4.4 Coastal Resources

4.4.1 Introduction

The coastal resources analysis addresses the potential for the SPAS alternatives to affect sensitive resources within the coastal zone. Coastal zones are defined by the California Coastal Act of 1976 (CCA) and the federal Coastal Zone Management Act (CZMA) of 1972. Related impacts to coastal zone management are addressed in Section 4.9, *Land Use and Planning*. Impacts to sensitive resources within the coastal zone, including Environmentally Sensitive Habitat Areas (ESHAs) and federally- or state-listed endangered or threatened species, are presented in Section 4.3, *Biological Resources*. Because the portion of the Los Angeles/El Segundo Dunes (Dunes) in which navigational aids would be located does not contain any features that would be considered an "artificial resource," (e.g., maintained hiking trails or marinas), the analysis below focuses on natural resources. None of the improvements associated with the SPAS alternatives would alter or otherwise affect coastal access routes, including roads, pedestrian routes, or bikeways. Therefore, coastal access is not addressed herein.

4.4.2 Methodology

To determine whether the SPAS alternatives would result in impacts to coastal resources, the locations of the proposed improvements were evaluated to identify if they would result in development in the coastal zone. Within the vicinity of LAX, the coastal zone encompasses the area that extends west from the east side of Pershing Drive. The only SPAS improvements located in proximity to the coastal zone are associated with the north airfield, specifically, the navigational aids (and associated service road) situated at the west end of the airfield. The geographic focus of this analysis is directed accordingly.

Facilities proposed within or adjacent to the coastal zone were evaluated qualitatively to determine if their construction and operation would conflict with the goals of the California Coastal Act (CCA) or adversely affect sensitive resources within the coastal zone. The determination was based on Chapter 3, Coastal Resources Planning and Management Policies, of the CCA and an evaluation as to whether the proposed SPAS alternatives would violate or contradict the policies of the CCA. Recent reports pertaining to the presence and distribution of El Segundo blue butterfly within the Dunes were also consulted.

4.4.3 Existing Conditions

Coastal Zone

Regulatory Provisions Concerning the Coastal Zone

Federal

In 1972, the U.S. Congress enacted the CZMA to "preserve, protect, develop, and where possible restore or enhance coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as fish and wildlife using those habitats." The CZMA provides grants to states that develop and implement a federally-approved coastal zone management plan. Any federal actions or approvals within the coastal zone require a formal consistency determination or certification[223] (i.e., whether the action would violate or contradict the policies of the CCA) from the California Coastal Commission (CCC).

State

The CCA of 1976 is California's coastal zone management program. The CCA grants authority to the CCC to regulate development and related resource-depleting activities within a defined coastal zone boundary. In developed areas, the coastal zone begins at the mean high tide line and extends 1,000 feet

[223] A Consistency Determination is required for, and submitted by, a federal agency proposing an activity in the coastal zone. A Consistency Certification must be obtained by a non-federal applicant that is proposing an activity in the coastal zone and such activity requires a federal permit, authorization, or funding.

inland. In the vicinity of LAX, the inland boundary of the coastal zone is Pershing Drive.[224] Most structures or activities that modify land use or water use in the coastal zone require a coastal development permit from the CCC.

The CCA requires each city that has jurisdiction over land within the coastal zone to prepare a Local Coastal Program (LCP), consisting of a land use plan, zoning ordinances, and other implementing actions. The LCP is intended to protect coastal resources and to set guidelines for future development. The CCC reviews each LCP to determine if it conforms to CCA standards. Until the CCC certifies an LCP for an area, it exerts permit control over all new development within that part of the coastal zone. After certification, the commission's regulatory authority over most types of development is delegated to the local government. The CCC, however, retains permanent jurisdiction over the immediate shoreline (i.e., tidelands, submerged lands, and public trust lands). Although LCPs that include the LAX area were proposed in 1985 and 1992, neither was approved and there is no LCP currently in place for the coastal zone near LAX.[225] Therefore, the CCC retains jurisdiction over the coastal zone near LAX.

Designated Coastal Zone

Figure 4.4-1 identifies the boundary of the coastal zone in the vicinity of LAX. As shown in **Figure 4.4-1**, the coastal zone extends along the east (inland) side of Pershing Drive to the south edge of the Imperial Highway right-of-way. The boundary then extends west to Vista del Mar and south along the east side of Vista del Mar.

The Dunes, located west of Pershing Drive, are within the coastal zone. The Dunes are considered an ESHA as that term is defined in the CCA, based on their importance as habitat for the federally-listed endangered El Segundo blue butterfly (*Euphilotes battoides allyni*). The Los Angeles Airport/El Segundo Dunes Specific Plan (Ordinance No. 167,940)[226] was adopted by the City of Los Angeles to provide procedures for preservation of the Dunes under the requirements of the CCA. The Los Angeles Airport/El Segundo Dunes Specific Plan classifies the Dunes as a "distinct and valuable resource of vital and enduring interest" for all citizens, as well as a "delicately balanced ecosystem."[227] The Dunes, a remnant of a once much larger dune ecosystem, is now considered an endangered landform and consists of approximately 302 acres. The Los Angeles Airport/El Segundo Dunes Specific Plan provides for a Dunes Habitat Preserve of approximately 200 contiguous acres and a public golf course of approximately 100 contiguous acres. The habitat preserve referenced in the Los Angeles Airport/El Segundo Dunes Specific Plan has been established[228] (see Section 4.3, *Biological Resources*). Ordinance No. 169,767 (approved April 6, 1994) imposed additional restrictions to development within the Dunes area. Development within the approximately 100-acre northern portion, previously identified for a golf course, is now limited to a nature preserve and accessory uses, such as a 5,000-square-foot nature center. Implications of LAX operations and development on the El Segundo blue butterfly are further discussed in Section 4.3, *Biological Resources*.

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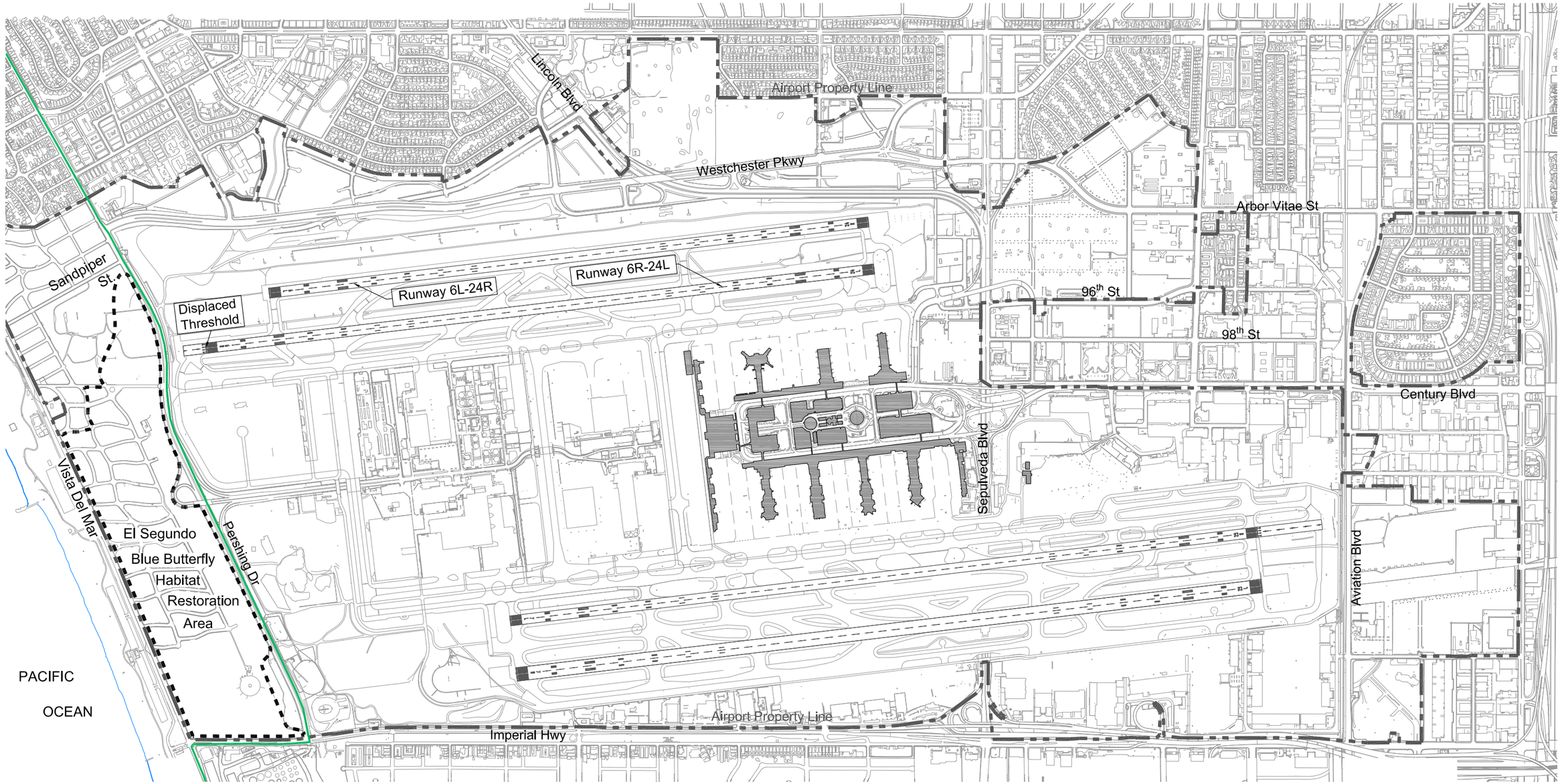
224 Public Resources Code Section 30103.5(a).

225 California Coastal Commission, Local Coastal Plan Status and History Report, November 22, 2011, Available: http://www.coastal.ca.gov/la/docs/lcp/LCP_Status_Report_2011.pdf.

226 City of Los Angeles, Los Angeles Airport/El Segundo Dunes Specific Plan, (Ordinance No. 167,940), June 1992.

227 City of Los Angeles, Los Angeles Airport/El Segundo Dunes Specific Plan, (Ordinance No. 167,940), June 1992.

228 Now referred to as the El Segundo Blue Butterfly Habitat Restoration Area.



Source: HNTB Corp., Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: CDM Smith, 2012.

LAX Specific Plan Amendment Study Draft EIR	**Existing Conditions (2010)** **Coastal Zone Boundary Map**	Figure **4.4-1**

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Prior Regulatory Approvals

As part of the LAX Master Plan, the Federal Aviation Administration (FAA) issued a Coastal Consistency Determination for the Relocation of Existing Navigational and Safety Aids at LAX in compliance with Section 930.34 *et seq.* of the National Oceanic and Atmospheric Administration Federal Consistency Regulations (Title 15 Code of Federal Regulations Part 930).[229] The FAA determined that the relocation of navigational aids and associated service roads at LAX associated with implementation of the LAX Master Plan was consistent, to the maximum extent practicable, with the California Coastal Management Program, pursuant to the requirements of the CZMA and the CCA.

