

# **CHAPTER TWO PROJECT SUMMARY**

## **2.1 INTRODUCTION**

This section provides a brief summary of the Proposed Project and its impacts in accordance with California Environmental Quality Act (CEQA) guidelines. As stated in the CEQA Guidelines §15123(a), “an Environmental Impact Report (EIR) shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical.” CEQA Guidelines §15123(b) states, “the summary shall identify: (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.” Accordingly, this summary includes a brief synopsis of the Proposed Project and project alternatives, environmental impacts and mitigation measures, cumulative effects and mitigation measures, areas of known controversy, and issues to be resolved in the EIR. **Table 2-1** summarizes the alternatives. **Table 2-2** presents the summary of potential environmental impacts (including cumulative impacts), their level of significance before mitigation, mitigation measures, and levels of significance with mitigation.

## **2.2 SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Chapter Four, *Environmental Setting, Environmental Impacts, Cumulative Impact, and Mitigation Measures*, of this EIR describes in detail the environmental impacts, including cumulative impacts that would result from implementation of the Proposed Project. Impacts of a Proposed Project may be classified as either (1) less than significant (adverse effects that are not substantial according to CEQA); (2) significant (substantial adverse changes in the environment, for which mitigation measures must be recommended, if feasible); (3) Potentially Significant (a potentially substantial adverse change in the environment, for which mitigation measures must be recommended, or (4) significant and unavoidable (substantial or potentially substantial adverse changes in the environment that cannot feasibly be reduced with mitigation measures to a less than significant level). Significant unavoidable adverse impacts, growth-inducing impacts, and significant irreversible environmental changes that would occur with implementation of the Proposed Project are discussed in Section 2.6, below. Growth-inducing impacts of the project are discussed in Chapter Five, *Other CEQA Mandated Sections*.

## **2.3 SUMMARY OF PROJECT DESCRIPTION**

Marin County is the Project Sponsor and is proposing to extend the existing airport runway at the County Airport (Gnoss Field) consistent with the adopted Airport Master Plan<sup>1</sup> and the Preliminary Design Report Runway Extension prepared for the county airport.<sup>2</sup> The primary elements of the Proposed Project, shown on **Exhibit 2-1, Proposed Project**, include the following:

- Extend Runway 13/31 from 3,300 feet to a total length of 4,400 feet at the existing runway width of 75 feet;
- Extend the existing FAA standard 120-foot wide Runway Safety Areas (RSAs) centered on the runway centerline to match the length of the runway to meet current Federal Aviation Administration (FAA) guidelines;
- Extend the corresponding taxiway to the full length of the runway;
- Corresponding realignment of drainage channels to drain the extended runway and taxiway;
- Corresponding levee extension to protect the extended runway and taxiway from flooding ; and
- ~~Re-program~~Relocate the Navigational Aids (NAVAIDs) that pilots use to land at the Airport to reflect the extended runway.
- Lot Line Adjustment to gain exclusive use of small piece of land south of the Airport necessary to provide for a 240-foot long RSA on the south end of Runway 13/31.

The proposed improvement projects under consideration in this EIR are planned to allow the Airport to accommodate existing aviation traffic and passenger demand, as well as demand for the foreseeable future.

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<sup>1</sup> *Airport Master Plan for Marin County Airport (Gnoss Field)*, Prepared by Cortright & Seibold, 1989.

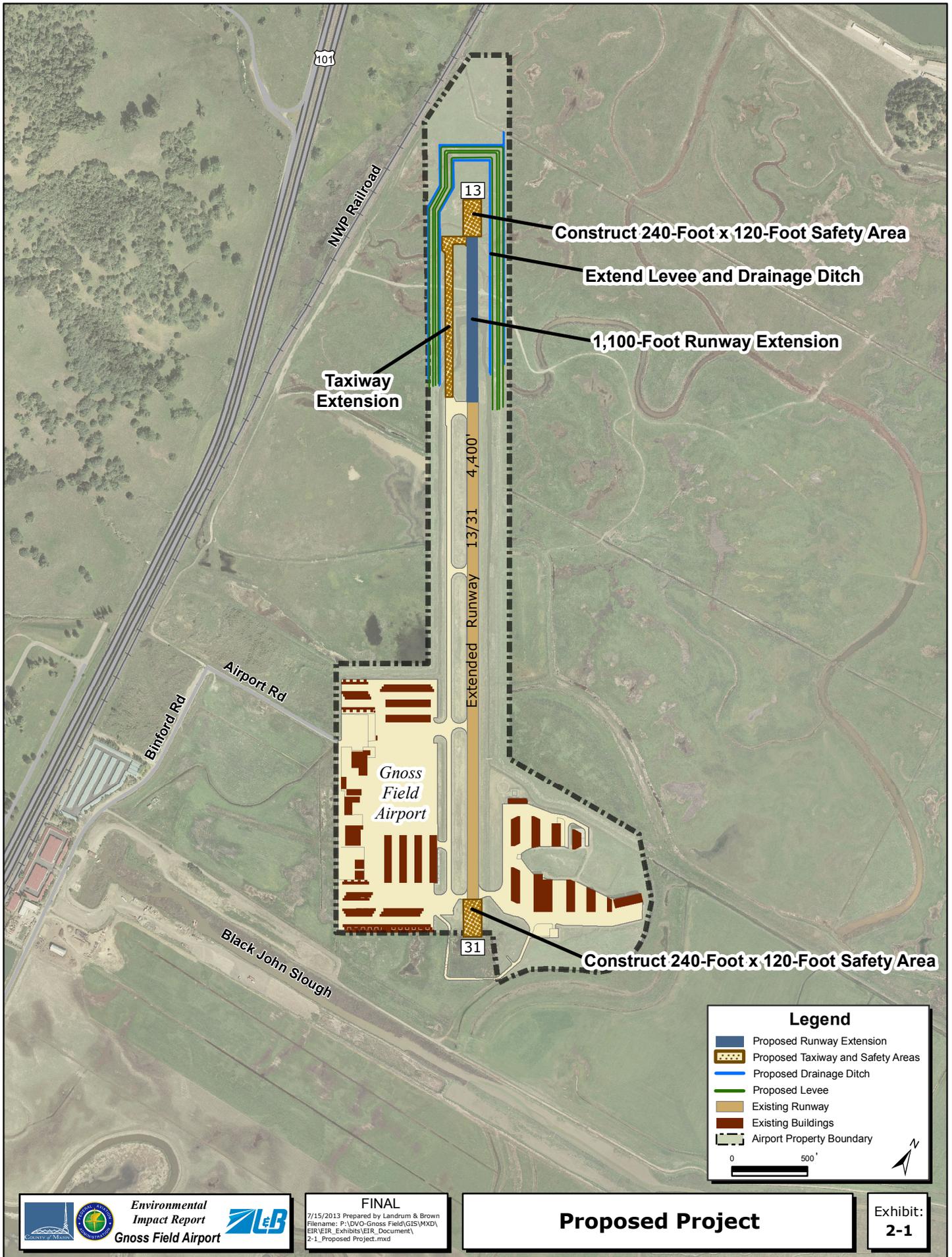
<sup>2</sup> *Preliminary Design Report, Runway Extension, Gnoss Field*, Prepared by Cortright & Seibold, 2002.

**Table 2-1  
COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT  
Gross Field Airport**

<b>Alternative A (No Project Alternative)</b>	<b>Alternative B (Proposed Project)</b>	<b>Alternative C</b>	<b>Alternative D</b>
<p>Alternative A assumes that Runway 13/31 would be maintained at its current length and no associated taxiway extension, RSA extension, realignment of drainage channels, extension of levees, or reprogramming of NAVAIDs would occur.</p>	<p>The Proposed Project would extend Runway 13/31 to the northwest by 1,100 ft., for a total runway length of 4,400 ft.; construct 240-foot RSAs at the end of each runway to meet current FAA guidelines; extend the existing taxiway to the full length of the runway; realign the drainage channels to drain the extended runway and taxiway; extend the existing levee system to protect the extended runway and taxiway from flooding; and re-program the NAVAIDs that pilots use to land at the Airport to reflect the extended runway.</p>	<p>Alternative C would extend Runway 13/31 to the southeast by 1,100 ft., for a total runway length of 4,400 ft.; construct 240-foot RSAs at each end of the runway to meet current FAA guidelines; extend the existing taxiway to the full length of the runway; realign the drainage channels to drain the extended runway and taxiway; extend the existing levee system to protect the extended runway and taxiway from flooding; relocate the access road south of the runway; and re-program the NAVAIDs that pilots use to land at the Airport to reflect the extended runway.</p>	<p>Alternative D would extend of Runway 13/31 to the southeast by 240 ft. and to the northwest by 860 ft. for a total runway length of 4,400 ft.; construct 240-foot RSAs at each end of the runway to meet current FAA guidelines; extend the existing taxiway to match the length of the runway; relocate the south access road; realign drainage channels to drain the extended runway and taxiway; extend the existing levee system to protect the extended runway and taxiway from flooding; and re-program the NAVAIDs that pilots use to land at the Airport to reflect the extended runway.</p>
<b>Conclusions About Impacts</b>			
<p>This alternative avoids all project-related impacts. However, with no increase in runway length, certain aircraft will continue to be weight-restricted, which could cause these aircraft to make a fuel stop in route to their final destination. This alternative does not bring the existing RSAs into compliance with FAA guidelines.</p>	<p>Mitigation measures identified in the EIR would apply to the Proposed Project. Project impacts would be reduced, to less-than-significant levels with implementation of mitigation measures. The increased runway length would allow aircraft that are currently weight-restricted to take off fully loaded, thus eliminating the need for a fuel stop. The Proposed Project would also bring the existing RSAs into compliance with FAA guidelines.</p>	<p>Mitigation measures identified in the EIR would apply to Alternative C. Project impacts would be greater than the Proposed Project and impacts to Black John Sough are potentially significant unavoidable. . The increased runway length under this alternative would allow aircraft that are currently weight-restricted to take off fully loaded, thus eliminating the need for a fuel stop. This alternative also brings the existing RSAs into compliance with FAA guidelines.</p>	<p>Mitigation measures identified in the EIR would apply to Alternative D. Environmental impacts would be greater than the proposed project, but all can be mitigated to less-than-significant levels. The increased runway length under this alternative would allow aircraft that are currently weight-restricted to take off fully loaded, thus eliminating the need for a fuel stop. This alternative also brings the existing RSAs into compliance with FAA guidelines.</p>
<b>Conclusions About Meeting Project Objectives</b>			
<p>Would not meet project objectives</p>	<p>Would meet project objectives and was found to be the environmentally superior alternative (see Chapter 6, Section 6.7)</p>	<p>Would meet project objectives</p>	<p>Would meet project objectives</p>

Source: Landrum & Brown, 2011.

