CALIFORNIA COASTAL COMMISSION SAN DIEGO DISTRICT OFFICE 7575 METROPOLITAN DRIVE, SUITE 103 SAN DIEGO, CA 92108-4402 VOICE (619) 767-2370 FAX (619) 767-2384



6-20-0447 (SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY)

June 10, 2021

EXHIBITS

Table of Contents

- **EXHIBIT 1: Location Map**
- **EXHIBIT 2: Site Plan**
- **EXHIBIT 3: Demoltion Plan**
- **EXHIBIT 4: Stormwater Site Plan**

EXHIBIT 5: USFWS Informal Consultation Letter





Proposed Storm Drainage Force Main Proposed Storm Drainage Infiltration Beds

NAL AIRPORT

LET'S GO.

Site Plan - Airside Improvements

July 2020

MASTER DEMOLITION PLAN

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3 - UNITED CARGO	2 - TRITURATOR AND WASH RACK	
4 - SOUTHWEST CARGO	8 - FUEL RACK	
4a - SOUTHWEST CARGO ASSOCIATED SHED STRUCTURE	10 - FMD MAINTENANCE SHOPS WITH ATTACHED JET BLAST FENCE	
5 - AIR FREIGHT (SOUTHWEST, ALASKA, HAWAII, DELTA, JETBLUE)	11 - FMD ADMINISTRATIVE BUILDING	
5a - AIR FREIGHT ASSOCIATED SHED STRUCTURE	12 - FMD WORKSHOP & PROCUREMENT	
6 - AMERICAN AIRLINES MAINTENANCE	24 - GATE P-18 GUARDHOUSE	
7 - UNITED AIRLINES HANGAR TERMINAL (UAHT) - (RELOCATE)	24a - ELECTRICAL VAULT - RACK ROOM 19	
	26 - JET BLAST FENCE	
	27 - GATE P-23, P-24, P-25 GUARDHOUSE	
	29 - CNG FUELING STATION	
DRT ADMINISTRATIVE BUILDING (FORMER COMMUTER TERMINAL)	30 - LPG BUS FUELING STATION	
	31 - CARDBOARD SOLID WASTE STORAGE AREA	
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APPROVED

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SAN DIEGO INTERNATIONAL AIRPORT SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

LEGEND

EXISTING STORMDRAIN OUTFALL PROPOSED STORAGE/INFILTRATION PROPOSED STORMDRAIN EXISTING STORMDRAIN PROPOSED STORMWATER FORCEMAIN PROPOSED PUMPSTATION FLOW DIRECTION

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PROPOSED UNDERGROUND STORAGE



	PAGE :	
SAN DIEGO INTERNATIONAL AIRPORT	* DATUM * Horizontal datum: NAD 83, zone 6, North American Vertical datu	EPOCH 2010 N 1988
ADP AIRSIDE IMPROVEMENTS	DATE : 10/02/	2020
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STORMWATER FACILITY SITE MAP COASTAL COMMISSION	3226	0

SUBMITTAI 209 DETAILED DESIGN



United States Department of the Interior

U.S. 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-17B0117-21I0817

April 27, 2021 Sent Electronically

Michael Lamprecht Federal Aviation Administration Airport Planning and Environmental Division (APP-400) 800 Independence Avenue, S.W. Washington, D.C. 20591

Subject: Informal Consultation for the San Diego International Airport Development Plan, San Diego County, California

Dear Michael Lamprecht:

This letter responds to your email, dated December 16, 2020, requesting consultation on the proposed San Diego International Airport (SDIA) Airport Development Plan (ADP) and its effects to the federally endangered California least tern [*Sternula antillarum browni* (*Sterna a. b.*); least tern], in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). This consultation is based on: (1) the SDIA ADP Biological Assessment [BA; SDNHM 2020]; (2) previous consultations and coordination reports; (3) the U.S. Fish and Wildlife Service's (Service) Carlsbad Fish and Wildlife Office (CFWO) comments on the *Recirculated Draft Environmental Impact Report, San Diego International Airport Development Plan* (FWS-SDG-17B0117-20CPA0036); (4) SDIA least tern monitoring reports; and (5) meetings and email correspondence. A complete project file of this consultation is maintained at the CFWO.