LAWA similarly prepared a Coastal Consistency Certification for the LAX Master Plan, as required by Section 930.57(b) of the National Oceanic and Atmospheric Administration Federal Consistency Regulations, concluding that the planned improvements comply with the enforceable policies of California's approved management program and will be conducted in a manner consistent with such program.[230]

The California Coastal Commission Staff Report and Letter of Concurrence (RLOC) issued in conjunction with federal approval of the LAX Proposed Master Plan Improvements[231] states that the impacts resulting from the proposed reconfiguration of the navigational aids in the Dunes are addressed "in part by developing a Habitat Restoration Plan (HRP),"[232] which included the following mitigation measures pertaining to the Dunes: MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-BC-2, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BC-9, Conservation of Faunal Resources, MM-BC-13, Replacement of State-Designated Habitat, and MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration. The RLOC further states that "The HRP submitted to the Commission was designed by the FAA in the context of mitigation measures previously developed by the FAA and LAWA during the project EIS/EIR process, the U.S. Fish and Wildlife Service's Biological Opinion for potential project impacts on federally endangered species, and comments received from Commission staff. One of the key features of the HRP is the commitment by the FAA to complete restoration work in the dunes prior to construction of the new navigation aid system so there is no loss of ESHA habitat arising from the new navigation aid system."[233]

In the RLOC, the Commission concluded that "with the successful implementation of the Habitat Restoration Plan, there will be no significant disruption of habitat values in the El Segundo Dunes ESHA. Further, the Commission finds that notwithstanding the impacts to 2.9 acres of dune habitat from the proposed project, with the proposed restoration of 5.8 acres of coastal dune habitat at Subsites 22 and 23 and at sites along the linear tracks of the abandoned navigation aids, the biological health of the dunes, and in particular coast buckwheat plants that support the endangered El Segundo blue butterfly, will be enhanced over present condition."[234]

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229 U.S. Department of Transportation, Federal Aviation Administration, Los Angeles International Airport, City of Los Angeles, California: Coastal Consistency Determination for Relocation of Existing Navigational and Safety Aids, August 5, 2004.

230 City of Los Angeles, Los Angeles World Airports, Coastal Consistency Certification for Los Angeles International Airport Master Plan, August 5, 2004.

231 U.S. Department of Transportation, Federal Aviation Administration, Final Environmental Impact Statement, Los Angeles International Airport Proposed Master Plan Improvements, January 2005, Appendix A-3d, California Coastal Commission Staff Report and Letter of Concurrence.

232 U.S. Department of Transportation, Federal Aviation Administration, Final Environmental Impact Statement, Los Angeles International Airport Proposed Master Plan Improvements, January 2005, Appendix A-3c, Los Angeles/El Segundo Dunes Habitat Restoration Plan, October 29,2004.

233 U.S. Department of Transportation, Federal Aviation Administration, Final Environmental Impact Statement, Los Angeles International Airport Proposed Master Plan Improvements, January 2005, Appendix A-3d, California Coastal Commission Staff Report and Letter of Concurrence, p. 36.

234 U.S. Department of Transportation, Federal Aviation Administration, Final Environmental Impact Statement, Los Angeles International Airport Proposed Master Plan Improvements, January 2005, Appendix A-3d, California Coastal Commission Staff Report and Letter of Concurrence, p. 39.

LAWA is currently implementing habitat restoration within the El Segundo Blue Butterfly Habitat Restoration Area as required by the LAX Master Plan mitigation measures.

Existing Facilities within the Coastal Zone

Currently, facilities within the portion of the coastal zone adjacent to LAX include Pershing Drive include existing navigational aids, safety and utility facilities, hazardous wildlife control stations, monitoring stations, a plant nursery and storage shed, irrigation systems, habitat restoration areas, and roadways that are used for access to the site for monitoring, facilities maintenance, habitat restoration, police training, and utility maintenance. The FAA sets standards for airfield and terminal area lighting aids and navigational systems through its 150-series Advisory Circulars and the review and approval of airport layout plans. Navigational aids are provided to facilitate aircraft identification, approach/landing, takeoff, and taxiing operations at night and in adverse weather. Existing navigation facilities within the Dunes include landing light systems, localizer antennas, Moving Target Indicator (MTI) radar deflectors, middle markers, and localizer buildings. The locations of existing navigational aids in the Dunes are shown in **Figure 4.4-2**.

Under the Los Angeles Airport/El Segundo Dunes Specific Plan, the existing navigational and safety facilities are allowed uses.[235] The Los Angeles Airport/El Segundo Dunes Specific Plan requires that placement and maintenance of such navigation facilities be compatible with the preservation of habitat values. The compatibility of the navigation facilities and habitat values within the Dunes is described in Section 4.3, *Biological Resources*.

Sensitive Resources within the Coastal Zone

As mentioned previously, the only SPAS improvements located in proximity to the coastal zone are associated with the north airfield. The north airfield is situated east of both the coastal zone and the coastal dunes nature preserve including the northernmost portion of the El Segundo Blue Butterfly Habitat Restoration Area. A study was conducted from May to August 2010 to monitor the El Segundo blue butterfly within the Dunes.[236] This study also compiled data from previous years regarding the El Segundo blue butterfly and coast buckwheat (*Eriogonum parvifolium)*, its host food plant, within the Dunes. The study indicated that, in two of the past ten years, a single El Segundo blue butterfly and one coast buckwheat plant were found in the portion of the Dunes immediately west of the north airfield. The two recordings of the El Segundo blue butterfly occurred in 2008 and 2010. According to the entomologist who conducts the annual surveys, the existing north airfield navigational aids are located in an area that supports a much lower density of El Segundo blue butterfly due to the few coast buckwheat plants (the El Segundo blue butterfly's food plant) that grow there and the limited numbers of flowerheads that these plants produce. However, due to the rapid pace of the survey methodology, it is possible that eggs, larvae, and pupae may go undetected on the host plants, as well as adults in that area.[237] Therefore, for purposes of this EIR, the area is considered occupied by the El Segundo blue butterfly.

In addition to the El Segundo blue butterfly, sensitive wildlife species identified within the Dunes consist of eight sensitive arthropods, including five sensitive insect species and three sensitive arachnids; two sensitive reptiles, the silvery legless lizard (*Anniella pulchra pulchra*) and the coast horned lizard (*Phrynosoma blainvillii*);[238] and two sensitive bird species, the burrowing owl (*Athene cunicularia*) and the loggerhead shrike (*Lanius ludovicianus*). A number of sensitive plant species have been detected or may occur within the Dunes. These include Lewis' evening primrose (*Camissonia lewisii*), California spineflower (*Mucronea californica*), south coast branching phacelia (*Phacelia ramosissima* var.

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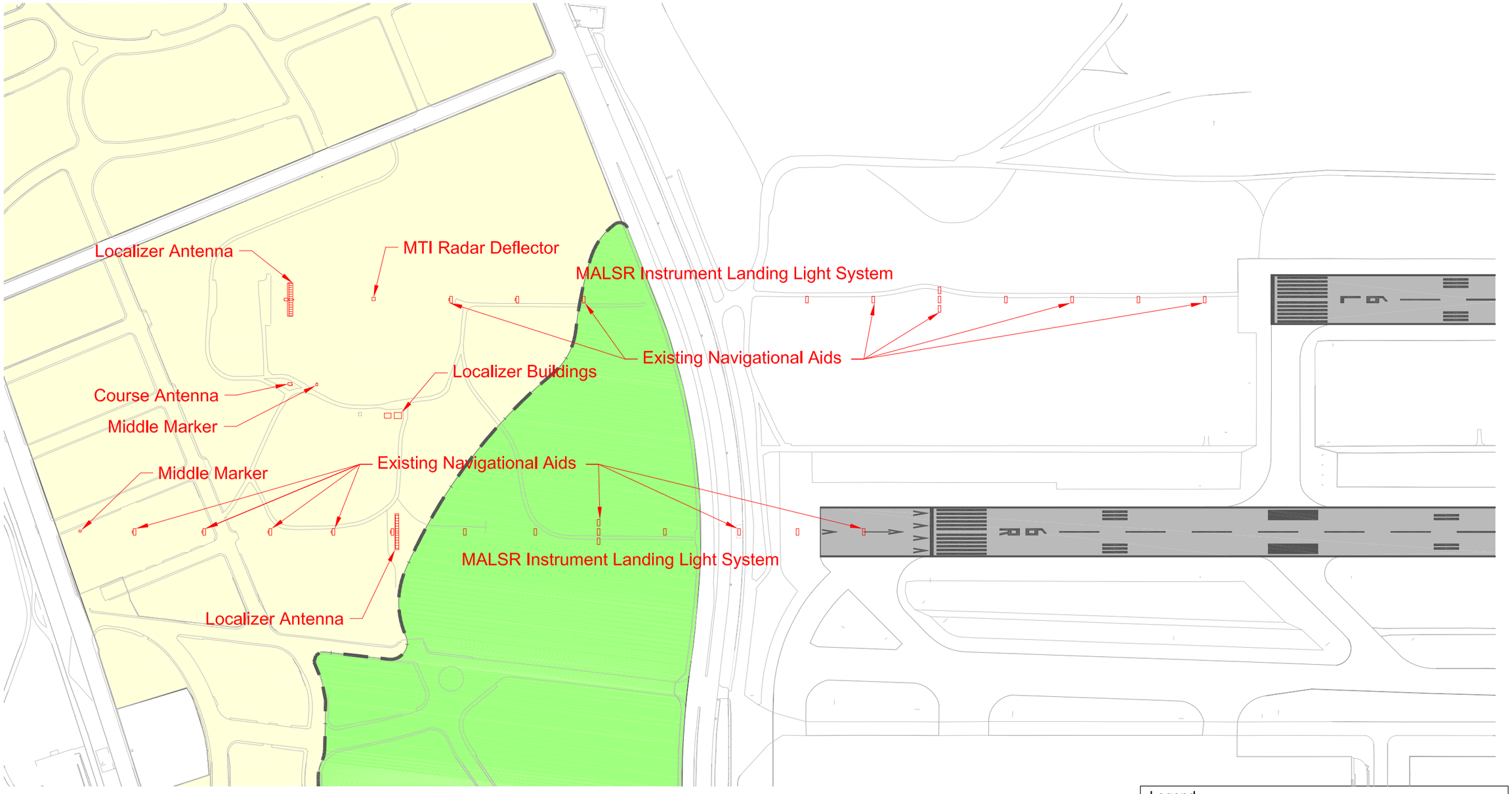
235 City of Los Angeles, Los Angeles Airport/El Segundo Dunes Specific Plan, (Ordinance No. 167,940), June 1992.

236 Entomological Consulting Services, Ltd, Report Los Angeles International Airport El Segundo Blue Butterfly, 2011.

237 Arnold, Richard, Entomological Consulting Services, Ltd., Personal Communication, April 16, 2012.

238 Coast horned lizard (*Phrynosoma blainvillii*) was formerly known as San Diego horned lizard (*Phrynosoma coronatum blainvillii*), and was referenced as such by the LAX Master Plan EIR.



Source: HNTB Corp., Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: CDM Smith, 2012.

LAX Specific Plan Amendment Study Draft EIR	**Location of Existing North Airfield Navigational Aids in the Los Angeles / El Segundo Dunes**	Figure **4.4-2**

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austrolittoralis), Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*), and Mesa horkelia (*Horkelia cuneata* ssp. *Puberula*). Sensitive biological resources within the coastal zone are described more fully in Section 4.3, *Biological Resources*.

4.4.4 Thresholds of Significance

A significant impact to coastal resources would occur if the direct and indirect changes in the environment that may be caused by the particular SPAS alternative would result in one or more of the following future conditions:

- Damage to the overall quality of the coastal zone environment and its natural and artificial resources.
- Inhibition of orderly, balanced utilization and conservation of coastal zone resources.

The coastal zone management thresholds are derived from the goals of the CCA that could be affected by the SPAS alternatives. As these goals reflect the aims of the CCA, any activities that would interfere with the goals should be considered to cause a significant impact to coastal resources.

4.4.5 Applicable LAX Master Plan Commitments and Mitigation Measures

As part of the LAX Master Plan, LAWA adopted a number of mitigation measures pertaining to biotic communities, and endangered and threatened species in the Alternative D Mitigation Monitoring and Reporting Program (MMRP) that also pertain to coastal resources. The following mitigation measures are applicable to the SPAS alternatives and were considered in the coastal resources analysis herein.

- **MM-BC-1. Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area.**

  LAWA or its designee shall take all necessary steps to ensure that the state-designated sensitive habitats within and adjacent to the Habitat Restoration Area are conserved and protected during construction, operation, and maintenance.

