

## **Global Response GR-5**

### **Airport Impacts**

A number of commenters stated concerns that implementation of the JVR Energy Park Project (Proposed Project) would impact operations at the Jacumba Airport. In particular, commenters expressed concern that the Proposed Project conflicts with the Jacumba Airport Land Use Compatibility Plan's (ALUCP) lot coverage and open space requirements and would result in safety and glare impacts to gliders.

#### **Consistency with ALUCP**

The Jacumba ALUCP was adopted by the San Diego County Regional Airport Authority and the County Board of Supervisors in 2006 and the plan was amended in 2011, as discussed in Section 2.6.2 of the EIR. Among other things, the ALUCP was adopted to protect the Jacumba airport from encroachment by new incompatible land uses that could restrict its operations, which include both powered aircraft and glider operations. The Draft EIR considered whether the Proposed Project proposes a development intensity, flight obstruction, or other land use that conflicts with the ALUCP.

County Planning & Development Services staff consulted with the County Regional Airport Authority regarding the Proposed Project during the planning process. In addition, a Notice of Availability for the Draft EIR was provided to the Airport Authority. No comments on the Draft EIR were received from the Airport Authority.

The adopted Jacumba Airport ALUCP is available at the following website:

[https://www.san.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?Command=Core\\_Download&EntryId=2943&language=en-US&PortalId=0&TabId=225](https://www.san.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?Command=Core_Download&EntryId=2943&language=en-US&PortalId=0&TabId=225)

The San Diego County Regional Airport Authority is currently preparing an update to the Jacumba Airport ALUCP. The draft update is available at the following website:

<https://www.san.org/Portals/0/Documents/Airport%20Projects/Planning/Jacumba-Airport-ALUCP-Feb-2020.pdf>

#### **Lot Coverage Requirements**

As described in Section 2.6.3.4 Airport Hazards of the Final EIR, the southern portion of the Project site to the west of Jacumba Airport is located within Review Area 1 and Safety Zones 2, 4 and 5 as designated in the Jacumba ALUCP. All development within Safety Zones 2, 4 and 5 must

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adhere to maximum lot coverage requirements in Table JAC-2 of the ALUCP. Table JAC-2 is used to determine a project's consistency with ALUCP Policy JAC 2.5, Nonresidential Development Criteria, which is intended to measure risk exposure for people on the ground in the event of an aircraft accident. Solar projects are not a land use that is addressed in Table JAC-2. According to the ALUCP, Policy JAC 2.5(b)(1), however, "[p]roposed development for which no land use type is listed in Table JAC-2 shall be evaluated with respect to a similar use included on the list." In coordination with the San Diego County Regional Airport Authority (Airports), the land use type for wind turbines and cell phone towers was determined to be the most similar land use in Table JAC-2 to solar arrays because wind turbines and cell phone towers are similarly unmanned facilities with limited operations and maintenance activity. (See Table 3.1.4-6, Policy JAC 2.5, Nonresidential Development Criteria.) Furthermore, the Administrative Draft Jacumba ALUCP prepared in February 2020 now includes solar/photovoltaic arrays in the same category as cell phone towers and wind turbines in Table JAC-2 (see reference link above). According to Table JAC-2, this development category is permitted in Safety Zones 2 with up to 50% lot coverage and Safety Zones 4 and 5 with up to 70% lot coverage.

Section 2.6.3.4 Airport Hazards of the Draft EIR analyzed the Proposed Project's consistency with the lot coverage requirements of the Jacumba ALUCP and concluded that the Proposed Project meets the requirements for each of the Safety Zones. Subsequent to public review of the Draft EIR, the Proposed Project's engineer provided a more detailed conservative analysis of the Proposed Project's lot coverage within each safety zone (see Jacumba Airport Land Use Compatibility Plan Technical Memorandum, Appendix T, in the Final EIR). Based on the more detailed analysis, the Proposed Project, which includes the panels, battery storage containers, inverters, and fence, would have a lot coverage of 33% in Safety Zone 2, 32% in Safety Zone 4, and 34% in Safety Zone 5. Section 2.6.3.4 of the Final EIR has been updated with this information. The calculations are based on the worst-case ground coverage at high noon with a zero-degree tilt angle. Accordingly, the Proposed Project complies with the ALUCP's lot coverage requirements.

One commenter expressed concern that this calculation should not count the space between solar panels as a part of the lot coverage. However, Jacumba ALUCP Policy 2.8, Maximum Lot Coverage, uses the land use type specified for the Proposed Project from Table JAC-2, which for the Proposed Project is the land use type used for wind turbines and cell phone towers (see Response to Comment O7-90). The County Zoning Ordinance defines lot coverage as "the percentage of net site area covered by the vertical projection of any structure excluding any structure not extending above grade." The Jacumba ALUCP specifies that "[a]ll structures, including parking structures and support buildings, shall be counted when determining maximum lot coverage." Based on this specification, the maximum lot coverage is intended to be calculated based on structures rather than the entirety of a developed property. It is also relevant that the lot coverage policy is intended to evaluate risk to people on the ground from aircraft accidents, not the risk to aircraft operators due to construction of a project. Please see the discussion regarding

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open land requirements, below, for an analysis of risk to aircraft operators due to construction of the project.

