



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
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June 24, 2025

Hilary Rummel
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Subject: Draft Environmental Impact Statement for the Authorizing Changes to the Falcon Launch Program Project at Vandenberg Space Force Base, California, SCH No. 2025051143, Santa Barbara County, CA

Dear Hilary Rummel:

The California Department of Fish and Wildlife (CDFW) reviewed the Draft Environmental Impact Statement (EIS) from the Department of the Air Force (DAF) for the Authorizing Changes to the Falcon Launch Program Project (Project) at Vandenberg Space Force Base (VSFB) pursuant to the National Environmental Policy Act (NEPA) of 1969 with the purpose of informing decision-makers and the public regarding potential environmental effects related to the Project.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.).

Hilary Rummel
Department of the Air Force
June 24, 2025
Page 2 of 5

Likewise, to the extent implementation of the Project as proposed may result in “take” as defined by State law of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.) or the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code. Therefore, CDFW may also act as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381).

PROJECT DESCRIPTION SUMMARY

Proponent: Space Exploration Technologies Corporation (SpaceX)

Objective: The purpose of the proposed Project is to provide greater mission capability to the Department of Defense, National Aeronautics and Space Administration, National Security, and commercial customers by increasing Falcon 9’s flight opportunities. The Project proposes to modify Space Launch Complex (SLC)-6 to support the Falcon launch vehicles. More specifically, the Project calls for modification of SLC-6 including demolition of existing structures, construction of necessary infrastructure to support the new launch cadence, and vegetation removal. Demolition includes the use of heavy machinery to cut or pull down the structures or the use of explosives. The infrastructure that is proposed to be constructed are commodity storage tanks, a vehicle erector, water tower(s), ground supporting equipment, and a rail system from the hanger to the two new launch pads. Existing infrastructure would be modified, such as the liquid oxygen storage, launch pad apron, access road, and fence line. Moreover, SpaceX would construct two landing zones across 16 acres, south of SLC-6. Each of the landing zones would be a total of 400 feet in diameter consisting of a 280 foot diameter concrete pad surrounded by a 60-foot gravel apron and a 30-ft by 30-ft pedestal would also be constructed at each landing pad. A new nitrogen gas line would be constructed from SLC-6 to an equipment bay at the landing zones. Lastly, a new firebreak is proposed south of the landing zones and Cypress Ridge Road and N Road would be improved for fire access.

Location: The proposed Project is located on VSFB which is in central Santa Barbara County. VSFB is divided into two distinct parts, North Base and South Base, by the Santa Ynez River and State Highway 246. SLC-6 is located on South Base, approximately 1.0 miles east of the Pacific Ocean. Project activities would occur within the previously developed areas along Luner Road. In addition, the new launch pads are proposed to occur immediately south of N Road.

Biological Setting: The VSFB is located along the south-central coast of California and covers 99,099 acres. Development surrounding SLC-6 consists of existing infrastructure, developed land and pavement, and maintained vegetation/landscaping. The Red Roof Canyon drainage, which is considered an ephemeral culvert, is located north of the Project area. Additionally, an intermittent unnamed drainage is located between the development modifications and new launch pads. Vegetation alliances within the biological survey area for the firebreak, landing zones, new hanger area, and

Hilary Rummel
Department of the Air Force
June 24, 2025
Page 3 of 5

nitrogen line include California sagebrush – purple sage scrub (*Artemisia californica* - *Salvia leucophylla* Alliance), coyote bush scrub (*Baccharis pilularis* Alliance), wild oats and annual brome grassland (*Avena spp.* - *Bromus spp.* Alliance), and other alliances. A Biological Assessment (BA) for the Falcon 9 Cadence Increases and SLC-6 Modifications was prepared April 2025. Biological surveys for the proposed construction at SLC-6 were conducted during October and November 2023.

Rare plant species Lompoc yerba santa (*Eriodictyon capitatum*; Endangered Species Act (ESA)-listed endangered; California Rare Plant Ranking (CRPR) 1B.2), beach layia (*Layia carnosa*; (ESA)-listed endangered; California Endangered Species Act (CESA)-listed endangered, CRPR 1B.1), and Gaviota tarplant (*Deinandra increscens ssp. villosa*; ESA-listed endangered; CESA-listed endangered; CRPR 1B.2) were not found during biological surveys but occur in the greater area. Although suitable habitat for Gaviota tarplant (*Deinandra increscens ssp. villosa*; ESA-listed endangered; CESA-listed endangered species, CRPR 1B.1) exists where physical impacts would occur, only the common unlisted grassland tarplant (*Deinandra increscens ssp. increscens*) was identified. Special-status species that have potential to be impacted due to the proposed Project include Lompoc yerba santa, Point Arguello monardella (*Monardella undulata ssp. arguelloensis*; CRPR 1B.1), and surf thistle (*Cirsium rathophilum*; CESA-listed threatened; CRPR 1B.2).