The 600-acre SDIA is located northwest of downtown San Diego and is administered by the San Diego County Regional Airport Authority (SDCRAA). SDIA has a runway, three taxiways, two airport terminals, parking structures, and other ancillary facilities. The runway at SDIA supports about 500 flights each day between the hours of 6:30 am and 11:30 pm. SDIA also supports four least tern nesting ovals [Oval 1-South (O-1S), Oval 2-South (O-2S), Oval 3-South (O-3S), and Oval 4-South (O-4S); Figure 1].

The ADP would reconfigure, replace and/or relocate structures and functions within the SDIA (Figure 1). Implementation of the ADP would facilitate anticipated increase in flight frequency and use of the airport. This will occur in two phases, each subdivided into two sub-phases (i.e., Phase 1a and Phase 1b, Phase 2a and Phase 2b), beginning in 2021 and ending in 2026. Specific ADP project actions include:

1. **Improvements to Taxiway B**. Reconfiguration of Taxiway B to extend 37.5 feet south of its present location to achieve the Federal Aviation Administration (FAA)-recommended



separation standard of 400 feet from the runway, with a slight jog/curve to connect between Taxiway Connectors B4 and B3. The eastern portion of Taxiway B adjacent to O-3S will not be expanded to the south and will remain at its current alignment.

- 2. **Development of New Taxiway A**. Development of a new Taxiway A about 219 feet south of the realigned Taxiway B from the very west end of the runway up to Taxiway Connector B4. Taxiway A will not extend into O-3S, but will curve to the left to join Taxiway B.
- 3. **Replacement of Terminal 1 with a larger terminal.** Demolition of Terminal 1 (336,000 square feet, 19-gates) and replacement with a larger terminal (1,210,000 square feet, 30-gates). The new Terminal 1 will be a linear, three-story (90 feet high) building that encompasses the footprint of the existing Terminal 1 and extends to the southeast. The new Terminal 1 footprint will be at least 1,200 feet from O-3S.
- 4. **Apron improvements** Several apron improvements along the north and east side of the new Terminal 1 concourse, including: taxi lanes and area for aircraft parking positions surrounding the new Terminal 1 concourse; and a new aircraft remain overnight (RON) parking area to the east of the new Terminal 1 concourse. The RON parking area will be at least 1,200 feet from O-3S.
- 5. **Development of a new parking structure south of the new Terminal 1**. Construction of a new 5,500-space parking structure (2,250,000 square feet) with a maximum height of 60 feet for the main roof deck and 84 feet for the elevator penthouses and light poles.
- 6. **New airport access roadways.** Construction of a feeder roadway north of North Harbor Drive to accommodate westbound airport traffic from the intersection of Laurel Street. The new airport entry road will remain at the existing surface grade where it will pass about 75 feet to the south of the nesting ovals. The planned increase in elevation of the roadway will begin 195 feet to the south west of the nesting ovals. An outbound lane will also be constructed to accommodate airport shuttles and other certified vehicles.
- 7. **Storm water capture and re-use system.** Construction of an underground cistern with up to 3.4 million gallons of storage and a stormwater pump station from which storm water will be pumped to an existing treatment system. The cistern will be located approximately 1,200 feet west of O-3S. The capture and re-use system will also include construction of infiltration areas within the infield islands between the runway and taxiways (except those included in the nesting ovals).
- 8. **Bicycle and pedestrian pathway.** Development of a bicycle and pedestrian pathway along North Harbor Drive. The pathway will extend from a crossing at the intersection with Laurel Street along the north side of the new entry roadway. The pedestrian pathway will pass about 62 feet to the south of O-3S.



Figure 1. San Diego International Airport.

9. **Replacement of SDCRAA administrative office building.** Demolition of the airport administration office building (132,000 square feet), and construction of a new airport administration office building (150,000 square feet) near the intersection of McCain Road and Airport Terminal Road, more than 1 mile from O-3S. Three FAA sensors/antennas, which support Airport Surface Detection Equipment-Model X communications and are currently mounted on the existing SDCRAA administrative offices, would be relocated to a light pole at the existing Airline Support Building.

Project construction will include operation of electrical tools, excavators, cranes, jackhammers, front loaders, other noise and vibration-generating heavy equipment, and pedestrian activity on and around the worksite. Work will occur during the day and night.

