

Solano County Airport Land Use Commission



SOLANO COUNTY

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MEMORANDUM:

To: Solano County Airport Land Use Commission
From: Jim Leland, Principal Planner
Subject: **PUBLIC HEARING: Action Item:** Conduct a public hearing to consider adopting an Update to the Travis Air Force Base Land Use Compatibility Plan ("Update"), and adopt a resolution adopting the Update
Date: Meeting of October 08, 2015

Recommendation

Conduct a public hearing to consider adopting an Update to the Travis Air Force Base Land Use Compatibility Plan ("Update"), and adopt a resolution adopting the Update.

Background

One of the responsibilities of the ALUC is to prepare Land Use Compatibility Plans for each of the three airports within Solano County. The Travis Air Force Base Land Use Compatibility Plan (Travis Plan) was last updated in 2002. Since that time, several significant renewable energy projects have been approved and constructed. Studies have shown that renewable energy projects can effect radar installations. The 2002 Travis Air Force Base Land Use Compatibility Plan did not include a detailed categorical review of renewable energy projects.

At its October 10, 2013 Regular Meeting, the Airport land Use Commission authorized staff to begin work on the update to the Travis Plan. Subsequently, on December 12, 2013, the Commission approved a general scope of work for a comprehensive Travis Plan update. On February 11, 2014, the Board of Supervisors authorized a contract with Environmental Science Associates (ESA) for a comprehensive update to the 2002 Travis Air Force Base Land Use Compatibility Plan. Since then ESA has developed white papers and drafts of a proposed update to the Travis Plan and presented these work products to the Technical Advisory Committee, Renewable Energy Committee and the City-County Coordinating Council for review and comment. Based on numerous comments from more than a dozen meetings, ESA has produced the Travis Air Force Base Draft Land Use Compatibility Plan for consideration by the Commission.

Discussion

ESA has prepared an Update to the Travis Air Force Base Draft Land Use Compatibility Plan (“Update”) which has been previously distributed to the Commission. The Update retains a significant portion of existing policy adopted in 2002, and amended in 2013 and 2014.

The Update states that “the need to prepare this new LUCP has resulted from several factors:

- **Aircraft Activity Changes** – The character and magnitude of aircraft activity at the base has changed since the previous plan was prepared. In 2007, an Environmental Assessment was prepared for the assault landing zone, an additional runway surface now in use at the Air Force Base. In 2009, the Department of Defense published an updated *Air Installation Compatible Use Zone (AICUZ) Study* for Travis AFB. That study documented changes in the mission of the Air Force Base and the related effects on the noise and safety zones. The new data is summarized in Appendix F of this volume.
- **Community Attitudes** – Sentiments among communities surrounding the issue of whether or not to protect Travis AFB from incompatible land use development have changed since 2002. This has largely occurred for two reasons. One is a strengthened sense of understanding of the economic importance of Travis AFB within Solano County. Secondly, largely in part from the recent economic downturn, the large number of military base closures in California in recent years, coupled with the minimization and termination of several domestic military bases, has raised community concerns about the future of the Travis AFB. As a result, the community is very supportive of Travis AFB and protecting its long-term viability.
- **Federal Regulations** – Since 2002, federal regulations related to performing wildlife hazard assessments for airports and air bases have been revised. Federal Aviation Administration (FAA) Advisory Circular 150/5200-33B provides guidance for minimizing the risks that certain wildlife species pose to aircraft, delineating wildlife perimeter zones based on aircraft type and land use. In this circular, the FAA provides guidance for airport operators and parties assuming guidance of airports and airfields to minimize the risks that certain wildlife species pose to aircraft, which primarily focuses on creating a Wildlife Hazard Assessment Boundary, to prevent aircraft collisions with birds and other wildlife.
- **State Laws and Regulations** – State laws and regulations concerning airport land use compatibility planning have changed considerably in a few aspects. The *California Airport Land Use Planning Handbook*, prepared by Caltrans, was last updated in 2011 and provides extensive guidance regarding the preparation and content of LUCPs, ALUC review procedures for local actions, and the responsibilities of local agencies. In some places, the 2011 *Handbook* generally provides more condensed and lenient regulations than featured in the 2002 Travis AFB LUCP, though the Handbook presents one major change with regards to the analysis and mitigation of wildlife hazards, as well as responding to noise impacts from newer aircraft technology. The 2011 Handbook

recommends establishing separation distances between public airports (or military airfields) and wildlife attractants, which are delineated by FAA Advisory Circular 150/5200-33B, titled “Hazardous Wildlife Attractants On or Near Airports,” (August 2007). This Advisory Circular can be found in Appendix G.

