

## Appendix 5. Air Traffic Initial Environmental Review (IER)

Facility: Northern California Terminal Radar Approach Control (TRACON) Date: 11/15/2021

Prepared by: FAA Western Service Area, Operations Support Group Phone: 202-550-6876

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**NOTE:** *This IER provides basic information about the proposed action to better assist in preparing for the environmental analysis phase of a proposed action. Although it requests information in several categories, not all the data may be available initially; however, it does represent information, in accordance with FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, dated July 16, 2015, which ultimately will be needed for preparation of the appropriate environmental document. If the Instrument Flight Procedure (IFP) Environmental Pre-Screening Filter is used for initiating the environmental review process, and it passes the initial screening, then the IER is unnecessary. Additional guidance on the identification of potential environmental impacts by environmental category is available in FAA Order 1050.1F Desk Reference (1050.1F Desk Reference).*

### Section 1. Proposed Project Description

Describe the proposed project. Include general information identifying procedure(s) and/or airspace action(s) to be implemented and/or amended. Identify the associated airports and/or facilities.

The Federal Aviation Administration (FAA) is proposing to amend the RVRCT THREE DEPARTURE (Area Navigation [RNAV]) and the SCTWN THREE DEPARTURE (RNAV) procedures serving Sacramento International Airport (KSMF), Sacramento, California.

- 1.1. Describe the operational and/or environmental benefits that may result if the proposed action is implemented.

The primary change to the departure procedures would be to replace the KENNO transition with a new SHUFL transition north of the KENNO transition. The operational and safety benefits of the SHUFL transition would address conflicts with air traffic resulting from the Las Vegas Metroplex, which was implemented on February 25, 2021. Ensuring the routes are not in conflict would enhance safety by avoiding a potential loss of separation between aircraft. The Proposed Action would also ensure routes are clear of Restricted Area 4807 (R-4807). A complete list of changes are described in Section 1.3.

- 1.1.1. Is a reduction of fuel cost and/or energy consumption anticipated as a result of the proposed action?

☐ Yes ☐ No ☒ N/A

Fuel consumption is not applicable to the purpose and need of the project.

- 1.1.1.a. If so, can it be quantified, and how?

☐ Yes ☐ No ☒ N/A

Not applicable to the purpose and need of the project.

- 1.1.1.b.** If not quantifiable, describe the approximate anticipated benefits in lay terms.

Not applicable to the purpose and need of the project.

- 1.1.2.** Describe any additional operational and/or environmental benefits that may result from the proposed action.

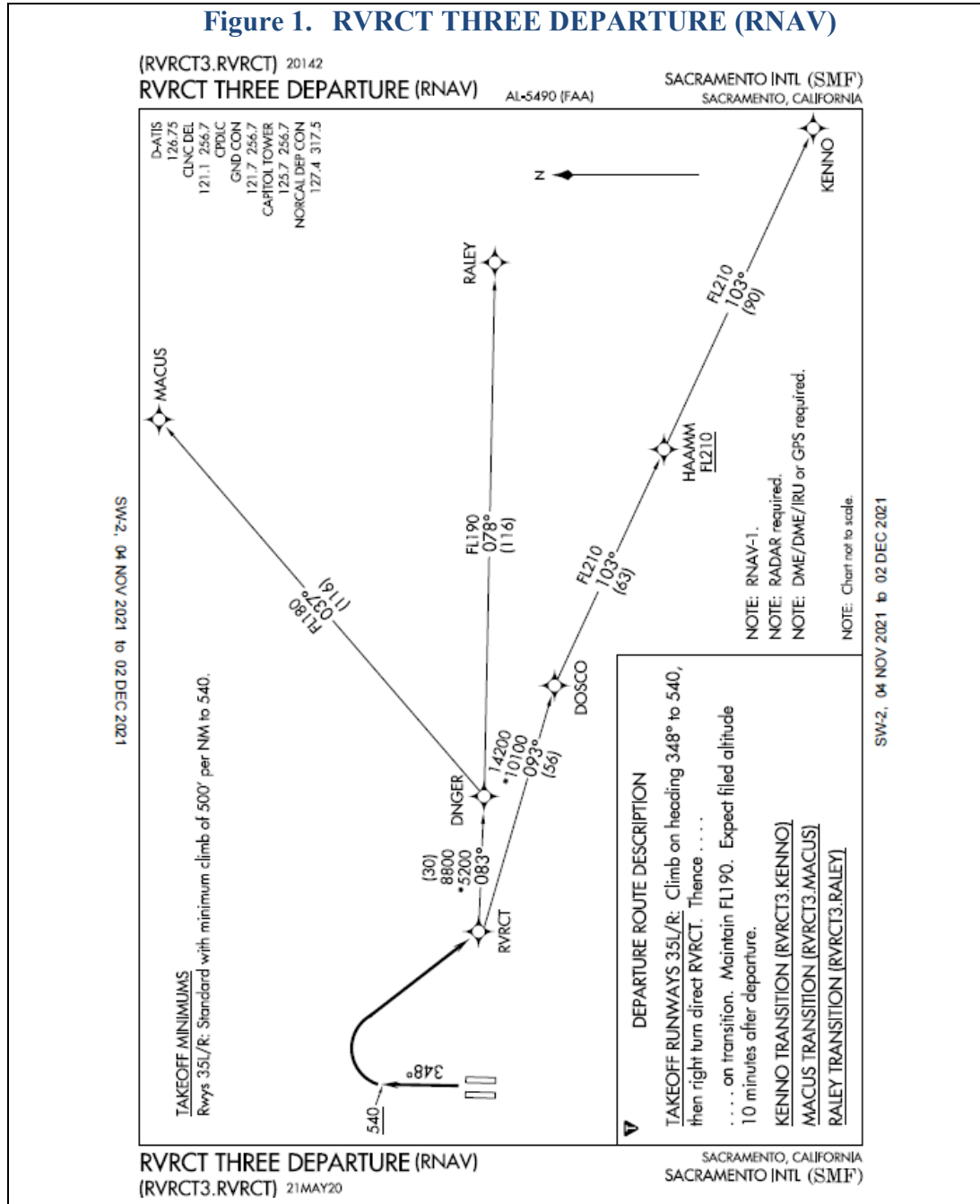
No additional benefits are applicable to the purpose and need of the project.

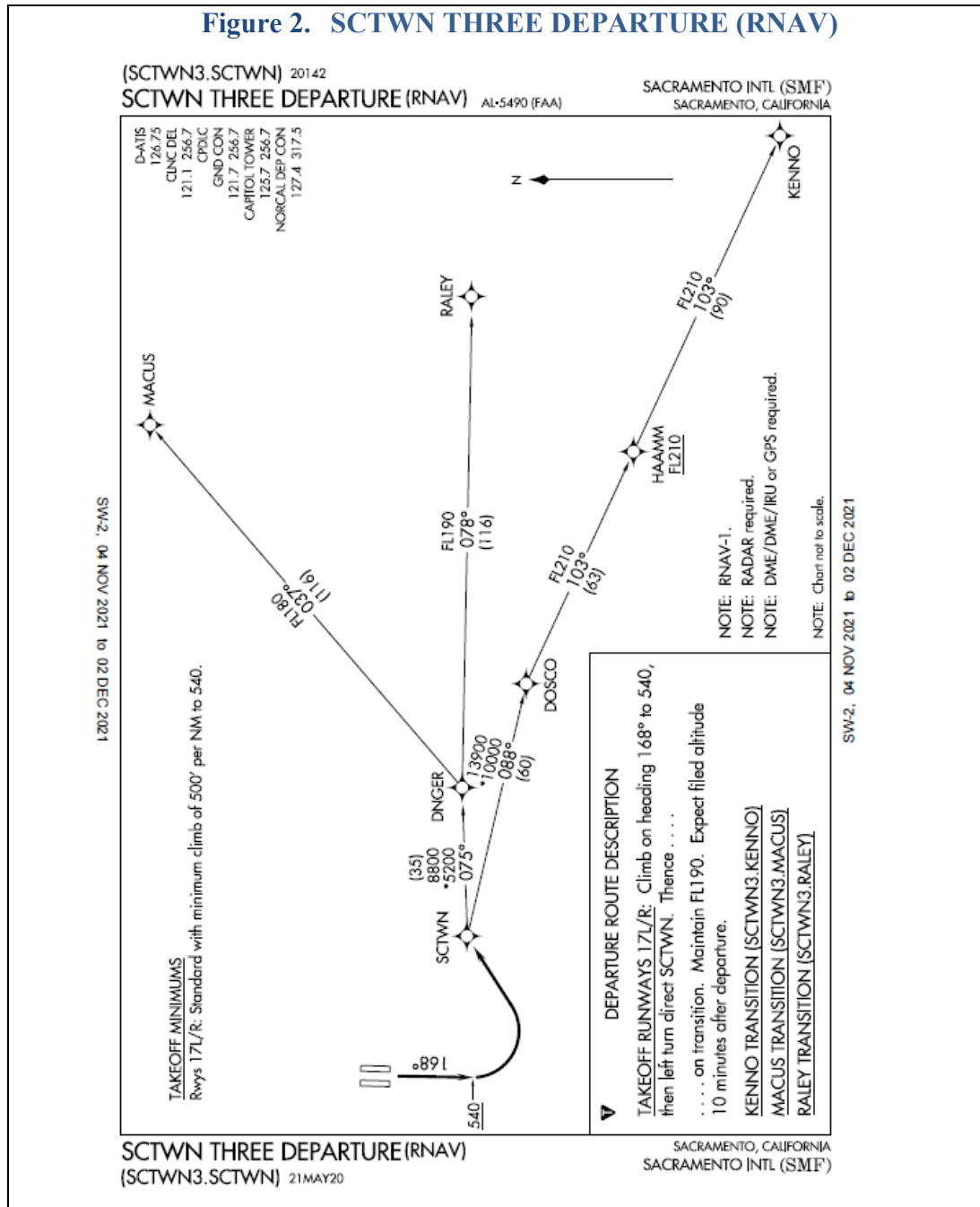
- 1.2.** Describe the existing procedure(s) (the no action alternative) in full detail. Provide the necessary chart(s) depicting the current procedure(s). Describe the typical fleet mix, including (if possible) the number and types of aircraft on the route (both annually and average day) and depict their altitude(s) along the route.

The currently published IFPs relevant to the proposed action are:

RVRCT THREE DEPARTURE (RNAV)  
SCTWN THREE DEPARTURE (RNAV)

**Figures 1 and 2** depict the current IFPs.





The following table (source: <https://sda.tc.faa.gov/AfsTools/#/>) lists 2019 departure operations by runway (*note—in 2020, the runway numbers were changed due to magnetic variation updates*). The fleet mix is predominantly jets.

Runway	Departure Count	Percent of Departures
16L	32,462	48%
16R	11,350	17%
34L	8,052	12%
34R	15,322	23%
Total Ops	67,186	

KSMF data for RVRCT and SCTWN departures during 2019 show that 1,030 aircraft were assigned or flew the KENNO transition. The number of aircraft operations is not expected to change as a result of the Proposed Action.

- 1.3.** Describe the proposed action, providing the necessary chart(s) depicting changes. Describe anticipated changes to the fleet mix, numbers of aircraft on the new routes and their altitude(s), if any.