Conservation Measures

The FAA and SDCRAA have coordinated with the CFWO and incorporated avoidance measures into the ADP design process, primarily by avoiding direct physical modification to, and siting improvements as far as feasible from, the nesting ovals. In addition, the FAA/SDCRAA will implement the following conservation measures (CMs) to avoid and minimize potential effects to the least tern:

Project Design Conservation Measures:

- CM 1. New facilities will be designed to minimize potential perching locations for avian predators, and will include anti-perch structures and materials where appropriate. All structures taller than 10 feet that are necessary within 800 feet of the nesting ovals (including light poles, sign structures, and buildings) will incorporate treatments such as stainless-steel bird spike barriers (e.g., Nixalite[®], Bird-be-gone), electrical strips, or other anti-perch materials to reduce potential perches for avian predators. SDCRAA will coordinate with the CFWO regarding anti-perch structures and materials.
- CM 2. Permanent lighting and signage within 800 feet of the nesting ovals will be minimized to the extent consistent with public safety, including along the pedestrian pathway. In addition, lights within 800 feet of the nesting ovals will be fully downcast and of the minimum illumination necessary to meet public safety requirements. SDCRAA will coordinate with the CFWO regarding lighting and signage within 800 feet of the nesting ovals.
- CM 3. SDCRAA will coordinate with the CFWO regarding landscaping proposed within 800 feet of the nesting ovals to ensure that selected landscaping plants and materials will include only plant species and materials not conducive to perching by avian predators. Plant species selected for landscaping in this area will be plants that grow to less than 6 feet high when mature.

Project Construction Conservation Measures:

- CM 4. All project construction within 800 feet of the nesting ovals will occur between September 16 and March 31 to avoid the least tern nesting season.
- CM 5. A least tern biologist (i.e., can identify the least tern, recognize their vocalizations, and identify agitated or distressed tern behavior) will monitor construction occurring between 800 and 1,200 feet of any nesting ovals during the least tern nesting season (April 1–September 15) to ensure that activities and personnel do not disrupt the least tern. For example, construction activities will be conducted in a manner that prevents individuals or groups of least 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 biologist will immediately notify the Resident Engineer (RE; or acting RE) of any construction activity that may disrupt least tern nesting. If the least tern biologist determines that construction has disrupted least terns, the RE will be notified and all project construction activities will cease immediately, except those activities necessary to make SDIA safe and operational. The least tern biologist, in coordination with the RE, will contact the FAA and CFWO immediately after stopping construction. Construction will not resume until approved by the FAA and CFWO.
- CM 6. The least tern biologist will submit daily field reports to the FAA and CFWO on the status of the nesting activity, any construction-related incidents that disrupted least tern nesting, and any action taken by the RE to avoid further incidents, within 24 hours of each monitoring date. The least tern biologist will also submit a final summary report of monitoring to the FAA and CFWO S within 30 days of completing project construction.
- CM 7. Trash will be properly disposed of, in covered trash receptacles. SDCRAA will require the contractor to provide trash dumpsters or other covered trash receptacles for use by construction personnel. All food items or containers that previously held food items obtained/handled/controlled by construction personnel will be immediately disposed of in these dumpsters or containers, so as not to attract avian or mammalian predators of the least tern.
- CM 8. Construction personnel will not be permitted to feed cats, gulls, pigeons, ravens, or any other wildlife, as this may result in an increase in the numbers of these potential predators in the vicinity of least tern chicks and eggs.
- CM 9. Crane booms or similar equipment that have heights of 25 feet or greater and are located between 800 feet to 1,200 feet of any nesting oval during the least tern nesting season (April 1–September 15) will be lowered at the close of each construction day.
- CM 10. All contractor personnel and construction staff will be required to attend a pre-construction briefing to ensure their awareness of least tern nesting and

specific minimization measures required during construction. Project status meetings will be regularly held to remind personnel of the measures required to protect the tern as well as any modifications made to ensure their effectiveness. The CFWO will be notified of the date and time of the preconstruction and status meetings in order to attend, if needed or desired. Contractor personnel and construction staff required to attend the meeting include all those involved with project activities between 800 and 1,200 feet of the nesting ovals during the least tern nesting season (April 1- September 15).