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**BACK OF EXHIBIT 2-1**

## **2.4 SUMMARY OF ALTERNATIVES ANALYSIS**

The Environmental Impact Statement (EIS), to be released by the FAA at a future date, prepared under the provisions of the National Environmental Policy Act (NEPA) identifies the Proposed Project as Alternative B. In order to maintain continuity between the EIS and the EIR, the Alternatives discussed in each document bare the same letter designation (A, C and D). Alternative B is not listed below because Alternative B is addressed as the Proposed Project in this EIR. Furthermore, the range of feasible alternatives discussed in the EIR is based on the findings of a Runway Length Analysis that was prepared at the request of the FAA for the EIS. The results of the runway length analysis point to the conclusion that the existing 3,300 feet of runway at DVO is insufficient to serve ~~a majority of the airport's fleet mix under most conditions~~ the critical aircraft at DVO. The analysis concludes that a runway length of 4,400 feet would provide the necessary length to satisfy the FAA's standard methodology for calculating lengths, as well as address the local conditions that occur at DVO. Due to standard user practices at DVO, an additional 1,100 feet of runway length is recommended for the critical aircraft; for a total runway length of 4,400 feet (see Volume 3, Appendix D). Therefore, a shorter runway length was not deemed to be a feasible alternative.

### **2.4.1 ALTERNATIVE A (NO PROJECT ALTERNATIVE)**

Alternative A, is identified as the No Project Alternative in this EIR. Under this alternative there would be no runway extension and Runway 13/31 would be maintained at its current length. Also under this alternative there would be no associated taxiway extension, RSA extension, realignment of drainage channels, extension of levees, or reprogramming of NAVAIDs. **Exhibit 2-2, Alternative A: No Project Alternative**, presents a graphic depiction of Alternative A.

### **2.4.2 ALTERNATIVE C**

Alternative C includes an extension of Runway 13/31 to the southeast by 1,100 feet for a total runway length of 4,400 feet. In addition, this alternative would include extension of the corresponding taxiway to match the length of the runway; inclusion of FAA standard 240-foot RSA at each end of the runway in addition to the 1,100-foot runway extension; corresponding realignment of drainage channels to drain the extended runway and taxiway; corresponding levee extension to protect the extended runway and taxiway from flooding; corresponding relocation of the access road south of the runway, which extends from the west side to the east side of the Airport, to keep the access road outside of the RSA; and re-programming of the NAVAIDs that pilots use to land at the Airport to reflect the extended runway. **Exhibit 2-3, Alternative C**, presents a graphic depiction of Alternative C.

### **2.4.3 ALTERNATIVE D**

Alternative D includes an extension of Runway 13/31 to the southeast by 240 feet and to the northwest by 860 feet for a total runway length of 4,400 feet. In addition, this alternative would include extension of the corresponding taxiway to

match the length of the runway; inclusion of FAA standard 240-foot RSA at each end of the runway in addition to the 1,100-foot runway extension; corresponding relocation of the south access road from the west to the east of the Airport to maintain separation of ground vehicle traffic from aircraft traffic; corresponding realignment of drainage channels to drain the extended runway and taxiway; corresponding levee extension to protect the extended runway and taxiway from flooding; and re-programming of the NAVAIDs that pilots use to land at the Airport to reflect the extended runway. **Exhibit 2-4, Alternative D**, presents a graphic depiction of Alternative D.

## **2.5 PLANS AND CONSISTENCY**

An evaluation of the Proposed Project's consistency with the Marin Countywide Plan and various other planning and policy documents is contained in Section 4.2, *Land Use and Planning*, of this EIR and elsewhere in the document as appropriate. The determination of policy consistency, discussed in this EIR, represents the EIR authors' best judgment (in consultation with Marin County staff) based on strict interpretation of policies. However, policy consistency must ultimately be determined by the Marin County Board of Supervisors and not in this EIR. The Board of Supervisors may reach a different policy conclusion than the EIR, as a result of its review of the entire record.

The EIR finds that the Proposed Project is consistent with all policies contained in the Marin Countywide Plan, notably policies regarding the built environment and Airport Master Plan, environmental quality; climate and air quality; wildlife habitat and wetlands; noise, transportation, and energy conservation.

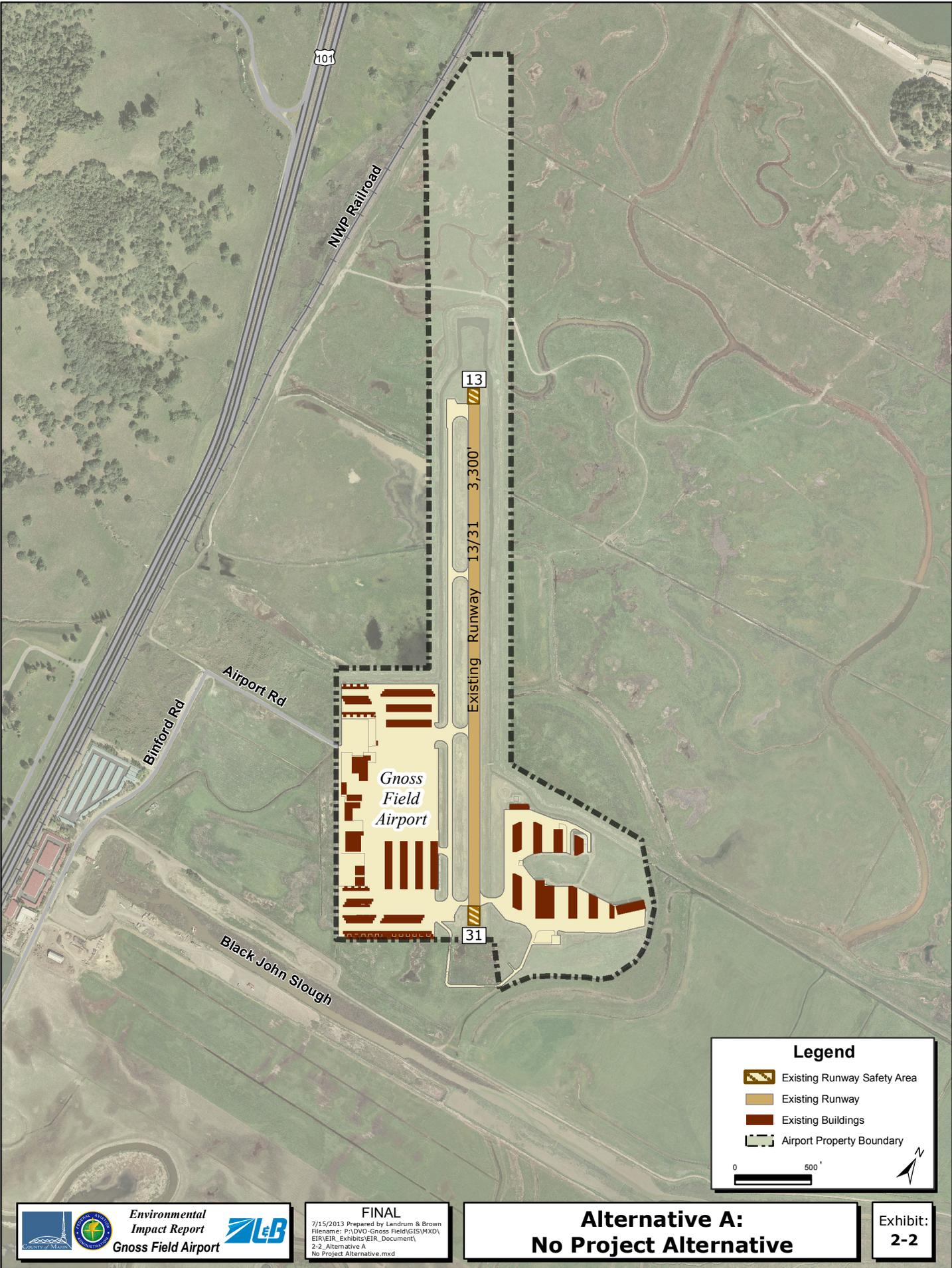
## **2.6 SUMMARY OF SIGNIFICANT, UNAVOIDABLE, GROWTH-INDUCING, AND SIGNIFICANT IRREVERSIBLE IMPACTS**

This section summarizes the significant unavoidable adverse impacts, growth-inducing impacts, and significant irreversible effects of the Proposed Project.