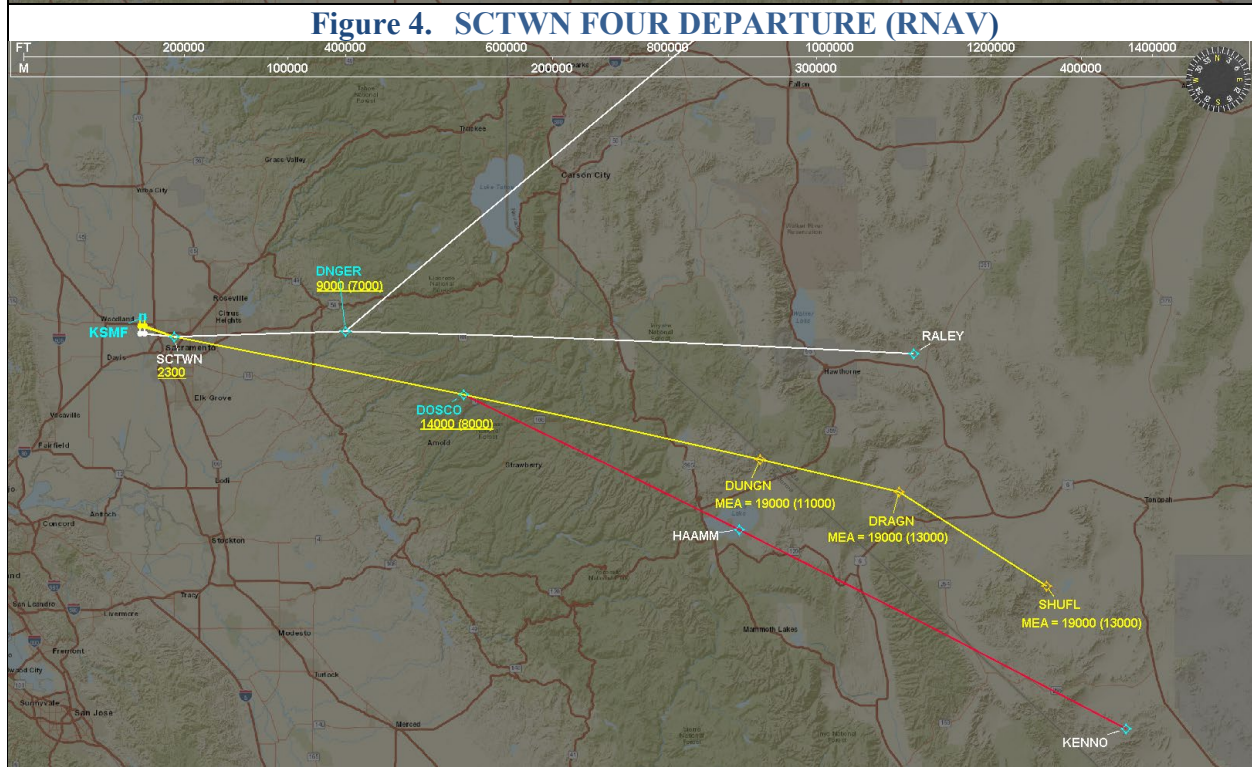
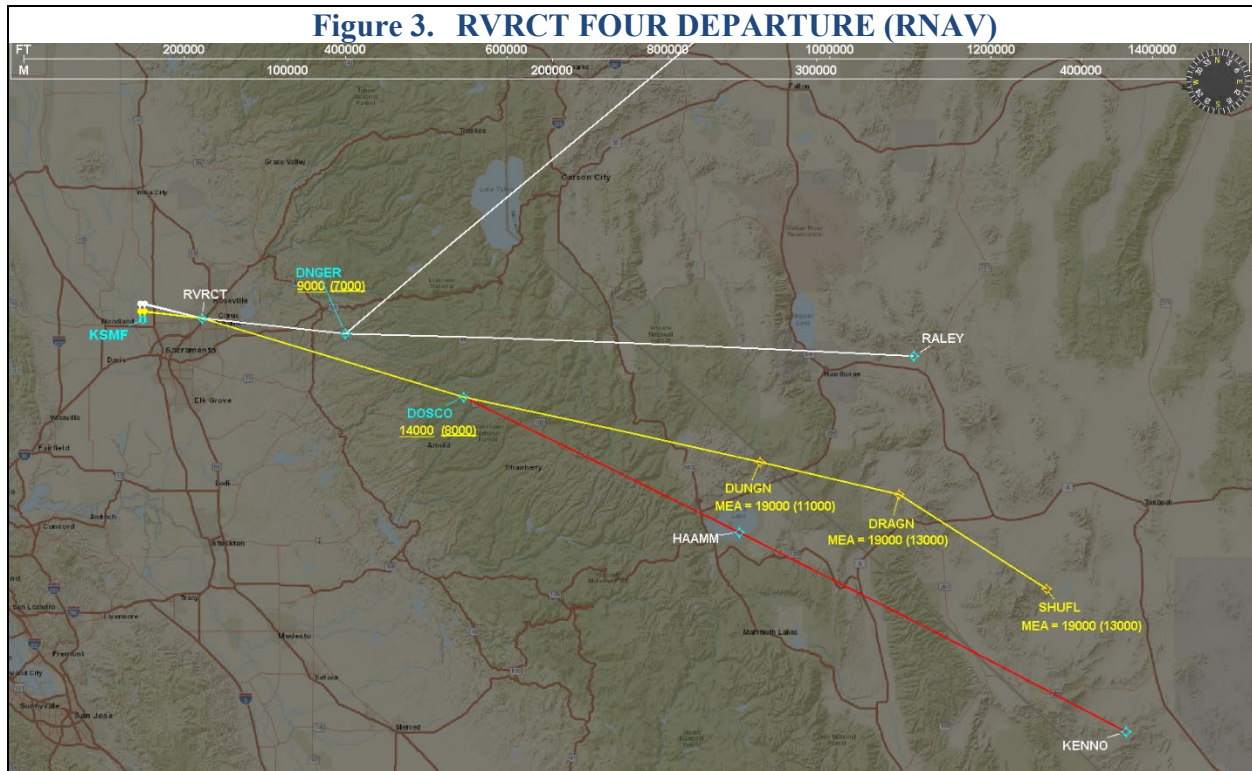
The following table describes the proposed procedure amendments. No change in the fleet mix or increase in air traffic operations is anticipated.

*Note: Airport elevation is 27 feet mean sea level.*

Procedures	Description of Proposed Changes
RVRCT THREE DEPARTURE (RNAV)	<ul style="list-style-type: none"> <li>The KENNO transition would be removed.</li> <li>The SHUFL transition would be added.</li> <li>An at or above (AOA) 9,000 feet (ft) mean sea level (MSL) restriction would be added at DNGER waypoint (WP).</li> <li>An AOA 14,000 ft MSL restriction would be added at DOSCO WP.</li> </ul>
SCTWN THREE DEPARTURE (RNAV)	<ul style="list-style-type: none"> <li>The KENNO transition would be removed.</li> <li>The SHUFL transition would be added.</li> <li>An AOA 9,000 ft MSL restriction would be added at DNGER WP.</li> <li>An AOA 14,000 ft MSL restriction would be added at DOSCO WP.</li> <li>An AOA 2,300 ft MSL restriction would be added at SCTWN WP.</li> </ul>

**Figures 3 and 4** depict the proposed amended procedures. The KENNO transition (red) would be replaced with the SHUFL transition (yellow).





- 1.3.1. Has airspace modeling been conducted using Sector Design Analysis Tool (SDAT), Aviation Environmental Screening Tool (AEST), Terminal Area Route Generation,

Evaluation, and Traffic Simulation (TARGETS), or another airspace/air traffic design tool?

☒ Yes. Model: TARGETS ☐ No

If yes, provide a summary of the output from the modeling.

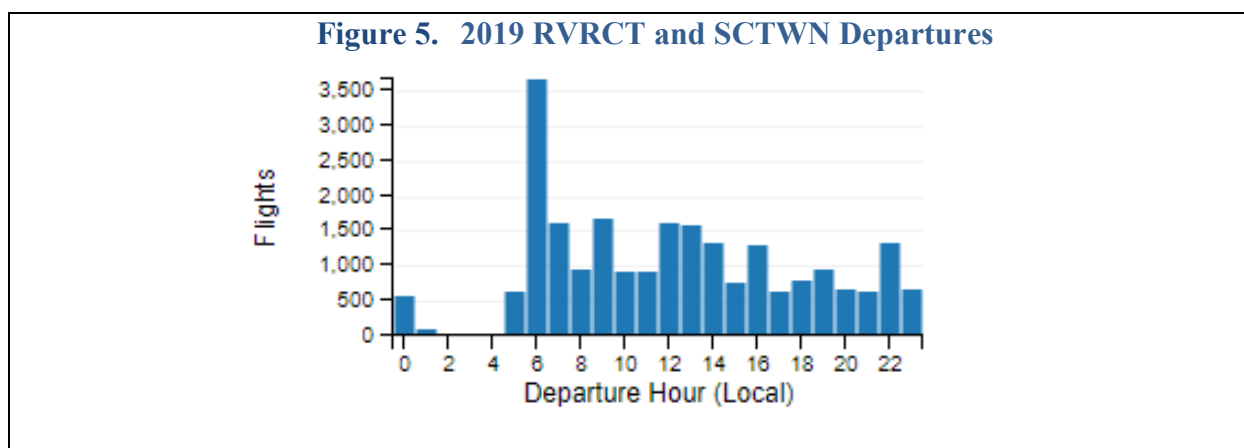
Figures in Section 1.3 were generated in TARGETS.

- 1.3.2.** Will there be actions affecting changes in aircraft flights between the hours of 10 p.m. – 7 a.m. local?

☒ Yes ☐ No

**Describe:** The following figure shows the departures' hourly frequency for 2019, which is not expected to change (source: <https://sda.tc.faa.gov/AfsTools/#/>).

Nighttime departures using RVRCT and SCTWN procedures would be impacted by the Proposed Action.



- 1.3.3.** Are any noise abatement programs presently in effect for the affected airport(s), formal or informal?

☒ Yes ☐ No ☐ N/A

**Describe:**

Noise abatement programs for KSMF, as found on the airport website, are described as follows (see <https://sacramento.aero/scas/environment/noise/>):

“During the time period between 21:45 and 07:45 local time daily, turbojet IFR/VFR training operations shall be conducted in an east traffic pattern for Runway 17L, and assigned a heading of 010 radial and an altitude of 3,000 feet.”

“SMF’s nighttime preferential runway use system calls for use of Runways 35L/R between 21:45 and 07:45 local time daily as operating conditions permit. There are times when weather or air traffic operations dictate Runway 17L/R be used during these hours.”

- 1.3.4.** Will airport preferential runway configuration use change as a result of the proposed action?

☐ Yes ☒ No ☐ N/A

Explain:

- 1.3.5.** Is the proposed action primarily designed for Visual Flight Rules (VFR), Instrument Flight Rules (IFR) operations, or both?

☐ VFR ☒ IFR ☐ Both

If the proposed action specifically involves a charted visual approach (CVA) procedure, provide a detailed local map indicating the route of the CVA, along with a discussion of the rationale for how the route was chosen.

N/A.

- 1.3.6.** Will there be a change in takeoff power requirements?