  These steps shall, at a minimum, include the following:

  Implementation of construction avoidance measures in areas where construction or staging are adjacent to the Habitat Restoration Area. Prior to the initiation of construction of LAX Master Plan components to be located adjacent to the Habitat Restoration Area, LAWA or its designee shall conduct a pre-construction evaluation to identify and flag specific areas of state-designated sensitive habitats located within 100 feet of construction areas. Subsequent to the pre-construction evaluation, LAWA or its designee shall conduct a pre-construction meeting and provide written construction avoidance measures to be implemented in areas adjacent to state-designated sensitive habitats. Construction avoidance measures include erecting a 10-foot-high tarped chain-link fence where the construction or staging area is adjacent to state-designated sensitive habitats to reduce the transport of fugitive dust particles related to construction activities. Soil stabilization, watering or other dust control measures, as feasible and appropriate, shall be implemented to reduce fugitive dust emissions during construction activities within 2,000 feet of the El Segundo Blue Butterfly Habitat Restoration Area, with a goal to reduce fugitive dust emissions by 90 to 95 percent. In addition, to the extent feasible, no grading or stockpiling for construction activities should take place within 100 feet of a state-designated sensitive habitat. LAWA or its designee shall incorporate provisions for the identification of additional construction avoidance measures to be implemented adjacent to state-designated sensitive areas. All construction avoidance measures that address Best Management Practices shall be clearly stated within construction bid documents. In addition, LAWA shall include a provision in all construction bid documents requiring the presence of a qualified environmental monitor. Construction drawings shall indicate vegetated areas within the Habitat Restoration Area as "Off-Limits Zone."

Ongoing maintenance and management efforts for the El Segundo Blue Butterfly Habitat Restoration Area. LAWA or its designee shall ensure that maintenance and management efforts prescribed in the Habitat Management Plan (HMP) for the Habitat Restoration Area shall continue to be carried out as prescribed.

- **MM-BC-2. Conservation of Floral Resources: Lewis' Evening Primrose.**

  LAWA or its designee shall prepare and implement a plan to compensate for the loss of individuals of the sensitive Lewis' evening primrose, currently located at the westerly end of the north runway and within the Habitat Restoration Area. LAWA or its designee shall collect seed from those plants to be removed, and properly clean and store the collected seed until used. If possible, seeds shall be collected in multiple years to ensure an adequate seed supply for planting. A mitigation site of suitable habitat equal to the area of impact shall be delineated within areas of the Los Angeles/El Segundo Dunes as described in MM-BC-13. Collected seed shall be broadcast (distributed) after the first wetting rain. LAWA or its designee shall implement a monitoring plan to monitor the establishment of individuals of Lewis' evening primrose for a period of not more than five years. Performance criteria shall include the establishment of an equal number of plants as that impacted in the first year following the distribution of seed within the mitigation site. Performance criteria shall also include confirmation of recruitment for two years following the first year flowering is observed and establishment of individuals throughout the mitigation area within three years following the first year flowering is observed. Monitoring shall be undertaken in the manner set forth in MM-BC-8.

- **MM-BC-9. Conservation of Faunal Resources.**

  LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 1.34 habitat units (0.3 habitat units + 1.04 habitat units) of occupied western spadefoot toad habitat and for the loss of western spadefoot toad individuals currently in the southwestern portion of the AOA. LAWA or its designee shall identify possible relocation sites in consultation with the CDFG and USFWS and shall develop and implement a monitoring plan to monitor the success of the relocated tadpoles for a period of not more than five years. LAWA or its designee shall relocate the western spadefoot toad population currently inhabiting three locations on the AOA. One potential site is the Madrona Marsh Nature Center in Torrance, 20 miles south of LAX, which supports several vernal pools and one large pond capable of supporting western spadefoot toads. Spadefoot toad experts suggest the best approach to accomplish relocation is to transport tadpoles and metamorphs only, as adults return to their birth site. Site preparation shall include confirmation by a permitted biologist that no predators, such as mosquitofish or bullfrogs, are present within the proposed relocation site or in waterways surrounding the relocation site. The CDFG has suggested that if the first relocation effort is not successful, another attempt should be made the following year. Therefore, western spadefoot toads shall be collected two consecutive years prior to construction activities taking place in existing occupied spadefoot toad habitat. In addition, since the western spadefoot toad is known to become reproductively mature within three years, an additional performance criterion shall be the identification of tadpoles at the relocation site between years three and four. The success criteria should be 50 percent survival of all tadpoles and metamorphs for the first, second, and third years following the last relocation. This shall be accomplished through a five-year monitoring plan, with bi-monthly monitoring between January 31 and June 1, to document the success of this relocation effort.

  LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 2.38 habitat units of occupied San Diego black-tailed jackrabbit habitat located within the AOA. LAWA or its designee shall relocate the San Diego black-tailed jackrabbit population currently inhabiting the AOA. Relocation efforts shall be coordinated with CDFG. The San Diego black-tailed jackrabbit shall be captured on the AOA using live traps and shall be released into the Habitat Restoration Area. Compensation for the loss of 2.38 habitat units shall be the utilization of at least 2.38 habitat units within the Los Angeles/El Segundo Dunes by the San Diego black-tailed jackrabbit individuals relocated to the site. Black-tailed jackrabbit is currently absent for the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 2.38 habitat units include

13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. LAWA or its designee shall implement a monitoring plan to monitor the success of the relocated individuals for a period of not more than five years. Performance criteria shall include confirmed success of survival for three years of the San Diego black-tailed jackrabbit within the Habitat Restoration Area. This shall be accomplished through a quarterly monitoring plan to document the success or failure of this relocation effort.

LAWA or its designee shall compensate for the loss of areas utilized by loggerhead shrike currently located on the western airfield and composed of 10.83 habitat units (equivalent to 83.25 acres). Compensation for the loss of 10.83 habitat units of habitat utilized by the loggerhead shrike shall be the utilization of at least 10.83 habitat units within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 10.83 habitat units include 13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. Compensation for the loss of at least 10.83 habitat units shall take place prior to construction. LAWA or its designee shall implement a monitoring program for a period of not more than five years. Performance criteria shall include the use of at least 10.83 habitat units of improved habitat by the loggerhead shrike for foraging and nesting. Monitoring shall take place quarterly for the first three years and biannually thereafter. Monitoring shall be timed appropriately to include monitoring during the breeding period, which is between February and June.

As a means of minimizing incidental take of active nests of loggerhead shrike, LAWA or its designee shall have all areas to be graded surveyed by a qualified biologist at least 14 days before construction activities begin to ensure maximum avoidance to active nests for loggerhead shrike. Construction avoidance measures shall include flagging of all active nests for loggerhead shrike and a 300 feet wide buffer area shall be designated around the active nests. A biological monitor shall be present to ensure that the buffer area is not infringed upon during the active nesting season, March 15 to August 15. In addition, LAWA or its designee shall require that vegetation clearing within the designated 300 feet buffer be undertaken after August 15 and before March 15.

LAWA or its designee shall conduct pre-construction surveys to determine the presence of individuals of sensitive arthropod species, the silvery legless lizard, the San Diego horned lizard, and the burrowing owl within the proposed area of impact within the Los Angeles/El Segundo Dunes. Surveys will be conducted at the optimum time to observe these species. Should an individual be observed, they will be relocated to suitable habitat for that species within the Habitat Restoration Area. Prior to construction, LAWA or its designee shall develop and implement a relocation plan to avoid the potential loss of individuals from the installation of navigational aids and associated service roads. Relocation efforts shall be undertaken by a qualified biologist, in coordination with CDFG.

- **MM-BC-13. Replacement of State-Designated Sensitive Habitats.**

  LAWA or its designee shall undertake mitigation for the loss of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including the Habitat Restoration Area. Installation of navigational aids and associated service roads under Alternative D would result in impacts to 66,675 square feet (1.53 acres) of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including 33,334 square feet (0.77 acre) within the Habitat Restoration Area (of which 10,597 square feet (0.24 acre) are within habitat occupied by the El Segundo blue butterfly. These square feet shall be replaced at a no net loss ratio of 1:1 ratio within the Los Angeles/El Segundo Dunes. The replacement of 66,675 square feet (1.53 acres) of State-designated sensitive habitat shall be undertaken through restoration of 66,675 square feet (1.53 acres). Opportunities for restoration include: 16.9 acres of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 36.11 acres from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 74.6 acres of Disturbed Dune Scrub/Foredune to Southern Foredune. The restoration

and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between the FAA and other federal agencies, including the US Fish and Wildlife Service (USFWS), pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

Valley Needlegrass Grassland restoration efforts consist of site preparation, propagation and planting of Valley Needlegrass Grassland species, and maintenance and monitoring of the restoration site as described in Mitigation Measure MM-BC-8, Replacement of Habitat Units.

Southern Foredune restoration efforts consist of site preparation, propagation, and planting of the species characteristic of the Southern Foredune community at the Los Angeles/El Segundo Dunes, and maintenance and monitoring of the restoration site as described in Mitigation Measure MM-BC-8, Replacement of Habitat Units.

Replacement of the 10,597 square feet (0.24 acre) of habitat occupies by the El Segundo Blue Butterfly shall be undertaken as described in Mitigation Measure MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration.

- **MM-ET-3. El Segundo Blue Butterfly Conservation: Dust Control.**

  To reduce the transport of fugitive dust particles related to construction activities, soil stabilization, watering or other dust control measures, as feasible and appropriate, shall be implemented with a goal to reduce fugitive dust emissions by 90 to 95 percent during construction activities within 2,000 feet of the El Segundo Blue Butterfly Habitat Restoration Area. In addition, to the extent feasible, no grading or stockpiling for construction activities should take place within 100 feet of occupied habitat of the El Segundo blue butterfly.

- **MM-ET-4. El Segundo Blue Butterfly Conservation: Habitat Restoration.**

  LAWA or its designee shall take all necessary steps to avoid the flight season of the El Segundo blue butterfly (June 14 - September 30) when undertaking installation of navigational aids and associated service roads proposed under Master Plan Alternative D within habitat occupied by the El Segundo blue butterfly. Installation of navigational aids within the Habitat Restoration Area should be required to take place between October 1st and May 31st. In conformance with the Biological Opinion, activities associated with navigational aids development shall be limited to the existing roads and proposed impacts areas as depicted in the Final EIS/EIR. Coast buckwheat shall be planted a minimum of three years prior to the impact, not only to allow for establishment of the plants, but also to ensure that the plants are mature enough to bloom. The plantings of coast buckwheat shall be located within the southwest corner of subsite 23 of the Habitat Restoration Area, as depicted in Figure F5-5, and shall encompass 1.25 acres in conformance with the Biological Opinion. Coast buckwheat plants will be planted at an initial density of 200 plants per acre to ensure the long term planting density target (130 plants per acre). Coast buckwheat plants will be placed in clusters or groupings based on microtopographic features present within subsite 23 to better support the El Segundo Blue Butterfly, which is known to prefer large clusters of plants for nectaring and shelter. As possible, depending on the location and condition of individual plants, FAA and LAWA shall salvage existing coast buckwheat plants and any larvae on the plant or pupae in the soil below the plant that would be removed to accommodate the replacement navigational aids to further conserve this species. These plants shall be salvaged immediately prior to the installation of the replacement navigational aids outside of the butterfly flight season. These salvaged plants shall be transported in a suitable container and replanted after the onset of winter rains in subsite 23 near the restored area as described in MM-BC-13, Replacement of State-Designated Sensitive Habitats. This area shall be the designated mitigation site for planting coast buckwheat and the site to which El Segundo blue butterfly pupae shall be relocated. Gathering of coast buckwheat seed shall take place from September 15 through June 1. Propagation and planting methodologies successfully employed by LAWA during 1984 through 1994 restoration efforts shall be employed for propagation of additional

coast buckwheat plants. An existing irrigation system proximal to subsite 23 will be used to increase the success of the restoration effort. Prior to navigational aid installation, a permitted and qualified biologist shall salvage El Segundo blue butterfly larvae in coordination with the USFWS in order to minimize impacts to the butterfly. Based on LAWA's restoration experience within the Habitat Restoration Area, occupation of restored habitat can occur within two to three years of restoration efforts. Therefore, there would be no net loss in acres or value of occupied habitat. Additionally, after the navigational aid system is in place and during the first subsequent flight season of the El Segundo blue butterfly, LAWA shall document El Segundo blue butterfly behavior with respect to the lighting system and submit a monitoring report to USFWS.