- CM 11. The SDCRAA will schedule nighttime construction to occur more than 1,200 feet from Oval O-3S, where feasible; however, it is possible that some nighttime construction between 800 and 1,200 feet from the nesting ovals will be unavoidable. For nighttime construction that is necessary during the least tern nesting season (April 1–September 15), and will occur between 800 feet and 1,200 feet from the nesting ovals, a least tern biologist will be onsite and perform the duties specified above.
- CM 12. Night lighting for project construction occurring between 800 feet and 1,200 feet of the nesting ovals will be kept to a minimum during the least tern nesting season, and will not be used unless active construction or other essential work is occurring. Should such nighttime construction or other essential work be conducted, all lighting associated with the work will be shielded from or directed away from the nesting ovals.
- CM 13. Equipment will be staged at least 1,200 feet from the nesting ovals.

Operations and Site Enhancement Conservation Measures:

- CM 14. Diligent maintenance of fencing around the perimeter of the nesting ovals shall continue in order to shield the least terns from lighting, predators, and unauthorized human access.
- CM 15. SDCRAA will implement annual habitat management for least terns on nesting ovals, including maintenance of a chick fence, annual application of herbicide, and removal of vegetation to support a vegetation cover goal of less than 20 percent vegetative cover during the nesting season. Work will be done in coordination with the biological monitor, and close attention will be paid to precipitation patterns to maximize effectiveness of vegetation management.
- CM 16. SDCRAA will implement least tern habitat enhancement on O-3S on an annual basis and in coordination with the CFWO, biological monitors, and airfield operation personnel. Least tern habitat enhancement will occur only where consistent with airfield operations, and may include application of sand, shell or pebble material, and appropriate chick shelters or native vegetation to help shield chicks.

CM 17. SDCRAA will monitor illumination that results from necessary lighting, and address any unanticipated illumination of the least tern nesting area in coordination with the Service, biological monitors, and airfield operation personnel.

California Least Tern

The least tern is a small migratory seabird that nests in California and Baja, Mexico. Limited observations of least terns during the non-breeding season indicate that the species winters in southern Mexico and Central and South America (Service 2020); however, few observations have been confirmed. Least terns return to breeding season habitat in California and Baja California during April, and exhibit a high degree of nest site fidelity from year to year. Individuals often return to breed where they previously bred successfully or to their natal sites (i.e., where they hatched) significantly more than would be predicted if birds nested randomly (Atwood and Massey 1988; Ryan 2021). Least terns nest on the sand in a scrape or depression that birds sometime adorn with small fragments of shell or pebbles. Chicks are able to move from the nest scrape after several days, but remain dependent on the parents for food until they are able to fly (about 28 days) and forage efficiently. Parent birds also protect eggs and chicks from weather and predators.

Least terns feed primarily on small, slender-bodied fish captured in shallow water in estuaries, embayments, and nearshore waters, particularly at or near estuary and river mouths (Massey and Atwood 1982). Least terns typically forage within 1 to 2 miles of their nest site, and make frequent trips to find smaller fish needed by the chicks during brood rearing (Atwood and Minsky 1983). If suitable prey close to the nest site is limited, least terns can travel farther distances to obtain prey offshore; however, distance foraging reduces parental attendance of eggs and chicks and appears to reduce productivity (Robinette and Rice 2021).

The least tern population increased between 1984 and 2009. The observed increase was attributed to site management (e.g., fencing, predator control) and habitat restoration and conservation of nesting habitat (Service 2006). In 2009, the California Department of Fish and Wildlife (CDFW) estimated that 7130-7352 pairs of least terns nested in the U.S., and about 62 percent of the population (4482–4539 pairs) occurred in San Diego Counties (Marschalek 2010). Between 2009 and 2018, the least tern population declined significantly (Figure 2), and in 2018, an estimated 3545–4447 pairs of least terns nested in the U.S. and about 56 percent of the population (2004–2489 pairs) nested in San Diego County (CDFW 2020). The recent decline in the least tern population occurred during a period of low productivity throughout the species' range (Frost 2017). Low productivity can result from predation by non-native and native predators, changes in prey availability during critical phases of nesting and chick-rearing, and disruptions during nesting.





Figure 2. Least tern State-wide breeding pair and fledgling estimates, 1984–2018.