- **Renewable Energy** – Since 2002, there has been a proliferation of renewable energy systems constructed in Solano County including wind-powered energy-generation facilities and some solar-energy generation facilities. These new facilities have posed challenges to the Air Force Base and its operations as the number, height, blade size, and location of commercial-grade wind turbines has degraded the effectiveness of Travis AFB’s airport surveillance radar. This new LUCP discusses and defines the parameters for the development of renewable energy facilities throughout the County.”

The proposed revisions in the Update principally impact land uses involving renewable energy and wildlife hazards and are summarized below:

- **Renewable Energy Projects** – The Update provides policy guidance for both solar and wind projects.
 - **Solar Projects:**

Solar facilities can create reflective glint and glare hazards to aircraft pilots and air traffic controllers. The FAA advises the use of, and Travis AFB employs, the Sandia National Laboratories-developed Solar Glare Hazard Analysis Tool (SGHAT) that allows a user to analyze proposed photovoltaics array systems and recommend mitigation methods if needed. This method provides high-accuracy predictions of potential impacts on airport sensitive receptors and allows for evaluation of design alternatives to avoid glare impacts.
 - **Wind Projects:**

The presence of wind turbines can generate air traffic control radar interference, rotor turbulence, and vertical obstruction hazards for aircraft operations at Travis AFB. To ensure adequate hazard prevention for aircraft operations and to minimize radar interference, the following requirements below present limits for wind turbine development and operation.

The beyond the radar line-of-sight method of siting wind turbines is the most proven and effective method for minimizing wind turbine impacts on a radar’s aircraft detection capabilities. Siting wind turbines outside the radar’s line-of-site is critical to mitigating additional cumulative effects arising from the addition of new turbines to those already existing within the current radar line-of-sight as every turbine within the radar’s line-of-sight negatively impacts the radar.

New wind turbine facilities, depending on height, are subject to the following limitations. Height of all wind turbines shall be reported in feet AGL as measured at the apex of the blade at its highest point.

- **Wildlife Hazards** - The Update provides policy guidance for projects which may cause bird strikes or attract wildlife across the runways at Travis AFB. Figure 5

depicts two wildlife hazard zones, the Bird Strike Hazard Zone and the Outer Perimeter, which contain specific development requirements. The Bird Strike Hazard Zone, which is delineated by a radius 14,500 feet from the runway centerlines, is intended to minimize bird strike hazard occurrence. The Outer Perimeter is located five miles between the farthest edge of the Air Force Base's air operations area (AOA), which the FAA recommends for any hazardous wildlife attractant if the attractant could cause hazardous wildlife movement into or across the approach or departure airspace. FAA Advisory Circular 150/5200-33B provides guidance for minimizing the risks that certain wildlife species pose to aircraft. The Outer Perimeter is based on the fact that Travis AFB serves turbine-powered aircraft. Together, these perimeters encompass portions of all compatibility zones and present additional conditions on certain types of land uses that are known to attract wildlife that are hazardous to aircraft operations.