According to the Draft EIS, the DAF has initiated formal consultation with the U.S. States Fish and Wildlife Service (USFWS) under Section 7 of ESA for 16 species listed as threatened or endangered. Moreover, the Draft EIS refers to the environmental protection measures (EPMs) in the BA for conservation measures for the Project (Page 3-66). The EPMs include general conservation measures such as construction personnel training, a light management plan, trash disposal, and the implementation of measures relating to hazardous waste and stormwater. Additionally, there are EPMs relating to California red-legged frog (*Rana draytonii*; ESA-listed threatened; SSC), which also includes surveying for other special-status species before Project activities, western snowy plover (*Charadrius nivosus nivosus*; ESA-listed threatened; SSC), California least tern (*Sternula antillarum browni*; ESA-listed endangered; CESA-listed endangered), and southern sea otter (*Enhydra lutris nereis*; ESA-listed threatened). Lastly, there are conservation measures implemented under the Programmatic Biological Opinion that are relevant to California condor (*Gymnogyps californianus*; ESA-listed endangered; CESA-listed endangered), southern sea otter, and marbled murrelet (*Brachyramphus marmoratus*; ESA-listed threatened; CESA-listed endangered).

Project History: CDFW had previously commented on the Environmental Assessment for the Falcon 9 Cadence Increase Project at VSF (SCH No. 2024090604) regarding activities conducted at SLC-4. Comments included the biological resource assessment, least Bell's vireo, monarchs, rare plants, and nesting birds.

Hilary Rummel
Department of the Air Force
June 24, 2025
Page 4 of 5

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the DAF in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on wildlife (biological) resources.

Specific Comments

- 1) **Lake and Streambed Alteration Agreement.** The Project proposes to perform Project activities and modifications through the Red Roof Canyon drainage and unnamed drainage. CDFW has regulatory authority over activities in streams that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of any river, stream, or lake or use material from a river, stream, or lake. For any such activities, the Project proponent (i.e., SpaceX) must provide written notification to CDFW pursuant to section 1600 et seq. of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a LSA Agreement with the Project proponent is required prior to conducting the proposed activities. CDFW's issuance of a LSA Agreement for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. A notification package for a LSA Agreement may be obtained by accessing CDFW's [Lake and Streambed Alteration Program](#) website¹.
- 2) **Rare Plants.** Lompoc yerba santa, surf thistle, and Point Arguello monardella have been observed and recorded through the California Natural Diversity Database to occur within and/or near SLC-6 (CDFW 2025). Direct impacts at SLC-6 may occur to rare plant species during construction activities and vegetation removal. These impacts may result in loss of individuals and seedbank and contribute to the population decline of these rare plants. The Draft EIS states that the Project area was surveyed outside of the peak blooming period, but plants were still extant and identifiable. Given that biological surveys for SLC-6 were conducted during October and November, CDFW remains concerned that locations of rare plant species are not known. While the Draft EIS claims the rare plants were surveyed and mentioned would not be affected by ground disturbance and physical impacts, it does not discuss avoidance of potential rare plants documented prior to construction activities within the Project area.

CDFW recommends the EIS incorporate a measure that requires a rare plant survey be conducted prior to any ground-disturbing activities to ensure that no impacts to undetected rare plants occur. CDFW also recommends a qualified botanist conduct a rare plant survey, adhering to CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018) during the appropriate blooming season. If rare plants are observed within the Project area, the qualified botanist should implement

¹ <https://wildlife.ca.gov/Conservation/Environmental-Review/LSA>


Hilary Rummel
Department of the Air Force
June 24, 2025
Page 5 of 5

an adequate buffer around the individual plant or population to prevent any potential adverse impacts. If avoidance is not achievable, the EIS should offset the loss of rare plants through compensatory mitigation at a minimum of 2:1 ratio. Translocation of these species is not advisable, as there is insufficient data to support that such translocations would be successful.

CONCLUSION

CDFW appreciates the opportunity to comment on the EIS to assist the DAF in identifying and mitigating Project impacts on biological resources. Questions regarding this letter or further coordination should be directed to Joleena De La Fe, Environmental Scientist, at (858) 354-3527 or Joleena.delafe@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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Victoria Tang
Environmental Program Manager
South Coast Region

cc: California Department of Fish and Wildlife
Victoria Tang, Environmental Program Manager
Frederic (Fritz) Rieman, Senior Environmental Scientist Supervisor

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REFERENCES

[CDFW] California Department of Fish and Wildlife. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural. Available from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>

[CDFW] California Department of Fish and Wildlife. 2025. California Natural Diversity Database. Available from: <https://wildlife.ca.gov/Data/CNDDB>