Twenty nine nesting areas (approx. 1,204 acres of occupied least tern nesting habitat; Service 2020) have been identified and most are currently managed for the benefit of the least tern. Long-term management will be required in most conserved areas to address the threats posed by predators, changes in vegetation, and disturbance. Some long-term management actions that will address these threats include education programs (for activities adjacent to occupied habitat), fence maintenance, control of human access to nesting sites, predator control, reduction of perching opportunities for raptors within and adjacent to nesting sites, reduction of illumination within and adjacent to nesting sites, and routine vegetation/substrate management. Monitoring of the species' abundance and distribution over time will assist in determining the effectiveness of management actions and facilitate adaptive management in the event that threats have not been adequately reduced. In addition, the least tern now faces threats associated with changing ocean conditions and resulting changes in prey availability and sea level rise (Service 2020).

Likely due to its location adjacent to the historic mouth of the San Diego River and San Diego Bay, sandy substrate, and flat topography, SDIA has supported least tern nesting since at least the 1970's (Bender 1974). Least terns nested at various locations at SDIA (then named Lindberg Field) in the early 1970's (Bender 1974). To reduce conflicts with air operations while continuing to meet endangered species conservation responsibilities, the four nesting ovals were established

and are maintained, managed (including predator management), and monitored in perpetuity, pursuant to the 1993 biological opinion on the *Lindberg Field Facilities Immediate Action Program* (BO 1-6-93-F-29; Service1993).

Least terns nesting at SDIA are subject to visual stimuli, vibrations, and sounds associated with aircraft traffic because the least tern nest site is adjacent to Taxiway B. Nesting periodically occurs in each of the four nesting ovals; however, most nests are established in O-3S over 100 feet from Taxiway B (Figure 3). The southern and western edge of O-3S is adjacent to the Vehicle Service Road and recently constructed Terminal Link Roadway, which experience regular use. The heavily travelled North Harbor Drive is approximately 110 feet, and a pedestrian pathway is about 75 feet, from O-3S.

SDRAA and the FAA coordinate closely with the CFWO in an effort to retain site suitability for least tern nesting, even as airport activity and infrastructure increases. Many airport projects identify and implement conservation measures to reduce the potential for impacts to the least tern nesting area. However, similar to the U.S. rangewide trend, the number of least terns nesting at SDIA has declined in recent years (Figure 4).

Effects to least tern

Construction-Related Disturbance

Construction of the ADP will require significant operation of heavy equipment, movement of soils and materials, and pedestrian activity. Construction activities will result in noise, vibration, and visual changes in the vicinity of the least tern nesting ovals. These stimuli could disrupt least tern breeding and nesting; however, when least terns are present all construction activities will occur at least 800 feet, and equipment staging will be at least 1,200 feet, from the nesting ovals (CM 4 and 13). This will significantly reduce the potential for construction impacts to least terns, since noise and vibration will attenuate over 800 feet from the distant disruptive activities. Project-generated noise, vibration, and disturbance could extend into the nesting ovals, but activities (other than those necessary to make SDIA safe and operational) will cease if a biological monitor detects disruption of the nesting least terns (CM 5). Construction will not resume until approved by the FAA and CFWO. With implementation of these measures, noise, vibration and visual stimuli associated with the project are not likely to adversely affect the least tern.

Construction of the ADP could entail periodic use of night time illumination. Illumination could affect least tern behavior, and reduce use of the nesting ovals. It may also increase the visibility of least terns roosting onsite at night, thereby increasing their vulnerability to nocturnal predators. However, no illumination will occur within 800 feet of the least tern nesting ovals and all lighting associated with the work will be shielded from or directed away from the nesting ovals (CM 12). If construction activities occur within 800 to 1,200 feet of the least tern nesting ovals at night, a least tern biologist will be onsite to monitor for disruption to or illumination of least terns (CM 11). If the monitor detects impacts to the nesting least terns, night time operations will cease and will not resume until approved by the FAA and CFWO (CM 5). With implementation of these measures, construction-related illumination is not likely to adversely affect the least tern.





Figure 3. California least tern nest distribution at SDIA 2003–2019. Figure from BA.



Figure 4. California least tern breeding pair estimates at SDIA, 2003–2018.