☐ Yes ☒ No

If so, what types of aircraft are involved, i.e., general aviation propeller-driven versus large air carrier jets?

- 1.3.7.** Will all changes occur over 3,000 feet above ground level (AGL)?

☐ Yes ☒ No

An altitude restriction of AOA 2,300 MSL would be added at SCTWN WP, which is anticipated to increase the aircraft altitude at SCTWN WP.

- 1.3.8.** What is the lowest altitude on newly proposed routes or on existing routes that will receive an increase in operations?

An increase in operations is not part of the purpose and need for the Proposed Action.

- 1.3.9.** Will there be actions involving civil jet aircraft arrival procedures between 3,000-7,000 feet AGL or departures between 3,000-10,000 feet AGL?

☒ Yes ☐ No

Refer to the table of proposed changes in Section 1.3. Altitude restrictions would be added at DNGER WP and SCTWN WP to effectively increase the aircraft altitudes. The SHUFL transition would create lateral shift of aircraft above 18,000 ft AGL.

## Section 2. Purpose and Need

- 2.1.** Describe the purpose and need for the proposed action. Present the problem being addressed and describe what the FAA is trying to achieve with the proposed action. The purpose and need for the proposed action must be clearly explained and stated in terms that are understandable to individuals who are not familiar with aviation or commercial aerospace activities. If detailed background information is available, summarize here and provide a copy as an attachment to this review.

The FAA is proposing to amend the RVRCT THREE DEPARTURE (RNAV) and the SCTWN THREE DEPARTURE (RNAV) procedures serving KSMF. The amended





☒ Yes ☐ No

If yes, describe any alternatives to the proposed action.

The no action alternative is the only alternative to the Proposed Action.

- 3.2. Please provide a summary description of eliminated alternatives and the reasons for their elimination.

The no action alternative does not meet the purpose and need of the Proposed Action because it does not mitigate air traffic conflicts with Las Vegas Metroplex traffic and R-4807 airspace proximity.

## Section 4. Environmental Review and Evaluation

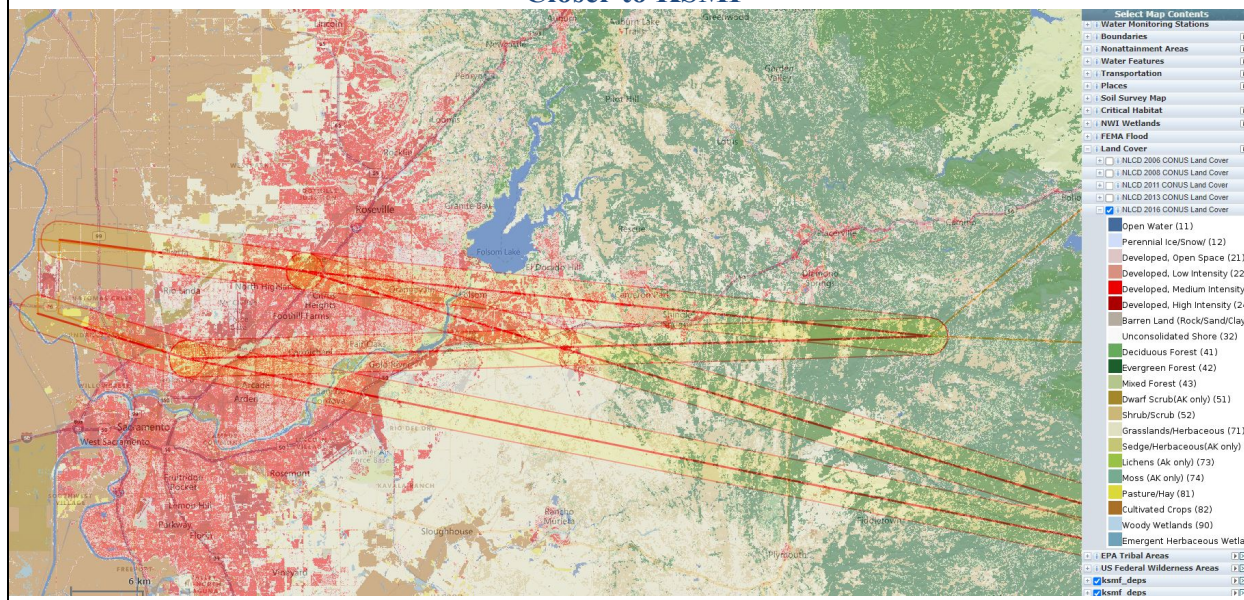
The determination of whether a proposed action may have a significant environmental effect is made by considering requirements applicable to the specific environmental impact categories discussed below (see FAA Order 1050.1F, Appendix B).

### 4.1. Describe the Affected Environment

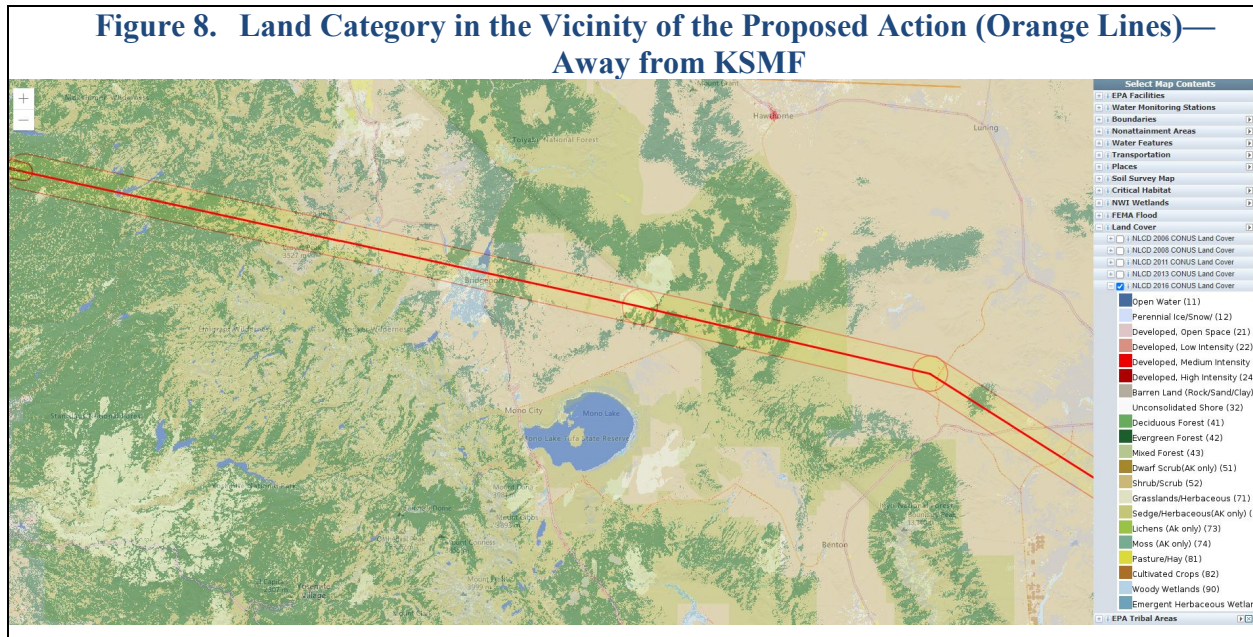
- 4.1.1. Describe the existing land use, including noise sensitive areas (if any) in the vicinity of the proposed action.

Land cover in the vicinity of KSMF (prior to SHUFL transition) and the Proposed Action is depicted in **Figure 7**. Land cover away from the airport (after the SHUFL transition) and in the vicinity of Proposed Action is depicted in **Figure 8**.

**Figure 7. Land Category in the Vicinity of the Proposed Action (Orange Lines)—Closer to KSMF**







- 4.1.2.** Will the proposed action introduce air traffic over noise sensitive areas not currently affected?

☐ Yes ☒ No

Describe: Altitude restrictions would be added at DNGER and SCTWN WPs to effectively increase the aircraft altitudes with no change in flight ground tracks. The SHUFL transition would create a lateral shift in flight ground tracks above 18,000 ft AGL over wilderness and national park areas. However, these areas currently experience overflights.

#### **4.2. Environmental Consequences**

As stated in FAA Order 1050.1F, Paragraph 5-2.b., extraordinary circumstances exist when a proposed action meets both of the following criteria:

- 4.2.a.** Involves any of the following circumstances below; and

- 4.2.b.** May have a significant impact (see 40 CFR 1508.4).

The proposed action does not involve land acquisition, physical disturbance, or construction activities. The following environmental impact categories were assessed and were deemed either not to be present or to have negligible or non-existent effects from the Proposed Action and, in accordance with Council on Environmental Quality (CEQ) regulations, did not warrant further analysis:

- Biological resources (including fish, wildlife, and plants)
- Climate
- Coastal resources
- Farmlands
- Hazardous materials, solid waste, and pollution prevention
- Land use

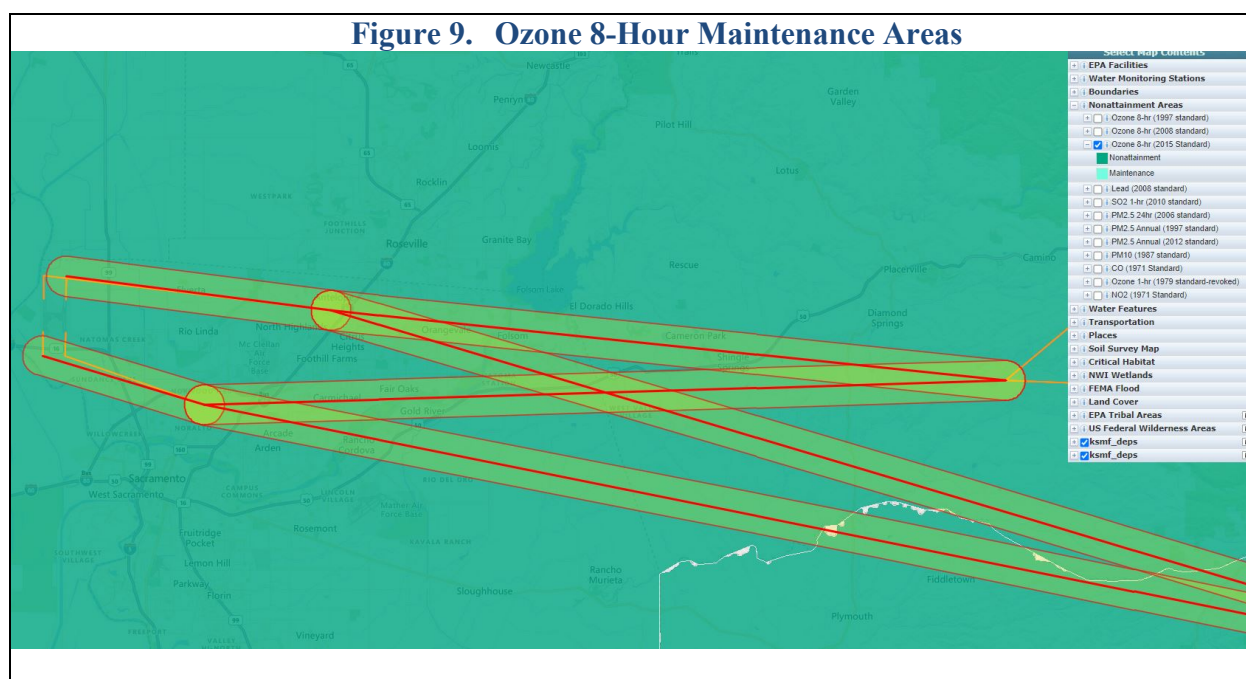
- Natural resources and energy supply
- Socioeconomic impacts and children's environmental health and safety risks
- Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)
- Visual effects

#### 4.2.1. Air Quality

Has research been conducted to identify areas of concern or communication with air quality regulatory agencies to determine if the affected area is a non-attainment area (an area which exceeds the Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, carbon monoxide, lead, particulate matter, sulfur dioxide, or nitrogen dioxide) or maintenance area (an area which was in non-attainment but subsequently upgraded to an attainment area) concerning air quality?