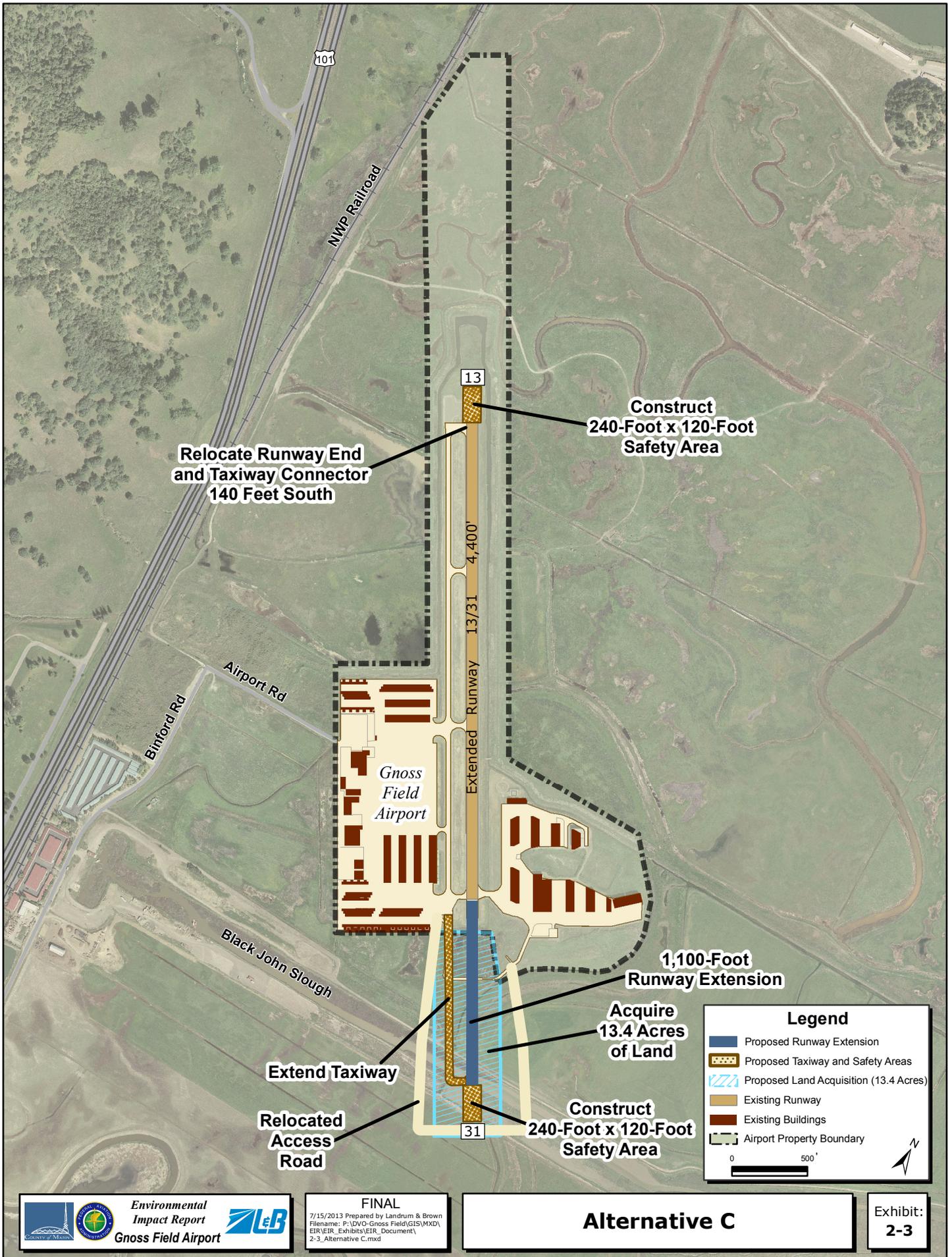
### **2.6.1 SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS**

CEQA Guidelines require that an EIR describe those impacts that cannot be fully mitigated as part of a Proposed Project. In some cases, no feasible mitigation measures are available to reduce significance of environmental impacts. In other cases, mitigation measures may be available in connection with the Proposed Project, but they do not reduce an impact to a less-than-significant level without substantially altering the basic project characteristics. In both of these cases, impacts are considered to be significant and unavoidable.

This EIR finds that no significant unavoidable impacts would occur if the Proposed Project were to be implemented.



**BACK OF EXHIBIT 2-2**



**Relocate Runway End and Taxiway Connector 140 Feet South**

**Construct 240-Foot x 120-Foot Safety Area**

**1,100-Foot Runway Extension**

**Acquire 13.4 Acres of Land**

**Extend Taxiway**

**Relocated Access Road**

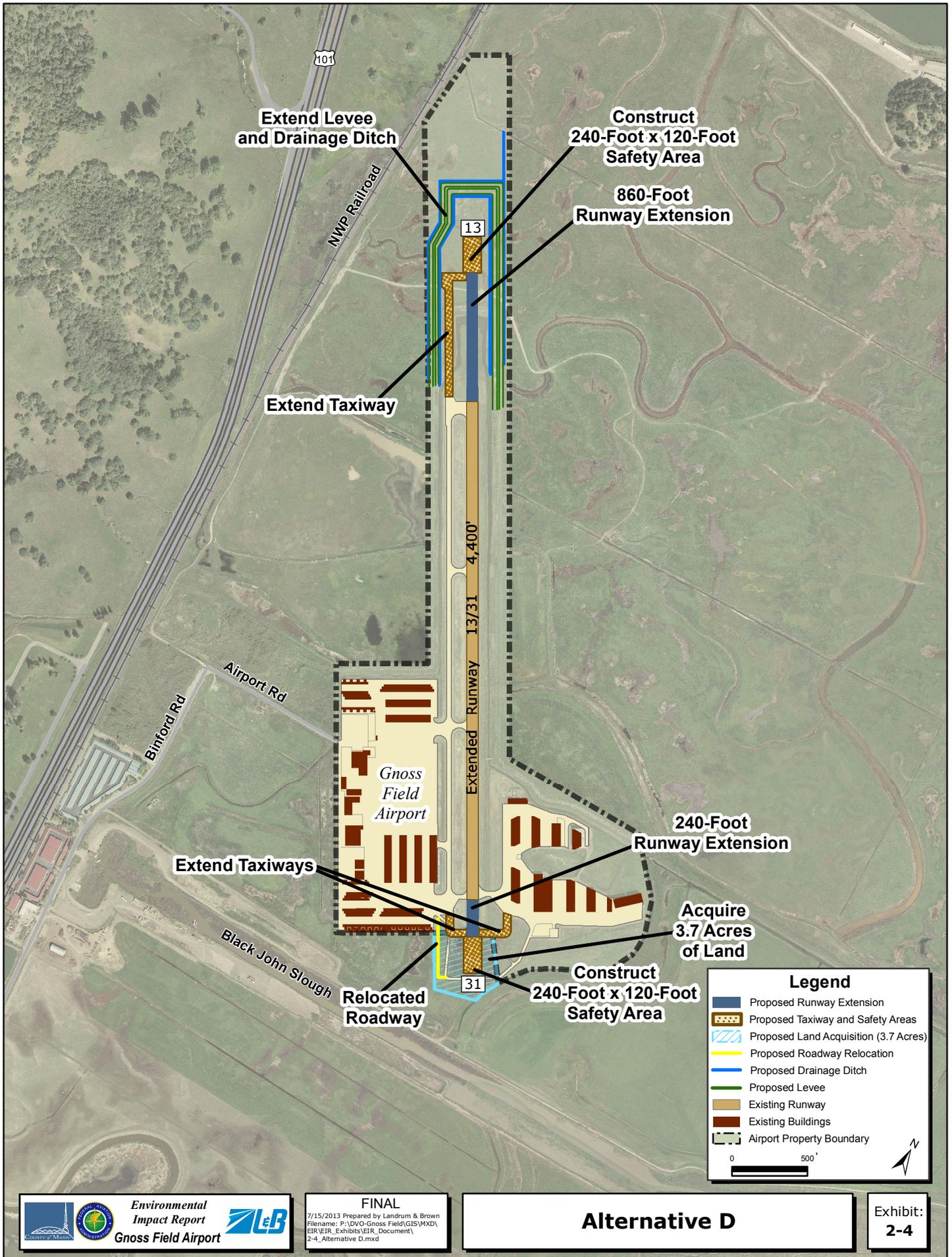
**Construct 240-Foot x 120-Foot Safety Area**

**Legend**

- Proposed Runway Extension
- Proposed Taxiway and Safety Areas
- Proposed Land Acquisition (13.4 Acres)
- Existing Runway
- Existing Buildings
- Airport Property Boundary

0 500'

**BACK OF EXHIBIT 2-3**



**BACK OF EXHIBIT 2-4**

## **2.6.2 SUMMARY OF SIGNIFICANT IMPACTS**

The EIR identified 15 potentially significant (PS), impacts that can be eliminated or reduced to a less-than-significant level by implementing the mitigation measures required in the EIR. Refer to Table 2-2, Summary of Impacts and Mitigation, for detailed information.

## **2.6.3 SUMMARY OF LESS-THAN-SIGNIFICANT IMPACTS**

The EIR identified 43 Less-than-Significant impacts of the Proposed Project on the environment, which therefore do not require mitigation. Refer to **Table 2-2, Summary of Impacts and Mitigation**, for detailed information.