The presence of people and associated food resources could attract egg/chick predators (e.g. crows, western gulls, roof rats) to the worksite, and tall construction equipment such as cranes may provide perches for avian predators. SDCRAA/FAA will reduce the potential for attraction of egg/chick predators by requiring education of the construction crew about the least tern and conservation needs (CM 10), ensuring that trash is managed properly (CM 7), and that construction personnel do not feed wildlife (CM 8). In addition, cranes that are in use during the nesting season will be lowered at the end of each work day to reduce the potential for impacts from avian predators (CM 9). With implementation of these measures, the potential for an increase in egg and chick predators from human presence and equipment is significantly reduced.

Reduced Habitat Suitability Associated With Infrastructure and Operations

Construction of the ADP may incrementally degrade the habitat suitability of the least tern nesting ovals. The anticipated increase in flight frequency, perching opportunities for predatory birds, and permanent lighting associated with the project, may discourage least terns from nesting, increase local abundance of predators, and/or reduce incubation/parental attendance by those least terns that continue to nest onsite. To retain the suitability of the nesting ovals to the maximum extent possible, FAA/SDCRAA is incorporating the following measures developed in coordination with the CFWO into the ADP design and future operation of SDIA: (1) the proposed elevated portion of the new on-airport roadway has been moved to the west to maintain line of sight visibility between the least tern nesting ovals and foraging areas in San Diego Bay; (2) the 3.4 million gallon cistern, originally proposed for construction beneath the least tern nesting ovals, will be constructed 1,200 feet from the nesting ovals; (3) SDCRAA will coordinate with the CFWO to ensure new facilities will be designed to minimize potential perching locations for avian predators and will include anti-perch structures and materials where appropriate (CM 1); (4) SDCRAA will coordinate with the CFWO to ensure all structures that exceed 10 feet in height within 800 feet of the nesting ovals will incorporate anti-perch materials (CM 2); (5) SDCRAA will coordinate with the CFWO to ensure that landscaping plants and materials will include only plant species and materials not conducive to perching by avian predators (CM 3); and (6) SDCRAA will reduce illumination of the nesting ovals by minimizing lighting, consistent with safety requirements, within 800 feet of the nesting ovals and ensuring that all lights within 800 feet of the nesting ovals will be downcast to avoid illumination of the tern nest site (CM 2).

SDCRAA will also continue to monitor the site, maintain protective fencing, manage vegetation and substrate, and address unanticipated increases in illumination (CM 14, CM 15, and CM 17). In addition, SDCRAA will coordinate with the CFWO annually to, where consistent with safety considerations, enhance the substrate to make the site attractive to, and improve nesting conditions for least terns (CM 16).

In summary, the SDCRAA will implement significant conservation measures as part of the project to avoid and minimize potential impacts to the least tern. Based on the site and species information described above and SDCRAA's commitment to implement the conservation measures, we concur that project impacts to the least tern will be avoided or reduced to a level of insignificance supporting a determination that the ADP project is not likely to adversely affect the least 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.

The ADP is a significant step in the long range planning and future development at SDIA, and we appreciate the efforts of the SDCRAA to continue the contribution of this site to the future of the least tern. We recommend continued close coordination between our agencies to evaluate the status of the least tern at this site, habitat conditions, and possible means of enhancing the site and/or ensuring continued availability of nesting habitat. During consultation, we discussed the possibility of incorporating "rooftop habitat" onto various buildings included in the ADP. Rooftop nesting by another least tern subspecies (*Sternula antillarum antillarum*) has been observed in the southeastern U.S., but this behavior has not been observed by the California least tern. We would consider further exploration of rooftop nesting in addition to the existing nesting ovals should SDCRAA and FAA be interested in pursuing it in the future. We have also previously recommended the SDCRAA: (1) consider re-surfacing the buffer area at the western edge of the nesting ovals, and (2) enhance a portion of the Teledyne Ryan site for least tern nesting. To date, implementation of these recommendations has not been possible; however, we recommend that SDCRAA continue to consider these means of enhancing nest oval suitability.

Thank you for your coordination on this project, and your continued efforts to conserve the least tern at SDIA. If you have any questions or concerns regarding this consultation, please contact Sandy Vissman¹ at 760-431-9440.

Sincerely,

for Jonathan D. Snyder Assistant Field Supervisor

cc: Ted Anasis, SDCRRA Richard Gilb, SDCRRA KariLyn Merlos, SDCRRA Al Richardson, FAA

¹ sandy_vissman@fws.gov

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