Lastly, LAWA shall coordinate with the USFWS to create educational materials on the El Segundo blue butterfly for integration into LAWA's public outreach program.

4.4.6 Impacts Analysis

4.4.6.1 Alternative 1

Improvements within the Coastal Zone

Alternative 1 would require changes to navigational aids currently located within the Dunes, including instrument landing light systems and other navigational aids, which must be in alignment with their respective runways. Under Alternative 1, Runway 6L/24R would be relocated 260 feet north. The runway would also be extended 604 feet to the west; however, the existing Runway 6L landing threshold would remain in its current location. The landing threshold for Runway 6R would be relocated 104 feet to the east.

In order to accommodate the relocation of Runway 6L/24R, and the adjustment to the Runway 6R landing threshold, the instrument landing light systems, as well as other navigational aids associated with these runways, would be modified. Existing navigational aids would be replaced with new facilities, which would be installed to align with proposed runway configurations. Specifically, new Runway 6L/24R navigational aids would be located 260 feet north of the existing landing lights. A new localizer antenna, MTI radar reflector, and middle marker would also be located to the north of their current locations. Because the landing threshold for Runway 6L would be in the same longitudinal location, the navigational aids would not move east or west. A new service road would be developed to access the navigational aids associated with Runway 6L/24R. The new service road would be similar to existing service roads (i.e., existing paved roads would be used where feasible and new road surface would be graded and graveled to minimize erosion).

New navigational aids associated with Runway 6R/24L would be located 104 feet to the east to accommodate the easterly shift in the Runway 6R landing threshold. The middle marker would also be shifted 104 feet east. The localizer antennae would not need to be replaced. As navigational aids associated with Runway 6R/24L would be situated laterally, new navigational aids could be accessed by the existing service road.

The planned facilities would be similar to existing facilities, which include navigational aids in the Dunes and on the north airfield. The proposed locations of the navigational aids for Alternative 1 are shown in **Figure 4.4-3**.

As indicated previously, the Dunes are considered an ESHA. CCA coastal resource planning and management policies state that ESHAs shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within these areas. Navigational aids are not a use that is dependent on the Dunes resources. In connection with approval of the LAX Master Plan, the FAA previously determined that the installation of new navigational aids and associated service roads at LAX associated with implementation of the LAX Master Plan was consistent, to the maximum extent practicable, with the California Coastal Management Program, pursuant to the requirements of the CZMA and the CCA, as discussed above. An additional consistency determination or

certification from CCC may be required to permit implementation of Alternative 1. In addition, the new navigational aids would require a Coastal Development Permit.

Navigational aid placements depend on the location of the runways. Under Alternative 1, navigational aids must be placed in the proposed locations within the Dunes to comply with FAA requirements and ensure aircraft safety. The only new facilities that would be located in the Dunes are those that must be placed there due to FAA requirements, as specified in the Series 150 Advisory Circulars and as necessary for approval of the Airport Layout Plan.

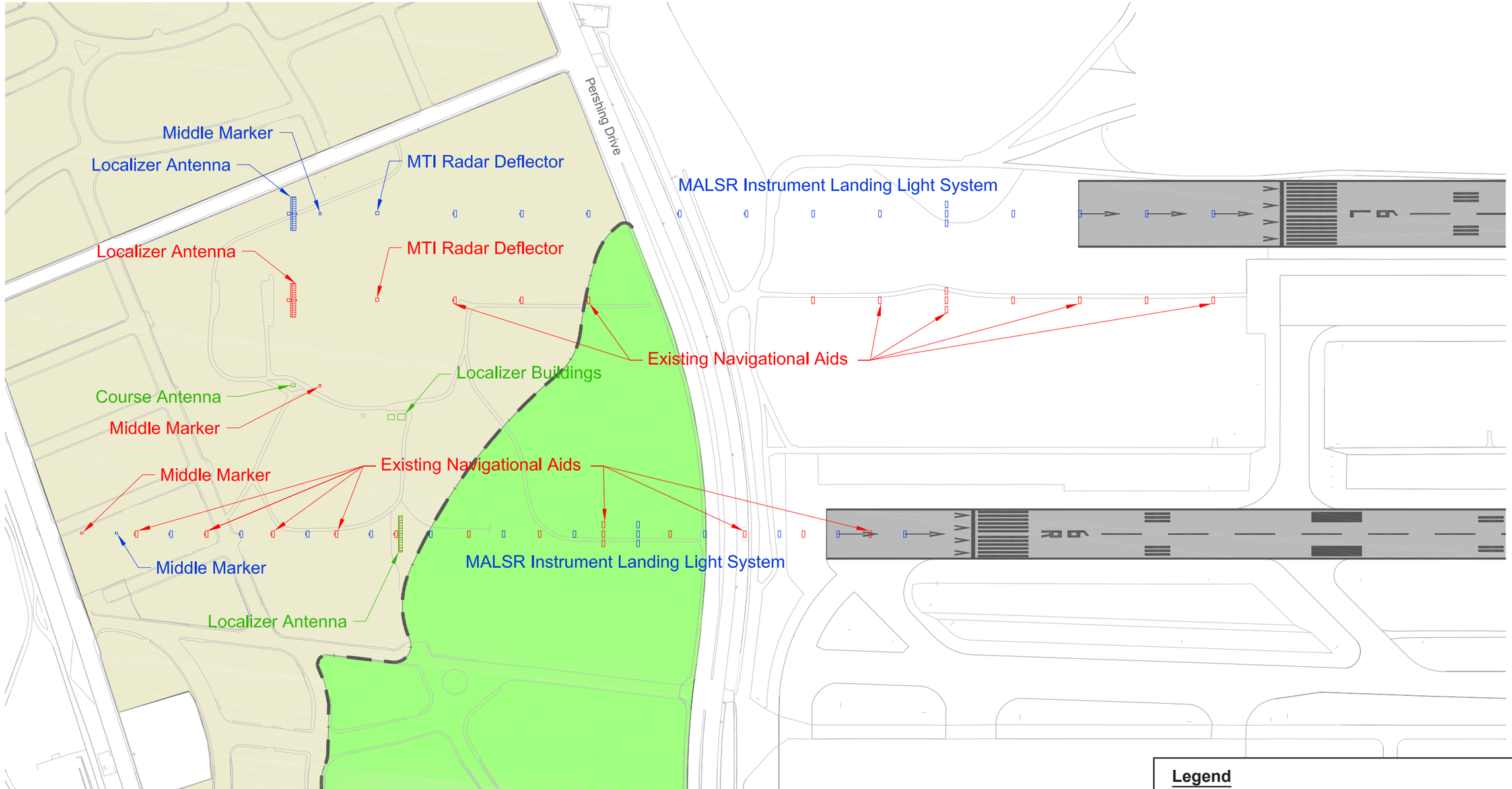
The placement of navigational aids and an associated service road within the Dunes would not damage the overall quality of the coastal zone environment or its natural or artificial resources. The impacts on biological resources as a result of the installation of navigational aids and an associated service road within the Dunes are addressed in Section 4.3, *Biological Resources*, which concludes that such impacts would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures, and that the Dunes would be protected from any significant disruption of habitat values. These impacts, and related mitigation measures, are discussed further below. The navigational aids would be the same in size, design, and lighting as the existing facilities that have existed in the Dunes for decades, and would continue to exist irrespective of Alternative 1. Similar to the existing navigational aids, the new navigational aids would not be readily apparent from either Pershing Drive or Vista del Mar.

Alternative 1 would not inhibit the orderly, balanced utilization and conservation of coastal zone resources. All conservation plans and protections for the Dunes, discussed above, would remain in effect, and the utilization of the coastal zone resources would be almost identical to the existing utilization. Therefore, the relocation of navigational aids and construction of an associated access road would not interfere with the goals of the CCA.

Sensitive Resources within the Coastal Zone

Under Alternative 1, installation of navigational aids and an associated service road would directly affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, although this species is present within the navigational aids relocation area in very low densities due to the small quantity of host plants with low flowerhead density. Direct impacts to sensitive habitat, and to the El Segundo blue butterfly, would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, and MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration, and proposed SPAS Mitigation Measure MM-BIO (SPAS)-1, Replacement of State-Designated Habitats).

The replacement of navigational aids under Alternative 1 may result in significant impacts to five sensitive plant species--including Lewis' evening primrose, California spineflower, south coast branching phacelia, mesa horkelia, and Orcutt's pincushion--depending on the total population size present on-site and the percentage of the population that would be affected. Impacts to these sensitive plant species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, and MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion).



Source: HNTB Corporation, Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: Ricondo & Associates, Inc., 2011.

LAX Specific Plan Amendment Study Draft EIR	**Location of Proposed Navigational Aids - Alternative 1**	Figure **4.4-3**

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The replacement of navigational aids may also have significant impacts to sensitive wildlife species, including sensitive arthropods, silvery legless lizard, coast horned lizard, loggerhead shrike, and burrowing owl. Impacts to these sensitive wildlife species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl).

As indicated in Section 4.3, *Biological Resources*, impacts to sensitive resources within the Dunes associated with operation of the navigational aids would be less than significant. Similarly, as discussed in Section 4.3, *Biological Resources*, indirect effects from jet exhaust emissions, light emissions, and noise would not significantly affect the El Segundo blue butterfly or other sensitive floral and faunal species within the Dunes. However, construction activities under Alternative 1 have the potential to result in deposition of fugitive dust within state-designated sensitive habitat, including habitat within the El Segundo Blue Butterfly Habitat Restoration Area. With implementation of the existing LAX Master Plan mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control), the potential indirect impacts to state-designated sensitive habitat due to construction activities would be less than significant.

4.4.6.2 Alternative 2

Improvements within the Coastal Zone

Similar to Alternative 1, a number of existing navigational aids within the Dunes would be replaced under Alternative 2, although fewer navigational aids would be affected under this alternative. As with Alternative 1, the new navigational aids for Runway 6R/24L would be located 104 feet to the east due to the easterly relocation of the landing threshold for Runway 6R. A new middle marker would also be located 104 feet east. As with Alterative 1, navigational aids associated with Runway 6R/24L would move laterally; therefore, new navigational aids could be accessed using the existing service road. Alternative 2 would result in fewer impacts related to navigational aids than Alternative 1 since it would not result in the relocation of Runway 6L/24R and the subsequent replacement of its associated navigational aids within the Dunes. The proposed locations of the navigational aids for Alternative 2 are shown in **Figure 4.4-4**.

The placement of navigational aids within the Dunes would not damage the overall quality of the coastal zone environment or its natural or artificial resources. The impacts on biological resources as a result of the installation of navigational aids within the Dunes are addressed in Section 4.3, *Biological Resources*, which concludes that such impacts would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures, and that the Dunes would be protected from any significant disruption of habitat values. These impacts, and related mitigation measures, are discussed further below. The navigational aids would be the same in size, design, and lighting as to the existing facilities that have existed in the Dunes for decades, and would continue to exist irrespective of Alternative 2. Similar to the existing navigational aids, the new navigational aids would not be readily apparent from either Pershing Drive or Vista del Mar.

Alternative 2 would not inhibit the orderly, balanced utilization and conservation of coastal zone resources. All conservation plans and protections for the Dunes, discussed above, would remain in effect, and the utilization of the coastal zone resources would be almost identical to the existing utilization. Therefore, the relocation of navigational aids would not interfere with the goals of the CCA. As with Alternative 1, an additional consistency determination or certification from CCC may be required to permit implementation of Alternative 2 since navigational aids are not a use that is dependent on the Dunes resources. In addition, the new navigational aids would require a Coastal Development Permit.