## **2.6.4 SUMMARY OF CUMULATIVE IMPACTS**

As described in Chapter Four, *Environmental Setting, Environmental Impacts, Cumulative Impacts, And Mitigation Measures*, the General Study Area (GSA) encompasses approximately 12,655 acres and is defined as the area where potential indirect impacts may result from the Proposed Project. The area surrounding DVO within the GSA is predominantly agricultural, vacant, and open space to the east and south with light industrial/office areas to the north and west. With combined cumulative effects of the Proposed Project and the other projects described in Chapter Four, the level of cumulative impacts anticipated to occur within these categories would not be considered significant due to the types of projects proposed, the extent of the built environment in which they would occur, and the options considered or implemented to mitigate for unavoidable impacts.

## **2.6.5 SUMMARY OF GROWTH-INDUCING IMPACTS**

CEQA Guidelines require that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

The way in which a Proposed Project could foster economic or population growth or the construction of additional housing is either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.<sup>3</sup>

The proposed runway extension would have the effect of allowing existing aircraft that use DVO that are currently weight restricted by the runway length to depart fully loaded. The Proposed Project is not intended or expected to cause an unforecasted growth in aircraft operations at DVO. There are other airport facilities throughout the Bay Area region, and since the availability of air service is not frequently cited as a constraint to the development of new housing or commercial areas, the expansion of the runway is not considered as removing a significant constraint to regional development. The Proposed Project would not involve

<sup>3</sup> Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.

additional expansion or extension of infrastructure facilities or roadways that could induce unplanned growth adjacent to DVO. Thus, the Proposed Project is not anticipated to induce additional growth on vacant industrially zoned land near the airport or other developable land in the region.

### **2.6.6 OTHER SOCIAL AND ECONOMIC IMPACTS FOUND NOT TO BE SIGNIFICANT**

As discussed previously, CEQA Guidelines<sup>4</sup> provide that “an economic or social change by itself shall not be considered a significant effect on the environment.” However, physical impacts associated with social or economic changes may be considered significant. Pursuant to CEQA Guidelines §15382, purely economic or social impacts would not be considered significant impacts of the Proposed Project, and are not, therefore, addressed in this EIR. This EIR evaluates all physical impacts that would result from the Proposed Project and has not identified any physical impacts associated with social or economic changes.

## **2.7 AREAS OF CONTROVERSY**

The Proposed Project raises issues and some areas of controversy that will be considered by Marin County and other decision-makers. Controversial issues are known through expressions of public opinion that are documented in the record or obtained through public meetings, and through comments on the project provided by staff of various interested governmental agencies. Prior to circulating the EIR, Marin County circulated a Notice of Preparation to agencies and interested parties and conducted a public scoping session in the community. Comments on the Notice of Preparation and those received during the scoping session are provided in Appendix A, Agency Scoping and Coordination.

Some areas of controversy are not within the purview of CEQA, because that statute focuses on evaluation of significant effects to the physical environment. The non-environmental issues are included below, however, to help provide information to Marin County and other decision-makers. Those areas of controversy that relate to a physical impact issue within CEQA’s purview, are so noted in the list below.

This EIR identified a number of issues that require Marin County and other State and Federal agency decisions and may represent tradeoffs between different policy objectives of the Marin Countywide Plan and Marin County Development Code, the permit issuing regulations or the US Army Corps of Engineers (USACOE) under Section 404 and Section 10; and the storm water discharge requirements of the San Francisco Regional Water Quality Control Board (RWQCB). Other Federal and State agencies such as the US Fish and Wildlife Service and the California Department of Fish and Game will be involved in these decisions.

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<sup>4</sup> Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.

1. The proposed extension of the runway would require fill of existing water channels and ditches in the DSA. Marin County may have to apply for a Streambed Alteration Agreement (LSAA), and a decision will have to be made on the application.
2. The proposed extension of the runway will require the fill of 11.83 acres of wetlands protected by Section 404 of the Clean Water Act and 2.66 acres of channels and ditches protected by Section 10 of the Rivers and Harbors Acts. The regulatory agencies including Marin County, USACOE, and RWQCB will have to decide or not whether the proposed fill and mitigation plan is consistent with their wetland and waterway protection policies.
3. Emergency vehicle access to the airport in response to an incident.
4. Concern about the proximity of the Redwood Landfill and the potential for the project to bring aircraft closer to the landfill.
5. Concerns raised by residences located south of the airport about aircraft noise and over flights.
6. Concerns about the potential increase in air contaminants and greenhouse gas emissions associated with the proposed runway extensions.
7. Concerns about climate change associated with potential increases in aircraft operations at Gness Field.
8. Concerns about construction noise, traffic and air quality impacts.

## **2.8 MAJOR CONCLUSIONS AND ISSUES TO BE RESOLVED**

The following major conclusions and issues to be resolved are derived from the analysis in the EIR. The major conclusions of the EIR are presented first, followed by the issues to be resolved. The issues are presented to highlight the topics on which the decision-makers may want to focus special attention.

### **2.8.1 MAJOR EIR CONCLUSIONS**

The EIR evaluated a total of 58 project-based environmental impacts. Of these, the following 15 were identified as significant or potentially significant impacts. Feasible mitigation measures are available to reduce all of the project's significant effects to a less than significant level. Refer to Table 2-2, Summary of Impacts and Mitigation, for detailed information.

- **Impact 4.3-1:** Shallow groundwater will potentially impact construction (potentially significant unless mitigated).
- **Impact 4.3-2:** Expansive soils can cause distress and failure to shallow founded structures, pavements, slabs on grade, and other surfaces (potentially significant unless mitigated).
- **Impact 4.3-3:** Compressible soil may settle, causing damage to paved surfaces (potentially significant unless mitigated).

- **Impact 4.3-4:** Liquefaction and cyclic softening may occur (potentially significant unless mitigated).
- **Impact 4.3-5:** Lateral spreading and lurching may occur (potentially significant unless mitigated)
- **Impact 4.3-6:** Levees and runway/taxiway extension may be damaged by landsides (potentially significant unless mitigated).
- **Impact 4.4-1:** Short-term impacts to water quality may occur during construction (potentially significant unless mitigated).
- **Impact 4.4-2:** Long-term impacts to water quality may occur due to an increase in impervious surface area causing an increase in stormwater runoff (significant unless mitigated).
- **Impact 4.5-1:** Fill of approximately 11.83 acres of wetlands protected by Section 404 of the CWA, of which 2.66 acres are also protected by Section 10 of the RHA (potentially significant unless mitigated).
- **Impact 4.5-2:** The Proposed Project would permanently impact habitat for two Federal Threatened and Endangered wildlife Species and would temporarily impact this habitat during construction activities (significant unless mitigated).
- **Impact 4.5-3:** Impacts to California Special Status Species (less than significant).
- **Impact 4.6-1:** Temporary increase in traffic due to construction activity (potentially significant unless mitigated).
- **Impact 4.8-2:** Short-term increases in Air Pollution Emissions due to construction activity (potentially significant unless mitigated).
- **Impact 4.9-1:** The Proposed Project would not directly affect any known cultural resources. However, there is always the possibility that currently unknown subsurface cultural resources may be present and could be impacted by project construction. (Potentially significant unless mitigated)
- **Impact 4.19-1:** Fill of approximately 11.83 acres of wetlands protected by Section 404 of the CWA, of which 2.66 acres are also protected by Section 10 of the RHA (potentially significant unless mitigated).

## **2.8.2 ISSUES TO BE RESOLVED**

### **2.8.2.1 Wetlands Mitigation**

As discussed in Section 4.19, *Wetlands*, an individual Permit under Section 404 of the Clean Water Act (CWA) would be required to construct the project. Permitting under Section 10 of the Rivers and Harbors Act (RHA) would also be required. As the Airport Sponsor, it will be the responsibility of Marin County to apply for all permits as required by all applicable regulatory agencies and to implement approved compensatory mitigation plans.

Regarding wetland and stream compensatory mitigation requirements, the U.S. Army Corp of Engineers (USACOE) relies on the agency's District Offices to review proposed compensatory mitigation plans on a case-by-case basis with consideration given to "guidelines" developed and utilized for permit applications within the District. To date, the USACOE San Francisco District Office has not set a policy for acceptable wetland or stream mitigation for this project. However, the USACOE regulations at 33 CFR 332.3 (b) identify the order of preference for different types of compensatory mitigation for aquatic impacts from most preferable to least preferable as:

- Mitigation bank credits
- In-lieu fee program credits
- Permittee-responsible mitigation under a watershed approach
- Permittee-responsible mitigation through on-site and in-kind mitigation
- Permittee-responsible mitigation through off-site and/or out-of-kind mitigation

Marin County, as the Airport Sponsor, must develop a mitigation plan that will be acceptable to the USACOE. The following describes each of the options for each type of compensatory mitigation.

### **Use of USACOE Approved Mitigation Bank for Compensatory Mitigation of Aquatic Resources Impacts**

The USACOE compensatory mitigation regulations at 33 CFR § 332 identify use of a USACOE-approved mitigation bank as the most preferable form of compensatory mitigation to offset unavoidable impacts to aquatic resources within CWA Section 404 or RHA Section 10 jurisdiction authorized by a USACOE permit. The USACOE San Francisco District maintains a listing of approved Wetland Mitigation Banks in the San Francisco Bay Area on its public website.<sup>5</sup> As of December 2012, the Burdell Mitigation Bank was the only USACOE approved wetland mitigation bank that included Marin County in its service area.

