Plan. SDCRAA has identified specific physical improvements to allow the Airport to effectively continue its mission of serving San Diego's commercial air transportation needs as forecasted through 2020. These Northside Improvements include the following projects:

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• E-mail to the Authority offices at [planning@san.org](mailto:planning@san.org). The Airport Authority will accept comments to this notice via e-mail received by 5:00 p.m. on Friday, December 2, 2011, if the comments: (i) contain less than 2,000 words; and (ii) the e-mail comments do not contain any attachments. Any comments or responses to this notice containing more than 2,000 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.

• Delivery to the Authority offices at San Diego International Airport or faxed to (619) 400-2459 by 5:00 p.m. on Friday, December 2, 2011.  
Pub. Nov 1-00092403

I, Cathy L. Krueger, am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not party to or interested in the above entitled matter. I am the principal clerk of the San Diego Daily Transcript, a newspaper of general circulation, printed and published daily, except on Saturdays and Sundays, in the City of San Diego, County of San Diego and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of San Diego, State of California, under the date of January 23, 1909, Decree No. 14894; and the


## Public Notice

is a true and correct copy of which the annexed is a printed copy and was published in said newspaper on the following date(s), to wit:

**November 1**

I certify under penalty of perjury that the forgoing is true and correct.

Dated at San Diego, California this November 1, 2011

  
\_\_\_\_\_  
Signature



P.O. Box 120191, San Diego, CA 92112-0191

### AFFIDAVIT OF PUBLICATION

SAN DIEGO AIRPORT AUTHORITY  
P.O. BOX 82776  
PLANNING DEPARTMENT  
ATTN: LYNDA TAMURA  
SAN DIEGO, CA 92138

STATE OF CALIFORNIA } ss.  
County of San Diego }

**NOTICE OF PUBLIC SCOPING MEETING**  
Wednesday, November 16, 2011 - 6:00 p.m.  
San Diego County Regional Airport Authority  
Commuter Terminal  
3225 North Harbor Drive San Diego, CA 92101

**DRAFT ENVIRONMENTAL ASSESSMENT (EA) SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN NORTHSIDE IMPROVEMENTS PROPOSED**

**ACTION:** The San Diego County Regional Airport Authority (SDCRAA) proposes a number of projects at San Diego International Airport (SDIA) which comprise the Northside Improvements for the SDIA Master Plan. SDCRAA has identified specific physical improvements to allow the Airport to effectively continue its mission of serving San Diego's commercial air transportation needs as forecasted through 2020. These Northside Improvements include the following projects:

- Consolidated rental car facility
- Air cargo warehouse facilities
- Terminal link roadway
- Sidewalk road and utilities improvements
- Relocate Runway 9 displaced threshold from 700 to 1,000 feet

**PURPOSE OF PUBLIC SCOPING MEETING:** The meeting will provide an opportunity for public and agency comment concerning the potential environmental effects of the Northside Improvements to be identified in the Draft EA. The public scoping meeting will consist of a brief overview presentation of the project and the environmental review process. Attendees will have an opportunity to provide oral and written comments on the scope and content of the Draft EA.

**INFORMATION REGARDING THE NORTHSIDE IMPROVEMENTS AND ENVIRONMENTAL ASSESSMENT:** The EA will be prepared in accordance with the National Environmental Policy Act (NEPA) to examine potential impact categories as required by Federal Aviation Administration Order 800.48. Once prepared the Draft EA will be available for public and agency

The Undersigned, declares under penalty of perjury under the laws of the State of California: That she is a resident of the County of San Diego. That she is and at all times herein mentioned was a citizen of the United States, over the age of twenty-one years, and that she is not a party to, nor interested in the above entitled matter; that she is Chief Clerk for the publisher of

#### The San Diego Union-Tribune

a newspaper of general circulation, printed and published daily in the City of San Diego, County of San Diego, and which newspaper is published for the dissemination of local news and intelligence of a general character, and which newspaper at all the times herein mentioned had and still has a bona fide subscription list of paying subscribers, and which newspaper has been established, printed and published at regular intervals in the said City of San Diego, County of San Diego, for a period exceeding one year next preceding the date of publication of the notice hereinafter referred to, and which newspaper is not devoted to nor published for the interests, entertainment or instruction of a particular class, profession, trade, calling, race, or denomination, or any number of same; that the notice of which the annexed is a printed copy, has been published in said newspaper in accordance with the instructions of the person(s) requesting publication, and not in any supplement thereof on the following dates, to wit:

Nov 1, 2011

*Zuel Manuel*  
Chief Clerk for the Publisher

12/6/11

Date

#### Affidavit of Publication of

Legal Advertisement  
Ad # 0010566488  
ORDERED BY: LYNDA TAMURA

review and comment of the SDCRAA website at [www.sdia.org](http://www.sdia.org) under the Environmental Review/CEQA + NEPA webpage. The deadline for receiving comments is December 2, 2011. Comments may be submitted by: - Mail to the Authority offices at SDCRAA, P.O. Box 82776, San Diego, CA 92138-2776 (these comments must be postmarked by Friday, December 2, 2011). - E-mail to the Authority offices at [planning@san.org](mailto:planning@san.org). The Airport Authority will accept comments to this notice via e-mail received by 5:00 p.m. on Friday, December 2, 2011. If the comments: (1) contain less than 2,000 words; and (2) e-mail comments do not contain any attachments. Any responses to this notice containing more than 2,000 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. - Delivery to the Authority offices at San Diego International Airport or boxed to (619) 400-2499 by 5:00 p.m. on Friday, December 2, 2011.



**PLEASE WRITE LEGIBLY WITH COMPLETE ADDRESS – NO ABBREVIATIONS PLEASE!**

	NAME/COMPANY	ADDRESS	CITY/STATE/ZIP	PHONE #	E-MAIL
1.	CARL Huenefeld MARINE CORPS	1600 Henderson Ave Suite 222 SAN DIEGO, CA	SAN DIEGO/CA/ 92140	619 524 8731	
2.	Colonel Brent Spahn Marine Corps Recruit Depot San Diego, CA			619-524-8831	william.spahn@usmc.mil
3.	JOHN KARPINSKI 12071 ALTA CARMEL CT #103 } → SAN DIEGO CA 92128		SD CA	(858) 618-2736	_____
4.	DOUG POLLY SAN DIEGO FIRE RESCUE 1010 8th AVE 92101			619-533-4304	dpolly@SANDIEGO.gov
5.	Juliam Quinn	4557 Bermuda Ave San Diego CA 92107			
6.					
7.					
8.					
9.					
10.					

# WELCOME



*Northside Improvements  
San Diego International Airport*

**Environmental Assessment  
Scoping Meeting**

November 16, 2011



# Introductions

- Ted Anasis - SDCRAA
- Stephen Culberson –  
Environmental Consultant,  
Ricondo & Associates
- Tony Skidmore –  
Environmental Consultant,  
CDM





# Overview

1. Purpose of Scoping Meeting
2. Proposed Action
3. Environmental Review Process
4. Federal Actions





# 1. Purpose of Scoping Meeting

## Scoping Meeting

- Provide an opportunity for public and agency comment concerning the scope of environmental effects to be analyzed in the proposed Northside Improvements Environmental Assessment.





## 2. Proposed Action

### San Diego International Airport Master Plan

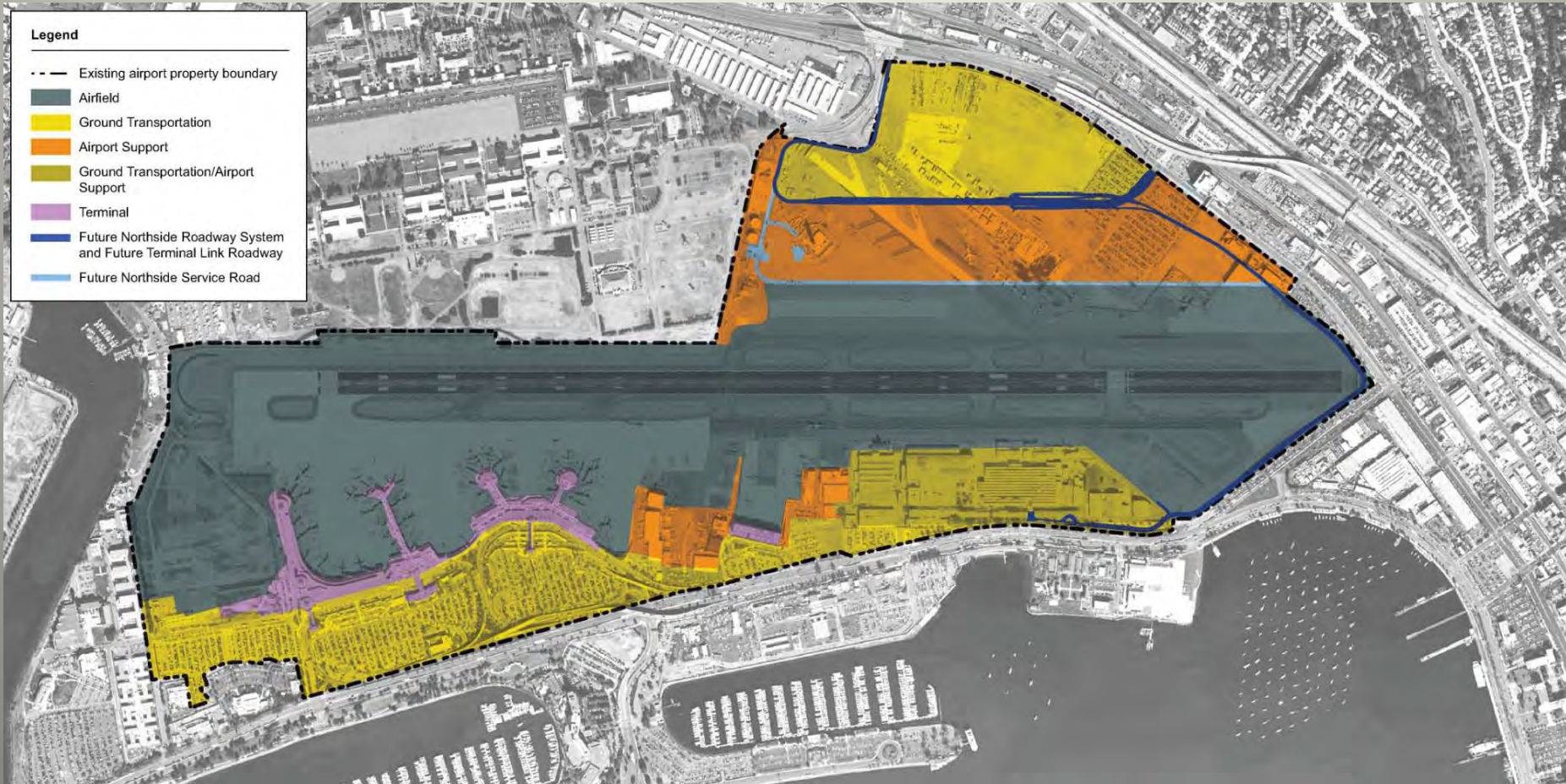
- Approved in May 2008 and includes:
  - *Airport Land Use Plan* delineating Airport planning boundaries and designating land uses on Airport
  - *Airport Implementation Plan* identifying specific near-term improvements
- State Environmental Impact Report (EIR) for Master Plan provided program-level analysis of Airport Land Use Plan and project-level analysis of Airport Implementation Plan
- Federal Environmental Assessment (EA) addressed Airport Implementation Plan
- Supplemental EIR in 2011 provided project-level analysis of additional near-term improvements





# 2. Proposed Action

## Airport Land Use Plan





# 2. Proposed Action

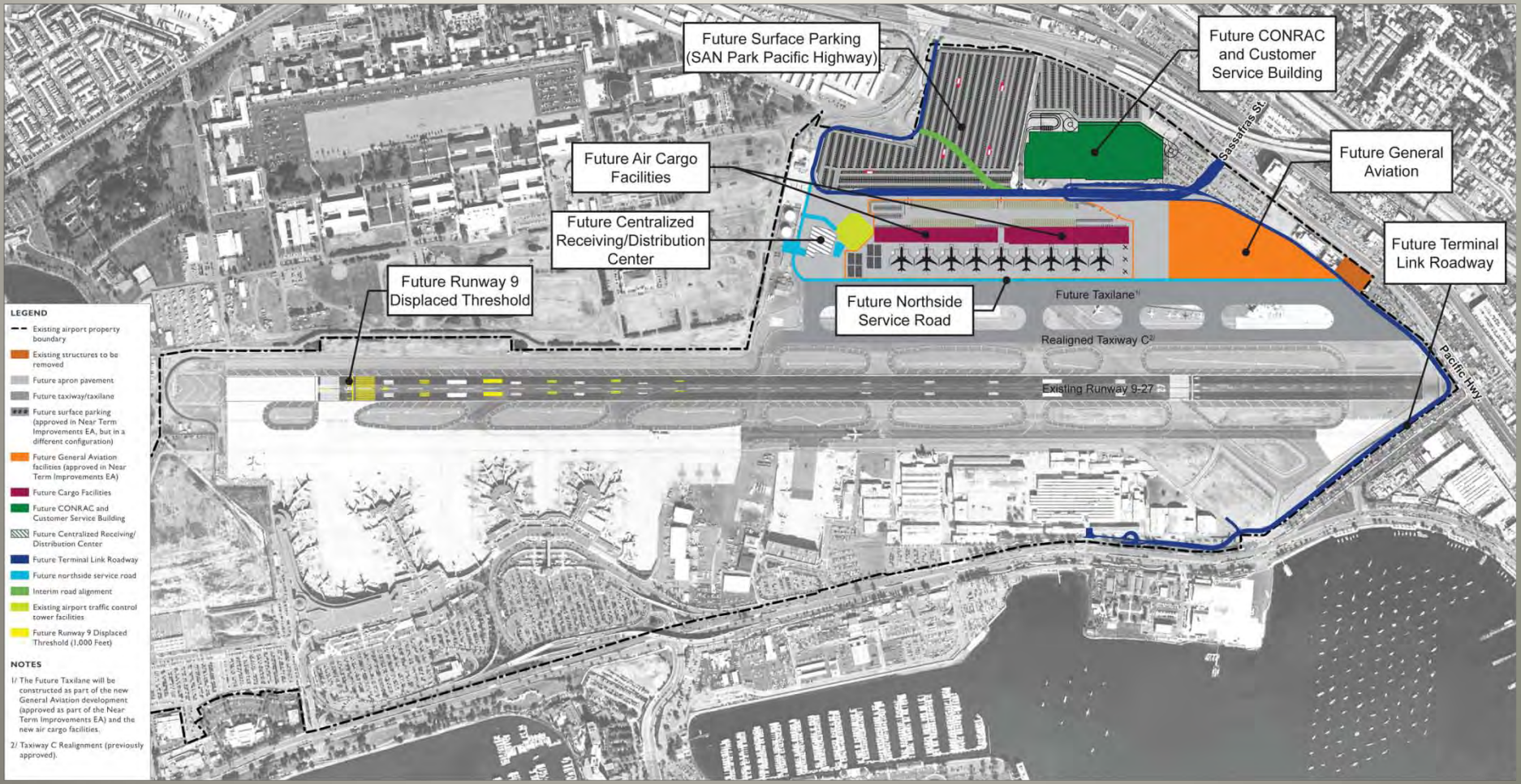
## Specific projects to be addressed in Environmental Assessment

- Relocate displaced threshold on Runway 09 from 700 feet to 1,000 feet
- Consolidated rental car facility (CONRAC)
- Air cargo warehouse facilities and central receiving and distribution center
- Reconfigured parking facilities and general aviation facilities
- Terminal link roadway
- Utility improvements



# 2. Proposed Action

## Specific projects to be addressed in Environmental Assessment





## 2. Proposed Action

### Preliminary Purpose and Need for Project

- Purpose of the Project:
  - Accommodate air service demand through 2020
  - Efficiently utilize existing property and facilities
  - Relieve airfield and terminal area congestion
- Need for the Project:
  - Meet FAA criteria to maintain CAT I instrument approach
  - Provide general aviation, air cargo, and ground transportation facilities to meet project demand through 2020