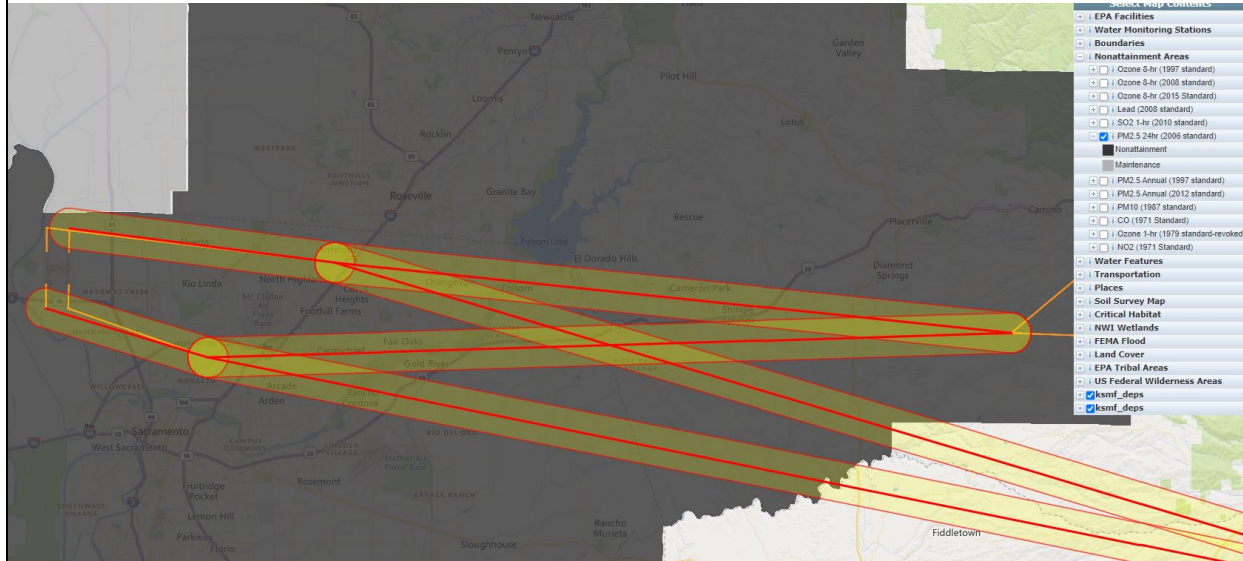
☒ Yes ☐ No

Comment: Figures 9 through 12 show the relevant criteria air pollutants areas in the vicinity of the airport.

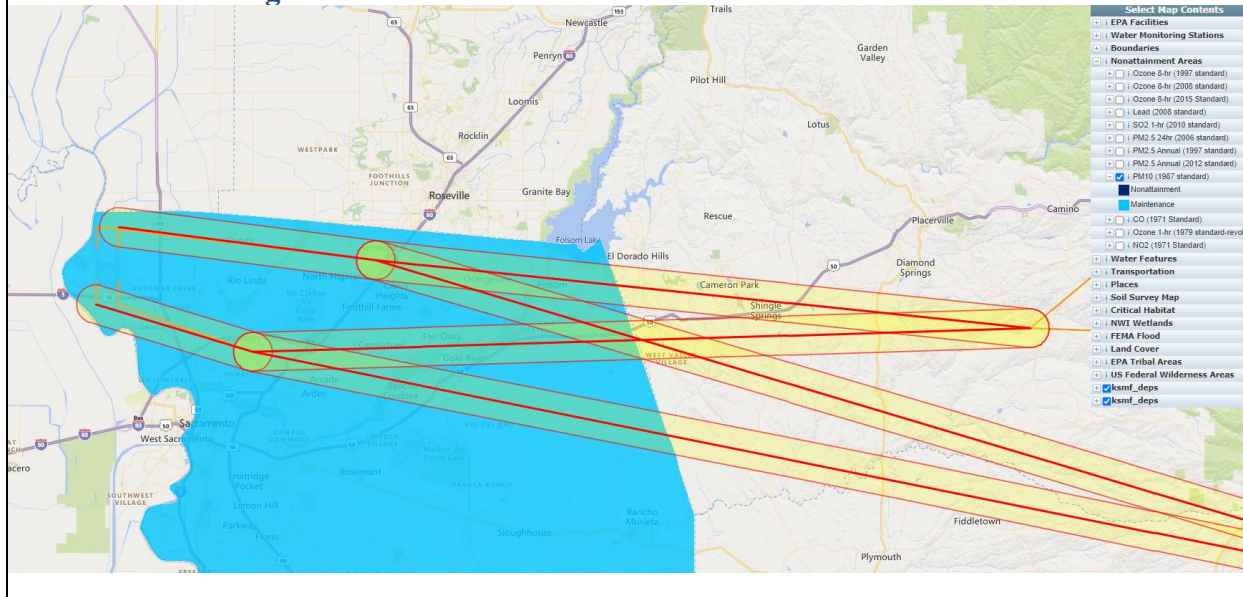


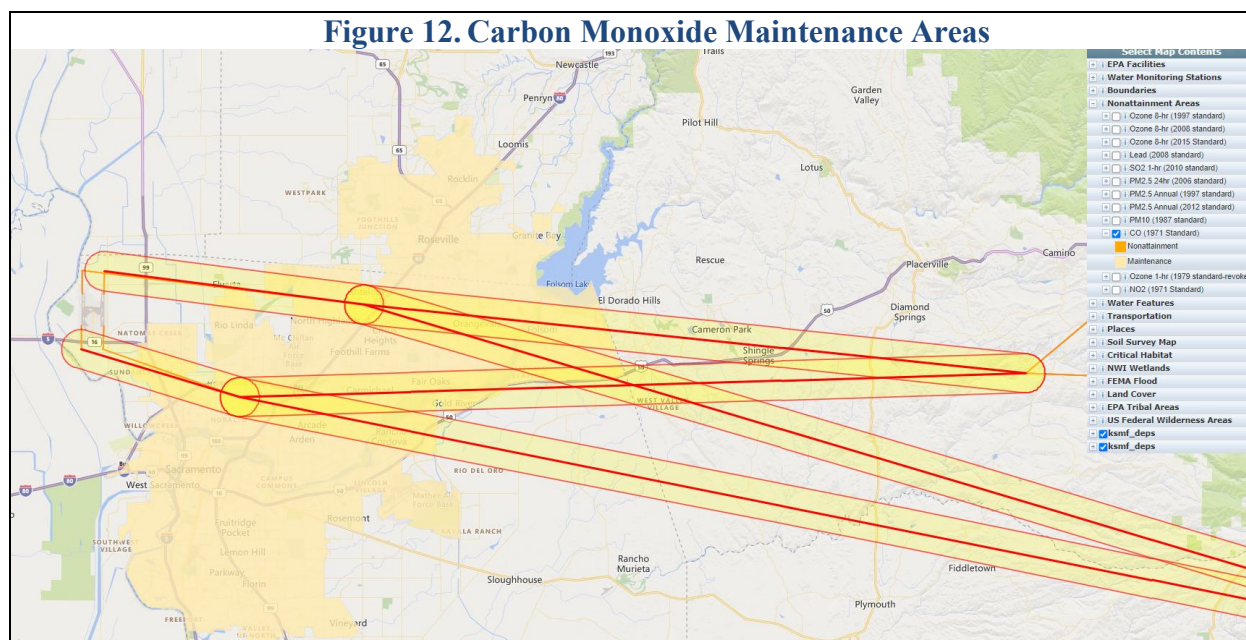


**Figure 10. Particulate Matter 2.5 Microns 24-Hour Nonattainment and Maintenance Areas**



**Figure 11. Particulate Matter 10 Microns Maintenance Areas**





**Evaluation:** Will implementation of proposed action result in an impact on air quality or a violation of local, state, tribal, or federal air quality standards under the Clean Air Act amendments of 1990? (See FAA Order 1050.1F, Paragraph 5-2.b.(8), the Air Quality Handbook, and 1050.1F Desk Reference, Chapter 1 for details on how to make the determination.)

☐ Yes ☒ No

Comment:

The Proposed Action is intended to enhance operational efficiency and safety. Additionally, the Proposed Action would not change project-related aircraft emissions below 3,000 feet AGL. The Proposed Action is not intended to change the number of aircraft operations and/or aircraft fleet mix. The Proposed Action is presumed to conform to the State Implementation Plan (SIP). The Proposed Action is a type of action that promotes the safe, orderly, and expeditious flow of aircraft traffic—including airport, approach, departure, and en route air traffic control (ATC) procedures—and, therefore, is presumed to conform as emissions from this type of action are below the applicable *de minimis* levels (40 CFR 93.153(c)(2)(xxii)).

The Environmental Protection Agency (EPA) regulations identify certain actions that would not exceed these thresholds, including ATC activities and adoption of approach, departure, and en route ATC procedures for aircraft operations above the mixing height specified in the applicable SIP (or 3,000 feet AGL) in places without an established mixing height. FAA Order 1050.1F provides that further analysis for National Environmental Policy Act (NEPA) purposes is normally not required where emissions do not exceed the EPA's *de minimis* thresholds. Therefore, implementation of the Proposed Action is not expected to affect air quality and is presumed to conform as Category 14, "Air Traffic Control



Activities and Adopting Approach, Departure and Enroute Procedures for Air Operations,” as identified in the General Conformity Rule, 72 Fed. Reg. 41565-41580 (July 30, 2007).