### **Open Land Requirements**

Section 2.6.3.4 Airport Hazards of the Draft EIR analyzed the Proposed Project’s consistency with the Jacumba ALUCP’s open land requirements. Open land is intended to allow light aircraft to have controlled emergency landings. Policy JAC 2.8 states that on project sites of 10 acres or more, structures and other large objects shall be arranged so as to meet the open land criteria in Policy JAC 2.9 of the Jacumba ALUCP. Policy JAC 2.9 also states that risks to light aircraft can be minimized in the event of a landing away from the airport by providing as much open land area as possible within the airport vicinity. Within Safety Zones 2, 4 and 5, Policy JAC 2.8 specifies that for every 10 acres of development, a project must provide 0.5 acres of open land. Policy JAC 2.9 requires open land area to be free of most structures and other major obstacles, have minimum dimensions of approximately 75 feet by 300 feet, and be oriented with the typical direction of aircraft flight over the location involved. Further, the policy states that roads are acceptable as open land areas. The Draft EIR determined that the Proposed Project would satisfy the open land requirement.

Subsequent to the public review period for the Draft EIR, the Proposed Project was redesigned to increase the Project’s internal access road in the vicinity of the west end of the airport runway to 80 feet in width. In addition, the setbacks along both the north and south sides of Old Highway 80 were also increased. Based on the revised site plan, the Proposed Project would impact a total of 109.51 acres within Safety Zones 2, 4, and 5. Therefore, the revised Proposed Project requires 5.48 acres to satisfy the open land criteria. The revised Proposed Project provides a total of 11.83 acres of open land in Safety Zones 2, 4 and 5 within the Major Use Permit (MUP) boundary. Additionally, 12.11 acres of open land are provided outside of the MUP boundary for a total of 23.94 acres of open land in the Proposed Project vicinity within Safety Zones 2, 3, and 4. Refer to the Jacumba Airport Land Use Compatibility Plan Technical Memorandum (Appendix T) in the Final EIR for a detailed discussion of where the open land is provided.

### **Glare**

Several commenters also expressed concerns that the glare from the solar panels would impact glider operations at the Jacumba Airport. The Draft EIR analyzed glare to aircraft in accordance with the Federal Aviation Administration (FAA) interim policy, as expressed in Interim Policy FAA Review of Solar Energy Systems Projects on Federally Obligated Airports (78 FR 63276, the “Interim Policy”). Although off-airport projects like the Proposed Project “are not subject” to the Interim Policy, such projects are “strongly encouraged to consider the requirements of [the Interim Policy] when siting such systems.” In particular, the Interim Policy sets several standards, including no glint or glare in the air traffic control tower (inapplicable to the Jacumba Airport

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because it has no such tower), and no potential for glare or “low potential for after-image” along the final approach path, which is defined as “two (2) miles from fifty (50) feet above the landing threshold using a standard three (3) degree glidepath.” (Interim Policy, 78 FR 63276, at p. 63277.)

A Glare Study for the Proposed Project was prepared by POWER Engineers in 2018 and was included as Appendix A to the Visual Resources Report (Appendix B to the Draft EIR). The 2018 Glare Study summarized POWER’s analysis of the Proposed Project’s potential glare impacts using the Solar Glare Hazard Analysis Tool, as specified by the FAA’s Interim Policy. The Solar Glare Hazard Analysis Tool classifies glare by color, with glare in the green category (low potential for temporary after-image), and yellow category (potential for temporary after-image).

Section 2.6.3.4 Airport Hazards of the Draft EIR summarized the 2018 Glare Study conclusions regarding impacts on airports or air traffic in the area. As stated on page 2.6-33 of the Draft EIR, “the low glare of the proposed solar facility combined with the orientation of the PV panels to the south, away from approaching aviation users, would ensure that the Proposed Project would not cause a significant impact to aircraft as a result of glare.” Accordingly, the Draft EIR adequately analyzes impacts to the airport caused by glare.

However, in order to respond to commenters’ concerns regarding impacts to glider pilots, the Glare Study was updated in 2021. The 2021 Glare Study includes an analysis of the Proposed Project’s potential impacts to glider operations, in addition to engine powered aircraft. The updated analysis also includes the Proposed Project’s increased setbacks from Old Highway 80 and Jacumba Community Park. The 2021 Glare Study replaces the 2018 study in full and is included as Appendix A to the Visual Resources Report (Appendix B) in the Final EIR.

To understand glider operations at the Jacumba Airport, the Project applicant discussed glider operations at the Jacumba Airport with Mr. Alasdair Mullarney, the Direction of Operations for the AGCSC. According to Mr. Mullarney, gliders utilize landing patterns that differ from powered aircraft. Mr. Mullarney provided the Project applicant and POWER, the preparer of the Glare Study, with typical landing patterns and operating hours for gliders at the Jacumba Airport. POWER analyzed potential glare impacts to these landing patterns. (See the JVR Energy Project Glare Study, 2021, Appendix A to the Visual Resources Report (Appendix B of the Final EIR)

Using the information provided by Mr. Mullarney, POWER found in the 2021 Glare Study that potential glare visible to glider pilots is limited to gliders turning base (facing south) before final approach on Runway 7. “Green” potential glare is anticipated throughout the day and year with possible low occurrences of “Yellow” glare lasting less than 18 minutes per year. Project Design Feature (**PDF-HAZ-1**), which modifies the tracking behavior of the panels, has been incorporated into the Proposed Project. **PDF-HAZ-1** would eliminate backtracking during the afternoon hours for arrays north of Old Highway 80 and south of the SDG&E transmission corridor by keeping the arrays at their maximum 52 degree west facing rotational limit until after the sun has set.

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Implementation of **PDF-HAZ-1** will redirect glare up and out of the view of glider pilots on initial approach to Runway 7. Based on the 2021 Glare Study, the Final EIR concludes that impacts to glider pilots would be less than significant.

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