### 3. Environmental Review Process

#### State Environmental Review Completed

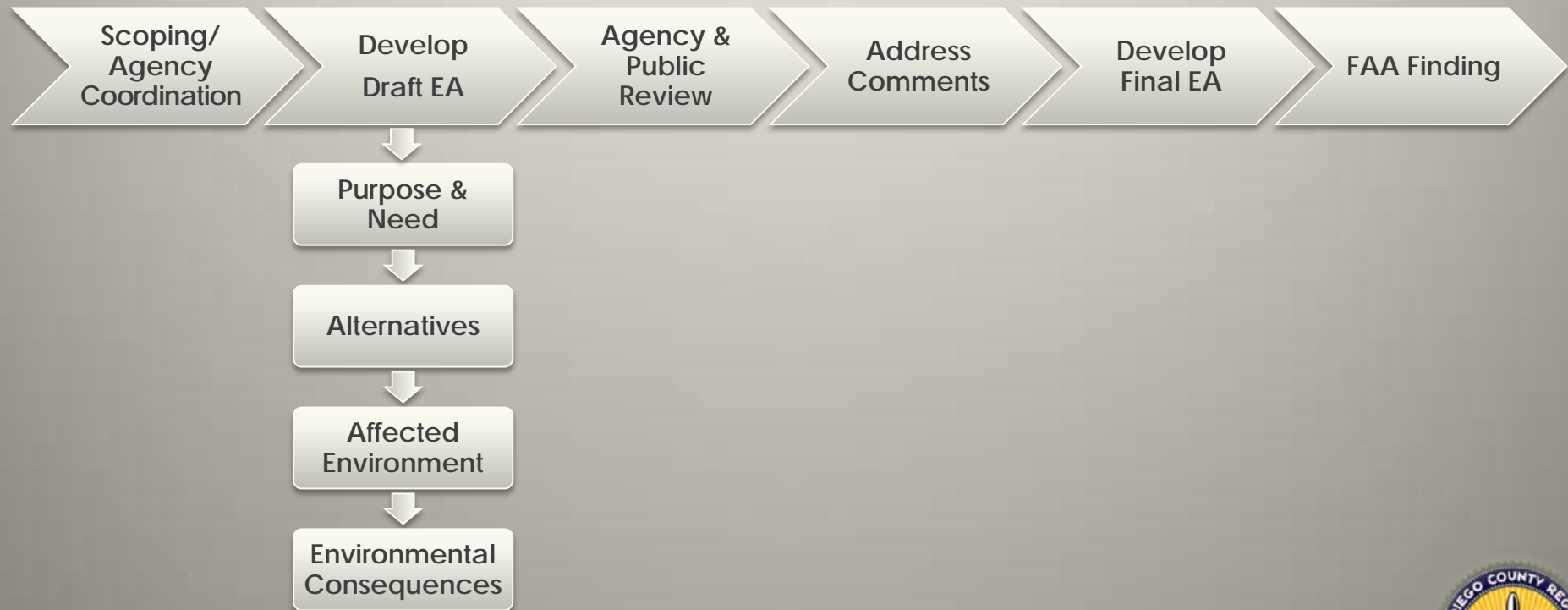
May 2008	San Diego International Airport Master Plan Adopted and Final Program EIR Certified
September 2011	Supplemental EIR for Northside Improvements Completed, which included an 82 day agency/public review period.
	<i>Final Program EIR for Master Plan and Final Supplemental EIR for Northside Improvements available at <a href="http://www.san.org">www.san.org</a>; Environmental Review/CEQA + NEPA webpage</i>





# 3. Environmental Review Process

## Federal Environmental Review





# Environmental Assessment Alternatives

- No Action
- Proposed Action
- Alternatives Considered But Eliminated
  - Use of Other Airports
  - Other Locations on Airport





# Environmental Impact Categories Considered in EA

- Air Quality
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Cumulative Impacts
- Department of Transportation Act, Section 4(f)
- Farmland
- Fish, Wildlife, and Plants
- Floodplains and Floodways
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Historic, Architectural, Archeological, and Cultural Resources
- Light Emissions and Visual Impacts
- Natural Resources and Energy Supply
- Noise
- Secondary (Induced) Impacts
- Socioeconomic Impacts
- Water Quality
- Wetlands
- Wild and Scenic Rivers







# Milestones / Next Steps

- Public and Agency Scoping Comments Due December 2, 2011
- Preparation of Draft Environmental Assessment and Release for 45 Day Review and Comment Period in January 2012
- Preparation of Final Environmental Assessment





## 4. Federal Actions

- Approval of Airport Layout Plan
- Determination of potential eligibility for Federal Assistance under Federal Grant-in-aid program or passenger facility charges
- Coordination with SDCRAA to maintain aviation and airfield safety during construction



# Scoping Comments Due December 2, 2011



## Mail

San Diego County Regional Airport Authority  
Attn: Airport Planning Department  
P.O. Box 82776  
San Diego, CA 92138-2776

## E-mail

[planning@san.org](mailto:planning@san.org)

- E-mails must contain less than 2,000 words
- No attachments

## Deliver

San Diego International Airport  
Commuter Terminal – Third Floor  
3225 North Harbor Drive, San Diego, CA 92101

## Fax

Attn: Airport Planning  
(619) 400-2459





# *Comments*





**San Diego International Airport  
Airport Planning  
Community Feedback**

**SPEAKER/QUESTION CARD**

If you wish to speak or ask a question, please complete this form with your specific topic or question:

TAXIWAY "C" EXTENSION / LAND-SWAP  
WITH M.C.R.D. ?

Name: JOHN KARPINSKI

Address: 120  
(optional)

Phone: (858) 618 - 2736  
(optional)



**San Diego International Airport  
Airport Planning  
Community Feedback**

**SPEAKER/QUESTION CARD**

If you wish to speak or ask a question, please complete this form with your specific topic or question:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name: Julia M. Quinn

Address: 4557 Bermuda Ave SD 92107  
(optional)

Phone: ( ) -  
(optional)

**In The Matter Of:**

***SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY  
SCOPING MEETING NORTHSIDE IMPROVEMENTS  
ENVIRONMENTAL ASSESSMENT***

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***MEETING, SCOPING  
November 16, 2011***

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**MERRILL CORPORATION**

**LegalLink, Inc.**

20750 Ventura Boulevard  
Suite 205  
Woodland Hills, CA 91364  
Phone: 818.593.2300  
Fax: 818.593.2301

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY  
SCOPING MEETING  
NORTHSIDE IMPROVEMENTS ENVIRONMENTAL ASSESSMENT

WEDNESDAY, NOVEMBER 16, 2011

6:00 P.M.

REPORTED BY:

KARLA MEYER BAEZ

CSR NO. 4505, RPR-CRR

Page 2	Page 4
<p>1 Scoping Meeting of the Northside Improvements,                  2 reported on behalf of the San Diego County Regional                  3 Airport Authority, at the Commuter Terminal, 3225 North                  4 Harbor Drive, Third Floor, San Diego, California,                  5 commencing 6:00 p.m., on Wednesday, November 16, 2011,                  6 before Karla Meyer Baez, CSR No. 4506.                  7                  8 APPEARANCES:                  9 SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY                  10 BY: TED ANASIS, AICP                  11 MANAGER AIRPORT PLANNING                  12 3225 North Harbor Drive                  13 Third Floor                  14 San Diego, California 92101                  15 T: 619.400.2478                  16 F: 619.400.2459                  17 tanasis@san.org                  18 RICONDO &amp; ASSOCIATES                  19 BY: STEPHEN D. CULBERSON, DIRECTOR                  20 20 North Clark Street, Suite 1500                  21 Chicago, Illinois 60602                  22 T: 312.606.0611                  23 F: 312.606.0706                  24 s_culberson@ricondo.com                  25 CAMP DRESSER &amp; McKEE, INC.                  BY: ANTHONY J. SKIDMORE, AICP                  VICE PRESIDENT                  111 Academy, Suite 150                  Irvine, California 92617                  skidmoreaj@cdm.com</p> <p>21 Also present: PUBLIC AUDIENCE                  22                  23                  24                  25</p>	<p>1 particular scoping meeting.                  2 We're also going to describe the proposed                  3 action that will be analyzed in the environmental                  4 assessment and describe some of the key project                  5 components. Then we'll be describing the environmental                  6 review process and finally describing the Federal                  7 actions that are -- that the FAA may take in regards to                  8 this proposed action.                  9 So launching into the purpose of the scoping                  10 meeting, the scoping meeting provides an opportunity for                  11 the public and agencies that are interested to comment                  12 regarding the concerns and the scope of the                  13 environmental effects to be analyzed in the proposed                  14 Northside Improvements Environmental Assessment.                  15 We will be describing the basic components of                  16 the project tonight, but the primary purpose of this                  17 meeting is for us to listen to the comments and areas of                  18 concerns that you have regarding this project.                  19 We're at the very initial stages of the Federal                  20 Environmental Review, and so scoping is an opportunity                  21 for you to provide your areas of concern that you would                  22 like us to address in the draft environmental                  23 assessment.                  24 Moving on to describing the proposed action, as                  25 a way of background I'm going to describe some of the</p>
Page 3	Page 5
<p>1 SAN DIEGO, CALIFORNIA                  2 WEDNESDAY, NOVEMBER 26, 2011                  3 6:25 P.M.                  4 - - -                  5 MR. ANASIS: All right. Good evening. Welcome                  6 to the Scoping Meeting for the Northside Improvements                  7 for San Diego International Airport. Thank you for                  8 taking time out of your schedule to come to our scoping                  9 meeting tonight, and thanks for allowing us to give you                  10 some one-on-one description of our airport during our                  11 open house format.                  12 I'm joined here at the dais -- let me introduce                  13 myself first. I'm Ted Anasis. I'm the Manager of                  14 Airport Planning here at the airport responsible for                  15 both master planning efforts for San Diego International                  16 Airport, as well as the environmental review of Airport                  17 Authority projects.                  18 I'm joined here at the dais with Stephen                  19 Culberson, who is the project director with Ricondo &amp;                  20 Associates in the preparation of the Federal                  21 environmental review document; and I'm joined on the                  22 right by Mr. Tony Skidmore, who is an environmental                  23 consultant with Camp Dresser &amp; McKee.                  24 The overview of our presentation is to provide                  25 a description of the purpose of this meeting, this</p>	<p>1 key actions that have been taken over the last                  2 essentially five years regarding planning at San Diego                  3 International Airport.                  4 In 2008 the first Airport Master Plan was                  5 adopted for San Diego International Airport, and this                  6 provided guidance in the form of two plans or planned                  7 components to guide how the airport's 661 acres would be                  8 utilized.                  9 Our first component was an airport land use                  10 plan which delineated the airport's planning boundaries                  11 and designated land uses on the airport.                  12 Another key component was the implementation                  13 plan, which identify the specific near-term improvements                  14 that would be constructed and operated on San Diego                  15 International Airport.                  16 And the key component to that implementation                  17 plan was our ten gate expansion of terminal two, which                  18 is under construction today.                  19 A State Environmental Impact Report for the                  20 master plan was prepared, and it provided a program                  21 level analysis of the airport land use plan and a                  22 project level analysis of the implementation plan. This                  23 was certified in 2008, as a companion to the adoption of                  24 the master plan.                  25 A Federal Environmental Assessment was</p>



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<p>1 addressed as part of that master plan in 2009, and more                  2 recently a supplemental EIR for the near-term                  3 improvements proposed on the Northside was certified in                  4 September of this year.</p> <p>5 All of these environmental documents, the two                  6 State EIRs and the 2009 Federal Environmental Assessment                  7 are available on the Airport Authority's website at                  8 www.san.org, and that may be a good source of reference                  9 if you're interested in looking at the previous                  10 environmental analysis that has been conducted for these                  11 improvements. So that is the background of the master                  12 plan.</p> <p>13 Now I'd like to walk you through some of the                  14 key components of the proposed action which we are                  15 analyzing in this environmental assessment.</p> <p>16 One key component is our revisions to our                  17 Airport Land Use Plan. This Airport Land Use Plan                  18 describes the airport uses or land uses that you find on                  19 the airport. It depicts in several colors, essentially,                  20 airfield, terminal, ground transportation, and airport                  21 support uses.</p> <p>22 So if you look at the colored blocks on this                  23 plan, you see that in gray that depicts our primary                  24 airfield system. The terminals and the existing 41                  25 gates are being expanded to 51, as are depicted in the</p>	<p>1 consolidated rental car facility. This is the area                  2 depicted in green, and this would be a single structure                  3 that would be four stories in height, approximately 52                  4 feet, 1.9 million square feet that would accommodate all                  5 of the rental car facilities that presently serve the                  6 airport, all of the customer service counters,                  7 ready-return functions of the rental -- of rental car                  8 companies and some storage would be located in this                  9 four-story facility.</p> <p>10 Also in the north we would relocate our general                  11 aviation. Right now we have a single fixed base                  12 operator that is located in the small facility that will                  13 be demolished, and the fixed base operator -- general                  14 aviation is essentially unscheduled or private corporate                  15 and charter flights that are not on a regular schedule.</p> <p>16 And so this would be located in the area                  17 depicted in orange. This is 12.4 acres that the general                  18 aviation would be relocated to. Presently they are on a                  19 11.4 acre site.</p> <p>20 Another component is the air cargo facility.                  21 This is an area where our dedicated air cargo would be                  22 able to operate and have some warehouse facilities for                  23 sortation and parking of cargo vehicles. This is an                  24 area that was formerly utilized for remain overnight                  25 aircraft parking positions, and so this will allow</p>
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<p>1 light purple. Yellow depicts ground transportation.                  2 So this is our on airport circulation systems,                  3 our parking, and in the future rental car facilities.</p> <p>4 And then finally Airport Support, depicted in                  5 orange, depicts and describes the ancillary airport                  6 facilities, such as air cargo, general aviation, and                  7 support facilities, including our airport control tower,                  8 our air rescue fire fighting station, and our fuel farm.</p> <p>9 The key components of the proposed action for                  10 the Northside improvements, I'm actually going to move                  11 to the next slide so I can describe; and Brett Caldwell,                  12 another airport planner in the planning department, will                  13 actually point out some of these key components.</p> <p>14 The first specific project is the relocation of                  15 the displaced threshold on Runway 9, and essentially                  16 this is a 300-foot shift in the landing threshold,                  17 shifting 300 feet to the east, the threshold at which                  18 aircraft will touch down.</p> <p>19 So essentially aircraft landing will land 300                  20 feet further to the east on Runway 9 when they are                  21 making an approach from the west.</p> <p>22 There are no changes to Runway 27, which is the                  23 primary runway that is utilized for aircraft that are on                  24 approach and departing from the east.</p> <p>25 Another key component on the Northside is a</p>	<p>1 aircraft to park on an apron directly adjacent to the                  2 air cargo sortation facilities.</p> <p>3 Directly to the west we will also be                  4 constructing a small centralized receiving and                  5 distribution center just to the west of our airport                  6 control tower, and this will be an area that all of the                  7 deliveries and all of the products that come in on a                  8 daily basis to the airport will be delivered to and then                  9 consolidated into a box truck with refrigeration and                  10 freezer units. This is where all of your fresh food                  11 will be delivered to the airport.</p> <p>12 Finally, we will be reconfiguring our surface                  13 parking facilities further to the west, and we'll be                  14 constructing an on-airport circulation system to serve                  15 the Northside with primary access for all of the new                  16 facilities, the CONRAC, the surface, and the general                  17 aviation -- excuse me -- surface parking via the                  18 Sassafras intersection.</p> <p>19 Brett, would you mind pointing out Sassafras                  20 and Harbor -- excuse me -- Pacific Highway there.</p> <p>21 And then another key component is the terminal                  22 and roadway, which will be an on-airport circulation                  23 system now connecting the Northside to the Southside,                  24 and this would be utilized primarily by the rental                  25 car -- consolidated rental car shuttle bus, as well as</p>