The Burdell Mitigation Bank is located approximately 4,000 feet east of DVO. As of December 2012, there were 19 wetland mitigation credits available for sale from the Burdell Mitigation Bank<sup>6</sup>. As each credit can be used to mitigate for filling of 0.1 acre of wetlands, Marin County could complete compensatory wetland mitigation for 1.9 acres of wetland fill by purchasing all remaining credits available for sale from the Burdell Mitigation Bank. There are also 12 wetland mitigation credits that were purchased from the Burdell Mitigation Bank, which have not yet been used for a specific project. If those additional 12 credits became available and were purchased by Marin County, those credits could be used to provide

<sup>5</sup> Approved Wetland Mitigation Banks, U.S. Army Corps of Engineers, San Francisco District, On-line at: <http://www.spn.usace.army.mil/Missions/Regulatory/MitigationBanks/ApprovedBanksfortheSanFranciscoRegulatoryDi.aspx>

<sup>6</sup> E-mail from Burdell Mitigation Bank representative Anthony Georges to FAA Environmental Protection Specialist Douglas Pomeroy, December 18, 2012.

compensatory mitigation for an additional 1.2 acres of wetland fill. As a maximum of 31 wetland mitigation credits providing compensation for 3.1 acres of wetland fill might be available from the Burdell Mitigation Bank, the Burdell Mitigation Bank could provide part, but not all, of compensatory wetland mitigation for wetland impacts for this project.

The Burdell Mitigation Bank has not been specifically approved for use by the USFWS to provide habitat compensation for impacts to the California clapper rail or the salt marsh harvest mouse. Marin County would need to seek specific authorization from the USFWS to determine whether purchase of wetland mitigation credits from the Burdell Mitigation Bank could also be credited towards the habitat compensation requirements needed to address the endangered species habitat compensation requirements of this project. If the USACOE approves additional mitigation banks with an adequate number and resource type of compensatory mitigation credits available to mitigate for the environmental impacts to aquatic resources prior to Marin County completing the permitting process for this proposed project, Marin County could consider purchasing compensatory mitigation credits from a newly approved mitigation bank to provide compensatory mitigation for the proposed project.

### **Use of USACOE-Approved In-Lieu Fee Program Compensatory Mitigation Bank Credits For Compensatory Mitigation of Aquatic Resources Impacts**

The USACOE compensatory mitigation regulations at 33 CFR § 332 identify use of a USACOE-approved in lieu fee program as the second-most preferable form of compensatory mitigation to offset unavoidable impacts to aquatic resources within CWA Section 404 or RHA Section 10 jurisdiction authorized by a USACOE permit. No USACOE approved in-lieu fee programs are currently available for use as compensatory mitigation for environmental impacts to aquatic resources within the USACOE San Francisco District boundary, which includes Marin County and DVO.<sup>7</sup>

### **Use of USACOE Permittee-Responsible Mitigation under a Watershed Approach for Compensatory Mitigation of Aquatic Resources Impacts**

The USACOE compensatory mitigation regulations at 33 CFR § 332 identify that when the USACOE intends to issue a permit for a regulated activity, and that activity is not in the service area of an approved mitigation bank or in lieu fee program that has an adequate number and resource type of compensatory mitigation credits available to mitigate for the environmental impacts to aquatic resources, that permittee-responsible compensatory mitigation is the only option. The USACOE compensatory mitigation regulations at 33 CFR § 332 identify Permittee-responsible mitigation under a watershed approach as the preferred method of permittee-responsible mitigation.

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<sup>7</sup> E-mail from Army Corps of Engineers, San Francisco District, Regulatory Division, North Section Supervisor, Laurie Monarres, to Federal Aviation Administration Environmental Protection Specialist Douglas Pomeroy, May 2, 2013.

The USFWS *Draft Recovery Plan*<sup>8</sup> identifies its goal as "...the comprehensive restoration and management of tidal marsh ecosystems." As the USFWS *Draft Recovery Plan*<sup>9</sup> is a comprehensive, watershed level plan incorporating restoration and management of tidal marsh ecosystems, implementation of an aquatic resources and endangered species habitat compensation plan consistent with the USFWS *Draft Recovery Plan* would represent Permittee responsible mitigation under a watershed approach. The USFWS *Draft Recovery Plan*<sup>10</sup>, San Pablo Bay Recovery Unit<sup>11</sup> extends from Gallinas Creek in Marin County (at the southwestern end of the recovery unit) around San Pablo Bay north and east to Mare Island in Solano County, and includes Gness Field Airport within its boundaries. There are several current, proposed, or potential projects for compensatory mitigation for aquatic resources and endangered species within the USFWS San Pablo Bay Recovery Unit that could provide compensatory mitigation for wetland and aquatic impacts of the Proposed Project.

**Potential Sites for Providing Compensatory Mitigation for Adverse Environmental Impacts to Wetlands and Aquatic Sites Associated With the Gness Field Airport Runway Extension Project**

The potential compensatory mitigation projects for impacts to wetland and aquatic resources (which are also impacts to endangered species habitat) described below are all within the San Pablo Bay Recovery Unit identified in the USFWS *Draft Recovery Plan* and would represent compensatory mitigation options under a watershed approach. The USACOE Regulatory Program regulation 33 CFR §332 *Compensatory Mitigation for Losses of Aquatic Resources* §332.4 (b) *Planning and Documentation, Public Review and Comment*, allows USACOE permit applicants to keep confidential certain business information such as the exact location of a proposed compensatory mitigation site that has not yet been secured. Marin County would finalize its compensatory mitigation site and plan for impacts to wetlands and aquatic sites during the USACOE CWA permit process.

San Francisco Bay National Wildlife Refuge

Several San Francisco Bay National Wildlife Refuge (Refuge) projects needing funding are potential mitigation alternatives. Initial contact has been made with Mendel Stewart, Manager of the San Francisco Bay National Refuge and Don Brubaker, North Bay Refuges Manager within the San Francisco Bay National Wildlife Refuge. Several projects associated with the restoration of tidal marsh habitat areas were discussed. These projects, in general, are relatively large with multi-million dollar costs. As mitigation for impacts to wetlands, the County may

<sup>8</sup> Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California, Sacramento Fish and Wildlife Office, Sacramento California, Executive Summary, pg. vii, 2010a.

<sup>9</sup> Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California, Sacramento Fish and Wildlife Office, Sacramento California, xvii+636pp, 2010a.

<sup>10</sup> Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California, Sacramento Fish and Wildlife Office, Sacramento California, Chapter III: Recovery Strategies, pg. 146, 2010a.

<sup>11</sup> Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California, Sacramento Fish and Wildlife Office, Sacramento California, Chapter III: Recovery Strategies, pg. 146 and Figure III-3, pg. 149, 2010a.

contribute towards a larger effort that would be built in the appropriate timeframe. Impacts to wetlands would be compensated by the contribution of funding for in-kind habitat creation or restoration. Potential sites for the tidal marsh creation/restoration include:

- The Cullinan Ranch Restoration Project which is a 1,549 acre tidal marsh restoration project near Vallejo. The U.S. Fish and Wildlife Service and the California Department of Fish and Game issued a Final Environmental Impact Statement/Environmental Impact Report in May 2009, and the U.S. Fish and Wildlife Service issued a Record of Decision for this project on April 9, 2010. Construction of the site appears imminent and may begin in time to service the project;
- The Sonoma Creek Enhancement Project, which is a 500 acre project associated with the San Pablo Bay National Wildlife Refuge (NWR). The project would be implemented at the mouth of the Sonoma Creek where it enters the bay on the western bank. The project is being funded jointly by the NWR, Audubon Society, and the localized mosquito abatement district. Engineering and design of the project is complete, but permitting has yet to be completed. Contribution to this project may be a viable alternative; and
- Other alternatives are possible within the San Francisco Refuge complex, but timing and quantification of creation/restoration to complete mitigation are factors that would require continued coordination.

#### Offsite Restoration by Private Entity

A private individual was contacted regarding a parcel of land they indicated they owned that is approximately 7,500 feet from the Airport. The individual indicated interest in developing wetland habitat to sell for mitigation credits or develop a project-specific agreement with Marin County to use the property for as a project specific wetland mitigation site. There is the potential for Marin County to participate in a project specific wetland mitigation project on the site. By working with a private individual, it may be easier to negotiate terms and conditions to suit the project mitigation requirements.

#### Offsite Restoration by Conservation Group or Public Entity

The San Francisco Bay Joint Venture (SFBJV) is one of 18 Joint Ventures established under The Migratory Bird Treaty Act and funded under the annual Interior Appropriations Act. It brings together public and private agencies, conservation groups, development interests, and others to restore wetlands and wildlife habitat in San Francisco Bay watersheds and along the Pacific coasts of San Mateo, Marin, and Sonoma counties.

The Sonoma Land Trust's 2,327-acre Sears Point Wetlands and Watershed Restoration Project is one example of a potential off-site restoration site in which participation by Marin County might be considered allowable mitigation by the USACOE. The project is located in southern Sonoma County on the edge of San

Pablo Bay between the Petaluma River and Tolay Creek. The project includes diked agricultural baylands, alluvial fans, hillslopes reaching up 400' above sea level, and numerous small drainages.<sup>12</sup>

Marin County could choose to implement its own wetland mitigation project in the Lower Novato Creek Watershed as identified in the USFWS April 3, 2013 Biological Opinion for the Proposed Project. The USFWS Draft Recovery Plan<sup>13</sup> identifies the San Pablo Bay Recovery Unit near the mouth of the Novato Creek watershed adjacent to the Hamilton Field wetland restoration project as a potential tidal marsh restoration area. Such a project could potentially meet the compensatory wetland mitigation requirements of the Clean Water Act, Section 404, permitting process, and the habitat compensation requirements of the Endangered Species Act habitat compensation requirements identified in the USFWS Biological Opinion for the Proposed Project.