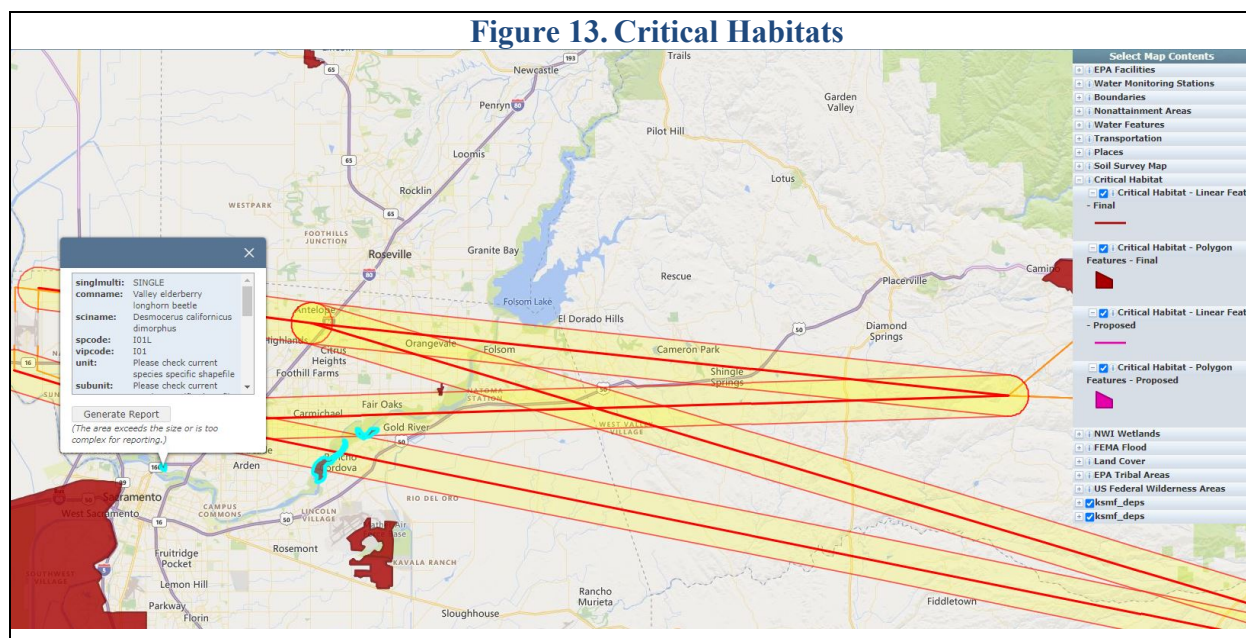
#### 4.2.2. Biological Resources (including Marine Mammals; Wildlife and Waterfowl; Endangered/Threatened Species; Critical Habitat)

4.2.2.1. Are wildlife and/or waterfowl refuge/management areas, protected or critical habitats within the affected area of the proposed action?

☒ Yes ☐ No ☐ N/A

Identify: Refer to Section 4.2.

Figure 13 shows critical habitat locations in the vicinity of the airport.



4.2.2.2. If so, has there been any communication with the appropriate wildlife management regulatory agencies (federal or state) agencies to determine if endangered or protected species inhabit the area?

☐ Yes ☒ No ☐ N/A

If yes, identify endangered or protected species.

4.2.2.3. At what altitude would aircraft overfly these habitats?

Higher than 3,000 ft AGL.

4.2.2.4. During what times of the day would operations be more/less frequent?

The operations are not anticipated to change.

**Evaluation:** Will implementation of the proposed action result in an impact on natural, ecological or biological resources of federal, tribal, state, or local

significance (for example, federally listed or proposed endangered, threatened, or candidate species or proposed or designated critical habitat under the Endangered Species Act)? (See FAA Order 1050.1F, Paragraph 5-2.b.(3), and 1050.1F Desk Reference, Chapter 2 for details on how to make the determination.)

**4.2.2.a.** ☐ Yes

Comment:

**4.2.2.b.** ☒ No. An impact to biological resources is not anticipated. See Section 4.2.

#### 4.2.3. Climate

**NOTE:** The FAA has not established a significance threshold for climate. The Council on Environmental Quality (CEQ) has noted that "...it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions; as such direct linkage is difficult to isolate and to understand.<sup>1</sup>" Accordingly, it is not useful to attempt to determine the significance of such impacts. (See FAA Order 1050.1F, Desk Reference, Chapter 3.)

#### 4.2.4. Coastal Resources

**NOTE:** Coastal resources include both coastal barriers and coastal zones.

**4.2.4.1.** Are there designated coastal resources in the affected area?

☐ Yes ☐ No ☒ N/A

Identify: Refer to Section 4.2.

**4.2.4.2.** Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground with the potential to affect coastal resources?

☐ Yes ☐ No ☒ N/A

**Evaluation:** Will implementation of the proposed action result in an impact in to coastal resources? (See FAA Order 1050.1F, Paragraph 5-2.b.(4), and 1050.1F Desk Reference, Chapter 4 for details on how to make the determination.)

**4.2.4.a** ☐ Yes.

**4.2.4.b** ☒ No. An impact to coastal resources is not anticipated. See Section 4.2.

#### 4.2.5. Department of Transportation Act, Section 4(f)

**4.2.5.1.** Are there cultural or scenic resources, of national, state, or local

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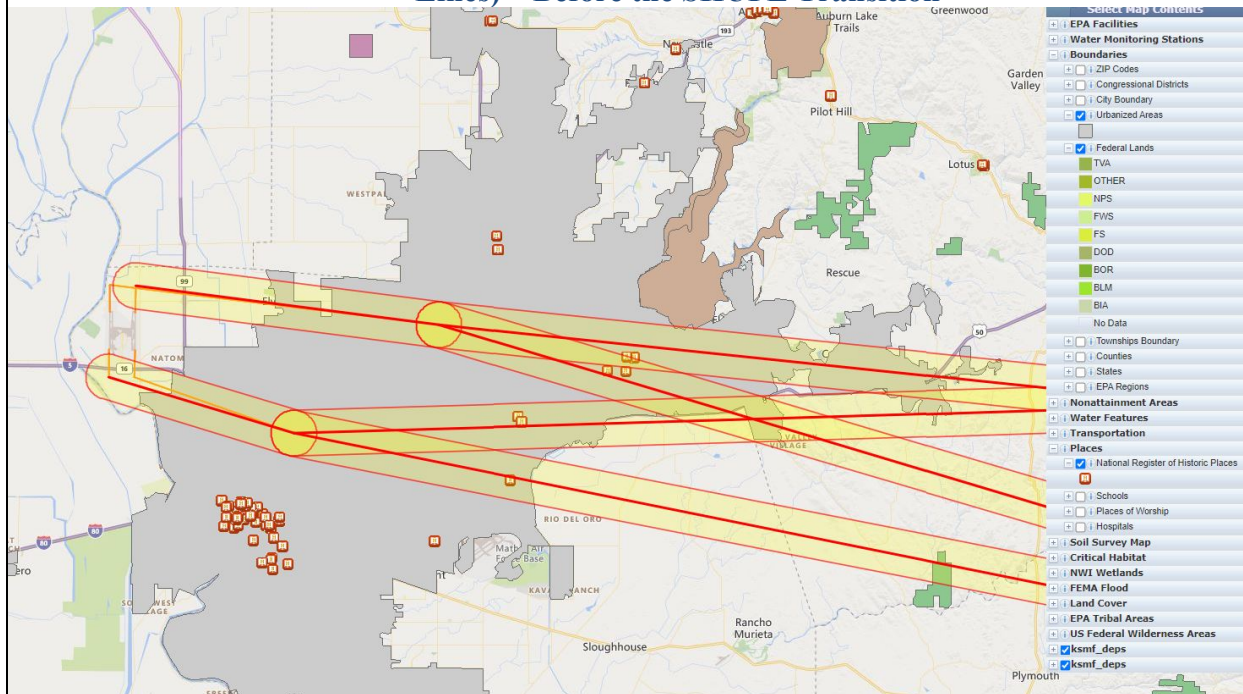
<sup>1</sup> Draft NEPA Guidance on *Consideration of the Effects of Climate Change and Greenhouse Emissions*, CEQ (2010). [http://ceq.hss.doe.gov/nepa/regs/Consideration\\_of\\_Effects\\_ofGHG\\_Draft\\_NEPA\\_Guidance\\_FINAL\\_02182010.pdf](http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_ofGHG_Draft_NEPA_Guidance_FINAL_02182010.pdf)

significance, such as national parks, publicly owned parks, recreational areas, and public and private historic sites in the affected area?

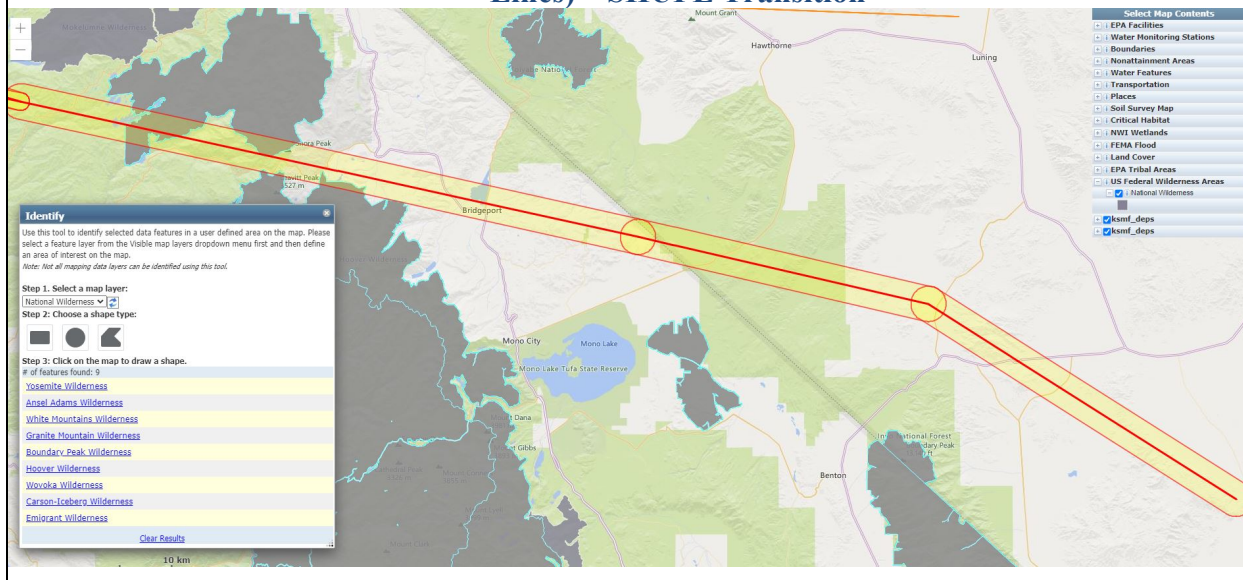
☒ Yes ☐ No ☐ N/A

Identify: There are some resources of local significance within the study area as shown in **Figures 14 and 15**.

**Figure 14. Section 4(f) Resources in the Vicinity of the Proposed Action (Orange Lines)—Before the SHUFL Transition**



**Figure 15. Section 4(f) Resources in the Vicinity of the Proposed Action (Orange Lines)—SHUFL Transition**





**4.2.5.2.** If so, during what time(s) of the day would operations occur that may impact these areas?

The overflights in the identified areas prior to the SHFUL transition are not anticipated to change as a result of the Proposed Action. The overflights on the SHFUL transition are anticipated to laterally shift from the KENNO transition but still be above 18,000 ft AGL.

**Evaluation:** Will implementation of the proposed action result in an impact to properties protected under Section 4(f) of the Department of Transportation Act? (See FAA Order 1050.1F, Paragraph 5-2.b.(2), and 1050.1F Desk Reference, Chapter 5 for details on how to make the determination.)

**4.2.5.a.** ☐ Yes.

Comment:

**4.2.5.b.** ☒ No. The flight ground tracks prior to the SHFUL transition are not anticipated to change. Although the SHUFL transition would move the tracks laterally from the current routes, the traffic from the proposed routes would be within the areas already experiencing some aircraft overflight. The aircraft along the new transition are expected to be at altitudes higher than 18,000 feet AGL. Under FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, “the study area for the noise analysis of a proposed change in air traffic procedures...may extend vertically from the ground to 10,000 feet above ground level (AGL), or up to 18,000 feet AGL if the proposed action or alternative(s) are over a national park or wildlife refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute.”