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<p>1 the surface parking lot or long-term parking lots'</p> <p>2 shuttle vehicle.</p> <p>3 This will remove those vehicle trips, those</p> <p>4 shuttle trips from the City-dedicated streets and</p> <p>5 provide a connection from the Northside to the</p> <p>6 Southside, avoiding the intersections along North Harbor</p> <p>7 Drive at Laurel and Pacific Highway.</p> <p>8 So these are the components that are being</p> <p>9 analyzed as what we call collectively the Northside</p> <p>10 Improvements.</p> <p>11 I'd like to recap the primary purpose for these</p> <p>12 improvements. They are to accommodate air service</p> <p>13 demand through the planning horizon year of 2020. All</p> <p>14 of these improvements that are described will be</p> <p>15 evaluated with the assumption that they will be</p> <p>16 constructed and begin operations beginning in 2015.</p> <p>17 And another purpose of this project is to</p> <p>18 efficiently utilize the airport's property and existing</p> <p>19 facilities, as well as to also relieve airfield and</p> <p>20 terminal area congestion, in terms of separating and</p> <p>21 increasing the separation between some of the aircraft</p> <p>22 movement areas and general aviation and air cargo.</p> <p>23 Some other points related to the need for the</p> <p>24 project are to meet the FAA's criteria to maintain</p> <p>25 category one instrument approach, or instrument approach</p>	<p>1 After the comment period is closed, we will look at the</p> <p>2 comments that have been received, address those</p> <p>3 comments, go over them with FAA, and develop a final</p> <p>4 Environmental Assessment; and then FAA will take that</p> <p>5 final Environmental Assessment and issue a finding on</p> <p>6 the projects.</p> <p>7 The preliminary alternatives that have been</p> <p>8 identified to date are -- besides the proposed action,</p> <p>9 which Ted has described, include use of other airports</p> <p>10 or other locations on airports.</p> <p>11 And NEPA also requires that the FAA consider</p> <p>12 the no action alternative. The no action will be</p> <p>13 the -- what the proposed action and other alternatives</p> <p>14 are compared to to determine the extent of environmental</p> <p>15 effects.</p> <p>16 And with that, I'm going to turn it over to</p> <p>17 Tony, who is going to talk a little bit about some of</p> <p>18 the environmental effects that will be examined.</p> <p>19 MR. SKIDMORE: Thank you, Steve.</p> <p>20 Good evening. The FAA requires that a variety</p> <p>21 of topics be addressed at an Environmental Assessment.</p> <p>22 On your screen are the 19 categories of topics</p> <p>23 or environmental issues that must be addressed in an</p> <p>24 Environmental Assessment.</p> <p>25 The document for the proposed action will</p>
Page 11	Page 13
<p>1 for aircraft, and also provide general aviation air</p> <p>2 cargo and ground transportation facilities to meet the</p> <p>3 project demand through the year 2020.</p> <p>4 With that, I'll turn it to Steve Culberson, who</p> <p>5 will describe the Environmental Review process.</p> <p>6 MR. CULBERSON: As Ted mentioned, the airport</p> <p>7 adopted a master plan and conducted an EIR on the master</p> <p>8 plan in 2008. That was a State environmental review</p> <p>9 process under the California Environmental Quality Act.</p> <p>10 And then in September of this year they</p> <p>11 certified a supplemental EIR which examined the proposed</p> <p>12 Northside Improvement projects; and those documents, as</p> <p>13 Ted said, are available on the Authority's website.</p> <p>14 So today this process -- the scope of process</p> <p>15 is the kick-off for the Federal Environmental Review</p> <p>16 process under the National Environmental Policy Act.</p> <p>17 We will be preparing an environmental</p> <p>18 assessment which will look at the purpose and need for</p> <p>19 the proposed action, why these projects are needed at</p> <p>20 the airport, alternatives to the proposed action, and it</p> <p>21 will describe the affected environment, and it will look</p> <p>22 at potential environmental effects of implementing the</p> <p>23 proposed action and any feasible alternatives.</p> <p>24 The draft EA will be released early next year,</p> <p>25 and it will be released for public and agency review.</p>	<p>1 address all of those issues, although some of them, such</p> <p>2 as farmlands and wild and scenic rivers, the analysis</p> <p>3 will be limited to simply noting that those resources</p> <p>4 don't occur at the project site.</p> <p>5 Other topics, about a half dozen in particular</p> <p>6 that I'll go over, we'll provide a close look at, such</p> <p>7 as air quality. The Environmental Assessment will look</p> <p>8 at the potential impacts to air quality from what are</p> <p>9 known as criteria pollutants, carbon monoxide, nitrogen</p> <p>10 oxides, things that are regulated by the U.S. EPA.</p> <p>11 The air quality analysis within the EA will</p> <p>12 also look at greenhouse gases which are becoming an</p> <p>13 increasingly important issue within environmental</p> <p>14 documents.</p> <p>15 The EA will look at compatible land uses, and</p> <p>16 in that regard we'll look at the relationship of the</p> <p>17 proposed improvements to all of the applicable plans and</p> <p>18 programs for the airport, as well as for the military.</p> <p>19 Construction impacts will look at air quality,</p> <p>20 noise, and traffic impacts associated with construction</p> <p>21 of the proposed improvements. Cumulative impacts, in</p> <p>22 addition to the impacts of proposed Northside</p> <p>23 Improvements, we'll look at the larger picture, what are</p> <p>24 the collective impacts of all of the master planned</p> <p>25 improvements, as well as other relevant projects in the</p>

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<p>1 local area.</p> <p>2 Fish, wildlife and plants. The environmental</p> <p>3 assessment will evaluate potential impacts to the Least</p> <p>4 Tern, a bird that's recognized by the Federal Government</p> <p>5 as threatened or listed as threatened; and there are</p> <p>6 nesting areas on the airfield at the east end of the</p> <p>7 airfield, and the EA will be looking at potential</p> <p>8 impacts to those birds and their nesting area that may</p> <p>9 occur from implementation of the proposed action.</p> <p>10 In terms of noise impacts, as Ted probably</p> <p>11 described to all of you, as well as just a moment ago,</p> <p>12 the proposed action includes a relocation of the landing</p> <p>13 threshold for Runway 9; and the noise assessment will</p> <p>14 look at the changes in noise exposure with the shifting</p> <p>15 of that threshold, the different glide slope that would</p> <p>16 occur with that relocation of the displaced threshold.</p> <p>17 Again, the environmental assessment will look at the</p> <p>18 change in noise exposure that may result from them.</p> <p>19 Water quality. The environmental assessment</p> <p>20 will look at the change in the surface area associated</p> <p>21 with the proposed improvements and change in the</p> <p>22 pollutants that might occur, both in terms of adding new</p> <p>23 uses to an area that may be currently undeveloped, as</p> <p>24 well as the implementation of best management practices</p> <p>25 or things that the airport will do to address those</p>	<p>1 process. The FAA will approve the airport layout plan</p> <p>2 that will depict all of the airfield and other airport</p> <p>3 improvements. They also -- the FAA prior to providing</p> <p>4 any grants will determine eligibility for the Airport</p> <p>5 Authority for these improvements, both in Federal grants</p> <p>6 and passenger facility charges that are applied to these</p> <p>7 improvements.</p> <p>8 And, finally, we coordinate with the FAA to</p> <p>9 maintain aviation and airfield safety during</p> <p>10 construction.</p> <p>11 So with that, that concludes our presentation,</p> <p>12 and I'd like to move into our opportunity for the public</p> <p>13 or agencies to provide comments.</p> <p>14 Let me describe to you how comments can be</p> <p>15 provided. Scoping comments should be -- can be provided</p> <p>16 in a number of manners -- or several manners. We have</p> <p>17 provided you with this blue sheet that describes how you</p> <p>18 may mail the -- any comments you have to the Airport</p> <p>19 Authority. We ask that you postmark them by December</p> <p>20 2nd.</p> <p>21 You may email your comments to us. You may</p> <p>22 deliver them here to the Airport Authority by December</p> <p>23 2nd, or you may fax them to us.</p> <p>24 We've also provided a white sheet,</p> <p>25 eight-and-a-half-by-eleven, that you may utilize to</p>
Page 15	Page 17
<p>1 potential water quality impacts.</p> <p>2 Those are just some of the more notable issues.</p> <p>3 Again, we'll look at all 19 categories within the</p> <p>4 Environmental Assessment and prepare that within the</p> <p>5 Draft Environmental Assessment.</p> <p>6 In terms of the milestones and next steps, we</p> <p>7 will be taking the scoping comments from this evening,</p> <p>8 as well as those that are provided to the Airport</p> <p>9 Authority by December 2nd, look at those, make sure that</p> <p>10 we're covering those issues as appropriate within the</p> <p>11 Environmental Assessment.</p> <p>12 We'll use those in the development of the Draft</p> <p>13 Environmental Assessment. That document's anticipated</p> <p>14 to be released in January of next year and will be</p> <p>15 released for a 45-day public review and comment period.</p> <p>16 Based on the written comments we'll receive on</p> <p>17 the draft EA, we'll prepare responses to all of those</p> <p>18 comments, and that will be integrated into a final</p> <p>19 Environmental Assessment that the FAA will use in their</p> <p>20 decision-making process.</p> <p>21 With that, I'll turn it back over to Ted.</p> <p>22 MR. ANASIS: Thank you. I'd like to describe</p> <p>23 the Federal actions that will then be taken after the</p> <p>24 conclusion of the Environmental Review process and also</p> <p>25 the -- it necessitates the Federal Environmental review</p>	<p>1 either take your notes or you may actually fill out your</p> <p>2 comments directly on that form and leave it with us, or</p> <p>3 you may mail that in at a later time.</p> <p>4 And, finally, if you would like to provide</p> <p>5 comments, that is really one of the key requirements of</p> <p>6 the Federal Environmental Review process, that we listen</p> <p>7 to you tonight, that we are here to listen and record</p> <p>8 the comments or areas of concerns that you may have.</p> <p>9 We have provided speaker slips. So if you'd</p> <p>10 like to provide comments, we ask that you just complete</p> <p>11 one of these yellow forms. And since we have a small</p> <p>12 turnout tonight, we'll ask that if you come to the dais</p> <p>13 that you just state your name and provide any of your</p> <p>14 comments so that Karla, our court reporter, may actually</p> <p>15 transcribe all of your comments.</p> <p>16 So with that, I'll invite any members or</p> <p>17 attendees to come up to the dais, state your name, and</p> <p>18 we will listen to your comments.</p> <p>19 MR. KARPINSKI: Okay, I'll go. I didn't fill</p> <p>20 out a speaker slip, but can I come forward?</p> <p>21 MR. ANASIS: Please come forward. We'll ask</p> <p>22 that you complete one after, if you don't mind stating</p> <p>23 your name. We just want to make sure we have all of the</p> <p>24 information for you.</p> <p>25 MR. KARPINSKI: My name is John Karpinski. I'm</p>

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<p>1 a native San Diegan. I grew up watching this airport                  2 grow with its advantages and disadvantages.                  3 The issue that I forgot to ask you, Ted, when                  4 we were out in the foyer, was what is the negotiations                  5 with the Marines for extending Taxiway C to the west so                  6 that cargo planes -- I notice there is nine positions of                  7 cargo in the Northside, and right now when they land                  8 they generally go way past the area where they can turn                  9 to the north to turn to the south by Terminal 1 and 2 to                  10 taxi back and then cross the runway to the north.                  11 Is there any way to maybe do a land swap with                  12 MCRD to get our taxiway fully extended, maybe give them                  13 some land back in return or something so they don't lose                  14 land? That's my comment.                  15 MR. ANASIS: All right. Thank you for your                  16 comment. I'll be happy to meet with you after this to                  17 describe it.                  18 A very short response is that this proposed                  19 project does not propose any improvements to our taxiway                  20 system on the north.                  21 With that, any other thoughts or comments or                  22 concerns? All right. Well, you have -- oh, I'm sorry.                  23 Please come forward.                  24 MS. QUINN: A couple, maybe, questions. Julia                  25 Quinn.</p>	<p>1 MS. QUINN: And why did you select, you know,                  2 the date 2020 as, you know --                  3 MR. ANASIS: Primarily that's Federal -- the                  4 Federal Aviation Administration or FAA guidance that to                  5 look at the environmental -- excuse me -- look at the                  6 impacts for approximately a five-year period from when                  7 operations commence.                  8 MS. QUINN: Okay.                  9 MR. ANASIS: That being said, we do anticipate                  10 that these facilities will operate beyond that; and                  11 we've looked at, for example, in our Environmental                  12 Review documents, particularly at the State level, the                  13 environmental effects through the year 2030.                  14 MS. QUINN: Okay. All right. And then the                  15 cost of -- the cost of the proposed action?                  16 MR. ANASIS: At this time we don't have a cost                  17 estimate for these improvements.                  18 MS. QUINN: But I know you said that one of the                  19 actions or one of the purposes of this EA will be for                  20 FAA to use for approving grants, but you haven't come up                  21 with any kind of cost estimate about what this is going                  22 to cost?                  23 MR. ANASIS: That's correct.                  24 MS. QUINN: Oh, okay. Is that typical, I mean,                  25 that you just go forward with the project and don't have</p>
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<p>1 MR. ANASIS: Could you speak up?                  2 MS. QUINN: My name is Julia Quinn. I'm a                  3 resident of Point Loma, long-term resident of Point                  4 Loma. A few questions.                  5 You said that the purpose of this project, or                  6 one of them, is to extend -- accommodate air service                  7 demand through 2020. That's a very short window.                  8 That's nine years from now, and I don't know how long                  9 you anticipate the Environmental Review process and                  10 approval process from FAA will take. So I don't know if                  11 you can, you know, respond to that comment or that's                  12 just -- you want me to put that in writing to the                  13 Airport Authority?                  14 MR. ANASIS: I can provide a short response.                  15 The Environmental Review process has been                  16 anticipated to take approximately six months. So it                  17 will conclude in the spring of 2012.                  18 MS. QUINN: Okay. And then how long would                  19 construction of these facilities take?                  20 MR. ANASIS: It's anticipated and for our                  21 analysis purposes in this document we're going to assume                  22 that the construction would take approximately two                  23 years, with all of the facilities operational in                  24 approximately 2015, so about a two-year construction                  25 period and operational beginning in 2015.</p>	<p>1 a cost estimate in mind before you prepare an                  2 environmental document?                  3 MR. ANASIS: Correct. This is at the very                  4 initial stages of the project. We have the conceptual                  5 plans for the improvements, but we don't have the                  6 specific cost estimates at this time.                  7 MS. QUINN: And let's see. Oh, yes. Why                  8 didn't you do a joint CEQA NEPA document because that --                  9 you know, most agencies do that. It seems to be less                  10 painful [verbatim].                  11 MR. ANASIS: There are often different                  12 approaches and I guess perspectives to how you structure                  13 both a Federal and State environmental review.                  14 We have found that the State Environmental                  15 Review process is a more lengthy one, and we actually                  16 always -- we have preceded our Environmental Review with                  17 the State process first.                  18 So these improvements have been evaluated                  19 according to CEQA first. We have -- it allows us to                  20 have a little bit more flexibility in terms of the                  21 review time.                  22 So we had an 82-day public review period for                  23 the EIR, and it also helps address some of the -- we                  24 were able to address some of the issues at -- in the                  25 Federal Environmental Review process with some of the</p>

1 coordinating agencies. This does allow another  
2 opportunity, though, at the Federal level for public  
3 review and comment on this project.

4 MS. QUINN: All right. Thank you.

5 MR. ANASIS: Great. Well, with that, thank you  
6 very much for your time and your thoughtful comments.

7 If you have any additional comments that come  
8 up, we would ask that you submit those by December 2nd,  
9 and by signing in we will be able to provide notice to  
10 you of the availability of the Draft Environmental  
11 Assessment, and so we will send a notice to you at that  
12 time, and it will be available in a hard copy, but -- as  
13 well as being posted on our Airport Authority website  
14 under the Environmental Review page, and we will also  
15 make it available on a CD-ROM.

16 So we look forward to your continued interest  
17 in the Airport Authority and our projects, and thank you  
18 very much for coming out this evening.

19 (The hearing was concluded at 6:53 p.m.)

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1 STATE OF CALIFORNIA )  
2 ) ss.  
3 COUNTY OF SAN DIEGO )  
4  
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7 I, KARLA MEYER BAEZ, CSR NO. 4506, hereby  
8 certify that I reported in machine shorthand the  
9 proceedings had in the above-entitled cause and that the  
10 foregoing transcript is a full, true, and correct  
11 transcript to the best of my ability of said proceedings  
12 held on November 16, 2011.

13 I further certify that I am not interested in  
14 the event of this action.

15 Dated San Diego, California this 30th day of  
16 November, 2011.  
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21 \_\_\_\_\_  
22 Karla Meyer Baez, CSR No. 4506  
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<b>rental</b> 7:3 8:1,5,7,7 9:24,25	<b>shift</b> 7:16	<b>storage</b> 8:8	<b>Tony</b> 3:22 12:17
<b>Report</b> 5:19	<b>shifting</b> 7:17 14:14	<b>stories</b> 8:3	<b>topics</b> 12:21,22 13:5
<b>reported</b> 1:23 2:2 23:8	<b>short</b> 18:18 19:7,14	<b>Street</b> 2:15	<b>touch</b> 7:18
<b>reporter</b> 17:14	<b>shorthand</b> 23:8	<b>streets</b> 10:4	<b>tower</b> 7:7 9:6
<b>requirements</b> 17:5	<b>shuttle</b> 9:25 10:2,4	<b>structure</b> 8:2 21:12	<b>traffic</b> 13:20
<b>requires</b> 12:11,20	<b>signing</b> 22:9	<b>submit</b> 22:8	<b>transcribe</b> 17:15
<b>rescue</b> 7:8	<b>simply</b> 13:3	<b>Suite</b> 2:15,19	<b>transcript</b> 23:10,11
<b>resident</b> 19:3,3	<b>single</b> 8:2,11	<b>supplemental</b> 6:2 11:11	
<b>resources</b> 13:3		<b>support</b> 6:21 7:4,7	
<b>respond</b> 19:11		<b>sure</b> 15:9 17:23	
<b>response</b> 18:18 19:14		<b>surface</b> 9:12,16,17 10:1 14:20	
<b>responses</b> 15:17		<b>swap</b> 18:11	
<b>responsible</b> 3:14		<b>system</b> 6:24 9:14,23	
<b>result</b> 14:18			
<b>return</b> 18:13			