USFWS Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California, San Pablo Bay Recovery Unit

The USFWS Draft Recovery Plan, Chapter III: Recovery Strategies, Section C. Restoration Maps, includes for the San Pablo Bay Recovery Unit Figure III-10 Segment D, Figure III-11 Segment E, Figure III-12 Segment F, and Figure III-13, Segment G, which all identify areas for "Near Term Restoration, Future Restoration, or Potential Restoration." These figures are provided in Appendix I (see U.S. Fish and Wildlife Service Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California (2010a) Chapter III: Recovery Strategies Figure III-10 Segment D, Figure III-11 Segment E, Figure III-12 Segment F, Figure III-13 Segment G, showing the boundaries of the San Pablo Bay Recovery Unit). These Restoration Maps include the projects previously described and additional areas that the USFWS considers appropriate for near term, future, or potential restoration to tidal marsh ecosystem. Developing a habitat compensation plan for endangered species at the compensation ratios identified in Table I-1 of Appendix I would also provide compensatory mitigation for impacts to aquatic resources.

### **Use of USACOE Permittee-Responsible Mitigation through On-Site and In-Kind Mitigation**

The USACOE CWA and RHA regulatory program mitigation regulations at 33 CFR §332.3 (b)(1) state that compensatory mitigation projects should not be located where they will increase the risks to aviation by attracting wildlife to areas where aircraft-wildlife strikes may occur (e.g., near airports). As on-site and in-kind wetland mitigation for this project could potentially attract wildlife and increase the risk of aircraft-wildlife strikes, on-site, in-kind aquatic resource mitigation at DVO would be inconsistent with USACOE compensatory mitigation regulations and FAA

<sup>12</sup> Sonoma Land Trust [www.sonomalandtrust.org/pdf/SonomaBaylandsBrochure.pdf](http://www.sonomalandtrust.org/pdf/SonomaBaylandsBrochure.pdf) accessed November 4, 2011 and Bay Area Integrated Regional Water Management Plan <http://bairwmp.org/projects/sears-point-restoration-project> accessed on November 4, 2011.

<sup>13</sup> Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California, Sacramento Fish and Wildlife Office, Sacramento California, xvii+636pp, 2010a.

Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports. Therefore, on-site, in-kind compensatory mitigation for aquatic resources or endangered species that creates or enhances aquatic and/or endangered species habitat is considered impracticable. Reestablishment of vegetation in areas of temporary disturbance of aquatic resources or endangered species habitat that would not represent an additional attractant to wildlife hazardous to aircraft is considered practicable.

### **Use of USACOE Permittee-Responsible Mitigation through Off-Site and Out-Of-Kind Mitigation**

The USACOE CWA and RHA regulatory program mitigation regulations at 33 CFR §332 identify that Permittee-Responsible Mitigation under a watershed approach is preferable to Permittee-Responsible Mitigation through an off-site and out-of-kind mitigation that has not been based on a watershed approach. As the USFWS Draft Recovery Plan for Tidal Marsh Ecosystems provides a watershed approach for providing compensatory mitigation for impacts to aquatic resources and endangered species for the proposed project, there is no need for the development of a separate compensatory mitigation proposal that does not utilize the existing watershed information.

~~The USACOE maintains a listing of approved Wetland Mitigation Banks in the San Francisco Bay Area.<sup>14</sup> The following are noted as potential mitigation alternatives:~~

#### **2.8.2.2 Vegetation and Wildlife Mitigation**

As discussed in Section 4.5, *Vegetation and Wildlife*, based on the USFWS list, field observations, and literature reviews, no Federally threatened or endangered plant, animal, or bird species are present within the Detailed Study Area (DSA). However, consultation with the USFWS has identified portions of the project site as potential habitat for the salt marsh harvest mouse and California clapper rail. The Salt marsh harvest mouse is strongly associated with pickleweed-dominated saltwater marshes of San Francisco, Suisun, and San Pablo Bay. California clapper rail is found in salt and brackish water marshes on the California coast. Both of these types of habitats are present in the DSA.

As discussed in Section 4.19, *Wetlands*, this project requires mitigation for loss of wetlands, which would require an individual Permit under Section 404 of the Clean Water Act (CWA), as well as permitting under Section 10 of the Rivers and Harbors Act (RHA). As the Airport Sponsor, it will be the responsibility of Marin County to apply for all permits as required by all applicable regulatory agencies and to implement approved compensatory mitigation plans. The mitigation areas for wetland loss are the same as mitigation areas for Salt Marsh Harvest Mouse (SMHM) and California clapper rail (CCR) habitat loss. In addition, it is anticipated

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<sup>14</sup>~~Approved Wetland Mitigation Banks, U.S. Army Corps of Engineers, San Francisco District, On-line at: <http://www.spn.usace.army.mil/regulatory/banks.htm> / Updated October 19, 2011.~~

that habitat mitigation for the SMHM will occur in tandem with habitat mitigation for the California clapper rail (CCR), as they are both associated with high brackish marsh wetland habitat.

The USFWS provided its Biological Opinion for the Proposed Project, dated April 3, 2013, to the FAA. The USFWS determined the following two reasonable and prudent measures in their Biological Opinion are necessary and appropriate to minimize the effects of the proposed project on the SMHM and the CCR:

1. FAA through the applicant (Marin County) will implement the Conservation Measures in the *Description of the Proposed Project* in this biological opinion.
2. FAA through the applicant (Marin County) will minimize the effects of the proposed project on the salt marsh harvest mouse, California clapper rail, and their habitats.

The April 3, 2013 Biological Opinion included the following terms and conditions to implement the reasonable and prudent measures:

1. Measure Number One (1):
  - a. FAA shall ensure that the salt marsh harvest mouse exclusion fencing is made of a heavy plastic sheeting material that does not allow salt marsh harvest mice to pass through or climb, and the bottom shall be buried to a depth of at least 4 inches so that the listed mouse cannot crawl under the fence. Fence height shall be at least 12 inches higher than the highest adjacent vegetation with a maximum height of 4 feet. All supports for the exclusion fencing shall be placed on the inside of the work area. FAA shall ensure that the exclusion fencing is inspected and secured before the start of each work day and that no salt marsh harvest mice are able to enter the work area.
  - b. FAA shall ensure that a compensation plan is finalized and approved by the Service prior to the initiation of construction of the proposed project. FAA shall ensure that the funding for the compensation plan is provided prior to the initiation of construction of the proposed project and that any required tidal marsh restoration is initiated within 1 year of the initiation of construction of the proposed project.
2. Measure Number Two (2):
  - a. FAA shall ensure that in order to avoid the potential for disturbing any salt marsh harvest mice nests and injuring or killing any young salt marsh harvest mice before they have weaned that the contractor uses only non-motorized hand tools to remove salt marsh vegetation during the mouse's breeding season (March 1 through November 30) under the supervision of a USFWS-approved biological monitor. If a salt marsh harvest mouse nest is observed, all work shall cease within 100 feet of the nest until the USFWS-approved biological monitor has determined that the young salt marsh harvest mice have been weaned and left the nest. Vegetation removal occurring outside of the salt marsh harvest mouse's breeding season (December 1 - February 28) may utilize mechanized or

- motorized equipment. The USFWS-approved biological monitor shall supervise the vegetation removal, walk ahead of the vegetation removal equipment, and flush any salt marsh harvest mice out of the way.
- b. FAA shall ensure that all salt marsh and upland refugia habitat temporarily disturbed during construction of the proposed project is replanted or reseeded with appropriate local native plant species. The applicant shall install native salt marsh plant species including salt grass, dwarf spikerush, alkali heath, gumplant, and pickleweed as appropriate for the location of the disturbed areas and per a USFWS-approved revegetation and monitoring plan with success criteria. The revegetation monitoring plan shall be submitted to and approved by the USFWS prior to the initiation of construction of the proposed project. The revegetation and monitoring plan shall include photographs and annual reporting documenting the site conditions pre- and post-project. Any areas temporarily disturbed that do not meet the success criteria in the revegetation and monitoring plan within 2 years will be considered a permanent effect and shall be compensated off-site at USFWS-approved location at a 3:1 ratio.
- c. FAA shall ensure that in addition to compensating for the temporary disturbance and permanent loss of high brackish marsh and annual grassland habitat for the salt marsh harvest mouse and California clapper rail, that Marin County also compensates at a 3:1 ratio for the permanent loss of 1.54 acres of open water ditch/channel foraging habitat for the California Clapper rail.
- d. FAA shall ensure that the applicant develops and implements a USFWS-approved invasive plant species control plan. The invasive plant species control shall include measures to minimize the introduction and spread of perennial pepperweed and other invasive plant species.
- e. FAA shall ensure that the applicant implements the following BMPs:
- (1) All food and food-related trash items shall be enclosed in sealed trash containers and removed completely from the site at the end of the day.
  - (2) Construction and project personnel shall not bring any pets anywhere in the proposed project work area.
  - (3) All equipment shall be maintained in order to prevent leaks of automotive fluids such as gasoline, oils, or solvents. A Spill Response Plan shall be prepared. Hazardous materials such as fuels, oils, solvents, etc. shall be stored in sealable containers and designated locations at least 100 feet from wetlands and aquatic habitats.
  - (4) Servicing of vehicles and construction equipment including fueling, cleaning, and maintenance shall occur at least 100 feet from any aquatic habitat, unless the activities are separated by a topographic or drainage barrier. Staging areas may occur closer to the proposed project activities as required.