Sensitive Resources within the Coastal Zone

As with Alternative 1, installation of navigational aids would directly affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, and project-related construction would have the potential to result in indirect impacts related to the deposition of fugitive dust within state-designated sensitive habitat, including habitat within the El Segundo Blue Butterfly Habitat Restoration Area. With implementation of existing LAX Master Plan and proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration, and MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control, and proposed SPAS Mitigation Measure MM-BIO (SPAS)-1, Replacement of State-Designated Habitats), the direct and indirect impacts to these sensitive resources within the coastal zone from implementation of Alternative 2 would be less than significant.

The replacement of navigational aids under Alternative 2 may result in significant impacts to five sensitive plant species--including Lewis' evening primrose, California spineflower, south coast branching phacelia, mesa horkelia, and Orcutt's pincushion--depending on the total population size present on-site and the percentage of the population that would be affected. Impacts to these sensitive plant species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, and MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion).

The replacement of navigational aids may also have significant impacts to sensitive wildlife species, including sensitive arthropods, silvery legless lizard, coast horned lizard, loggerhead shrike, and burrowing owl. Impacts to these sensitive wildlife species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl).

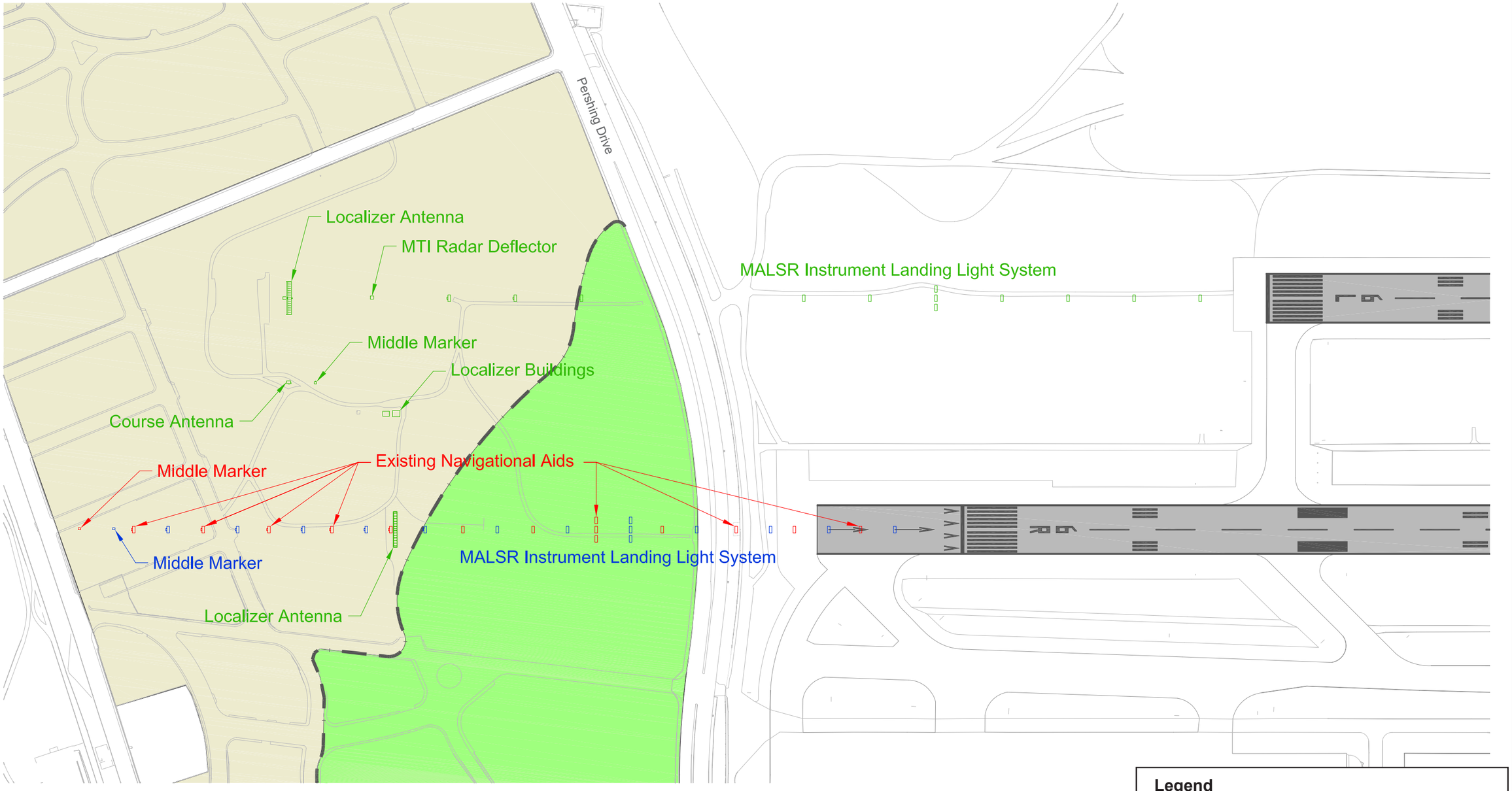
As indicated in Section 4.3, *Biological Resources*, impacts to sensitive resources within the Dunes associated with operation of the navigational aids would be less than significant. Similarly, indirect effects from jet exhaust emissions, light emissions, and noise would not significantly affect the El Segundo blue butterfly or other sensitive floral and faunal species within the Dunes.

4.4.6.3 Alternative 3

Improvements within the Coastal Zone

As with Alternative 1, a number of existing navigational aids within the Dunes would be replaced under Alternative 3, although the number and configuration of the navigational aids would be different under this alternative. Under Alternative 3, Runway 6R/24L would be relocated 340 feet to the south and extended 135 feet to the west. Runway 6L/24R would be extended 1,495 feet to the west. Moreover, under this alternative, the instrument approaches to Runways 6L and 6R would be upgraded from Category I to Category II.

To accommodate the westerly extension of Runway 6L/24R and the upgrade to Category II, the existing navigational aids would be replaced with an approach lighting system with sequenced flashing lights (ALSF-II) that would extend farther west than the existing landing light system. The ALSF-II would require a greater number of lights than the existing system (an ALSF-II lighting system requires 100 feet



Source: HNTB Corporation, Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: Ricondo & Associates, Inc., 2011.

LAX Specific Plan Amendment Study Draft EIR	**Location of Proposed Navigational Aids - Alternative 2**	Figure **4.4-4**

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of separation between navigational aids, while the existing system (MALSR) requires 200 feet of separation), however, there would be no change in the frequency of blinking, and no change in the color spectra. The middle marker associated with this runway would also be replaced. The existing navigational aids associated with Runway 6R/24L would also be replaced with an ALSF-II system and would be moved 340 feet to the south, along with the localizer antenna and middle marker, to accommodate the relocated runway. To provide access, the existing service road adjacent to the Runway 6L/24R navigational aids would be modified and a new service road would be constructed adjacent to the Runway 6R/24L navigational aids. The new and modified service roads would be similar to existing service roads (i.e., existing paved roads would be used where feasible and new road surfaces would be graded and graveled to minimize erosion). The proposed locations of the navigational aids for Alternative 3 are shown in **Figure 4.4-5**.

The placement of navigational aids and associated service roads within the Dunes would not damage the overall quality of the coastal zone environment or its natural or artificial resources. The impacts on biological resources as a result of installation of navigational aids and associated service roads within the Dunes are addressed in Section 4.3, *Biological Resources*, which concludes that such impact would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures, and that the Dunes would be protected from any significant disruption of habitat values. These impacts, and related mitigation measures, are discussed further below. As noted previously, installation of the navigational aids under this alternative would also be subject to the provisions of the HRP, and the mitigation measures described therein. Although the navigational aids in the Dunes would be spaced closer together, thereby increasing their number, and higher intensity light bulbs would be used, the lights would be directed upward rather than downward. The navigational aids would be the same in size, design, frequency of blinking, and color spectra as the existing facilities that have existed in the Dunes for decades, and would continue to exist irrespective of Alternative 3. Similar to the existing navigational aids, the new navigational aids would not be readily apparent from either Pershing Drive or Vista del Mar.

Alternative 3 would not inhibit the orderly, balanced utilization and conservation of coastal zone resources. All conservation plans and protections for the Dunes, discussed above, would remain in effect, and the utilization of the coastal zone resources would be almost identical to the existing utilization. Therefore, the relocation of navigational aids and construction of associated access roads would not interfere with the goals of the CCA. The CCC previously concurred with LAWA's consistency certification concerning these navigational aids and found that the LAX Master Plan was consistent with the enforceable policies of the California Coastal Management Program. The CCC also concurred with the consistency determination made by the FAA, and found that the LAX Master Plan was consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program.[239] As noted in Section 4.4.3 above, the CCC found that, with the successful implementation of the HRP, there would be no significant disruption of habitat values in the Dunes. Prior to implementation, the new navigational aids would require a Coastal Development Permit.

Sensitive Resources within the Coastal Zone

As with Alternative 1, installation of navigational aids and associated service roads would directly affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, and project-related construction would have the potential to result in indirect impacts related to the deposition of fugitive dust within state-designated sensitive habitat, including habitat within the El Segundo Blue Butterfly Habitat Restoration Area. With implementation of existing LAX Master Plan and proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration, and MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control,

239 U.S. Department of Transportation, Federal Aviation Administration, Final Environmental Impact Statement, Los Angeles International Airport Proposed Master Plan Improvements, Appendix A-3d, January 2005.

and proposed SPAS Mitigation Measure MM-BIO (SPAS)-1, Replacement of State-Designated Habitats), the direct and indirect impacts to these sensitive resources within the coastal zone from implementation of Alternative 3 would be less than significant.

The replacement of navigational aids under Alternative 3 may result in significant impacts to five sensitive plant species--including Lewis' evening primrose, California spineflower, south coast branching phacelia, mesa horkelia, and Orcutt's pincushion--depending on the total population size present on-site and the percentage of the population that would be affected. Impacts to these sensitive plant species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, and MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion).

The replacement of navigational aids may also have significant impacts to sensitive wildlife species, including sensitive arthropods, silvery legless lizard, coast horned lizard, loggerhead shrike, and burrowing owl. Impacts to these sensitive wildlife species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl).