<p><b>transportation</b> 6:20 7:1 11:2 <b>trips</b> 10:3,4 <b>truck</b> 9:9 <b>true</b> 23:10 <b>turn</b> 11:4 12:16 15:21 18:8,9 <b>turnout</b> 17:12 <b>two</b> 5:6,17 6:5 19:22 <b>two-year</b> 19:24 <b>typical</b> 20:24</p> <hr/> <p style="text-align: center;"><b>U</b></p> <hr/> <p><b>undeveloped</b> 14:23 <b>units</b> 9:10 <b>unscheduled</b> 8:14 <b>use</b> 5:9,21 6:17,17 12:9 15:12,19 20:20 <b>uses</b> 5:11 6:18,18,21 13:15 14:23 <b>utilize</b> 10:18 16:25 <b>utilized</b> 5:8 7:23 8:24 9:24 <b>U.S</b> 13:10</p> <hr/> <p style="text-align: center;"><b>V</b></p> <hr/> <p><b>variety</b> 12:20 <b>vehicle</b> 10:2,3 <b>vehicles</b> 8:23 <b>verbatim</b> 21:10 <b>VICE</b> 2:19</p> <hr/> <p style="text-align: center;"><b>W</b></p> <hr/> <p><b>walk</b> 6:13 <b>want</b> 17:23 19:12 <b>warehouse</b> 8:22 <b>watching</b> 18:1 <b>water</b> 14:19 15:1 <b>way</b> 4:25 18:8,11 <b>website</b> 6:7 11:13 22:13 <b>Wednesday</b> 1:9 2:5 3:2 <b>Welcome</b> 3:5 <b>west</b> 7:21 9:3,5,13 18:5</p>	<p><b>we'll</b> 4:5 9:13 13:6,16 13:23 15:3,12,16,17 17:12,21 <b>we're</b> 4:2,19 15:10 19:21 <b>we've</b> 16:24 20:11 <b>white</b> 16:24 <b>wild</b> 13:2 <b>wildlife</b> 14:2 <b>window</b> 19:7 <b>writing</b> 19:12 <b>written</b> 15:16 <b>www.san.org</b> 6:8</p> <hr/> <p style="text-align: center;"><b>Y</b></p> <hr/> <p><b>year</b> 6:4 10:13 11:3,10 11:24 15:14 20:13 <b>years</b> 5:2 19:8,23 <b>yellow</b> 7:1 17:11</p> <hr/> <p style="text-align: center;"><b>1</b></p> <hr/> <p><b>1</b> 18:9 <b>1.9</b> 8:4 <b>11.4</b> 8:19 <b>111</b> 2:19 <b>12.4</b> 8:17 <b>150</b> 2:19 <b>1500</b> 2:15 <b>16</b> 1:9 2:5 23:12 <b>19</b> 12:22 15:3</p> <hr/> <p style="text-align: center;"><b>2</b></p> <hr/> <p><b>2</b> 18:9 <b>2nd</b> 15:9 16:20,23 22:8 <b>20</b> 2:15 <b>2008</b> 5:4,23 11:8 <b>2009</b> 6:1,6 <b>2011</b> 1:9 2:5 3:2 23:12 23:16 <b>2012</b> 19:17 <b>2015</b> 10:16 19:24,25 <b>2020</b> 10:13 11:3 19:7 20:2 <b>2030</b> 20:13 <b>26</b> 3:2</p>	<p><b>27</b> 7:22</p> <hr/> <p style="text-align: center;"><b>3</b></p> <hr/> <p><b>30th</b> 23:15 <b>300</b> 7:17,19 <b>300-foot</b> 7:16 <b>312.606.0611</b> 2:16 <b>312.606.0706</b> 2:16 <b>3225</b> 2:3,10</p> <hr/> <p style="text-align: center;"><b>4</b></p> <hr/> <p><b>41</b> 6:24 <b>45-day</b> 15:15 <b>4505</b> 1:25 <b>4506</b> 2:6 23:7,21</p> <hr/> <p style="text-align: center;"><b>5</b></p> <hr/> <p><b>51</b> 6:25 <b>52</b> 8:3</p> <hr/> <p style="text-align: center;"><b>6</b></p> <hr/> <p><b>6:00</b> 1:10 2:5 <b>6:25</b> 3:3 <b>6:53</b> 22:19 <b>60602</b> 2:15 <b>619.400.2459</b> 2:12 <b>619.400.2478</b> 2:12 <b>661</b> 5:7</p> <hr/> <p style="text-align: center;"><b>8</b></p> <hr/> <p><b>82-day</b> 21:22</p> <hr/> <p style="text-align: center;"><b>9</b></p> <hr/> <p><b>9</b> 7:15,20 14:13 <b>92101</b> 2:11 <b>92617</b> 2:20</p>
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**NOTICE OF PUBLIC SCOPING - DRAFT EA FOR AIRPORT MASTER PLAN - NORTHSIDE IMPROVEMENTS  
COMMENTS RECEIVED**

<b>AGENCY / LETTER SIGNED BY</b>	<b>DATE OF LETTER</b>	<b>DATE RECEIVED</b>	<b>VIA</b>
<b>FEDERAL AGENCIES</b>			
No comments received			
<b>STATE AGENCIES</b>			
No comments received			
<b>LOCAL AGENCIES</b>			
San Diego County Office of the County Clerk 1600 Pacific Highway San Diego, CA 92101	11/10/11 (Filing Notice)	11/10/11	In-Person Filing
Ernest J. Dronenburg, Jr. Recorder/County Clerk	12/14/11 (Filing Notice removed and returned to agency)	12/20/11	US Mail
City of San Diego Development Services 1222 First Avenue, MS 501 San Diego, CA 92101-4155	12/05/11	12/05/11	E-mail
Jeffrey Szymanski Associate Environmental Planner (619) 446-5324 - phone <a href="mailto:jszymanski@saniego.gov">jszymanski@saniego.gov</a>			
Ann Gonsalves Senior Traffic Engineer (619) 446-5294 - phone <a href="mailto:agonsalves@saniego.gov">agonsalves@saniego.gov</a>			
Farah Mahzari Associate Traffic Engineer (619) 446-5459 - phone <a href="mailto:fmahzari@saniego.gov">fmahzari@saniego.gov</a>			
Jacquelyn Adams Solid Waste Inspector III City of San Diego LEA (619) 533-3695 - phone <a href="mailto:jadams@saniego.gov">jadams@saniego.gov</a>			
<b>ORGANIZATIONS</b>			
No comments received			
<b>COMMUNITY PLANNING GROUPS</b>			
No comments received			
<b>INDIVIDUALS</b>			
No comments received			

---

**From:** Szymanski, Jeffrey [JSzymanski@san Diego.gov]  
**Sent:** Monday, December 05, 2011 2:08 PM  
**To:** Airport Planning  
**Cc:** Mahzari, Farah; Adams, Jacquelyn; Gonsalves, Ann  
**Subject:** City of SD comments on NOP Northside Improvements  
**Attachments:** City of SD Comment NOP Northside Improvements.pdf

Hello,

Please except these comments which were due on Friday the 2<sup>nd</sup>.

Thank you,

Jeff Szymanski  
Associate Environmental Planner

RECEIVED

DEC 05 2011

PLANNING DEPT. #44



THE CITY OF SAN DIEGO

December 5, 2011

RECEIVED

DEC 05 2011

San Diego County Regional Airport Authority  
3225 N. Harbor Drive, San Diego, CA 92101

PLANNING DEPT. #44

Submitted via email to: [planning@san.org](mailto:planning@san.org).  
Hard copy to follow via mail

Subject: **CITY OF SAN DIEGO COMMENTS ON THE NOTICE OF PREPARATION FOR THE SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN NORTHSIDE IMPROVEMENTS**

The City of San Diego ("City") has received and reviewed the Notice of Preparation (NOP) for the above project and appreciates this opportunity to provide comments to the San Diego County Regional Airport Authority. In response to the NOP, the City has identified potential environmental issues that may result in a significant impact to the environment. Continued coordinated planning between the City, the San Diego County Regional Airport Authority, and other local, regional, state, and federal agencies will be essential.

Staff from the Development Services Department ("DSD") have reviewed the NOP and have the following comments:

**DEVELOPMENT SERVICES DEPARTMENT:**  
ANN GONSALVES  
SENIOR TRAFFIC ENGINEER  
(619) 446-5294 [AGONSLAVES@SANDIEGO.GOV](mailto:AGONSLAVES@SANDIEGO.GOV)

FARAH MAHZARI  
ASSOCIATE TRAFFIC ENGINEER  
(619) 446-5459 [fmahzari@sandiego.gov](mailto:fmahzari@sandiego.gov)

**GENERAL:**

1. An updated transportation impact study should compare the impacts of the Northside Improvements project against existing conditions in order to establish significance of impacts and identify project mitigation measures.
2. The proposed "Terminal Link Roadway" should be constructed entirely within the current airport footprint in order to avoid negatively impacting traffic operations on North Harbor Drive.



**Development Services**

1222 First Avenue, MS 501 • San Diego, CA 92101-4155  
Tel (619) 446-5460

3. The updated transportation impact study should provide mitigation measure for Northside Improvements project impacts expected along Washington Street, Pacific Highway, Sassafras Street and other locations which will be impacted by the reassignment of existing traffic and generation of additional traffic due to the project facilities. All intersection level of service analysis should also include queuing analysis.

**SPECIFIC:**

1. This transportation impact study should not only analyze the impacts of the relocation of the Solar Turbines employee parking lot, but also discuss and evaluate any traffic pattern changes, access points and circulation, parking, and roadways and intersection impacts due to other components of the Northside Improvements such as Air Cargo Warehouse Facilities Analysis should be revised and expanded to include the excerpts of such traffic impact analysis that comprehensively discuss all components of the project and evaluate all its impacts and required mitigations.
2. The Supplemental Analysis should also include trip distribution figures showing how the traffic patterns and volume would be changed due to each and all components of the project. It should also include road segment ADT's and intersection peak hour volume figures showing the increases, or reductions in trips on each street and intersection surrounding the Airport, instead of the very limited area as presented on the maps in this section.
3. All new access points for each component of the Northside Improvements including the proposed Solar Turbines employee parking lot should be fully discussed, their locations shown, and analysis provided to show whether they would be expected to operate at acceptable level of service. A queue analysis should also be performed for ingress and egress points such as the access point for the new parking lot for Solar Turbines employees. Location of any proposed gates at such access points should also be identified, and they should be located and operated in a manner not to cause any queuing or stacking of vehicles into City streets and intersections.
4. The report should discuss the employees' walking distances and routes between the proposed Solar Turbines employee parking lot and the Solar Turbines facility. The increase in distance from the current parking lot to the proposed lot should also be identified. If the increase in walking distance appears unreasonably large then some of the employees may choose to park in nearby City streets which in turn could result in parking impacts. This should be fully discussed and evaluated in the report. Also, if the Airport Authority or Solar Turbines plans any type of shuttle service from the proposed parking lot to the Solar Turbines facility, its provision, hours of operation, and frequency should be identified.

Page 3 of 3  
San Diego County Regional Airport Authority  
December 5, 2011

**DEVELOPMENT SERVICES DEPARTMENT:**  
**JACQUELYN ADAMS**  
Solid Waste Inspector III, City of San Diego LEA  
(619) 533-3695 [jadams@sanidiego.gov](mailto:jadams@sanidiego.gov)

The City of San Diego Solid Waste Local Enforcement Agency (LEA) has record of a burn ash deposit along the western end of the airport, underneath the runway. Due to the fact that historical burn ash exists in the vicinity of the projects, should undocumented burn ash be discovered during any construction project the San Diego County Regional Airport Authority (SDCRAA) shall contact the LEA and comply with applicable regulations governing the handling of said waste material.

Please contact the appropriate above-named individual(s) if you have any questions on the submitted comments. The City respectfully requests that you please address the above comments in the FEIR and provide 3 hard copies and a CD of the document with technical studies for distribution to the commenting department. If you have any additional questions regarding the City's review of the DEIR, please contact Jeffrey Szymanski, Associate Planner at 619-446-5324 or via email at [jszymanski@sanidiegogov](mailto:jszymanski@sanidiegogov)

Sincerely,



Jeffrey Szymanski  
Associate Environmental Planner  
Development Services Department

cc: Ann Gonsalves, Senior Traffic Engineer, Development Services Department  
Jacquelyn Adams, Solid Waste Inspector III, City of San Diego LEA  
Farah Mahzari, Associate Engineer-Traffic, Development Services Department  
Review and Comment online file



## **Appendix G**

### Responses to Comments on the Draft EA





## G. Responses to Comments on the Draft EA

This appendix contains material related to circulation of the SDIA Northside Improvements Draft EA for public review commencing on May 31, 2013 and concluding on July 1, 2013, including copies of all comments submitted on the Draft EA during the public comment period and responses to these comments. This appendix contains copies of:

- Notice of Availability (NOA) of the Draft EA
- Affidavit of Publication of NOA – San Diego U-T
- Certificate of Publication of NOA – San Diego Daily Transcript
- Draft EA NOA Mailing List
- Comments received on the Draft EA and responses to comments
  - San Diego County Archaeological Society, Inc.
  - San Diego Association of Governments (SANDAG)
  - Peninsula Community Planning Board
  - City of San Diego
  - City of San Diego Supplemental Comments

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## **San Diego County Regional Airport Authority**

Mailing Address: P.O. Box 82776, San Diego, CA 92138-2776

Physical Address: 3225 N. Harbor Drive, San Diego, CA 92101

[www.san.org](http://www.san.org)

### **NOTICE OF AVAILABILITY**

#### **DRAFT ENVIRONMENTAL ASSESSMENT SAN DIEGO INTERNATIONAL AIRPORT NORTHSIDE IMPROVEMENTS**

**PROJECT DESCRIPTION AND LOCATION:** The San Diego County Regional Airport Authority (SDCRAA) proposes a group of projects at San Diego International Airport (SDIA) which comprise the Northside Improvements identified in the San Diego International Airport Master Plan. SDCRAA has identified specific physical improvements to allow the Airport to effectively continue its mission of serving San Diego's commercial air transportation needs. A Draft Environmental Assessment (EA) has been prepared to evaluate the environmental consequences of the proposed project. The Federal Aviation Administration (FAA) is the lead agency under the National Environmental Policy Act (NEPA).

#### **THE DRAFT EA IS AVAILABLE FOR PUBLIC REVIEW AS FOLLOWS:**

- At the San Diego County Regional Airport Authority, with offices located in the Commuter Terminal at San Diego International Airport, 3225 North Harbor Drive, San Diego, CA, during the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.
- At four local libraries (City of San Diego Central Library, Mission Hills Branch Library, Ocean Beach Branch Library, and Point Loma Hervey Branch Library).
- At the office of the Los Angeles Airports District office, Federal Aviation Administration, 15000 Aviation Boulevard, Lawndale, CA 90261.
- The Draft EA may be downloaded at [www.san.org](http://www.san.org) under Airport Projects/Environmental Affairs/Environmental Review/NEPA.

**COMMENTS MUST BE RECEIVED NO LATER THAN MONDAY, JULY 1, 2013, BEFORE 5:00 p.m. PACIFIC STANDARD TIME TO BE ADDRESSED AND THE RESULTS INCLUDED IN THE FINAL EA. COMMENTS MAY BE SUBMITTED BY:**

- Mail to the Authority offices at SDCRAA, P.O. Box 82776, San Diego, CA 92138-2776 (these comments must be postmarked by Saturday, June 29, 2013).
- E-mail to the Authority offices at [planning@san.org](mailto:planning@san.org). The Airport Authority will accept comments to this notice via e-mail received by 5:00 p.m. on Monday, July 1, 2013, if the comments: (i) contain less than 2,000 words; and (ii) the e-mail comments do not contain any attachments. Any comments or responses to this notice containing more than 2,000 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.
- Delivery to the Authority offices at San Diego International Airport or faxed to (619) 400-2459 by 5:00 p.m. on Monday, July 1, 2013.



P.O. Box 120191, San Diego, CA 92112-0191



### AFFIDAVIT OF PUBLICATION

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY  
P.O. BOX 82776  
ATTN: JOAN WARD  
SAN DIEGO, CA 92138

STATE OF CALIFORNIA) ss.  
County of San Diego)

#### NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL ASSESSMENT SAN DIEGO INTERNATIONAL AIRPORT NORTHSIDE IMPROVEMENTS

**PROJECT DESCRIPTION AND LOCATION:**  
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- Delivery to the Authority offices at San Diego International Airport or faxed to (619) 400-2459 by 5:00 p.m. on Monday, July 1, 2013.

The Undersigned, declares under penalty of perjury under the laws of the State of California: That he is a resident of the County of San Diego. That he is and at all times herein mentioned was a citizen of the United States, over the age of twenty-one years, and that he is not a party to, nor interested in the above entitled matter; that he is Chief Clerk for the publisher of

#### The San Diego Union-Tribune

a newspaper of general circulation, printed and published daily in the City of San Diego, County of San Diego, and which newspaper is published for the dissemination of local news and intelligence of a general character, and which newspaper at all the times herein mentioned had and still has a bona fide subscription list of paying subscribers, and which newspaper has been established, printed and published at regular intervals in the said City of San Diego, County of San Diego, for a period exceeding one year next preceding the date of publication of the notice hereinafter referred to, and which newspaper is not devoted to nor published for the interests, entertainment or instruction of a particular class, profession, trade, calling, race, or denomination, or any number of same; that the notice of which the annexed is a printed copy, has been published in said newspaper in accordance with the instructions of the person(s) requesting publication, and not in any supplement thereof on the following dates, to wit:

May 31, 2013

*Joan Ward*  
Chief Clerk for the Publisher

6/11/13  
Date

#### Affidavit of Publication of

Legal Advertisement  
Ad # 0010749151#  
ORDERED BY: LYNDA TAMURA

# CERTIFICATE OF PUBLICATION

Accounts Payable  
SDCRAA  
P.O. Box 82776  
San Diego CA 92138-2776

## IN THE MATTER OF Draft EA Northside Improvement

CASE NO.

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY  
NOTICE OF AVAILABILITY  
---  
DRAFT ENVIRONMENTAL ASSESSMENT  
SAN DIEGO INTERNATIONAL AIRPORT  
NORTHSIDE IMPROVEMENTS

**PROJECT DESCRIPTION AND LOCATION:** The San Diego County Regional Airport Authority (SDCRAA) proposes a group of projects at San Diego International Airport (SDIA) which comprise the Northside Improvements identified in the San Diego International Airport Master Plan. SDCRAA has identified specific physical improvements to allow the Airport to effectively continue its mission of serving San Diego's commercial air transportation needs. A Draft Environmental Assessment (EA) has been prepared to evaluate the environmental consequences of the proposed project. The Federal Aviation Administration (FAA) is the lead agency under the National Environmental Policy Act (NEPA).