- (5) If nighttime work is required, FAA shall ensure that the lighting is directed away from the marsh and shielded to prevent spillover into the marsh.

The USFWS Biological Opinion provides for increasing or decreasing habitat compensation mitigation ratios for compensation of losses of SMHM and CCR habitat as follows:

"These compensation ratios may be adjusted by the USFWS based on the quality of the habitat being removed and the quality of the habitat to be created or enhanced to replace it. If after review of a habitat compensation plan, the USFWS determines that adequate high quality habitat acceptable to the USFWS can be provided at a lower compensation ratio, the FAA proposes to utilize a lower habitat compensation ratio if such a ratio is acceptable to the USFWS. The USFWS would likely increase these compensation ratios if the proposed off-site restoration area was outside of the San Pablo Bay Recovery Unit identified in the *Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California*, which extends from Gallanis Creek in Marin County (at the southwestern end of the recovery unit) around San Pablo Bay north and east to Mare Island in Solano County."

The FAA and Marin County anticipate that the ESA, Section 7, consultation would be reinitiated and the Biological Opinion updated or supplemented with revised *Terms and Conditions* for the *Reasonable and Prudent Measures of the Incidental Take Statement* if the USFWS determined revised habitat compensation ratios were appropriate.

The following are noted as potential mitigation alternatives for wetland loss, and for both SMHM and CCR habitat loss:

### **SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE**

Several San Francisco Bay National Wildlife Refuge (Refuge) projects needing funding are potential mitigation alternatives. Initial contact has been made with Mendel Stewart, Manager of the San Francisco Bay National Refuge and Don Brubaker, North Bay Refuges Manager within the Several San Francisco Bay National Wildlife Refuge. Several projects associated with the restoration of tidal marsh habitat areas were discussed. These projects, in general, are relatively large with multi-million dollar costs. As mitigation for impacts to wetlands, the County may contribute towards a larger effort that would be built in the appropriate timeframe. Impacts to wetlands would be compensated by the contribution of funding or purchase of credits for in-kind habitat creation or restoration. Potential sites for the tidal marsh creation/restoration include:

- The Cullinan Ranch Restoration Project which is a 1,549 acre tidal marsh restoration project near Vallejo. The U.S. Fish and Wildlife Service and the California Department of Fish and Game issued a Final Environmental Impact Statement/Environmental Impact Report in May 2009, and the U.S. Fish and

Wildlife Service issued a Record of Decision for this project on April 9, 2010. Construction of the site appears imminent and may begin in time to service the project;

- The Sonoma Creek Enhancement Project, which is a 500-acre project associated with the San Pablo Bay National Wildlife Refuge (NWR). The project would be implemented at the mouth of the Sonoma Creek where it enters the bay on the western bank. The project is being funded jointly by the NWR, Audubon Society, and the localized mosquito abatement district. Engineering and design of the project is complete, but permitting has yet to be completed. Contribution to this project may be a viable alternative; and
- Other alternatives are possible within the San Francisco Refuge complex, but timing and quantification of creation/restoration to complete mitigation are factors that would require continued coordination.

### **OFFSITE RESTORATION BY PRIVATE ENTITY**

A private individual was contacted regarding a parcel of land they indicated they owned that is approximately 7,500 feet from the Airport. The individual indicated interest in developing salt marsh harvest mouse habitat to sell for mitigation credits or develop a project-specific agreement with Marin County for mitigation. There is the potential to fund this project with the purchase of mitigation credits which would be associated with the site. By working with a private individual, it may be easier to negotiate terms and conditions to suit the project mitigation requirements.

### **OFFSITE RESTORATION BY CONSERVATION GROUP OR PUBLIC ENTITY**

The San Francisco Bay Joint Venture (SFBJV) is one of 18 Joint Ventures established under The Migratory Bird Treaty Act and funded under the annual Interior Appropriations Act. It brings together public and private agencies, conservation groups, development interests, and others to restore wetlands and wildlife habitat in San Francisco Bay watersheds and along the Pacific coasts of San Mateo, Marin, and Sonoma counties.

The Sonoma Land Trust's 2,327-acre Sears Point Wetlands and Watershed Restoration Project is another example of a potential off-site restoration site in which participation by Marin County might be considered allowable mitigation by the U.S. Army Corps of Engineers. The project is located in southern Sonoma County on the edge of San Pablo Bay between the Petaluma River and Tolay Creek. The project includes diked agricultural baylands, alluvial fans, hillslopes reaching elevations of 400 feet above sea level, and numerous small drainages.

The impacts to jurisdictional ditch/canal features identified for the Proposed Project will be 'replaced in kind' on site in an amount that would be at a minimum of 2:1. Therefore, permits for these identified impacts may not be necessary as the mitigation is built into the Proposed Project, thereby reducing wetland impacts to a less-than-significant level.

~~To minimize effects to the SMHM and the CCR during construction, areas of disturbance related to the project shall be completely fenced off with exclusion fencing as necessary. Prior to installation, the USFWS shall review and approve location and design specifications for proposed SMHM exclusion fencing. A USFWS approved biologist shall be on site to monitor installation of the SMHM exclusion fencing to insure no SMHM are harmed during fence construction. A USFWS approved biologist shall also be on site to inspect and approve fence installation methods and the finished installation.~~

~~The Marin County Department of Public Works shall be responsible for ensuring that all design and construction documents and specifications contain all elements of the mitigation measures described in Section 4.5, and that they are adhered to during construction. The Marin County Department of Public Works shall also be responsible for the Mitigation Monitoring and Reporting Plan which will incorporate the provisions of the mitigation measures.~~

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**Table 2-2  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Land Use and Planning</b>		
<b>4.2-1:</b> The Proposed Project would not physically divide an established community (less than significant).	None required	Less than significant
<b>4.2-2:</b> The Proposed Project would not conflict with any land use plan, policy, or zoning (less than significant).	None required	Less than significant
<b>4.2-3:</b> The Proposed Project would not conflict with any applicable habitat conservation plan or natural community conservation plan (less than significant).	None required	Less than significant
<b>4.2-4:</b> The Proposed Project would bring the runway into closer proximity with the operations at the Redwood Landfill and Recycling Center (less than significant).	<p>RLI proposes to continue their existing bird control program, which is previously discussed in this document under existing conditions.</p> <p>To ensure that nighttime activities do not interfere with operations at DVO, lights used during nighttime landfill operations will not be colored, will be shielded and directed downward to reduce glare, and will be placed in an irregular pattern in order not to appear to be a runway. The applicant shall notify DVO prior to any change in the way lighting is used for nighttime operations.</p> <p>If bird activity at the landfill, including the areas outside the permitted landfill footprint proposed for composting, increases as a result of the project, as determined by the <del>Law</del> Local Enforcement Agency during regular site inspections, RLI shall adjust its existing bird control program as necessary to ensure that the facility does not pose a bird hazard to aircraft. RLI shall modify as necessary the demonstration required in 40 CFR Part 258, §258.10 (a) and 27 CCR, §20270(a) (that the landfill does not pose a bird hazard to aircraft).</p>	Less than significant
<b>4.2-5:</b> The Proposed Project would not conflict with any of Marin County's land use goals and policies (less than significant)	None required	Less than significant

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Geology, Soils, and Seismicity</b>		
<p><b>4.3-1:</b> Shallow groundwater will potentially impact construction (potentially significant unless mitigated).</p>	<p>Temporary Dewatering during excavation will reduce the potential for impacts on construction due to shallow groundwater</p>	<p>Less than significant</p>
<p><b>4.3-2:</b> Expansive soils can cause distress and failure to shallow founded structures, pavements, slabs on grade, and other surfaces (potentially significant unless mitigated).</p>	<p>Allow for expansion and settlement of soils by overfilling the site and allowing several years before establishing the final fill top elevation. From previous geotechnical studies, it is anticipated that an extra 25% - 50% of fill would be required on top of the initial surcharge amounts at the end of the primary over-burden loading period.<sup>15</sup> In addition, an engineering geologist or geotechnical engineer shall conduct site investigation and recommend one or more of the following mitigation measure to reduce the impact:</p> <ul style="list-style-type: none"> <li>• Chemically treat expansive soil within the zone (depth) of influence to reduce its plasticity and expansion potential to an acceptable level.</li> <li>• Remove expansive soil within the zone of influence, and replacement with non-expansive import soil.</li> <li>• Construct subsurface moisture barriers along the perimeter of improvements, which extend to depths below the zone of influence.</li> </ul>	<p>Less than significant</p>

<sup>15</sup> Cortright & Seibold, Preliminary Design Report Runway Extension GROSS Field Marin County, California FAA AIP Project No, 3-06-0167-08, December 20, 2002.