In addition, the analysis of potential noise impacts indicated no noise threshold criteria would be exceeded as a result of the Proposed Action. Furthermore, the Proposed Action does not involve land acquisition, physical disturbance, or construction activities. Therefore, the FAA has determined that the Proposed Action would not result in a constructive use of properties protected by Section 4(f). Section 4(f) impacts are not anticipated.

**4.2.6. Farmlands**

Are the following resources present: National Resources Conservation designated prime and unique farmlands or, state, or locally important farmlands including pastureland, cropland, and forest?

☐ Yes ☐ No ☒ N/A

Identify: Refer to Section 4.2.

**Evaluation:** Will the implementation of the proposed action involve the development of land regardless of use, or have the potential to convert any farmland

to non-agricultural uses? (See FAA Order 1050.1F, Paragraph 5-2. b.(4), and the 1050.1F Desk Reference, Chapter 6 for details on how to make the determination.)

**4.2.6.a.** ☐ Yes.

Comment:

**4.2.6.b.** ☒ No. An impact to farmland resources is not anticipated. The Proposed Action is an air traffic action only, and no land acquisition, construction, or other ground disturbance would occur. In accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

#### **4.2.7. Hazardous Material, Solid Waste, and Pollution Prevention**

Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground in an area known to contain hazardous materials, hazardous waste, solid waste, or other forms of pollution or contamination?

☐ Yes ☐ No ☒ N/A. Refer to Section 4.2.

**Evaluation:** Is implementation of the proposed action likely to cause contamination by hazardous materials, hazardous waste, or likely to disturb existing hazardous materials, hazardous waste site, or other area of contamination? (See FAA Order 1050.1, Paragraph 5-2.b.(12), and 1050.1F Desk Reference, Chapter 7 for details on how to make the determination.)

**4.2.7.a.** ☐ Yes.

Comment:

**4.2.7.b.** ☒ No. An impact to existing areas of hazardous material, hazardous or solid waste, or pollution prevention activities is not anticipated. Implementing the Proposed Action is not anticipated to result in the production of hazardous material or hazardous or solid waste. See Section 4.2.

#### **4.2.8. National Historic Preservation Act of 1966 (NHPA)**

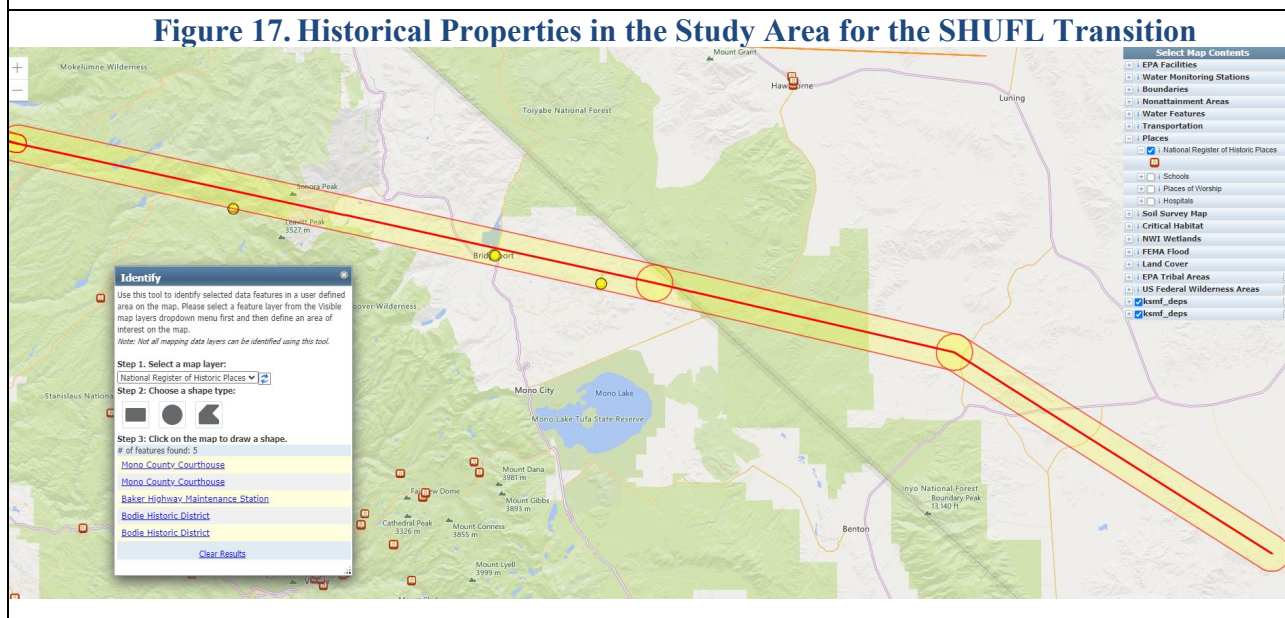
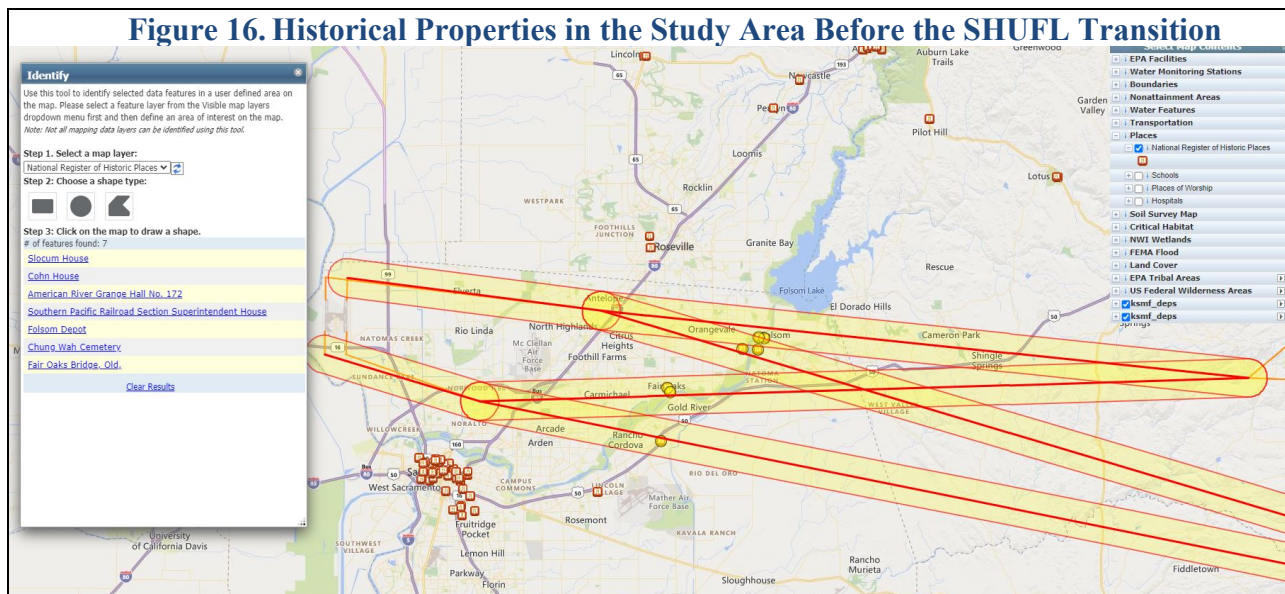
***NOTE:** Section 106 of the NHPA applies to actions that have the potential to affect historic properties in a way that alters any of the characteristics that make the property significant, including changes in noise where a quiet setting is an attribute of significance. Direct effects include the removal or alteration of historic resources. Indirect effects include changes in noise, vehicular traffic, light emissions, or other changes that could interfere substantially with the use or character of the resource.*

**4.2.8.1.** Are there historic resources protected under Section 106 of the NHPA in the study area of the proposed action?

☒ Yes ☐ No

### Identify:

A search of the National Register of Historic Places, accessed through NEPAassist, was conducted to identify historic properties within the study area for the Proposed Action. The registered historic places identified in the vicinity of the Proposed Action are shown in the following figures.



**4.2.8.2.** Will the proposed action include removal or alteration of historic resources (direct effect)?

☐ Yes ☒ No

**4.2.8.3.** Do any of the historic resources identified have quiet as a generally



recognized feature or attribute?

☐ Yes ☐ No ☒ N/A

If yes, explain: The overflights in the identified areas prior to the SHFUL transition are not anticipated to change as a result of the Proposed Action. The overflights on the SHFUL transition are anticipated to laterally shift from the KENNO transition but still be above 18,000 ft AGL. Therefore, potential impacts to the historic properties are not anticipated.

**4.2.8.4.** Will the proposed action substantially interfere with the use or character of the resource (indirect effect)?

☐ Yes ☒ No

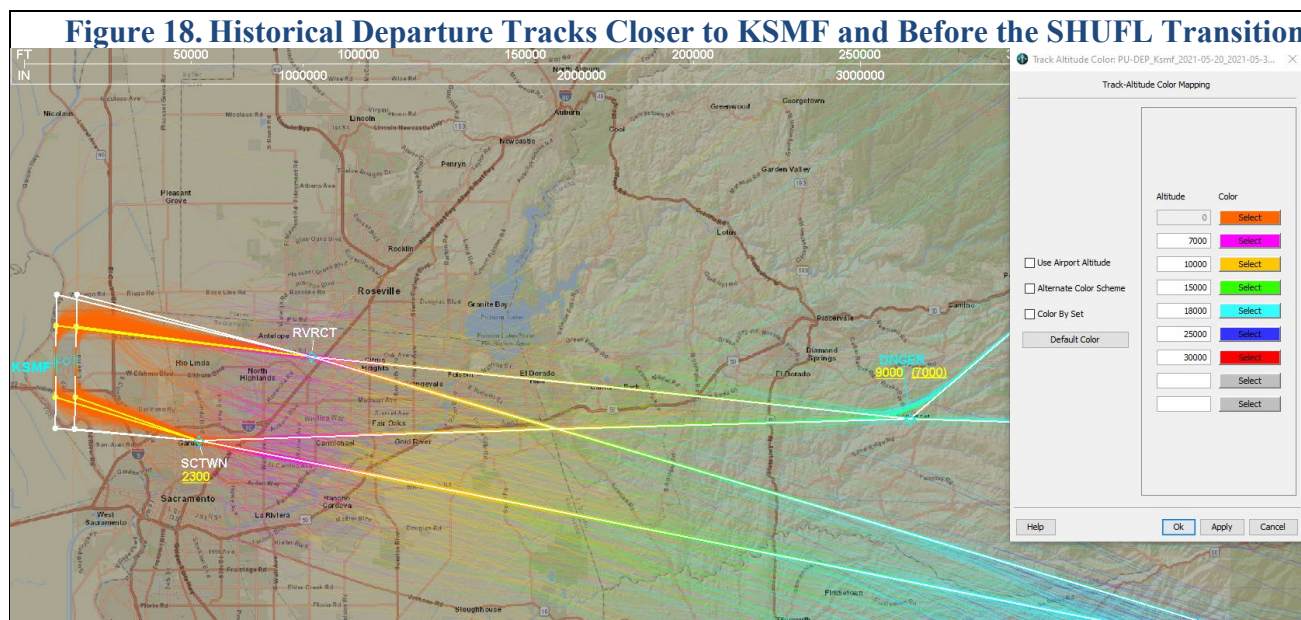
Explain:

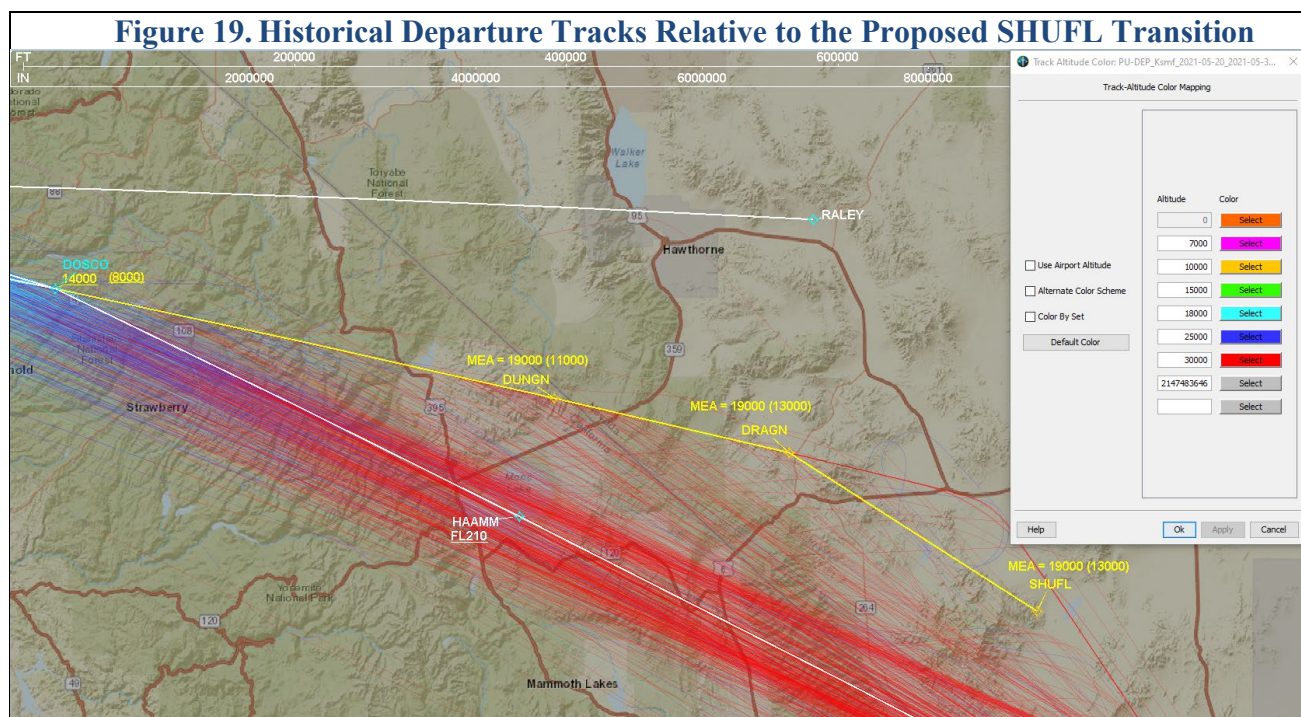
**Evaluation:** Will the proposed action result in an adverse effect on resources protected under the National Historic Preservation Act of 1966, as amended? (See FAA Order 1050.1F, paragraph 5-2.b.(1), and 1050.1F Desk Reference, Chapter 8 for details on how to make the determination.)

**4.2.8.a.** ☐ Yes.

Explain:

**4.2.8.b.** ☒ No. Figures 18 and 19 show sample departure historical tracks before the SHFUL transition and relative to the SHFUL transition.





The flight ground tracks prior to the SHFUL transition are not anticipated to change. Although the SHUFL transition would move the tracks laterally from the current routes, the traffic from the proposed routes would still be within the areas already experiencing some aircraft overflight. The aircraft along the new transition are expected to be above 18,000 feet AGL.

An impact to resources subject to Section 106 review is not anticipated. The Proposed Action would not result in construction, development, or any physical disturbances of the ground. For this undertaking, no land acquisition, construction, or other ground disturbance would occur. Accordingly, there would be no direct effects on historic resources. Additionally, the FAA considered that certain historic sites may be potentially sensitive to the effects of overflights that introduce a visual, atmospheric, or auditory element. The number of aircraft operations and aircraft fleet mix is not expected to change as a result of implementing the Proposed Action. Given civilian jet aircraft are currently overflying these areas and would continue to overfly these areas, the Proposed Action would not inherently have the potential to affect historic resources, even if they are present. Thus, the FAA determined that there would be no potential to introduce visual, atmospheric, or auditory elements that could diminish the integrity of a historic property.

#### 4.2.9. Land Use

The compatibility of existing and planned land uses with an aviation or aerospace

proposal is usually associated with noise impacts. In addition to the impacts of noise on land use compatibility, other potential impacts of FAA actions may affect land use compatibility. The impact on land use, if any, should be analyzed and described under the appropriate impact category.

**Evaluation:** The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts. (See 1050.1F Desk Reference, Chapter 9 for details on how to make the determination.)

An impact to land use is not anticipated. The Proposed Action is an air traffic action only, and no land acquisition, construction, or other ground disturbance would occur. In accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

#### 4.2.10. National Resources and Energy Supply

**NOTE:** *This resource category excludes fuel burn.*

Will the proposed action have the potential to cause demand or strain on a natural resource(s) or material(s) that exceeds current or future availability of these resources? (See FAA Order 1050.1F, paragraph 5-2.b.(4).

☐ Yes ☐ No ☒ N/A

If yes, explain: Refer to Section 4.2.

**Evaluation:** Will implementation of the proposed action result in an impact in relation to natural resources and energy supply?

4.2.10.a. ☐ Yes.

Comment:

4.2.10.b. ☒ No. An impact to natural resources and materials and/or energy supply is not anticipated. The Proposed Action is an air traffic action only, and no land acquisition, construction, or other ground disturbance would occur. In accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

#### 4.2.11. Noise and Noise-Compatible Land Use

The significance threshold for noise is whether the proposed action would increase noise by Day-night average sound level (DNL) 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level; or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB increase, when compared to the no action alternative for the same timeframe.

**NOTE:** *An area is noise sensitive if aircraft noise may interfere with the normal activities associated with the use of the land. See FAA Order 1050.1F, Paragraph*

11-5. b.(10), for the full definition of noise sensitive areas.

Noise compatibility or non-compatibility of land use is determined by comparing the proposed action DNL values to the values in the 14 CFR Part 150, Appendix A, Table 1, Land-Use Compatibility guidelines. (See FAA Order 1050.1F and 1050.1F Desk Reference, Chapter 11.)

**NOTE:** 14 CFR Part 150 guidelines are not sufficient to address the effects of noise on some noise sensitive areas.

**4.2.11.1.1.** Will the proposed action introduce air traffic over noise sensitive areas *not* currently affected?

☐ Yes ☒ No

Comment:

**4.2.11.1.2.** Do the results of the noise analysis indicate that the proposed action would result in an increase in noise exposure by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level?

☐ Yes ☒ No ☐ N/A

A noise screening analysis was completed to assess potential impacts resulting from the Proposed Action in accordance with MITRE's Center for Advanced Aviation System Development's, *Guidance for Noise Screening of Air Traffic Actions* (December 2012). The results showed no reportable or significant noise impacts.

**4.2.11.1.3.** If yes, are the results of the noise analysis incompatible with one or more of the Land Use Compatibility categories? (See FAA Order 1050.1F, Desk Reference Chapter 11, Exhibit 11-3.)

☐ Yes ☒ No ☐ N/A

If yes, explain:

**4.2.11.1.4.** Do the results of the noise analysis indicate a threshold of significance over noise sensitive areas *not* listed under the Land Use Compatibility categories (for example, national parks, wildlife/waterfowl refuges)?

☐ Yes ☒ No ☐ N/A

If yes, explain:

**4.2.11.2.** Do the results of the noise analysis indicate a change in noise meeting threshold criteria considered "reportable"?

i. For DNL 60 dB to <65 dB: + 3 dB ☐ Yes ☒ No ☐ N/A

ii. For DNL 45 dB to <60 dB: + 5 dB ☐ Yes ☒ No ☐ N/A



**Evaluation:**

**4.2.11.a.** Will the proposed action result in a significant noise impact over noise sensitive land use? (See FAA Order 1050.1F, paragraph 5-2.b.(7), and the 1050.1F Desk Reference, Chapter 11 for details on how to make the determination.)

☐ Yes

If yes, explain:

**4.2.11.b.** ☒ No. The Proposed Action's aircraft altitudes of more than 18,000 ft AGL on the SHUFL transition are not anticipated to cause reportable or significant noise impacts.

**4.2.11.c.** Will the proposed action result in a reportable noise impact over noise sensitive areas? (See FAA Order 1050.1F, paragraph 5-2.b.(7), and the 1050.1F Desk Reference, Chapter 8 for details on how to make the determination.)

☐ Yes

If yes, explain:

**4.2.11.d.** ☒ No. The Proposed Action's aircraft altitudes of more than 18,000 ft AGL on the SHUFL transition are not anticipated to cause reportable or significant noise impacts.

#### **4.2.12. Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risk**

##### **4.2.12.1. Socioeconomics**

**4.2.12.1.a.** Will the proposed action result in a division or disruption of an established community; a disruption of orderly, planned development; or an inconsistency with plans or goals that have been adopted by the community in which the proposed action is located? (See FAA Order 1050.1F, Paragraph 5-2.b.(5).)

☐ Yes ☐ No ☒ N/A

**4.2.12.1.b.** Will the proposed action result in an increase in congestion from surface transportation, by causing a decrease in the Level of Service below the acceptable level determined by the appropriate transportation agency? (i.e., a highway agency) (See FAA Order 1050.1F, Paragraph 5-2 b.(6).)

☐ Yes ☐ No ☒ N/A

**Evaluation:** Will implementation of the proposed action result in an impact to socioeconomics? (See the 1050.1F Desk Reference, Chapter 12 for details on how to make the determination.)

4.2.12.a. ☐ Yes

Comment:

4.2.12.b. ☒ No. The Proposed Action is not anticipated to involve acquisition of real estate, relocation of residence or community business, disruption of local traffic patterns, loss of community tax base, or changes to the fabric of the community. The Proposed Action is an air traffic action only and, in accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

#### 4.2.12.2. Environmental Justice

*NOTE: FAA has not established a significance threshold for Environmental Justice. Impacts to Environmental Justice in the context of other impact categories should be considered.*

**Evaluation:** Will the proposed action have the potential to lead to a disproportionately high and adverse impact to an environmental justice population, (i.e., a low income or minority population) due to significant impacts in other environmental impact categories or impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population? (See 1050.1F Desk Reference, Chapter 12 for details on how to make the determination.)

4.2.12.2.a. ☐ Yes

Comment:

4.2.12.2.b. ☒ No. An impact related to environmental justice is not anticipated. Implementing the Proposed Action would not adversely affect air quality or land use within the affected environment study area. Additionally, the Proposed Action would not result in a change to the number of aircraft operations, fleet mix, or nighttime operations. Accordingly, the Proposed Action would not introduce new social or economic effects. Therefore, there would be no potential for disproportionately high or adverse effects to minority or low-income populations as a result of the Proposed Action when compared to the no action alternative.