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- E-mail to the Authority offices at [planning@san.org](mailto:planning@san.org). The Airport Authority will accept comments to this notice via e-mail received by 5:00 p.m. on Monday, July 1, 2013, if the comments: (i) contain less than 2,000 words; and (ii) the e-mail comments do not contain any attachments. Any comments or responses to this notice containing more than 2,000 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.
- Delivery to the Authority offices at San Diego International Airport or faxed to (619) 400-2459 by 5:00 p.m. on Monday, July 1, 2013.  
Pub May 31 -00111167

I, C Davis, am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not party to or interested in the above entitled matter. I am the principal clerk of the San Diego Daily Transcript, a newspaper of general circulation, printed and published daily, except on Saturdays and Sundays, in the City of San Diego, County of San Diego and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of San Diego, State of California, under the date of January 23, 1909, Decree No. 14894; and the

### Notice of Availability

is a true and correct copy of which the annexed is a printed copy and was published in said newspaper on the following date(s), to wit:

**May 31**

I certify under penalty of perjury that the forgoing is true and correct.

Dated at San Diego, California this May 31, 2013



Signature

**NOTICE OF AVAILABILITY**

**DRAFT  
ENVIRONMENTAL ASSESSMENT (EA)**

**SAN DIEGO INTERNATIONAL AIRPORT  
NORTHSIDE IMPROVEMENTS**

**MAILING LIST**

**MAY 2013**



Environmental Review Office  
EPA Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

Mr. Victor Globa  
Environmental Protection Specialist  
FAA – W-P Region, AWP 611.3  
Los Angeles Airport District Office  
P.O. Box 92007  
Los Angeles, CA 90009-2007

Mr. Robert Hoffman  
National Marine Fisheries Service  
501 West Ocean Blvd., #4200  
Long Beach, CA 90802-4143

Mr. Lincoln E. Burton  
State Conservationist  
Richard E. Lyng USDA Service Center  
430 "G" Street, #4164  
Davis, CA 95616-4164

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Los Angeles, CA 90017

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US Dept of Defense/SWDIV  
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Ms. Carolyn Lieberman  
U.S. Fish and Wildlife Service  
Ecological Services  
Carlsbad Fish and Wildlife Office  
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San Diego, CA 92106

Ms. Karen Voigt  
Adcentive Group  
4801 Viewridge Avenue  
San Diego, CA 92123

**Draft EA Northside Improvements  
Notice of Availability  
INDIVIDUALS**

Mr. James E. Whalen  
4517 Santa Monica Avenue  
San Diego, CA 92107

Mr. Paul Zablony  
4739 Glacier Avenue  
San Diego, CA 92120

**Draft EA Northside Improvements  
Notice of Availability  
INDIVIDUALS**

Mr. Gary Klockenga  
Science, Industry, Govt Pubs. Section  
City of San Diego Central Library  
820 "E" Street  
San Diego, CA 92101-6478

Librarian  
Mission Hills Branch Library  
925 W. Washington Street  
San Diego, CA 92103

Librarian  
Ocean Beach Branch Library  
4801 Santa Monica Avenue  
San Diego, CA 92107-2810

Librarian  
Point Loma Hervey Branch Library  
3701 Voltaire Street  
San Diego, CA 92107-1606

**Draft EA Northside Improvements  
Notice of Availability  
LIBRARIES**

Mr. Peter Van Valkenburg  
Alamo/Enterprise/National/WeCar  
Attn: Airport Relations Dept  
700 Corporate Park Drive, 3<sup>rd</sup> Floor  
St. Louis, MO 63105

Ms. Lorie Tallarico  
Avis Rent a Car System, Inc.  
513 Eccles Avenue  
S. San Francisco, CA 94080

Mr. Bob Fore  
Budget San Diego  
3125 Pacific Hwy  
San Diego, CA 92562

Ms. Tammy Branham  
Dollar Thrifty Automotive Group, Inc.  
5330 E. 31<sup>st</sup> Street  
Tulsa, OK 74135

Mr. Allen Rezapour  
Fox Rent a Car  
5500 W. Century Blvd  
Los Angeles, CA 90045

Ms. Connie Gurich  
Hertz Corporation  
6151 Century Blvd, Ste 600  
Los Angeles, CA 90045

Mr. John Macdonald  
Midway Rent a Car, Inc.  
4751 Wilshire Blvd #120  
Los Angeles, CA 90010

Raj Zakharia  
Pacific Rent-a-Car, Inc.  
2100 Kettner Blvd  
San Diego, CA 92101

Mr. George Khouli  
Payless Car Rental  
3345 Kettner Blvd  
San Diego, CA 92101

Sean Delalat  
Renty, LLC  
8025 Clairemont Mesa Blvd  
San Diego, CA 92111

Tim & Veronica Beason  
Travcar  
2367 India Street  
San Diego, CA 92101

Mr. Ray Noohi  
West Coast Rent a Car  
834 Grape Street  
San Diego, CA 92101

Mr. Carl Huenefeld  
Marine Corps Recruit Depot  
1600 Henderson Avenue  
Suite 222  
San Diego, CA 92140

Col. Brent Spahn  
Marine Corps Recruit Depot  
1600 Henderson Avenue  
Suite 222  
San Diego, CA 92140

Mr. John Karpinski  
12071 Alta Carmel Ct #103  
San Diego, CA 92128

Mr. Doug Perry  
San Diego Fire Rescue  
1010 2<sup>nd</sup> Avenue  
San Diego, CA 92101

Ms. Julia M. Quinn  
4557 Bermuda Avenue  
San Diego, CA 92107

**Draft EA Northside Improvements  
Public Scoping Meeting Attendees  
(11/16/11)**



# San Diego County Archaeological Society, Inc.

Environmental Review Committee

16 June 2013

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JUN 19 2013

PLANNING DEPT. #44

To: San Diego County Regional Airport Authority  
P.O. Box 82776  
San Diego, California 92138-2776

Subject: Draft Environmental Assessment  
San Diego International Airport  
Northside Improvements

Gentlemen:

I have reviewed the cultural resources aspects of the subject DEA on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the DEA, we agree that the project should have no significant impacts on cultural resources, provided that demolition of the Allied Aerospace Building is not a part of the project. Such demolition would require analysis which is not included in the DEA as circulated.

1-1

As an editorial comment, page 3-31 of the DEA states that the Allied Aerospace Building "is located on the eastern edge of the Airport, east of Pacific Highway between Sassafras and West Palm Streets, north of Landmark Aviation." It should state that the structure is located west of Pacific Highway, not east of it.

1-2

Thank you for affording SDCAS this opportunity to participate in the Authority's environmental review process for this project.

Sincerely,

James W. Royle, Jr., Chairperson  
Environmental Review Committee

cc: SDCAS President  
File



401 B Street, Suite 800  
San Diego, CA 92101-4231  
(619) 699-1900  
Fax (619) 699-1905  
www.sandag.org

June 19, 2013

File Number 3101100

Mr. Ted Anasis  
San Diego County Regional Airport Authority  
P.O Box 82776  
San Diego, CA 92138-2776

Dear Mr. Anasis:

**SUBJECT: Draft Environmental Assessment for the San Diego International Airport North-Side Improvements**

*MEMBER AGENCIES*

- Cities of*
- Carlsbad*
- Chula Vista*
- Coronado*
- Del Mar*
- El Cajon*
- Encinitas*
- Escondido*
- Imperial Beach*
- La Mesa*
- Lemon Grove*
- National City*
- Oceanside*
- Poway*
- San Diego*
- San Marcos*
- Santee*
- Solana Beach*
- Vista*
- and*
- County of San Diego*

Thank you for the opportunity to comment on the draft Environmental Assessment (EA) for the north-side improvements at San Diego International Airport. The San Diego Association of Governments (SANDAG) comments are made from a regional perspective, emphasize the need for land use and transportation coordination, and are based on policies contained in the SANDAG Regional Comprehensive Plan and the 2050 Regional Transportation Plan.

2-1

The draft EA refers to the environmental analyses from the Final and Supplemental Environmental Impact Reports for the Airport Master Plan. The draft EA then proposes to analyze the environmental effects of changes to projects and several proposed projects that didn't undergo previous National Environmental Policy Act review. Two projects from those listed on pages one through seven of the Purpose and Need section raised questions from staff:

1. The extension of an on-airport circulation road from the Sassafras Street/Pacific Highway intersection:
  - Does the road serving the Rental Car Center (RCC) from Sassafras Street also connect to Washington Street, and will public traffic be able to use either road to enter/exit the north-side RCC or long-term parking lot? If so, what are the traffic impacts to the intersections on Pacific Highway and Washington Street? It would seem that regardless of signage, some travelers may use Washington Street directly from Interstate 5 to enter the north side of the airport.

2-2

*ADVISORY MEMBERS*

- Imperial County*
- California Department of Transportation*
- Metropolitan Transit System*
- North San Diego County Transit Development Board*
- United States Department of Defense*
- San Diego Unified Port District*
- San Diego County Water Authority*
- Mexico*

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JUN 21 2013

PLANNING DEPT. #44



2. A new Terminal Link Roadway along the eastern perimeter of the airport connecting the proposed north-side facilities to the south side of the airport:
  - The terminal roadway will connect with North Harbor Drive at the Coast Guard signal. This signal will need to work in conjunction with the Laurel Street signal and will affect through traffic on North Harbor Drive as it allows shuttles to enter/exit the terminal roadway. What are the level of service impacts of this new traffic pattern? Are there any transit signal priority treatments along Harbor Drive planned to improve shuttle travel times and trip reliability?

2-2  
Cont.

If you have any questions or would like to discuss SANDAG comments on this project, please contact Dave Schumacher at (619) 699-6906 or [dave.schumacher@sandag.org](mailto:dave.schumacher@sandag.org).

Sincerely,



CHARLES "MUGGS" STOLL  
Department Director, Land Use and Transportation Planning

CST/DSC/bga

cc: Dave Schumacher, SANDAG

Comment Letter 3

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JUN 28 2013

Peninsula Community Planning Board

P.O. Box 7994

San Diego, CA 92167

June 20, 2013

PLANNING DEPT. #44

Mr. Ted Anasis  
Manager, Airport Planning  
San Diego County Regional Airport Authority  
3225 North Harbor Drive  
San Diego, CA 92101

Subject: Draft Environmental Assessment, San Diego International Airport Northside Improvements

Dear Mr. Anasis:

On behalf of the Peninsula Community Planning Board (PCPB), thank you for the opportunity to provide comments on the Draft Environmental Assessment (EA) for the San Diego International Airport Northside Improvements. At its June, 20, 2013 meeting, the PCPB adopted the following comments on the EA.

While the majority of the proposed improvements will not occur within the jurisdiction of the Peninsula Community Plan, we are concerned that there will be impacts to resources within areas subject to the jurisdiction of the PCPB that will result from the proposed development. Specifically, we are concerned that there may be impacts to surface water quality that have not been adequately identified and which may be avoided and/or mitigated through project redesign.

3-1

The proposed project that is the subject of the EA includes the construction of a new gravity/force main storm drain and associated outfall. The proposed storm drain is proposed to collect storm runoff from the areas subject to the proposed Northside Improvements and transport them to the new outfall proposed to be located in the body of water known as the Navy Boat Channel.

3-2

Although the Navy Boat Channel is not specifically included in the 2010 California 303(d) List of Water Quality Limited Segments, there are two segments identified in the 2010 List that are adjacent to the mouth of the boat channel where it enters San Diego Bay. Specifically, the Spanish Landing segment (total coliform) and Submarine Base (sediment toxicity, toxicity and benthic community effects) are contained in the 2010 list.

3-3

Our concerns are two-fold. First, the north side was previously improved with major manufacturing facilities with limited, if any, pervious surfaces. The existing storm drain structures crossing under the runway and taxiways draining toward San Diego Bay historically provided sufficient capacity for both the airport and the industrial facilities. We have not seen any demonstration that the existing storm drain facilities do not provide the capacity necessary to drain the proposed project.

3-4

Second, we are concerned that the addition of a new storm drain facility which drains to the Navy Boat Channel will result in the transport of sediment and toxic materials to the Boat Channel and

3-5

subsequently to the impaired segments of San Diego Bay identified above. Although generalized mitigation measures are described in the EA, no specific measures are proposed.

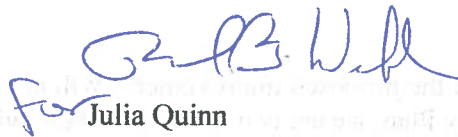
3-5  
Cont.

It is the PCPB's position that the project should include more measures to retain stormwater runoff on-site to the greatest degree feasible to eliminate, if possible, the need for additional stormwater transport facilities, particularly those draining to the Boat Channel. Such measures could include the increased use of bio-swales, detention basins, pervious paving materials, etc. As stated above, the need for the storm drain facility has not been demonstrated except in broad general statements regarding need for additional capacity above that provided by the three existing drains. The existing drains combined with measures to retain runoff on-site may be sufficient to serve the proposed project if additional measures are undertaken to retain stormwater on-site.

3-6

Again, we appreciate the opportunity to provide comments.

Sincerely,



for Julia Quinn  
Chair, Peninsula Community Planning Board



**THE CITY OF SAN DIEGO**

July 1, 2013

RECEIVED

San Diego County Regional Airport Authority  
Mr. Ted Anasis  
P.O. Box 82776  
San Diego, CA 92138-2776

JUL 01 2013

PLANNING DEPT. #44

Submitted via email to: [planning@san.org](mailto:planning@san.org)  
Hard copy to follow via mail

**Subject: CITY OF SAN DIEGO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT (EA)  
FOR THE SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN – NORTHSIDE  
IMPROVEMENTS**

The City of San Diego (“City”) has received and reviewed the Notice of Availability for the above project and appreciates this opportunity to provide comments to the San Diego County Regional Airport Authority (SDCRAA). In response to the Draft EA on this project, prepared in accordance with the National Environmental Policy Act (NEPA), the City identified potential environmental issues that may result in a significant impact to the environment. Please note that all comments are provided below for your consideration during the NEPA review process may include comments originally provided during the City review of the CEQA environmental documents. Continued coordinated planning between the City, the SDRCAA, and other local, regional, state, and federal agencies will be essential in order to implement this project.

4-1

**DEVELOPMENT SERVICES DEPARTMENT:**  
ENVIRONMENTAL ANALYSIS SECTION:  
MYRA HERRMANN, SENIOR PLANNER, [mherrmann@san-diego.gov](mailto:mherrmann@san-diego.gov)

**Miscellaneous comments:**

Please note that any work proposed within the City’s Public Right-of-Way (PROW) will require permitting in accordance with the Municipal Code. Please refer to the Development Services Department (DSD) website at <http://www.sandiego.gov/development-services/> for guidance on submittal requirements. Staff within DSD will be able to assist the SDCRAA with any future permitting and/or discretionary actions associated with the work.

4-2

**Public Utilities**

**The following comments were provided by staff from the City’s Public Utilities Department:**

**Development Services Department**  
1222 First Avenue, MS 501 – San Diego, CA 92101-4155  
Tel (619) 446-5460

Any work within the City's Public Right-of-Way requires review for conformance with the City's Storm Water Regulations (within the Land Development Code) and should be referenced in the environmental document. 4-3

The document does not address how existing and proposed utilities within the project will be dealt with as a result of the proposed improvements. 4-4

Sewer and water mains serving one entity/ownership should be private or they will be converted to private. 4-5

All proposed private sewer facilities located within a single lot are to be designed to meet the requirements of the California Uniform Plumbing Code and will be reviewed as part of the building permit plan check. 4-6

No trees or shrubs exceeding three feet in height at maturity shall be installed within ten feet of any sewer facilities. 4-7

The project will be required to pay capacity fees associated with this expansion based the agreed number of Equivalent Dwelling Units (EDU's) being added. 4-8

**The following comments were provided by staff from the City's Public Works Department, Right-of-Way Design Division:**

Please note that according to staff from the City's Public Works Department, Right-of-Way Design Division, Table 3-6 on Page 3-40 of the Draft EA is missing two (2) projects noted below along Pacific Highway that will require coordination during the design and construction phase of the Northside Improvements. Please contact Luis Schaar, P.E. at 619-533-7492 if you need further information regarding these two projects.