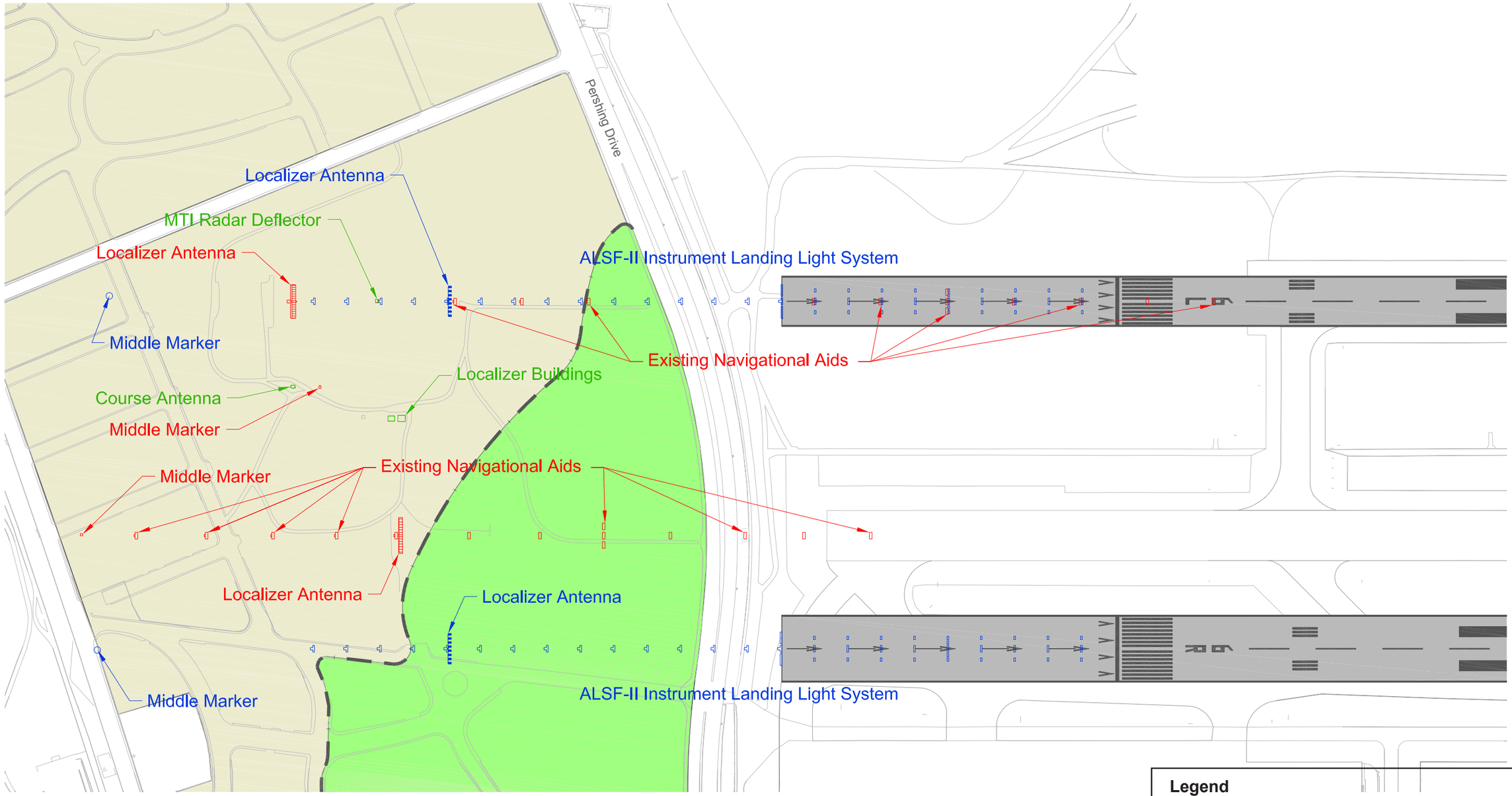
As indicated in Section 4.3, *Biological Resources*, impacts to sensitive resources within the Dunes associated with operation of the navigational aids would be less than significant. Similarly, indirect effects from jet exhaust emissions, light emissions, and noise would not significantly affect the El Segundo blue butterfly or other sensitive floral and faunal species within the Dunes. As noted previously, installation of the navigational aids under this alternative would also be subject to the provisions of the HRP, and the mitigation measures described therein.

4.4.6.4 Alternative 4

Improvements within the Coastal Zone

Changes to navigational aids under Alternative 4 would be the same as Alternative 2. As described in Alternative 2, the new navigational aids for Runway 6R/24L would be located 104 feet to the east due to the easterly relocation of the landing threshold for Runway 6R. A new middle marker would also be located 104 feet east. As with Alterative 2, navigational aids associated with Runway 6R/24L would move laterally; therefore, new navigational aids could be accessed using the existing service road. Similar to Alternative 2, this alternative would result in fewer impacts related to navigational aids than Alternative 1 since it would not result in the relocation of Runway 6L/24R and the subsequent replacement of its associated navigational aids within the Dunes. The proposed locations of the navigational aids for Alternative 4 are shown in **Figure 4.4-6**.

As with Alternative 2, the placement of navigational aids within the Dunes would not damage the overall quality of the coastal zone environment or its natural or artificial resources. The impacts on biological resources as a result of the installation of navigational aids within the Dunes are addressed in Section 4.3, *Biological Resources*, which concludes that such impacts would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures, and that the Dunes would be protected from any significant disruption of habitat values. These impacts, and related mitigation measures, are discussed further below. The navigational aids would be the same in size, design, and lighting as to the existing facilities that have existed in the Dunes for decades, and would continue to exist irrespective of Alternative 4. Similar to the existing navigational aids, the new navigational aids would not be readily apparent from either Pershing Drive or Vista del Mar.



Source: HNTB Corporation, Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: Ricondo & Associates, Inc., 2011.

LAX Specific Plan Amendment Study Draft EIR	**Location of Proposed Navigational Aids - Alternative 3**	Figure **4.4-5**

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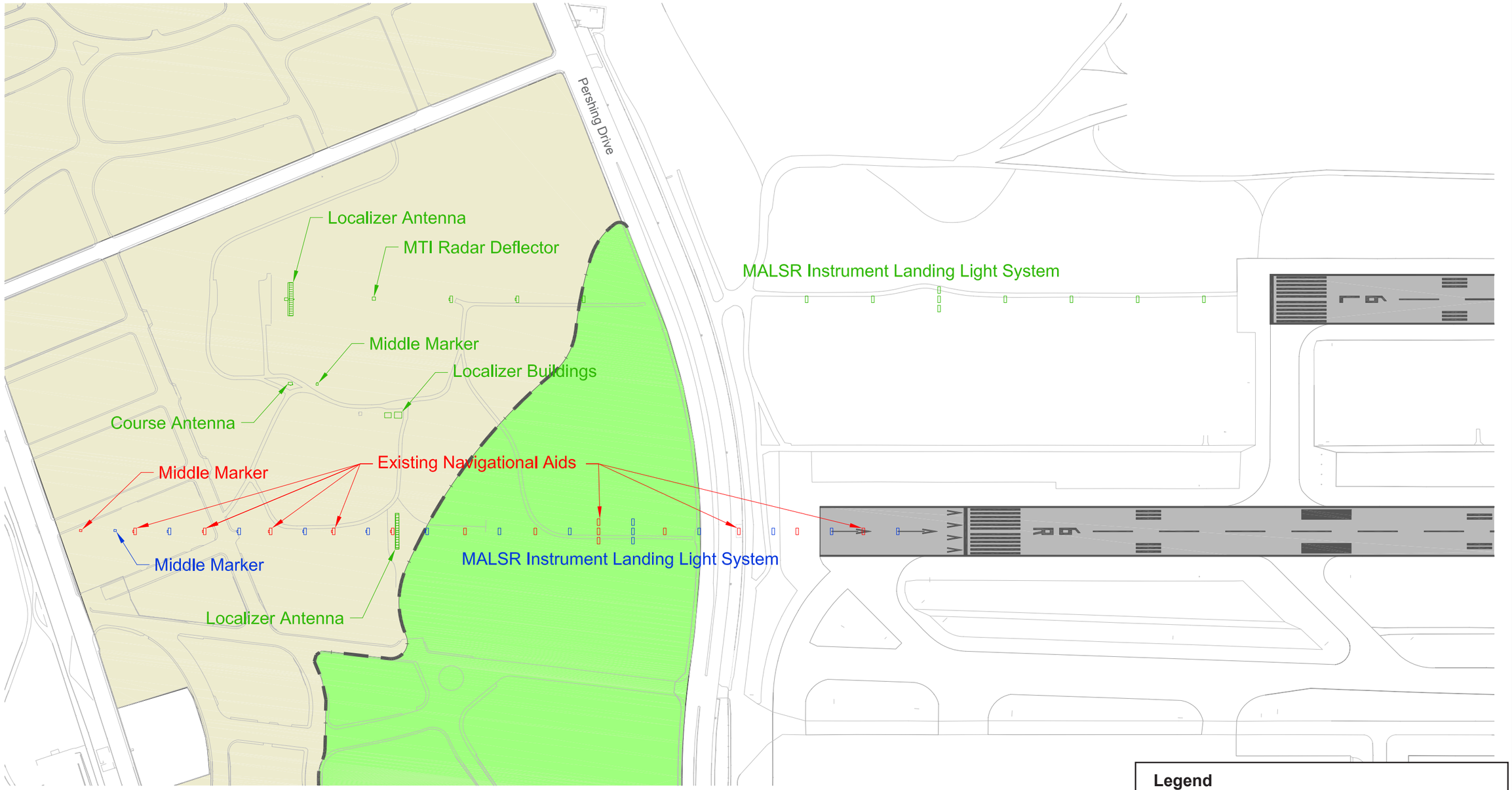

Source: HNTB Corporation, Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: Ricondo & Associates, Inc., 2011.

LAX Specific Plan Amendment Study Draft EIR	**Location of Proposed Navigational Aids - Alternative 4**	Figure **4.4-6**

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Alternative 4 would not inhibit the orderly, balanced utilization and conservation of coastal zone resources. All conservation plans and protections for the Dunes, discussed above, would remain in effect, and the utilization of the coastal zone resources would be almost identical to the existing utilization. Therefore, the relocation of navigational aids would not interfere with the goals of the CCA. As with Alternative 1, an additional consistency determination or certification from CCC may be required to permit implementation of Alternative 4 since navigational aids are not a use that is dependent on the Dunes resources. In addition, the new navigational aids would require a Coastal Development Permit.

Sensitive Resources within the Coastal Zone

As with Alternative 1, installation of navigational aids would directly affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, and project-related construction would have the potential to result in indirect impacts related to the deposition of fugitive dust within state-designated sensitive habitat, including habitat within the El Segundo Blue Butterfly Habitat Restoration Area. With implementation of existing LAX Master Plan and proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration, and MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control, and proposed SPAS Mitigation Measure MM-BIO (SPAS)-1, Replacement of State-Designated Habitats), the direct and indirect impacts to these sensitive resources within the coastal zone from implementation of Alternative 4 would be less than significant.

The replacement of navigational aids under Alternative 4 may result in significant impacts to five sensitive plant species--including Lewis' evening primrose, California spineflower, south coast branching phacelia, mesa horkelia, and Orcutt's pincushion--depending on the total population size present on-site and the percentage of the population that would be affected. Impacts to these sensitive plant species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, and MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion).

The replacement of navigational aids may also have significant impacts to sensitive wildlife species, including sensitive arthropods, silvery legless lizard, coast horned lizard, loggerhead shrike, and burrowing owl. Impacts to these sensitive wildlife species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl).

As indicated in Section 4.3, *Biological Resources*, impacts to sensitive resources within the Dunes associated with operation of the navigational aids would be less than significant. Similarly, indirect effects from jet exhaust emissions, light emissions, and noise would not significantly affect the El Segundo blue butterfly or other sensitive floral and faunal species within the Dunes.

4.4.6.5 Alternative 5

Improvements within the Coastal Zone

Under Alternative 5, impacts to coastal resources would be the same as described previously for Alternative 1. Changes to navigational aids for Alternative 5, including the need for a new service road for navigational aids associated with Runway 6L/24R, would be essentially the same as Alternative 1, except that the navigational aids associated with Runway 6L/24R would be installed 350 feet to the north instead of 260 feet. As with Alternative 1, the new service road would be similar to existing service roads (i.e.,

existing paved roads would be used where feasible and new road surface would be graded and graveled to minimize erosion). The proposed locations of the navigational aids for Alternative 5 are shown in **Figure 4.4-7**.

As with Alternative 1, the placement of navigational aids and an associated service road within the Dunes would not damage the overall quality of the coastal zone environment or its natural or artificial resources. The impacts on biological resources as a result of the installation of navigational aids within the Dunes are addressed in Section 4.3, *Biological Resources*, which concludes that such impacts would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures, and that the Dunes would be protected from any significant disruption of habitat values. These impacts, and related mitigation measures, are discussed further below. The navigational aids would be the same in size, design, and lighting as to the existing facilities that have existed in the Dunes for decades, and would continue to exist irrespective of Alternative 5. Similar to the existing navigational aids, the new navigational aids would not be readily apparent from either Pershing Drive or Vista del Mar.