In addition to these policy areas, there are some miscellaneous revisions to the Plan, including:

- Compatibility Zone D Boundary Changes – The boundary of Compatibility Zone D has expanded reflecting the current flights tracks from Travis.
- Compatibility Zone C Allowable Land Uses – Compatibility Zone C now contains a residential density standard of 11 units per acre, based on the general plans submitted by the cities. This replaces a prior requirement that residential density was limited to existing zoning which was problematic when unincorporated agricultural lands were annexing into cities for residential purposes.
- Meteorological Towers — Meteorological towers can pose a safety hazard for low flying aircraft, affecting pilots and aircraft operations.
 - All proposed new or expanded meteorological towers 100 feet in height AGL or greater in Compatibility Zone C, or 200 feet or greater AGL in Compatibility Zones D and E, whether temporary or permanent, shall require ALUC review.
 - All meteorological towers, whether temporary or permanent, regardless of height shall be subject to the height requirements stated elsewhere in this LUCP.
 - All meteorological towers, regardless of height and whether temporary or permanent, shall be marked and lighted for safety in adherence with FAA's marking and lighting requirements contained in FAA Advisory Circular AC-70/7460-1K, "Obstruction Marking and Lighting." The requirements of Public Utilities Code section 21417, requiring marking of meteorological towers of certain heights in certain locations, may supersede Policy 3.3.4(c)iii, to the extent section 21417 requires marking. If Section 21417 ceases to be in effect, its requirements would not supersede this paragraph. The requirements of this Policy and Section 21417 are a minimum, and it is encouraged that meteorological towers be marked and lighted to any greater extent as may be prudent as industry practice improves.

- Review Procedures – The Update provides for some revisions to the review procedures, including the review of meteorological towers, solar projects, projects within the Bird Strike Hazard Zone that have the potential to cause a significant adverse impact.
- Implementation Program – The Update includes an implementation program which directs staff to bring forward additional policy, regulations and implementation procedures for the following topics:
 - The parameters of a Wildlife Hazard Assessment,
 - Replacement or repowering of existing wind farms within the Montezuma Hills Wind Resource Area.

All of the proposed changes and/or additions to policy are highlighted in gray.

CEQA

Staff is recommending that the Commission find that the proposed Amendment is exempt from the California Environmental Quality Act (CEQA) pursuant to the “commonsense exemption” found in Section 15061(b)(3) of the CEQA Guidelines. (See Exhibit 5 for a complete discussion of the CEQA Exemption).

PROPOSED FINDINGS

Based on the analysis above, the staff is recommending that the Commission adopt the following findings:

1. Purpose and Need. A sound governmental purpose and need exists for the Commission’s adoption of the proposed update. For the reasons described in Exhibit 3 and based upon the administrative record, a sound governmental purpose and need exists for the Commission’s adoption of the proposed amendment.
2. AICUZ Consistency. The Commission’s adoption of the proposed amendment is consistent with the 2009 Travis Air Force Base Air Installation Compatible Use Zone (“AICUZ”) Study. Pursuant to Public Utilities Code section 21675, subdivision (b), an ALUC plan for any military airport “shall be consistent with the safety and noise standards in the [AICUZ] prepared for that military airport.” For the reasons described in Exhibit 4 and based upon the administrative record, the proposed amendment is consistent with the 2009 AICUZ.
3. CEQA Commonsense Exemption. The Commission’s adoption of the proposed amendment is exempt from the California Environmental Quality Act under the “commonsense” exemption described in the CEQA Guidelines. (*Guidelines for Implementation of Cal. Environmental Quality Act*, Cal. Code Regs., tit. 14, (“CEQA Guidelines”), § 15061, subd. (b)(3).) The commonsense exemption applies “[w]here it can be seen with certainty that there is no possibility that the activity in question

may have a significant effect on the environment" (*Ibid.*) For the reasons described in Exhibit 5 and based upon the administrative record, the commonsense exemption applies.

Recommendation

Conduct a public hearing to consider adopting an Update to the Travis Air Force Base Land Use Compatibility Plan ("Update"), and adopt a resolution adopting the Update.

Attachments

- Exhibit 1: Travis Air Force Base Draft Land Use Compatibility Plan - previously distributed to the commission and can also be found at: http://www.solanocounty.com/depts/rm/boardscommissions/solano_county_airport_land_use_commission/documents.asp
- Exhibit 2: Resolution
- Exhibit 3: Governmental Purpose and Need
- Exhibit 4: Consistency with the 2009 AICUZ
- Exhibit 5: CEQA Commonsense Exemption
- Exhibit 6: CEQA Memo