**Project Name: Pacific Beach Pipeline South**  
Location: Various, including Pacific Highway from Enterprise St. to Upas St.  
Description: The project proposes the installation of 38,725 linear feet of water main and 6,731 linear feet of sewer main along with the abandonment of the Pacific Beach Reservoir, which is no longer in use.  
Current Status: Design (Construction from 2015-2018) 4-9

**Project Name: Water Group 954**  
Location: Pacific Highway from Upas St. to Laurel St.  
Description: Water main replacement along Pacific Highway  
Current status: Planning (Construction 2016-2017)

**TRANSPORTATION DEVELOPMENT SECTION:**

**ANN GONSALVES, SENIOR ENGINEER – TRAFFIC, (619) 446-5294, [AGONSALVES@SANDIEGO.GOV](mailto:AGONSALVES@SANDIEGO.GOV)**

1. The Notice of Preparation for the Draft Supplemental EIR for the SDIA Airport Master Plan-Northside Improvements and the accompanying Initial Study asserted that all transportation/traffic impacts were conservatively addressed in the May 2008 Airport Master Plan EIR and therefore no additional analysis was contemplated in this Draft SEIR. However, the City of San Diego expressed concerns with the adequacy of the May 2008 EIR transportation analysis and reiterates those same concerns as it relates to this project. The City of San Diego letter of comment of February 4, 2008 to the May 2008 Airport Master Plan EIR is therefore incorporated by reference into these comments on this Draft Supplemental EIR for the Northside Improvements. 4-10
2. In addition, we repeat the following comment from our letter of June 25, 2010 responding to the Notice of Preparation for this DSEIR, which do not appear to have been addressed in this SDEIR: 4-11
  - a. An updated transportation impact study should compare the impacts of the Northside Improvements project against existing conditions in order to establish significance of impacts and identify project mitigation measures. 4-12
  - b. The proposed “Terminal Link Roadway” should be constructed entirely within the current airport footprint in order to avoid negatively impacting traffic operations on North Harbor Drive. 4-13
  - c. The updated transportation impact study should provide mitigation measures for Northside Improvements project impacts expected along Washington Street, Pacific Highway, Sassafras Street and other locations which will be impacted by the reassignment of existing traffic and generation of additional traffic due to the project facilities. All intersection level of service analysis should also include queuing analysis. 4-14

Specific comments regarding the adequacy of the information presented in the DSEIR follow:

3. This transportation impact study should not only analyze the impacts of the relocation of the Solar Turbines employee parking lot, but also discuss and evaluate any traffic pattern changes, access points and circulation, parking, and roadways and intersection impacts due to other components of the Northside Improvements such as Air Cargo Warehouse Facilities and Associated Improvements, and Terminal Link Roadway, etc. The Supplemental Analysis (Section 5.3.2) should be revised and expanded to include the excerpts of such traffic impact analysis that comprehensively discuss all components of the project and evaluate all its impacts and required mitigations. 4-15

4. The Supplemental Analysis (Section 5.3.2) should also include trip distribution figures showing how the traffic patterns and volume would be changed due to each and all components of the project. It should also include road segment ADT's and intersection peak hour volume figures showing the increases, or reductions in trips on each street and intersection surrounding the Airport, instead of the very limited area as presented on the maps in this section. 4-16
5. All new access points for each component of the Northside Improvements including the proposed Solar Turbines employee parking lot should be fully discussed, their locations shown, and analysis provided to show whether they would be expected to operate at acceptable level of service. A queue analysis should also be performed for ingress and egress points such as the access point for the new parking lot for the Solar Turbines employees. Location of any proposed gates at such access points should also be identified, and they should be located and operated in a manner not to cause any queuing or stacking of vehicles into City streets and intersections. 4-17
6. The report should discuss the employees' walking distances and routes between the proposed Solar Turbines employee parking lot and the Solar Turbines facility. The increase in distance from the current parking lot to the proposed lot should also be identified. If the increase in walking distance appears unreasonably large then some of the employees may choose to park on nearby City streets which in turn could result in parking impacts. This should be fully discussed and evaluated in the report. Also, if the Airport Authority or Solar Turbines plans any type of shuttle service from the proposed parking lot to the Solar Turbines facility, its provision, hours of operation, and frequency should be identified. 4-18

**ENVIRONMENTAL SERVICES DEPARTMENT**

LISA WOOD, SENIOR PLANNER ( 858)-573-1236, [lwood@SANDIEGO.GOV](mailto:lwood@SANDIEGO.GOV)

This comment was provided Section 5.4.1.3 Utilities on page 5-92: This section of the document details construction impacts explains that BMPs or Best Management Practices would be determined during the detailed design stages or in conjunction with other construction occurring during the Proposed Project. This does not provide sufficient information to assess the project's ability to minimize solid waste impacts. Development of a Waste Management Plan would be the best way to provide sufficient analysis and consideration of this issue. 4-19

**CITY PLANNING & COMMUNITY INVESTMENT DEPARTMENT**

TAIT GALLOWAY, SENIOR PLANNER, Long Range Planning Division  
[tgalloway@sandiego.gov](mailto:tgalloway@sandiego.gov)

1. The US Marine Corps have proposed to modify the West Washington entrance into the Marine Recruit Depot. This project needs to be included in cumulative impacts analysis. 4-20

- 2. The project needs to consider an alternative alignment for the Terminal Link Roadway to provide direct access to the terminals and help to reduce potential impacts to North Harbor Drive. 4-21
  - a. Please analyze the traffic related to vehicles leaving the airport property that would use the Terminal Link Roadway: 4-22
    - i. This analysis should address potential specific impacts to North Harbor Drive from vehicles using the Terminal Link Roadway. 4-23
    - ii. This analysis should address if the potential impacts to North Harbor Drive in the EIR and related mitigation measures would be reduced if the Terminal Link Roadway remained on airport property

TRANSPORTATION AND STORM WATER DEPARTMENT  
STORM WATER DIVISION  
MARK G. STEPHENS, AICP, ASSOCIATE PLANNER  
[mgstephens@sandiego.gov](mailto:mgstephens@sandiego.gov)  
(858) 541-4361

The City of San Diego Storm Water Division within the Transportation & Storm Water Department is responsible for protecting and improving water quality and reducing flood risk through efficient storm water management. One of the key project elements includes a new storm drain force main to collect and divert storm water runoff from the proposed northside development areas. Based upon the information provided, we understand that the San Diego County Regional Airport Authority will be responsible for the proposed drainage improvements described in the Draft Environmental Assessment, including future operation and maintenance. Currently, City of San Diego storm drainage facilities traverse the San Diego International Airport site and also service some surrounding areas. Coordination with the City, and specifically the Storm Water Division, is necessary to assure protection of the City storm drainage system and compatible operation of the respective systems. 4-24

Section 3.5.2, Water Quality, Page 3-21, references the San Diego Municipal Storm Water Permit (NPDES Permit No. CAS0108758). The California Regional Water Quality Control Board for the San Diego Region adopted Order No. R9-2013-0001 and NPDES No. CAS0109266 on May 8, 2013, approving a new National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Separate Storm Sewer Systems (MS4s) draining the San Diego Region, with an effective date of June 27, 2013. Section 4.6.1, Methodology (for Water Quality), Page 4-37, states that, "This analysis assumes that SDCRAA will design all improvements to meet water quality permitting requirements." Implementation of the new permit will affect these water quality permitting requirements. 4-25

Section 4.6.1, Methodology (for Water Quality), Page 4-37 also states, "Because the proposed action is still at a conceptual level of planning, the analysis is mostly qualitative rather than quantitative." We request the opportunity to review any analysis and documentation to ensure we understand such factors as the catchment area for the new proposed storm drain force main, the flows anticipated, and how much this would reduce the flows in other storm drains (e.g., the drain to the Convair Lagoon). A clearer description of proposed phasing for planned improvements is also necessary, along with an 4-26



explanation of how drainage would be handled during construction of the proposed storm drain force main and pump station.

4-26  
Cont.

TRANSPORTATION AND STORMWATER DEPARTMENT  
LINDA MARABIAN, SENIOR TRAFFIC ENGINEER, [LMARABIAN@SANDIEGO.GOV](mailto:LMARABIAN@SANDIEGO.GOV)

1. In addition to Pacific Hwy/Laurel St and Laurel St/Harbor Dr intersections, potential impacts due to the redistribution of traffic and recirculation of the terminal link roadway may occur at the following intersections. These intersections need to be analyzed for existing and future conditions with current traffic data:
    - a. Pacific Highway/ Washington Street
    - b. Pacific Highway/ Sassafras Street
    - c. Pacific Highway/ W. Palm Street
  2. The proposed terminal Link Roadway extends to the intersection of North Harbor Drive and the existing Rental Car Access Road. Due to the new trip distribution, North Harbor Dr. and Rental Car Access Rd. needs to be analyzed for existing and future conditions with current traffic data.
  3. Clearly identify location of the proposed intersection of Solar Turbines employee replacement parking lot access road with North Harbor Drive. This new intersection must be analyzed.
  4. Please include the redistribution of traffic due to the Solar Turbines employee parking lot and the proposed Terminal Link roadway. Each intersection along North Harbor Dr. should be analyzed from Laurel Street to where the proposed project will add 50 or more peak hour trips in either direction to adjacent street traffic.
  5. Table 5.3-2 (Pg 5-73) in the CEQA document reviewed by the City in 2011 required revision as noted below. This analysis should be included in an appropriate format to address circulation issues as part of the NEPA review.
    - a. Street Segment Operations table shows existing traffic data was collected in 2005. Current traffic data (2010) needs to be collected to support traffic analysis calculations.
- Laurel Street from Harbor Drive to Pacific Highway shows a future 2015 ADT of 36.2K and a future 2030 ADT of 35.1K. Please explain why the future volumes are reduced on this segment.

Page 7 of 7  
San Diego County Regional Airport Authority  
Mr. Ted Anasis  
July 1, 2013

Please contact the appropriate above-named individual(s) if you have any questions on the submitted comments. The City respectfully requests that you please address the above comments in the Final EA and provide CD copies of the document for distribution to the commenting department(s). If you have any additional questions regarding the City's review of the Draft EA please contact me at 619-446-5372 or via email at [mherrmann@sandiego.gov](mailto:mherrmann@sandiego.gov).

Sincerely,



Myra Herrmann  
Senior Environmental Planner  
Development Services Department

cc: Reviewing Departments (via email)  
Review and Comment online file

**From:** Herrmann, Myra <MHerrmann@sandiego.gov>  
**Sent:** Tuesday, July 02, 2013 3:42 PM  
**To:** Airport Planning  
**Cc:** Herrmann, Myra  
**Subject:** SDIA - Northside Improvements DRAFT EA

Comment Letter 5

**Importance:** High

The City of San Diego submitted comments on the above project yesterday afternoon and was altered earlier today by another department that they have some additional comments on the project specific to a record of a burn-ash deposit at the western end of the airport underneath the runway, and contaminated sediment in the Navy Boat Channel. Staff from the City's Environmental Services Department, Public Utilities Department and the Local Enforcement Agency (LEA) are concerned that construction of the force main pipeline and outfall structure could result in exposure of this burn ash and impact contaminated sediments within the Navy Boat Channel. If such hazards are encountered in these areas during construction related activities the SDCRAA will be required to contact the City's LEA and comply with all applicable regulations governing the handling of said waste material.

5-1

In addition, for more than 10 years the Navy and the RWQCB and other State regulators have not agreed on the action and terms with what level of clean up is required for the impacted sediments found through extensive testing in this area. The end point of the Boat Channel where this storm drain is depicted to discharge into has the highest levels of impacted sediment.

The Draft EA should include this information in all applicable sections of the document where hazardous materials are discussed and include mitigation for addressing potential impacts.

LEA Program Manager, Bill Prinz can be reached for more information at 619-533-3696.

Please accept this additional comment via email. If you require this additional comment to be on City letterhead, please let me know ASAP and I will resubmit in that format.

Thanks for your consideration on this matter,  
Myra

MYRA HERRMANN, SENIOR PLANNER/ARCHAEOLOGY  
City of San Diego - Development Services Department  
1222 1st Avenue, MS 501  
San Diego, CA 92101  
(619) 446-5372  
(619) 446-5499 fax  
[mherrmann@sandiego.gov](mailto:mherrmann@sandiego.gov)  
[www.sandiego.gov](http://www.sandiego.gov)

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JUL 02 2013

PLANNING DEPT. #44

MYRA HERRMANN, SENIOR PLANNER/ARCHAEOLOGY  
City of San Diego - Development Services Department  
1222 1st Avenue, MS 501  
San Diego, CA 92101  
(619) 446-5372  
(619) 446-5499 fax  
[mherrmann@sandiego.gov](mailto:mherrmann@sandiego.gov)  
[www.sandiego.gov](http://www.sandiego.gov)



**Responses to Agency/Public Comments on the Northside Improvements Draft EA**

COMMENT #	COMMENT	RESPONSE
<p><b>James W. Royle, Jr., Chairperson, Environmental Review Committee San Diego County Archaeological Society, Inc.</b></p>		
1-1	<p>Based on the information contained in the DEA, we agree that the project should have no significant impacts on cultural resources, provided that demolition of the Allied Aerospace Building is not a part of the project. Such demolition would require analysis which is not included in the DEA as circulated.</p>	<p>Comment noted.</p>
1-2	<p>As an editorial comment, page 3-31 of the DEA states that the Allied Aerospace Building “is located on the eastern edge of the Airport, east of Pacific Highway between Sassafras and West Palm Streets, north of Landmark Aviation.” It should state that the structure is located west of Pacific Highway, not east of it.</p>	<p>Comment noted. The text of the last sentence in Section 3.7.2, “Historic, Architectural, and Cultural Resources,” on page 3-31 has been corrected to state that the Allied Aerospace Building is located to the west, and not east, of Pacific Highway.</p>
<p><b>Charles “Muggs” Stoll, Department Director, Land Use and Transportation Planning San Diego Association of Governments</b></p>		
2-1	<p>The San Diego Association of Governments (SANDAG) comments are made from a regional perspective, emphasize the need for land use and transportation coordination, and are based on policies contained in the SANDAG Regional Comprehensive Plan and the 2050 Regional Transportation Plan.</p>	<p>Comment noted. The EA also considers the policies contained in the Regional Transportation Plan, as discussed on page 4-9 in Section 4.2.3.1, “Surrounding Land Use Plan and Policies.”</p>

COMMENT #	COMMENT	RESPONSE
2-2	<p>The draft EA refers to the environmental analyses from the Final and Supplemental Environmental Impact Reports for the Airport Master Plan. The draft EA then proposes to analyze the environmental effects of changes to projects and several proposed projects that didn't undergo previous National Environmental Policy Act review. Two projects from those listed on pages one through seven of the Purpose and Need section raised questions from staff:</p> <ol style="list-style-type: none"> <li>1. The extension of an on-airport circulation road from the Sassafras Street/Pacific Highway intersection. <ul style="list-style-type: none"> <li>• Does the road serving the Rental Car Center (RCC) from Sassafras Street also connect to Washington Street, and will public traffic be able to use either road to enter/exit the north-side RCC or long-term parking lot? If so, what are the traffic impacts to the intersections on Pacific Highway and Washington Street? It would seem that regardless of signage, some travelers may use Washington Street directly from Interstate 5 to enter the north side of the airport.</li> </ul> </li> <li>2. A new Terminal Link Roadway along the eastern perimeter of the airport connecting the proposed north-side facilities to the south side of the airport. <ul style="list-style-type: none"> <li>• The terminal roadway will connect with North Harbor Drive at the Coast Guard signal. This signal will need to work in conjunction with the Laurel Street signal and will affect through traffic on North Harbor Drive as it allows shuttles to enter/exit the terminal roadway. What are the level of service impacts of this new traffic pattern? Are there any transit signal priority treatments along Harbor Drive planned to improve shuttle travel times and trip reliability?</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1) The road serving the RCC from the Sassafras Street/Pacific Highway intersection connects to Washington Street (refer to Figure 1-3). Washington Street serves as the service entrance road to air cargo distribution facilities and the airport traffic control tower. Washington Street is not signed for public use. Signs would direct the public to use Sassafras Street from the Pacific Highway intersection, which would provide access to the proposed GA/FBO facilities, RCC facility, and the relocated SAN Park Pacific Highway parking facility. As described in Section 4.3.3.1, all surface roadway improvements included as part of the Proposed Action are contained on Airport property. The proposed public airport access road would utilize the existing Sassafras Street/Pacific Highway intersection and existing traffic signal.</li> <li>2) The Terminal Link Roadway would help alleviate Airport-related traffic on North Harbor Drive. The proposed Terminal Link Roadway would be constructed within the Airport boundary, providing an on-Airport dedicated (non-public) access route between the Northside area and a new intersection at the vehicle entrance to the U.S. Coast Guard facility and North Harbor Drive. Shuttle bus activity would continue to remain on the section of North Harbor Drive between the Airport terminal area and the terminus of the Terminal Link Roadway. An additional westbound lane would be added, connecting West Laurel Street to North Harbor Drive. The roadway layout would increase from three existing lanes to four lanes, increasing roadway capacity and improving the circulation of airport shuttle buses.</li> </ol> <p>As described in Section 4.3.3.1, the Proposed Action would not require any notable traffic re-routing or changes to street configurations or dimensions. To the extent that implementation of the Proposed Action may result in a redistribution of traffic in the Airport area, such redistribution is considered beneficial relative to reducing Airport-related traffic and drawing traffic away from congested roadways. Please also see the response to Comment 4-13.</p>
<p><b>Julia Quinn, Chair Peninsula Community Planning Board</b></p>		
3-1	<p>While the majority of the proposed improvements will not occur within the jurisdiction of the Peninsula Community Plan, we are concerned that there will be impacts to resources within areas subject to the jurisdiction of the PCPB that will result from the proposed development. Specifically, we are concerned that there may be impacts to surface water quality that have not been adequately identified and which may be avoided and/or mitigated through project redesign.</p>	<p>Comment noted; please refer to the responses to Comments 3-3 through 3-6.</p>
3-2	<p>The proposed project that is the subject of the EA includes the construction of a new gravity/forcemain storm drain and associated outfall. The proposed storm drain is proposed to collect storm runoff from the areas subject to the proposed Northside Improvements and transport them to the new outfall proposed to be located in the body of water known as the Navy Boat Channel.</p>	<p>Comment noted; please refer to the responses to Comments 3-3 through 3-6.</p>