#### 4.2.12.3. Children's Environmental Health and Safety Risk

*NOTE: FAA has not established a significance threshold for Children's Environmental Health and Safety Risk. Impacts to Children's health and safety in the context of other impact categories should be considered.*

**Evaluation:** Will the proposed action have the *potential* to lead to a disproportionate health or safety risk to children due to significant impacts in other



environmental impact categories? (See the 1050.1F Desk Reference, Chapter 12, for details on how to make the determination.)

**4.2.12.3.a.** ☐ Yes

Comment:

**4.2.12.3.b.** ☒ No. Refer to Section 4.2.

#### **4.2.13. Visual Effects**

**NOTE:** *There are no special purpose laws for light impacts and visual impacts. Impacts from light emissions are generally related to airport aviation lighting.*

**4.2.13.1.** Will implementation of the proposed action create annoyance or interfere with normal activities from light emissions?

☐ Yes ☒ No

Explain:

The Proposed Action is not anticipated to create annoyance or interfere with normal activities from light emissions.

**4.2.13.2.** Will implementation of the proposed action affect the visual character of the area including the importance, uniqueness, and aesthetic value of the affected visual resources?

☐ Yes ☒ No

Explain:

The Proposed Action is not anticipated to interfere or have an effect on visual resources.

**Evaluation:** Will the proposed action result in an impact to visual resources? (See FAA Order 1050.1F, Paragraph 5-2. b.(5), and 1050.1F Desk Reference, Chapter 13 for details on how to make the determination.)

**4.2.13.a.** ☐ Yes

Comment:

**4.2.13.b.** ☒ No. The Proposed Action is not anticipated to interfere or have an effect on visual resources.

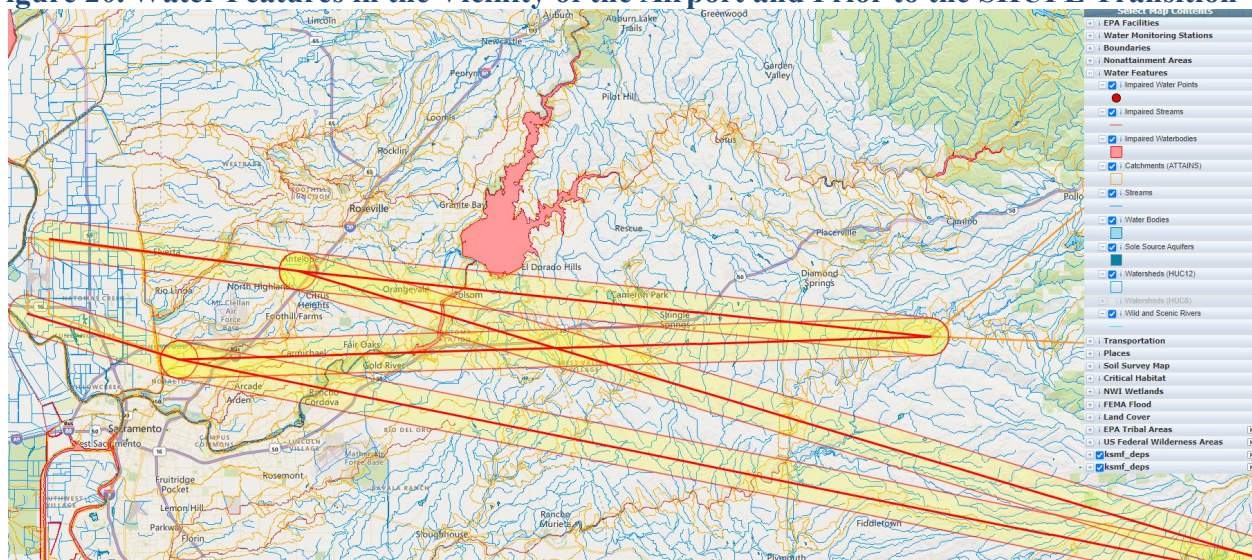
#### **4.2.14. Water Resources (including Wetlands, Flood Plains, Surface Waters, Groundwater, and Wild and Scenic Rivers)**

**4.2.14.1.** Are there wetlands, flood plains, and/or Wild and Scenic Rivers in the proposed action study area?

☒ Yes ☐ No ☐ N/A

Refer to Section 4.2. **Figure 20** shows the water features identified in NEPAAssist.

**Figure 20. Water Features in the Vicinity of the Airport and Prior to the SHUFL Transition**



**4.2.14.2.** Are there reservoirs or other public water supply systems in the affected area?

☐ Yes ☐ No ☒ N/A

Refer to Section 4.2.

**4.2.14.3.** Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground?

☐ Yes ☒ No

**4.2.14.4.** Will implementation of the proposed action result in any changes to existing discharges to water bodies, create a new discharge that would result in impacts to water quality, or modify a water body?

☐ Yes ☒ No

If yes, is there a potential for an impact to water quality, sole source aquifers, a public water supply system, federal, state or tribal water quality standards established under the Clean Water Act and the Safe Drinking Water Act?

☐ Yes ☒ No

**Evaluation:** Will the proposed action result in an impact to water resources? (See FAA Order 1050.1F, paragraph 5-2. b.(9), and 1050.1F Desk Reference, Chapter 14 for details on how to make the determination.)

**4.2.14.a.** ☐ Yes

Comment:

**4.2.14.b.** ☒ No. Refer to Section 4.2.

#### 4.2.15. Effects on the Quality of the Human Environment that are Likely to be Highly Controversial on Environmental Grounds.

**NOTE:** The term “highly controversial on environmental grounds” means there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm. Mere opposition is not sufficient for a proposed action or its impacts to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement regarding the impacts of a proposed action exists.

**NOTE:** If in doubt about whether a proposed action is highly controversial on environmental grounds, consult the Line of Business/Staff Office (LOB/SOB) headquarters environmental division, AEE, Regional Counsel, or AGC for assistance. (See FAA Order 1050.1F, Paragraph 5-2.b.(10).)

**4.2.15.1.** Will implementation of the proposed action result in the likelihood of an inconsistency with any federal, state, tribal, or local law relating to the environmental aspects of the proposed action. (See FAA Order 1050.1F, Paragraph 5-2.b.(11).)

☐ Yes ☒ No

If yes, explain:

**Evaluation:** Is there likelihood for the proposed action to be highly controversial based on environmental grounds?

**4.2.15.a.** ☐ Yes

Comment:

**4.2.15.b.** ☒ No. The potential for controversy is not anticipated.

However, there was prior lawsuit, *City of Sacramento v. FAA*, which involved the SCTWN and RVRCT departures and three other challenged procedures at KSMF. The changes here—to RVRCT and SCTWN only—are farther away from the airport and at higher altitudes. The primary change of the KENNO transition to the SHUFL transition would create some lateral track changes above 18,000 feet AGL over sparsely populated areas. There is less of a likelihood that the proposed action would be highly controversial based on environmental grounds because the vicinity around SMF will not experience more noise or overflights.

## Section 5. Mitigation

Are there measures which can be implemented that might mitigate any of the potential impacts,

i.e., GPS/FMS plans, NAVAIDS, etc.?

☐ Yes ☐ No ☒ N/A

Describe:

## Section 6. Cumulative Impacts

What other projects (FAA, non-FAA, or non-aviation) are known, planned, have been previously implemented, or are ongoing in the affected area that would contribute to the proposed project's environmental impact?

The 2017 Sacramento International Airport Master Plan and 2020 Master Plan Update Environmental Impact Report were reviewed for cumulative impacts (see [https://sacramento.aero/scas/about/planning\\_design](https://sacramento.aero/scas/about/planning_design)).

The IFP Information Gateway was reviewed for planned air traffic projects (see [https://www.faa.gov/air\\_traffic/flight\\_info/aeronav/procedures/](https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/)). The projects are listed below.

Procedure Name	Scheduled Pub Date	Status
ILS OR LOC RWY 35L, AMDT 8	3/24/2022	Under Development
RNAV (GPS) Y RWY 35L, AMDT 3	3/24/2022	Under Development
RNAV (GPS) Y RWY 35R, AMDT 2	3/24/2022	Under Development
RNAV (RNP) Z RWY 17L, AMDT 2	3/24/2022	Under Development
RNAV (RNP) Z RWY 17R, AMDT 2	3/24/2022	Under Development
RNAV (RNP) Z RWY 35L, AMDT 2	3/24/2022	Under Development
RNAV (RNP) Z RWY 35R, AMDT 2	3/24/2022	Under Development
STAR SLMMR FIVE (RNAV) KSMF CA	1/27/2022	Under Development
STAR SUUTR FOUR (RNAV) KSMF CA	1/27/2022	Under Development

Consideration of cumulative impacts applies to the impacts resulting from the implementation of the Proposed Actions combined with other actions. A cumulative impact is defined as an impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions.

Analyzing cumulative impacts is considered within geographic (spatial) and time (temporal) boundaries. Reasonably foreseeable future actions refers to projects that would likely be completed within the next five years and do not include those actions that are highly speculative or indefinite. The types of projects considered under the cumulative impact analysis are primarily limited to airfield projects, specifically projects that directly affect or involve runways and modifications to parallel taxiways (e.g., lengthening and/or widening). These types of projects may affect aircraft flight operations. A comprehensive search for the current Airport Master Plan (AMP) yielded no results. An increase in aircraft operations and the aircraft fleet mix are not expected to change as a result of the implementation of the Proposed Action. Based on the available information, cumulative effects are not anticipated in connection with the

## Proposed Action.

### Section 7. Community Involvement

Community involvement is the process of engaging in dialog and collaboration with communities affected by FAA actions. The appropriate level of community involvement and public engagement will vary to some degree depending on the project scope and affected communities. (See FAA Order JO 7400.2, appendices 10 and 11, and the Community Involvement Performance Based Navigation Desk Guide, and/or AEE's Community Involvement Manual, or other available Community Involvement guidance for further information.)

Refer to the attached Community Involvement determination form for Section 7 responses.

### Section 8. References/Correspondence

Attach written correspondence, summarized phone contacts using Memorandums for the File, etc.

### Section 9. Additional Preparers

The person(s) listed below, in addition to the preparer indicated on page 1, are responsible for all or part of the information and representations contained herein:

### Section 10. Facility/Service Area Conclusions

☒ This initial review and analysis indicates that no extraordinary circumstances or other reasons exist that would cause the responsible federal official to believe that the proposed action might have the potential for causing significant environmental impacts. The undersigned have determined that the proposed action qualifies as a categorically excluded action in accordance with FAA Order 1050.1F, and on this basis, recommend that further environmental review need not be conducted before the proposed project is implemented.

**Facility Manager Review/Concurrence**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: Francine K. Malabo  
Air Traffic Manager  
Northern California TRACON

**Service Area Environmental Specialist Review/Concurrence**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: Vikas Uberoi  
Environmental Protection Specialist, Operations Support Group  
Western Service Center, AJV-W25

**Service Area Director Review/Concurrence, if necessary**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: B. G. Chew  
Acting Group Manager, Operations Support Group  
Western Service Center, AJV-W2