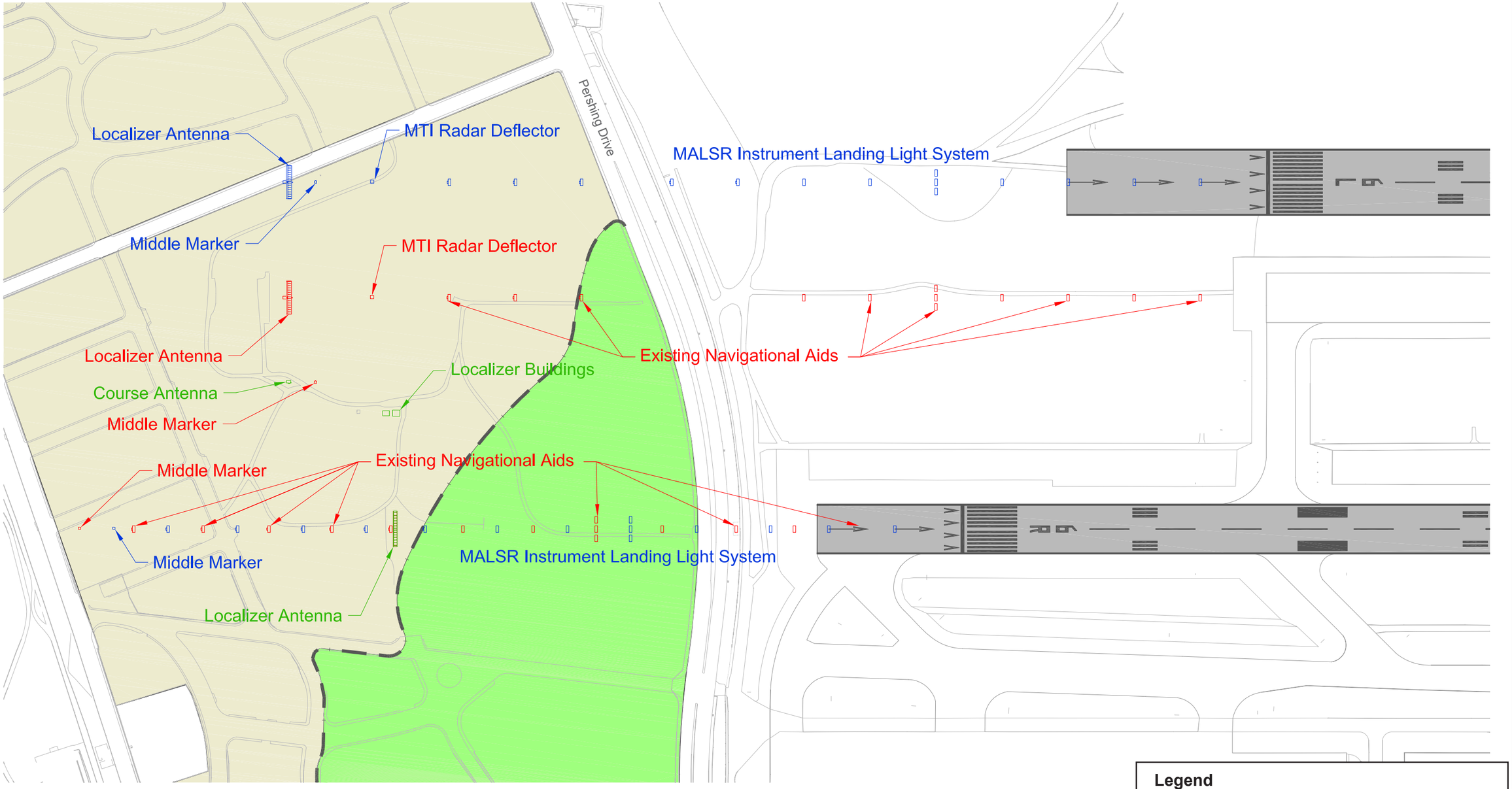
Alternative 5 would not inhibit the orderly, balanced utilization and conservation of coastal zone resources. All conservation plans and protections for the Dunes, discussed above, would remain in effect, and the utilization of the coastal zone resources would be almost identical to the existing utilization. Therefore, the relocation of navigational aids would not interfere with the goals of the CCA. As with Alternative 1, an additional consistency determination or certification from CCC may be required to permit implementation of Alternative 5 since navigational aids are not a use that is dependent on the Dunes resources. In addition, the new navigational aids would require a Coastal Development Permit.

Sensitive Resources within the Coastal Zone

As with Alternative 1, installation of navigational aids would directly affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, and project-related construction would have the potential to result in indirect impacts related to the deposition of fugitive dust within state-designated sensitive habitat, including habitat within the El Segundo Blue Butterfly Habitat Restoration Area. With implementation of existing LAX Master Plan and proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration, and MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control, and proposed SPAS Mitigation Measure MM-BIO (SPAS)-1, Replacement of State-Designated Habitats), the direct and indirect impacts to these sensitive resources within the coastal zone from implementation of Alternative 5 would be less than significant.

The replacement of navigational aids under Alternative 5 may result in significant impacts to five sensitive plant species--including Lewis' evening primrose, California spineflower, south coast branching phacelia, mesa horkelia, and Orcutt's pincushion--depending on the total population size present on-site and the percentage of the population that would be affected. Impacts to these sensitive plant species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, and MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion).

The replacement of navigational aids may also have significant impacts to sensitive wildlife species, including sensitive arthropods, silvery legless lizard, coast horned lizard, loggerhead shrike, and burrowing owl. Impacts to these sensitive wildlife species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl).



Source: HNTB Corporation, Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: Ricondo & Associates, Inc., 2011.

LAX Specific Plan Amendment Study Draft EIR	**Location of Proposed Navigational Aids - Alternative 5**	Figure **4.4-7**

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As indicated in Section 4.3, *Biological Resources*, impacts to sensitive resources within the Dunes associated with operation of the navigational aids would be less than significant. Similarly, indirect effects from jet exhaust emissions, light emissions, and noise would not significantly affect the El Segundo blue butterfly or other sensitive floral and faunal species within the Dunes.

4.4.6.6 Alternative 6

Improvements within the Coastal Zone

Under Alternative 6, impacts to coastal resources would be the same as described previously for Alternative 1. Changes to navigational aids for Alternative 6, including the need for a new service road for navigational aids associated with Runway 6L/24R, would be essentially the same as Alternative 1, except that the navigational aids associated with Runway 6L/24R would be installed 100 feet to the north instead of 260 feet. The new service road would be similar to existing service roads (i.e., existing paved roads would be used where feasible and new road surface would be graded and graveled to minimize erosion). The proposed locations of the navigational aids for Alternative 6 are shown in **Figure 4.4-8**.

As with Alternative 1, the placement of navigational aids and an associated service road within the Dunes would not damage the overall quality of the coastal zone environment or its natural or artificial resources. The impacts on biological resources as a result of the installation of navigational aids within the Dunes are addressed in Section 4.3, *Biological Resources*, which concludes that such impacts would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures, and that the Dunes would be protected from any significant disruption of habitat values. These impacts, and related mitigation measures, are discussed further below. The navigational aids would be the same in size, design, and lighting as to the existing facilities that have existed in the Dunes for decades, and would continue to exist irrespective of Alternative 6. Similar to the existing navigational aids, the new navigational aids would not be readily apparent from either Pershing Drive or Vista del Mar.

Alternative 6 would not inhibit the orderly, balanced utilization and conservation of coastal zone resources. All conservation plans and protections for the Dunes, discussed above, would remain in effect, and the utilization of the coastal zone resources would be almost identical to the existing utilization. Therefore, the relocation of navigational aids would not interfere with the goals of the CCA. As with Alternative 1, an additional consistency determination or certification from CCC may be required to permit implementation of Alternative 6 since navigational aids are not a use that is dependent on the Dunes resources. In addition, the new navigational aids would require a Coastal Development Permit.

Sensitive Resources within the Coastal Zone

As with Alternative 1, installation of navigational aids would directly affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, and project-related construction would have the potential to result in indirect impacts related to the deposition of fugitive dust within state-designated sensitive habitat, including habitat within the El Segundo Blue Butterfly Habitat Restoration Area. With implementation of existing LAX Master Plan and proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration, and MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control, and proposed SPAS Mitigation Measure MM-BIO (SPAS)-1, Replacement of State-Designated Habitats), the direct and indirect impacts to these sensitive resources within the coastal zone from implementation of Alternative 6 would be less than significant.

The replacement of navigational aids under Alternative 6 may result in significant impacts to five sensitive plant species--including Lewis' evening primrose, California spineflower, south coast branching phacelia, mesa horkelia, and Orcutt's pincushion--depending on the total population size present on-site and the percentage of the population that would be affected. Impacts to these sensitive plant species would be less than significant with implementation of proposed SPAS mitigation measures described in

Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, and MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion).

The replacement of navigational aids may also have significant impacts to sensitive wildlife species, including sensitive arthropods, silvery legless lizard, coast horned lizard, loggerhead shrike, and burrowing owl. Impacts to these sensitive wildlife species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl).

As indicated in Section 4.3, *Biological Resources*, impacts to sensitive resources within the Dunes associated with operation of the navigational aids would be less than significant. Similarly, indirect effects from jet exhaust emissions, light emissions, and noise would not significantly affect the El Segundo blue butterfly or other sensitive floral and faunal species within the Dunes.

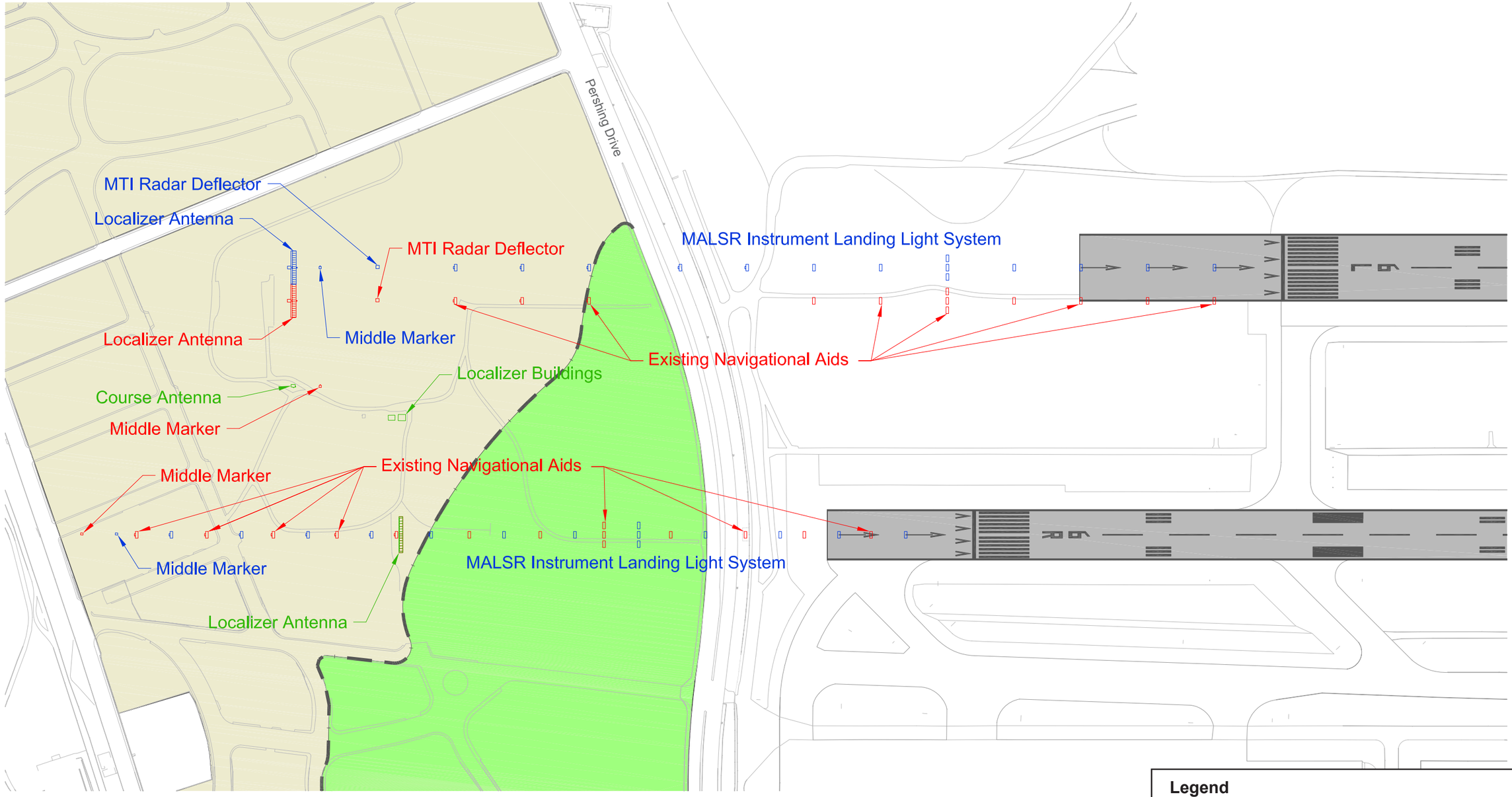
4.4.6.7 Alternative 7

Improvements within the Coastal Zone

As with Alternative 1, a number of existing navigational aids within the Dunes would be replaced under Alternative 7, although the number and configuration of the navigational aids would be different under this alternative. Under Alternative 7, Runway 6R/24L would be relocated 100 feet to the south. Existing navigational aids would be replaced with new facilities, which would be installed to align with proposed runway configuration. A new service road would be developed to access the navigational aids. The new service road would be similar to existing service roads (i.e., existing paved roads would be used where feasible and new road surface would be graded and graveled to minimize erosion). The proposed locations of the navigational aids for Alternative 7 are shown in **Figure 4.4-9**.