COMMENT #	COMMENT	RESPONSE
3-3	<p>Although the Navy Boat Channel is not specifically included in the 2010 California 303(d) List of Water Quality Limited Segments, there are two segments identified in the 2010 List that are adjacent to the mouth of the boat channel where it enters San Diego Bay. Specifically, the Spanish Landing segment (total coliform) and Submarine Base (sediment toxicity, toxicity and benthic community effects) are contained in the 2010 list.</p>	<p>The following text was added to Section 4.6.3.1:</p> <p><i>The water proposed to be discharged to the Navy Boat Channel connects to the same water body receiving the discharge now – San Diego Bay. The existing outfalls discharge roughly within 400 feet away from each other in Convair Lagoon and within one mile from downtown Anchorage. In general, water discharged to San Diego Bay from the northside area would have a higher quality after the proposed Northside Improvements and the BMPs are implemented than it now has.</i></p> <p>According to a water quality analysis prepared for the proposed Northside Development area, the existing site conditions comprise approximately 42.2 acres of asphalt and concrete, 0.1 acre of structures, 38.2 acres of compacted gravel (impervious), and 13 acres of bare soil (pervious). Pervious area would increase by 13 acres with the proposed Northside Improvements compared to existing conditions. The increase in pervious area and implementation of permanent BMPs within the Northside Improvements area would reduce the total volume of runoff compared to existing conditions.</p> <p>As described in Section 4.6.3.1, the Proposed Action also includes design features to reduce the amount of surface water runoff such that no significant impacts to hydrology would occur. The design of the storm drain system (see Figure 2-2) for the Proposed Action would be developed in light of the requirements of the SDIA SWMP, which includes provisions related to Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID), which further address potential hydrology impacts.</p>
3-4	<p>Our concerns are two-fold. First, the north side was previously improved with major manufacturing facilities with limited, if any, pervious surfaces. The existing storm drain structures crossing under the runway and taxiways draining toward San Diego Bay historically provided sufficient capacity for both the airport and the industrial facilities. We have not seen any demonstration that the existing storm drain facilities do not provide the capacity necessary to drain the proposed project.</p>	<p>The existing storm drains are undersized and do not provide sufficient capacity to adequately drain the existing service areas and new Airport uses and improvements proposed as part of the Northside Improvements. The drains were built between 1950 and 1970 and have undergone various repairs over the years to stop joint leaks. Previous joint repairs cause excess material to form inside the pipe, impeding the ability to install a corrective sleeve inside the pipe to improve the pipe’s integrity; furthermore, installation of a line sleeve would reduce flow capacity. Excavating and replacing the drain pipes is not feasible because the pipes cross under the Airport’s only active runway; runway and taxiway operations would have to cease during excavation and replacement of the pipes. Since two of the storm drains are owned and maintained by the City of San Diego, the Airport has discussed and evaluated possible repairs with City personnel. It was generally agreed that the challenge of retrofitting and repairing the storm drains was far greater than the benefit. Therefore, the Airport has elected to construct a new storm drain that discharges to the Navy Boat Channel.</p> <p>[This text was added to Section 4.6.3.1].</p>
3-5	<p>Second, we are concerned that the addition of a new storm drain facility which drains to the Navy Boat Channel will result in the transport of sediment and toxic materials to the Boat Channel and subsequently to the impaired segments of San Diego Bay identified above. Although generalized mitigation measures are described in the EA, no specific measures are proposed.</p>	<p>The following paragraph was added to Section 4.6.3.2, “Water Quality – Operations”:</p> <p><i>Several design features will be incorporated in order to reduce the potential for water quality impacts from the RCC fueling facilities. The fuel storage facilities will feature underground fiberglass fuel storage tanks that would be double-walled to help prevent fuel leaks. The fuel lines from the storage tanks to the dispensing system would also be double-walled fiberglass piping below grade and double-walled steel piping aboveground to prevent leaks. Additionally, a leak detection system and monitoring sumps would be incorporated into the fuel system design.</i></p>

COMMENT #	COMMENT	RESPONSE
3-6	<p>It is the PCPB's position that the project should include more measures to retain stormwater runoff on-site to the greatest degree feasible to eliminate, if possible, the need for additional stormwater transport facilities, particularly those draining to the Boat Channel. Such measures could include the increased use of bio-swales, detention basins, pervious paving materials, etc. As stated above, the need for the storm drain facility has not been demonstrated except in broad general statements regarding need for additional capacity above that provided by the three existing drains. The existing drains combined with measures to retain runoff on-site may be sufficient to serve the proposed project if additional measures are undertaken to retain stormwater on-site.</p>	<p>As described in section 4.6.3.1, "Hydrology", the existing 42-inch, 54-inch and 60-inch diameter storm drains in the Northside Improvements area that drain south into San Diego Bay are undersized and do not provide sufficient capacity to adequately drain the existing service areas and new Airport uses and improvements proposed as part of the Northside Improvements.</p> <p>Furthermore, "the potential increase in impervious area at the site would be offset by project design features that include the use of porous pavement and vegetated/grass medians and swales at and near the new surface parking lot. It is estimated that approximately 20 percent of the parking area would utilize porous pavement and approximately 29 percent of the area at/near the parking lot would be vegetated/grass...the design of the RCC includes features to reduce surface runoff. Such features include the use of cisterns for rainfall harvesting and reuse and the installation of vegetated bio-swales along the northern and western sides of the building. All of the above features would help reduce the amount of surface water runoff flowing offsite, and provide water quality benefits..."</p>
<p><b>Myra Herrmann, Senior Environmental Planner City of San Diego, Development Services Department</b></p>		
4-1	<p>The City of San Diego ("City") has received and reviewed the Notice of Availability for the above project and appreciates this opportunity to provide comments to the San Diego County Regional Airport Authority (SDCRAA). In response to the Draft EA on this project, prepared in accordance with the National Environmental Policy Act (NEPA), the City identified potential environmental issues that may result in a significant impact to the environment. Please note that all comments are provided below for your consideration during the NEPA review process may include comments originally provided during the City review of the CEQA environmental documents. Continued coordinated planning between the City, the SDRCAA, and other local, regional, state, and federal agencies will be essential in order to implement this project.</p>	<p>Comment noted. Please see Responses 4-1 through 4-32 below, which address each of the specific comments by the commenter. As indicated by the commenter, a number of the comments below are comments provided by the City of San Diego on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements which were addressed in the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011. Further, as indicated in the responses below, many of the comments are not applicable to the content and/or analysis of the Northside Improvements Draft EA. In particular, a number of comments below are related to the Terminal Link Roadway alignment included as part of the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements which would have eliminated the Solar Turbines employee parking that currently exists along the southeastern edge of the Airport. Based on comments received on the Draft Supplemental EIR expressing concern about the elimination of such parking, the SDCRAA refined the proposed alignment of the Terminal Link Roadway to avoid impacts to the Solar Turbines employee parking lot, as reflected in the alignment included in the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements as well as the Northside Improvements Draft EA.</p>
4-2	<p>Please note that any work proposed within the City's Public Right-of-Way (PROW) will require permitting in accordance with the Municipal Code. Please refer to the Development Services Department (DSD) website at <a href="http://www.sandiego.gov/development-services/">http://www.sandiego.gov/development-services/</a> for guidance on submittal requirements. Staff within DSD will be able to assist the SDCRAA with any future permitting and/or discretionary actions associated with the work.</p>	<p>Comment noted. SDCRAA staff will coordinate with the City of San Diego Development Services Department, as appropriate, and obtain all necessary permits for any development proposed within the City's public right-of-way (PROW).</p>
4-3	<p>Any work within the City's Public Right-of-Way requires review for conformance with the City's Storm Water Regulations (within the Land Development Code) and should be referenced in the environmental document.</p>	<p>Comment noted. As indicated in Response 4-2, SDCRAA staff will coordinate with the City of San Diego Development Services Department, as appropriate, and obtain all necessary permits for any development proposed within the City's PROW.</p>



COMMENT #	COMMENT	RESPONSE
4-4	The document does not address how existing and proposed utilities within the project will be dealt with as a result of the proposed improvements.	<p>Underground utilities required for Airport facilities including water, natural gas, electric, and sanitary sewer would be constructed in conjunction with the access road from Sassafras Street/Pacific Highway intersection. The utilities would connect with existing utilities located along the Pacific Highway corridor.</p> <p>Section 1.5, "Proposed Action," discusses utility improvements under the proposed action: "Local utilities would be expanded to provide water, sewer, natural gas, power, and communications infrastructure for each of the planned facilities. The main trunk lines, or "backbone system," of the new utilities would generally be located within the proposed on-site access road right-of-way that would be extended west from Sassafras Street at Pacific Highway. The smaller service lines would extend north and south from the backbone system. The new utility lines would connect to the existing utility infrastructure located nearby, with the majority of the new connections occurring in the vicinity of Pacific Highway and Sassafras Street. Some utilities such as water lines, natural gas lines, and telecommunication lines would also have connections to existing utilities at both the east side and the west side of the proposed development area. No major improvements to existing off-site utilities are anticipated to be necessary for the proposed development."</p> <p>As described in Section 4.16.13, "Construction Impacts: Natural Resources and Energy Supply," "Construction of the Proposed Action could also require that existing utility infrastructure be relocated. Prior to severing existing utility lines, replacement lines would be brought into service. Accordingly, disruptions in service would be avoided or limited to the short amount of time necessary to make new connections. All utility relocation would be conducted in close coordination with (or by) the respective service providers. Accordingly, construction impacts on utilities and service systems would not be significant."</p>
4-5	Sewer and water mains serving one entity/ownership should be private or they will be converted to private.	The SDCRAA has initiated the review and designation of water and sewer facilities serving San Diego International Airport that will be owned and maintained by the SDCRAA. Discussions are ongoing with the City of San Diego regarding privatization of water and sewer facilities at the Airport.
4-6	All proposed private sewer facilities located within a single lot are to be designed to meet the requirements of the California Uniform Plumbing Code and will be reviewed as part of the building permit plan check.	Comment noted. This requirement will be incorporated into the applicable construction plans and specifications.
4-7	No trees or shrubs exceeding three feet in height at maturity shall be installed within ten feet of any sewer facilities.	Comment noted. This requirement will be incorporated into the applicable construction plans and specifications.
4-8	The project will be required to pay capacity fees associated with this expansion based the agreed number of Equivalent Dwelling Units (EDU's) being added.	Comment noted.

COMMENT #	COMMENT	RESPONSE
4-9	<p>Please note that according to staff from the City’s Public Works Department, Right-of-Way Design Division, Table 3-6 on Page 3-40 of the Draft EA is missing two (2) projects noted below along Pacific Highway that will require coordination during the design and construction phase of the Northside Improvements. Please contact Luis Schaar, P.E. at 619-533-7492 if you need further information regarding these two projects.</p> <p>Project Name: Pacific Beach Pipeline South                      Location: Various, including Pacific Highway from Enterprise St. to Upas St.                      Description: The project proposes the installation of 38,725 linear feet of water main and 6,731 linear feet of sewer main along with the abandonment of the Pacific Beach Reservoir, which is no longer in use.                      Current Status: Design (Construction from 2015-2018)                      Project Name: Water Group 954                      Location: Pacific Highway from Upas St. to Laurel St.                      Description: Water main replacement along Pacific Highway                      Current status: Planning (Construction 2016-2017)</p>	<p>Comment noted. Table 3-6, “Past, Present, and Reasonably Foreseeable Future Actions in the Study Area,” has been revised to include the Pacific Beach Pipeline South and Water Group 954 projects.</p>
4-10	<p>1. The Notice of Preparation for the Draft Supplemental EIR for the SDIA Airport Master Plan-Northside Improvements and the accompanying Initial Study asserted that all transportation/traffic impacts were conservatively addressed in the May 2008 Airport Master Plan EIR and therefore no additional analysis was contemplated in this Draft SEIR. However, the City of San Diego expressed concerns with the adequacy of the May 2008 EIR transportation analysis and reiterates those same concerns as it relates to this project. The City of San Diego letter of comment of February 4, 2008 to the May 2008 Airport Master Plan EIR is therefore incorporated by reference into these comments on this Draft Supplemental EIR for the Northside Improvements.</p>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on pages 1-35 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>
4-11	<p>2. In addition, we repeat the following comment from our letter of June 25, 2010 responding to the Notice of Preparation for this DSEIR, which do not appear to have been addressed in this SDEIR:</p>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-35 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>
4-12	<p>a. An updated transportation impact study should compare the impacts of the Northside Improvements project against existing conditions in order to establish significance of impacts and identify project mitigation measures.</p>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on pages 1-35 through 1-37 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>

COMMENT #	COMMENT	RESPONSE
4-13	<p>b. The proposed "Terminal Link Roadway" should be constructed entirely within the current airport footprint in order to avoid negatively impacting traffic operations on North Harbor Drive.</p>	<p>This is a comment on the October 2010 Draft Supplemental EIR for the SDIA Master Plan – Northside Improvements and was addressed on pages 1-37 through 1-40 of the Final Supplemental EIR for the Master Plan (August 2011). In addition, the substance of this comment was addressed on pages 4-15 and 4-16 in Section 4.3.3.3 of the Northside Improvements EA, which states: "The Proposed Action would not induce vehicular traffic and only includes on-Airport surface transportation actions. The Proposed Action would not require any notable traffic re-routing, changes to street configurations or dimensions, and changes to land use patterns resulting from the effects of traffic systems. Specifically, all surface roadway improvements included as part of the Proposed Action are contained on Airport property.</p> <p>To the extent that implementation of the Proposed Action may result in a redistribution of traffic in the Airport area, such redistribution is considered beneficial relative to reducing Airport-related traffic and drawing traffic away from congested roadways. The proposed Terminal Link Roadway would be constructed within the Airport boundary, providing an on-Airport dedicated (i.e., non-public) access route between the Northside area and a new intersection at the vehicle entrance to the U.S. Coast Guard facility and North Harbor Drive. Shuttle bus activity would continue to remain on the section of North Harbor Drive between the Airport terminal area and the terminus of the Terminal Link Roadway.</p> <p>The combination of replacing the individual rental car facilities that are currently distributed along the southern edge of the Airport with the new RCC and instituting a consolidated shuttle system to replace the individual rental car company shuttles would result in an overall reduction in rental car-related traffic on North Harbor Drive because (a) rental car rental and return activity would shift to the north area rather than in the existing south area facilities accessed via North Harbor Drive, and (b) the implementation of a consolidated shuttle busing operation would result in an overall reduction in shuttle bus trips compared to the shuttle bus trips generated by the existing individual rental car operations. In particular, the traffic analyses prepared for the SDCRAA estimated that, for the horizon year of 2015 with implementation of the Airport Master Plan, which includes the proposed Northside Improvements, 21 consolidated rental car shuttle round-trips would access the consolidated rental car center during the a.m. peak hour as compared to 53 individual rental car shuttle round-trips that would otherwise access the existing rental car area in the south without the consolidated rental car center. During the p.m. peak hour, 23 consolidated rental car shuttle round-trips would, with development of the RCC by 2015, replace the 68 individual rental car shuttle round-trips from individual operations. During a 24-hour period, it was estimated that 497 consolidated rental car shuttle round-trips per day would replace 1,000 individual rental car shuttle round-trips accessing the individual rental car facilities in the south. Consequently, the presence of the Terminal Link Roadway and associated RCC operations would produce a net decrease in traffic activity along North Harbor Drive as compared to maintaining existing rental car operations in the south area resulting in a net positive operational benefit with implementation of the proposed Northside Improvements (which include the RCC and Terminal Link Roadway), along North Harbor Drive relative to the No Action condition. Additionally, implementation of the RDC eliminates delivery trucks previously accessing the loading docks at the passenger terminal from North Harbor Drive and the terminal roadway system.</p>

COMMENT #	COMMENT	RESPONSE
4-14	c. The updated transportation impact study should provide mitigation measures for Northside Improvements project impacts expected along Washington Street, Pacific Highway, Sassafras Street and other locations which will be impacted by the reassignment of existing traffic and generation of additional traffic due to the project facilities. All intersection level of service analysis should also include queuing analysis.	The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on pages 1-40 through 1-43 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.
4-15	Specific comments regarding the adequacy of the information presented in the DSEIR follow: 3. This transportation impact study should not only analyze the impacts of the relocation of the Solar Turbines employee parking lot, but also discuss and evaluate any traffic pattern changes, access points and circulation, parking, and roadways and intersection impacts due to other components of the Northside Improvements such as Air Cargo Warehouse Facilities and Associated Improvements, and Terminal Link Roadway, etc. The Supplemental Analysis (Section 5.3.2) should be revised and expanded to include the excerpts of such traffic impact analysis that comprehensively discuss all components of the project and evaluate all its impacts and required mitigations.	The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on pages 1-43 and 1-44 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.
4-16	4. The Supplemental Analysis (Section 5.3.2) should also include trip distribution figures showing how the traffic patterns and volume would be changed due to each and all components of the project. It should also include road segment ADT's and intersection peak hour volume figures showing the increases, or reductions in trips on each street and intersection surrounding the Airport, instead of the very limited area as presented on the maps in this section.	The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-44 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.
4-17	5. All new access points for each component of the Northside Improvements including the proposed Solar Turbines employee parking lot should be fully discussed, their locations shown, and analysis provided to show whether they would be expected to operate at acceptable level of service. A queue analysis should also be performed for ingress and egress points such as the access point for the new parking lot for the Solar Turbines employees. Location of any proposed gates at such access points should also be identified, and they should be located and operated in a manner not to cause any queuing or stacking of vehicles into City streets and intersections.	The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-45 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.
4-18	6. The report should discuss the employees' walking distances and routes between the proposed Solar Turbines employee parking lot and the Solar Turbines facility. The increase in distance from the current parking lot to the proposed lot should also be identified. If the increase in walking distance appears unreasonably large then some of the employees may choose to park on nearby City streets which in turn could result in parking impacts. This should be fully discussed and evaluated in the report. Also, if the Airport Authority or Solar Turbines plans any type of shuttle service from the proposed parking lot to the Solar Turbines facility, its provision, hours of operation, and frequency should be identified.	The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-45 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.

COMMENT #	COMMENT	RESPONSE
4-19	<p>This comment was provided Section 5.4.1.3 Utilities on page 5-92: This section of the document details construction impacts explains that BMPs or Best Management Practices would be determined during the detailed design stages or in conjunction with other construction occurring during the Proposed Project. This does not provide sufficient information to assess the project’s ability to minimize solid waste impacts. Development of a Waste Management Plan would be the best way to provide sufficient analysis and consideration of this issue.</p>	<p>The comment is not a comment on the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-46 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011. In addition, the substance of this comment was address on pages 4-112 and 4-113 in Section 4.15.3.2 of the Northside Improvements Draft EA which states: “...recycling, salvage, reuse, and disposal options would be identified in a Solid Waste Management Plan in advance of all activities in order to minimize the amount of debris directed to local landfills. This plan would include the identification of locations for sorting of materials for reuse and recycling. At least 50 percent of all waste generated during construction and demolition activities would be recycled in accordance with the City of San Diego’s Construction and Demolition Debris Diversion Ordinance.”</p>
4-20	<p>1. The US Marine Corps have proposed to modify the West Washington entrance into the Marine Recruit Depot. This project needs to be included in cumulative impacts analysis.</p>	<p>Traffic utilizing the proposed SAN Park facility and RCC would not utilize the intersection of Washington Street and Pacific Highway, but would be directed to the Sassafras Street entrance which was analyzed for future traffic impacts. Cumulative traffic impacts of the Northside Improvements would be restricted to traffic accessing the proposed air cargo facilities, RDC, and ATCT. As such cumulative impacts are anticipated to be less than significant.</p>
4-21	<p>2. The project needs to consider an alternative alignment for the Terminal Link Roadway to provide direct access to the terminals and help to reduce potential impacts to North Harbor Drive.</p>	<p>The comment is not a comment on the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-47 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011. Please also see Response 4-13 above which addressed the substance of this comment:</p>
4-22	<p>a. Please analyze the traffic related to vehicles leaving the airport property that would use the Terminal Link Roadway:                      i. This analysis should address potential specific impacts to North Harbor Drive from vehicles using the Terminal Link Roadway.</p>	<p>The comment is not a comment on the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-48 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011. Please also see Response 4-13 above which addressed the substance of this comment:</p>
4-23	<p>ii. This analysis should address if the potential impacts to North Harbor Drive in the EIR and related mitigation measures would be reduced if the Terminal Link Roadway remained on airport property</p>	<p>The comment is not a comment on the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-48 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011. Please also see Response 4-13 above which addressed the substance of this comment:</p>

COMMENT #	COMMENT	RESPONSE
4-24	<p>The City of San Diego Storm Water Division within the Transportation &amp; Storm Water Department is responsible for protecting and improving water quality and reducing flood risk through efficient storm water management. One of the key project elements includes a new storm drain force main to collect and divert storm water runoff from the proposed northside development areas. Based upon the information provided, we understand that the San Diego County Regional Airport Authority will be responsible for the proposed drainage improvements described in the Draft Environmental Assessment, including future operation and maintenance. Currently, City of San Diego storm drainage facilities traverse the San Diego International Airport site and also service some surrounding areas. Coordination with the City, and specifically the Storm Water Division, is necessary to assure protection of the City storm drainage system and compatible operation of the respective systems.</p>	<p>Comment noted. The SDCRAA is responsible for the proposed drainage improvements and would coordinate with the City of San Diego Storm Water Division to protect the City's stormwater drainage system. As described in Section 4.6.3.1, the storm drain system would be developed under the requirements of the SDIA SWMP, which includes provisions related to Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID), which would address potential hydrology impacts. Potential construction water quality impacts would be addressed through compliance with the construction activity requirements specified in the SDIA SWMP and through the state's General NPDES Permit for Storm Water Discharges Associated with Construction Activities (2009-0009-DWQ), which requires the preparation and implementation of a SWPPP specific to the proposed construction activities (see Section 4.16.6).</p> <p>The following text was added to the Affected Environment Chapter in Section 3.5.2, "Water Quality":</p> <p><i>The City of San Diego Storm Water Division within the Transportation and Storm Water Department is responsible for protecting and improving water quality and reducing flood risk through efficient stormwater management. The intent of the City's Storm Water Division is to protect and enhance the water quality of watercourses, water bodies, and wetlands consistent with the Clean Water Act and NPDES Permit No. CAS0109266.</i></p> <p>Additionally, the following sentence was added to Section 4.6.3.2, "Water Quality: Proposed Action – Hydrology": "The SDCRAA would coordinate with the City of San Diego Storm Water Division as necessary to protect the City's stormwater drainage system."</p>
4-25	<p>Section 3.5.2, Water Quality, Page 3-21, references the San Diego Municipal Storm Water Permit (NPDES Permit No. CAS0108758). The California Regional Water Quality Control Board for the San Diego Region adopted Order No. R9-2013-0001 and NPDES No. CAS0109266 on May 8, 2013, approving a new National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Separate Storm Sewer Systems (MS4s) draining the San Diego Region, with an effective date of June 27, 2013. Section 4.6.1, Methodology (for Water Quality), Page 4-37, states that, "This analysis assumes that SDCRAA will design all improvements to meet water quality permitting requirements." Implementation of the new permit will affect these water quality permitting requirements.</p>	<p>All references to NPDES Permit No. CAS0108758 were replaced with Permit No. CAS0109266. The following footnote was added to the NPDES Permit reference in Section 3.5.2, providing the name of the Permit and noting the date of adoption:</p> <p><i>The California Regional Water Quality Control Board for the San Diego Region adopted Order No. R9-2013-0001 and NPDES Permit No. CAS0109266, National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region (Order), on May 8, 2013, with an effective date of June 27, 2013.</i></p> <p>A reference to NPDES Permit No. CAS0109266 was added Section 4.6.1 on Page 4-37, as follows: "This analysis assumes that SDCRAA will design all improvements to meet water quality permitting requirements, including NPDES Permit No. CAS0109266."</p>

COMMENT #	COMMENT	RESPONSE
4-26	<p>Section 4.6.1, Methodology (for Water Quality), Page 4-37 also states, "Because the proposed action is still at a conceptual level of planning , the analysis is mostly qualitative rather than quantitative." We request the opportunity to review any analysis and documentation to ensure we understand such factors as the catchment area for the new proposed storm drain force main, the flows anticipated, and how much this would reduce the flows in other storm drains (e.g., the drain to the Convair Lagoon). A clearer description of proposed phasing for planned improvements is also necessary, along with an explanation of how drainage would be handled during construction of the proposed storm drain force main and pump station.</p>	<p>Additional information on the storm drain was added to Section 1.5, "Proposed Action," which provides greater detail on the components of the force main and outfall.</p> <p><i>Storm Drain Force Main and Outfall. Project components include the following (no new buildings would be constructed):</i></p> <ul style="list-style-type: none"> <li>o <i>Linear Storm Drain: A 36-inch diameter gravity linear storm drain would traverse approximately 1,210 linear feet, beginning at the proposed Northside Interior Road and terminating at a new stormwater pump station. The drain would be constructed underground beneath the existing air cargo area using trenchless technology.</i></li> <li>o <i>Pump Station: A pump station capable of pumping 27 cubic-feet of stormwater per second would be constructed southeast of the existing ATCT. The pump station would consist of a concrete structure below surface grade, a wet well, two low-flow and two high-flow pumps, an intake bar screen and a discharge manifold with isolation valves. The facilities would be installed underground to a depth of 22 feet, with the top concrete slab of the wet well located at surface grade. An emergency generator and an electrical equipment panel would be constructed approximately 7-8 feet above ground level and would be surrounded by protective bollards.</i></li> <li>o <i>Force Main: A force main consisting of a 30-inch diameter pressurized pipe would be constructed for a distance of approximately 3,148 linear feet. The force main would begin at the pump station, traverse south and then west, parallel to the runway. The force main would be constructed using conventional cut-and –cover methods. The pump station and pressurized force main would pump the storm water to the west.</i></li> <li>o <i>Gravity Line: The force main would transition to a 36-inch gravity line pipe that would continue to carry the storm water approximately 3,292 linear feet to the west of the force main. The gravity line would have manholes spaced at 1,000 foot maximum intervals to allow access to the pipe. The gravity line would eventually turn south, around the end of the runway on the west side of Airport property, before crossing the Marine Corps Recruiting Depot (MCRD) property. The gravity line would be constructed using conventional cut-and –cover methods.</i></li> <li>o <i>Outfall to Navy Boat Channel: The gravity line would connect to a storm drain outfall for discharge to the Navy Boat Channel west of the Airport. The outfall would consist of 24 feet of reinforced concrete pipe, non-grouted rip rap, filter fabric, grouted rip rap and a "Tideflex" check valve. Approximately 2,500 cubic feet of rip rap would be deposited surrounding the outfall for an area of approximately 800 square feet. The stormwater would drain by gravity through the outfall. The riprap would reduce the velocity of the water and dissipate the water's energy. A "Tideflex" check valve would prevent water in the Boat Channel from entering the storm drain.</i></li> </ul> <p>Refer to Figure 2-2 for the design of the proposed storm drain force main. As noted in the response to Comments 3-3, 3-4, and 4-24, additional information on the proposed storm drain system was added to Section 4.6.</p>

COMMENT #	COMMENT	RESPONSE
4-26 (cont.)		<p>The following text was also added to Section 4.6.3.2 regarding anticipated flows:  <i>Concerns regarding the possibility of salinity changes through dilution resulting from freshwater storm flows arose in connection with the Terminal Development Program/The Green Build, which also discharges to an existing outfall in the Navy Boat Channel. A prior evaluation of the dilution capacity of the Navy Boat Channel concluded that potential dilution of salinity by the fresh water outflow from the storm drain outlet would be insignificant and temporary in nature due to the relatively small volume of fresh water and the tidal influence/tidal cycle. The Kleinfelder Drainage Study presented runoff volumes from the proposed Northside Improvements based on the planned, completed project conditions for the 10-year and 25-year/6-hour storms. The runoff volume from the 10-year/6-hour storm is calculated at 2.39 million gallons and the 25-year/6-hour storm runoff volume is 2.80 million gallons. The runoff volume from the 10-year/24-hour storm is 4.18 million gallons and the 25-year/24-hour storm runoff volume is 4.86 million gallons.</i></p>
4-27	<p>1. In addition to Pacific Hwy/Laurel St and Laurel St/Harbor Dr intersections, potential impacts due to the redistribution of traffic and recirculation of the terminal link roadway may occur at the following intersections. These intersections need to be analyzed for existing and future conditions with current traffic data:</p> <ul style="list-style-type: none"> <li>a. Pacific Highway/ Washington Street</li> <li>b. Pacific Highway/ Sassafras Street</li> <li>c. Pacific Highway/ W. Palm Street</li> </ul>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on pages 1-48 through 1-50 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>
4-28	<p>2. The proposed terminal Link Roadway extends to the intersection of North Harbor Drive and the existing Rental Car Access Road. Due to the new trip distribution, North Harbor Dr. and Rental Car Access Rd. needs to be analyzed for existing and future conditions with current traffic data.</p>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-50 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>
4-29	<p>3. Clearly identify location of the proposed intersection of Solar Turbines employee replacement parking lot access road with North Harbor Drive. This new intersection must be analyzed.</p>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-50 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>
4-30	<p>4. Please include the redistribution of traffic due to the Solar Turbines employee parking lot and the proposed Terminal Link roadway. Each intersection along North Harbor Dr. should be analyzed from Laurel Street to where the proposed project will add 50 or more peak hour trips in either direction to adjacent street traffic.</p>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-51 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>
4-31	<p>5. Table 5.3-2 (Pg 5-73) in the CEQA document reviewed by the City in 2011 required revision as noted below. This analysis should be included in an appropriate format to address circulation issues as part of the NEPA review.</p> <ul style="list-style-type: none"> <li>a. Street Segment Operations table shows existing traffic data was collected in 2005. Current traffic data (2010) needs to be collected to support traffic analysis calculations.</li> </ul>	<p>Comment noted. The SDIA Airport Master Plan Final EIR (May 2008) completed prior to initiation of the EA extensively considered potential traffic impacts of the overall Airport Master Plan, which includes the proposed Northside Improvements. The Master Plan Final EIR analysis was completed for vehicular traffic as required by CEQA in compliance with City of San Diego and FHWA criteria for impact analysis. Please see the responses to Comment 4-13 and Comment 2-2 for more information.</p>



COMMENT #	COMMENT	RESPONSE
4-32	<p>Laurel Street from Harbor Drive to Pacific Highway shows a future 2015 ADT of 36.2K and a future 2030 ADT of 35.1K. Please explain why the future volumes are reduced on this segment.</p>	<p>The comment is not a comment on, nor is it applicable to, the Northside Improvements Draft EA. The comment is a comment on the October 2010 Draft Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements and was addressed on page 1-51 of the Final Supplemental EIR for the SDIA Airport Master Plan – Northside Improvements published in August 2011.</p>
<p><b>Myra Herrmann, Senior Environmental Planner City of San Diego, Development Services Department</b></p>		
5-1	<p>The City of San Diego submitted comments on the above project yesterday afternoon and was altered earlier today by another department that they have some additional comments on the project specific to a record of a burn-ash deposit at the western end of the airport underneath the runway, and contaminated sediment in the Navy Boat Channel. Staff from the City’s Environmental Services Department, Public Utilities Department and the Local Enforcement Agency (LEA) are concerned that construction of the force main pipeline and outfall structure could result in exposure of this burn ash and impact contaminated sediments within the Navy Boat Channel. If such hazards are encountered in these areas during construction related activities the SDCRAA will be required to contact the City’s LEA and comply with all applicable regulations governing the handling of said waste material.</p> <p>In addition, for more than 10 years the Navy and the RWQCB and other State regulators have not agreed on the action and terms with what level of clean up is required for the impacted sediments found through extensive testing in this area. The end point of the Boat Channel where this storm drain is depicted to discharge into has the highest levels of impacted sediment.</p> <p>The Draft EA should include this information in all applicable sections of the document where hazardous materials are discussed and include mitigation for addressing potential impacts.</p>	<p>The following discussion of burn ash was added to Section 4.16.14, “Construction Impacts: Hazardous Materials, Pollution Prevention, and Solid Waste”:</p> <p><i>A comprehensive Burn Ash Management Plan was prepared in April 2005 for the former Naval Training Center landfill site. The Burn Ash Management Plan summarizes the protocol for the excavation, temporary stockpiling/storage, handling, and re-use or disposal of material excavated from within the landfill extent, or potentially contaminated soil within the construction envelope. The Green Build project (initiated in 2009) dealt with mitigation of burn ash; the mitigation measures from The Green Build remain in place. If burn ash is encountered during construction related activities the SDCRAA would contact the City’s Local Enforcement Agency and comply with all applicable regulations governing the handling of burn ash. All excavation, handling, stockpiling, characterizing, loading and hauling of material from the project site would be performed in accordance with all applicable laws, regulations and guidelines. The Airport would coordinate with the City of San Diego during design to ensure drainage during construction is appropriate. Upon completion of construction activities, no potential encounters with burn ash are anticipated since an underground storm drain would be in place.</i></p> <p>The SDCRAA has developed and implemented a stormwater management program to prevent or reduce the discharge of polluted runoff from the Airport, in accordance with State and federal water quality requirements. Per NPDES requirements, SDIA operates under RWQCB Order No. R9-2007-0001, Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, the San Diego Unified Port District, and the SDCRAA (NPDES No. CAS0109266). The San Diego RWQCB previously required the SDCRAA to demonstrate compliance with the San Diego Municipal Permit by developing a Jurisdictional Urban Runoff Management Program (JURMP). As part of the JURMP, each copermitee is required to develop a construction component to reduce pollution during all stages of construction and a Standard Urban Stormwater Mitigation Plan (SUSMP) process to address the potential post-construction discharge of pollutants to stormwater from new development and redevelopment projects. The SDCRAA has met these requirements by developing the SDIA SWMP, which includes both a construction oversight component and a SUSMP process to address new development and redevelopment. The SDCRAA also requires compliance with the Construction General Permit for all projects on airport property that disturb one acre or more of soil.</p>

COMMENT #	COMMENT	RESPONSE
5-1 (cont.)		As described in Section 4.6.3.2, potential water quality impacts would be addressed through compliance with the construction activity requirements specified in the SDIA SWMP and through the state's General NPDES Permit for Storm Water Discharges Associated with Construction Activities (2009-0009-DWQ), which requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) specific to the proposed construction activities. Please also refer to the response to Comments 3-3 and 4-26 regarding discharge into the Navy Boat Channel.