As with Alternative 1, the placement of navigational aids within the Dunes would not damage the overall quality of the coastal zone environment or its natural or artificial resources. The impacts on biological resources as a result of the installation of navigational aids within the Dunes are addressed in Section 4.3, *Biological Resources*, which concludes that such impacts would be less than significant with implementation of existing LAX Master Plan and proposed SPAS mitigation measures, and that the Dunes would be protected from any significant disruption of habitat values. These impacts, and related mitigation measures, are discussed further below. The navigational aids would be the same in size, design, and lighting as to the existing facilities that have existed in the Dunes for decades, and would continue to exist irrespective of Alternative 7. Similar to the existing navigational aids, the new navigational aids would not be readily apparent from either Pershing Drive or Vista del Mar.

Alternative 7 would not inhibit the orderly, balanced utilization and conservation of coastal zone resources. All conservation plans and protections for the Dunes, discussed above, would remain in effect, and the utilization of the coastal zone resources would be almost identical to the existing utilization. Therefore, the relocation of navigational aids would not interfere with the goals of the CCA. As with Alternative 1, an additional consistency determination or certification from CCC may be required to permit implementation of Alternative 7 since navigational aids are not a use that is dependent on the Dunes resources. In addition, the new navigational aids would require a Coastal Development Permit.



Source: HNTB Corporation, Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: Ricondo & Associates, Inc., 2011.

LAX Specific Plan Amendment Study Draft EIR	**Location of Proposed Navigational Aids - Alternative 6**	Figure **4.4-8**

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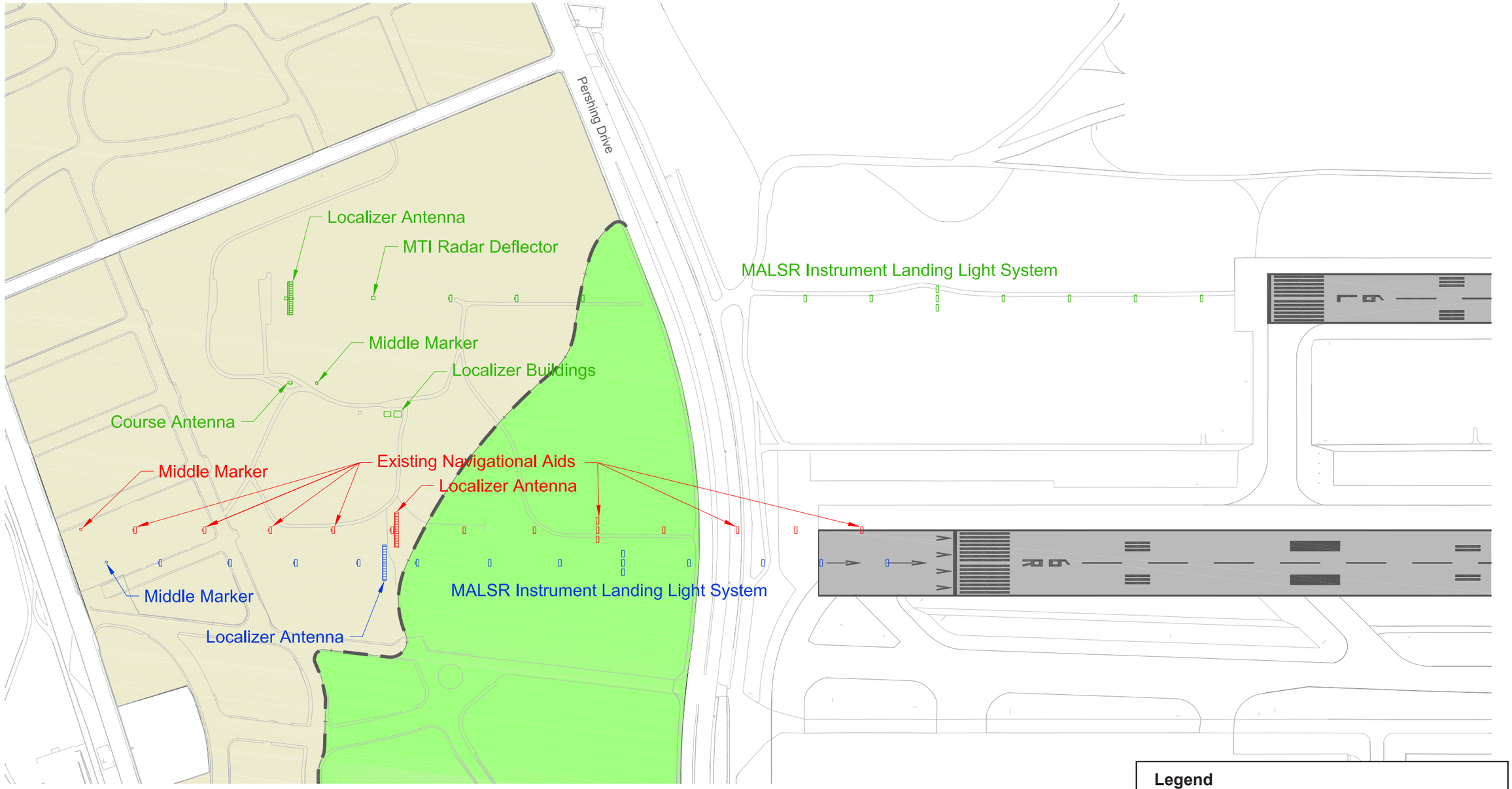

Source: HNTB Corporation, Los Angeles International Airport Layout Plan, August 2010; Ricondo & Associates, Inc., 2011.
Prepared by: Ricondo & Associates, Inc., 2011.

LAX Specific Plan Amendment Study Draft EIR	**Location of Proposed Navigational Aids - Alternative 7**	Figure **4.4-9**

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Sensitive Resources within the Coastal Zone

As with Alternative 1, installation of navigational aids would directly affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, and project-related construction would have the potential to result in indirect impacts related to the deposition of fugitive dust within state-designated sensitive habitat, including habitat within the El Segundo Blue Butterfly Habitat Restoration Area. With implementation of existing LAX Master Plan and proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration, and MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control, and proposed SPAS Mitigation Measure MM-BIO (SPAS)-1, Replacement of State-Designated Habitats), the direct and indirect impacts to these sensitive resources within the coastal zone from implementation of Alternative 7 would be less than significant.

The replacement of navigational aids under Alternative 7 may result in significant impacts to five sensitive plant species--including Lewis' evening primrose, California spineflower, south coast branching phacelia, mesa horkelia, and Orcutt's pincushion--depending on the total population size present on-site and the percentage of the population that would be affected. Impacts to these sensitive plant species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, and MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion).

The replacement of navigational aids may also have significant impacts to sensitive wildlife species, including sensitive arthropods, silvery legless lizard, coast horned lizard, loggerhead shrike, and burrowing owl. Impacts to these sensitive wildlife species would be less than significant with implementation of proposed SPAS mitigation measures described in Section 4.3, *Biological Resources* (i.e., MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl).

As indicated in Section 4.3, *Biological Resources*, impacts to sensitive resources within the Dunes associated with operation of the navigational aids would be less than significant. Similarly, indirect effects from jet exhaust emissions, light emissions, and noise would not significantly affect the El Segundo blue butterfly or other sensitive floral and faunal species within the Dunes.

4.4.6.8 Alternative 8

Alternative 8 focuses on ground access improvements only. Such improvements would not affect coastal resources; therefore, no analysis of this topic is warranted for Alternative 8.

4.4.6.9 Alternative 9

Alternative 9 focuses on ground access improvements only. Such improvements would not affect coastal resources; therefore, no analysis of this topic is warranted for Alternative 9.

4.4.6.10 Summary of Impacts

In order to accommodate the relocation of runways and/or runway landing thresholds, changes to navigational aids currently located within the coastal zone would be required under several of the alternatives. The reconfiguration of navigational aids would affect state-designated sensitive habitat within the Dunes, including occupied habitat of the El Segundo blue butterfly, as well as sensitive plant and wildlife species. Alternatives 1, 3, 5, and 6 would result in greater disturbance in the coastal zone than would Alternatives 2, 4, and 7, as the former alternatives would require changes to navigational aids

associated with both Runways 6L/24R and 6R/24L, whereas the latter alternatives would only require changes to Runway 6R/24L navigational aids. Alternatives 1 through 7 would also result in indirect impacts due to construction activity near the coastal zone. Under all of these alternatives, the impact on coastal zone resources would be less than significant with implementation of mitigation measures described in Section 4.3, *Biological Resources*: LAX Master Plan Mitigation Measures MM-BC-1, Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area, MM-ET-3, El Segundo Blue Butterfly Conservation: Dust Control, and MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration; and SPAS Mitigation Measures MM-BIO (SPAS)-1, Replacement of State-Designated Habitats, MM-BIO (SPAS)-2, Conservation of Floral Resources: South Coast Branching Phacelia, MM-BIO (SPAS)-3, Conservation of Floral Resources: Lewis' Evening Primrose, MM-BIO (SPAS)-4, Conservation of Floral Resources: California Spineflower, MM-BIO (SPAS)-5, Conservation of Floral Resources: Mesa Horkelia, MM-BIO (SPAS)-6, Conservation of Floral Resources: Orcutt's Pincushion, MM-BIO (SPAS)-8, Conservation of Faunal Resources: Sensitive Reptiles and Arthropods, MM-BIO (SPAS)-9, Conservation of Faunal Resources: Loggerhead Shrike, and MM-BIO (SPAS)-10, Conservation of Faunal Resources: Burrowing Owl. Alternatives 8 and 9 would have no impacts to coastal resources.

4.4.7 Mitigation Measures

Implementation of mitigation measures described in Section 4.3, *Biological Resources*, including LAX Master Plan Mitigation Measures MM-BC-1, MM-ET-3, and MM-ET-4, and SPAS Mitigation Measures MM-BIO (SPAS)-1, MM-BIO (SPAS)-2, MM-BIO (SPAS)-3, MM-BIO (SPAS)-4, MM-BIO (SPAS)-5, MM-BIO (SPAS)-6, MM-BIO (SPAS)-8, MM-BIO (SPAS)-9, and MM-BIO (SPAS)-10, would ensure that impacts to sensitive resources within the coastal zone associated with Alternatives 1 through 7 would be less than significant. Therefore, no additional mitigation measures specific to SPAS are required.

Alternatives 8 and 9 would have no impacts to coastal resources; therefore, no mitigation measures are required.