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Geology, Soils, and Seismicity</b>		
<p><b>4.3-3:</b> Compressible soil may settle, causing damage to paved surfaces (potentially significant unless mitigated).</p>	<p>Allow for expansion and settlement of soils by overfilling the site and allowing several years before establishing the final fill top elevation. From previous geotechnical studies, it is anticipated that an extra 25% - 50% of fill would be required on top of the initial surcharge amounts at the end of the primary over-burden loading period.<sup>16</sup> In addition, an engineering geologist or geotechnical engineer shall conduct site investigation and recommend one or more of the following mitigation measure to reduce the impact:</p> <ul style="list-style-type: none"> <li>• Install a wick drain system and place fill surcharge along and in the vicinity of the proposed runway extension, engineered for anticipated loads.</li> <li>• Compressible soils shall be deep soil mixed with cement or lime for their full depth.</li> <li>• Construct the proposed runway extension and related structures on deep foundation elements, such as driven piling or equivalent.</li> </ul>	<p>Less than significant</p>
<p><b>4.3-4:</b> Liquefaction and cyclic softening may occur (potentially significant unless mitigated).</p>	<p>An engineering report prepared by an engineering geologist or geotechnical engineer shall evaluate the use of the following in order to mitigate the detrimental effects of liquefaction on the proposed runway extension:</p> <ul style="list-style-type: none"> <li>• Utilization of deep soil mixing</li> <li>• Structural solutions described for compressible soils</li> </ul>	<p>Less than significant</p>
<p><b>4.3-5:</b> Lateral spreading and lurching may occur (potentially significant unless mitigated)</p>	<p>The hazard posed by secondary seismic ground effects to the proposed runway extension will be mitigated utilizing the deep soil mixing and/or structural solutions described for liquefiable soils, particularly given the shallow incision depth of the existing channels. It is anticipated similar methods could be utilized for mitigation of existing levees after their individual assessment.</p>	<p>Less than significant</p>
<p><b>4.3-6:</b> Levees and runway/taxiway extension may be damaged by landslides (potentially significant unless mitigated).</p>	<p>It is assumed the proposed runway extensions will require construction of fill slopes. Fill slopes shall be designed and constructed to maintain integrity under static conditions and/or during a seismic event.</p>	<p>Less than significant</p>

<sup>16</sup> Cortright & Seibold, Preliminary Design Report Runway Extension GROSS Field Marin County, California FAA AIP Project No, 3-06-0167-08, December 20, 2002.

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Hydrology and Water Quality</b>		
<p><b>4.4-1:</b> Short-term impacts to water quality may occur during construction (potentially significant).</p>	<p>Short-term impacts would be minimized through vigilant adherence to construction schedule, the project Storm Water Pollution Prevention Plan (SWPPP), and Best Management Practices (BMPs). Examples of construction BMPs identified in SWPPPs include: using temporary mulching, seeding, or other stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan, installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and using barriers, such as straw wattles or silt fencing to minimize the amount of uncontrolled runoff that could enter storm drain inlets or surface water. BMPs employed will include levee extensions around the entire project and a slow flowing vegetated internal drainage system that will facilitate pollutant uptake and settlement prior to reaching the Airport discharge point. Additionally, Airport operations utilize multiple spill prevention and clean up procedures that protect against potential pollutant impacts. Construction of The Proposed Project would require the facility to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for construction activities. As of July 1, 2010, coverage under the newly adopted General Construction Permit must be obtained electronically via the State Water Resources Control Board.</p>	<p>Less than significant</p>
<p><b>4.4-2:</b> Long-term impacts to water quality may occur due to an increase in impervious surface area causing an increase in stormwater runoff (significant unless mitigated).</p>	<p>Modifications to the Airport levee and ditch system would result in an additional 4,400 feet of drainage ditch being created. This increase in the ditch system would more than compensate for the additional runoff created by the increased impervious surface. In addition, implementation of the measures outlined in the Stormwater Pollution Prevention Plan (SWPPP), in accordance with the NPDES Construction General Permit, and Industrial General Permit, coupled with the implementation, monitoring and maintenance of site-specific BMPs, is expected to reduce the potential for increased impacts to water quality and maintain water quality objectives.</p> <p>In addition, it is recommended that adherence to or modification of existing SWPPP and future sampling and visual observations be employed to minimize or eliminate water quality impacts.</p>	<p>Less than significant</p>

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Vegetation and Wildlife</b>		
<p><b>4.5-1:</b> Fill of approximately 11.83 acres of wetlands protected by Section 404 of the CWA, of which 2.66 acres are also protected by Section 10 of the RHA (potentially significant unless mitigated).</p>	<p>The Marin County Airport does not have enough property to mitigate for the fill of 11.83 acres of wetlands on-site. In addition, the FAA would not support a mitigation program that created new wetlands on airport property north of the proposed runway extension. Accordingly, mitigation for filled wetlands, with the exception of the ditches/channel that will be mitigated on site, will have to be located off-site. An individual permit under Section 404 of the CWA would be required to construct the project. Permitting under Section 10 of the RHA would also be required. The mitigation will be finalized during the USACOE Section 404 and RHA Section 10 permitting processes. The environmental analysis found that there are wetland mitigation banks in the area with available credits to compensate for the loss of wetlands due to the Proposed Project, including several San Francisco Bay National Wildlife Refuge projects associated with restoration of tidal marsh habitat areas; off-site restoration by a private entity within Marin County; and off-site restoration by a conservation group or public entity in San Francisco Bay watersheds and along Pacific coasts of San Mateo, Marin, and Sonoma Counties, or the Sonoma Land Trust's Sears Point Wetlands and Watershed Restoration Project located in southern Sonoma County on the edge of San Pablo Bay between the Petaluma River and Tolay Creek. The impacts to jurisdictional ditch/canal features identified for the Proposed Project will be 'replaced in kind' on site in an amount that would be at a minimum of 2:1. Therefore, permits for these identified impacts may not be necessary as the mitigation is built into the Proposed Project. Thereby reducing wetland impacts to a less-than-significant level.</p>	<p>Less than significant</p>

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Vegetation and Wildlife</b>		
<p><b>4.5-2:</b> The Proposed Project would permanently impact habitat for two Federal Threatened and Endangered wildlife Species (Salt marsh harvest mouse and California clapper rail) and would temporarily impact this habitat during construction activities (significant unless mitigated).</p>	<p>Based on the USFWS list, field observations, and literature reviews, no Federally threatened or endangered plant, animal, or bird species are present within the Detailed Study Area (DSA). However, consultation with the USFWS has identified portions of the project site as potential habitat for the salt marsh harvest mouse (SMHM) and California clapper rail (CCR), including high brackish marsh, other wetlands, and annual grasslands, and open water ditch/channels. The <del>Salt marsh harvest mouse</del> SMHM is strongly associated with pickleweed-dominated saltwater marshes of San Francisco, Suisun, and San Pablo Bay. <del>California clapper rail</del> The CCR is found in salt and brackish water marshes on the California coast. Both of these types of wetland habitats are present in the DSA. The mitigation areas for wetland loss are the same as differ from the mitigation areas for <del>Salt Marsh Harvest Mouse</del> (SMHM) and <del>California clapper rail</del> (CCR) habitat loss because it is assumed that the temporary impact areas would be re-vegetated in a way that would continue to provide upland habitat, whereas wetland losses are considered to be permanent. In addition, habitat mitigation for the SMHM will occur in tandem with habitat mitigation for the <del>California clapper rail</del> (CCR), as they are both associated with high brackish marsh wetland habitat. The environmental analysis found that there are wetland mitigation banks in the area with available credits to compensate for the loss of wetlands habitat due to the Proposed Project, including several San Francisco Bay National Wildlife Refuge projects associated with restoration of tidal marsh habitat areas; off-site restoration by a private entity within Marin County; and off-site restoration by a conservation group or public entity in San Francisco Bay watersheds and along Pacific coasts of San Mateo, Marin, and Sonoma Counties, or the Sonoma Land Trust's Sears Point Wetlands and Watershed Restoration Project located in southern Sonoma County on the edge of San Pablo Bay between the Petaluma River and Tolay Creek. To minimize effects to the SMHM and the CCR during construction, areas of disturbance related to the project shall be completely fenced off with exclusion fencing as necessary. Prior to installation, the USFWS shall review and approve location and design specifications for proposed SMHM exclusion fencing. A USFWS approved biologist shall be on-site to monitor installation of the SMHM exclusion fencing to insure no SMHM are harmed during fence construction. A USFWS-approved biologist shall also be on-site to inspect and approve fence installation methods and the finished installation. <u>During land clearing, only non-motorized hand tools shall be used to remove salt marsh vegetation during the SMHM breeding season (Mar. 1 through Nov. 30) under the supervision of a USFWS-approved monitor. If a SMHM is observed, all work shall cease within 100 ft. of the nest until the monitor has determined that the young mice have left the nest. Vegetation removal occurring outside of the SMHM breeding season (Dec. 1 – Feb. 28) may utilize mechanized or motorized equipment. The monitor shall supervise the vegetation removal, walk ahead of the equipment, and flush any mice out of the way.</u></p>	<p>Less than significant</p>

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Vegetation and Wildlife</b>		
<p><b>4.5-3:</b> Impacts to California Special Status Species - burrowing owl (potentially significant unless mitigated).</p>	<p>Marin County shall abide by CDFG's recommendation that 6.5 acres of foraging habitat for burrowing owl to be preserved for each active burrow that would be impacted by project activities. In order to determine the presence and location(s) of active burrows prior to construction, a pre-construction clearance survey shall be conducted no more than 30 days prior to the onset of construction. Burrowing owls can be present during all times of the year in California, so this survey shall be completed even if the initiation of construction is outside of the typical February 1 to August 31 migratory bird breeding season. If active owl burrows are located during the pre-construction survey, a 250-foot buffer zone would be established around each burrow with an active nest until the young have fledged and are able to exit the burrow. In the case of occupied burrows without active nesting, active burrows after the young have fledged, or if development commences after the breeding season (typically February 1 to August 31), passive relocation of the birds should be performed. Passive relocation involves installing a one-way door at the burrow entrance, which encourages the owls to move from the occupied burrow. CDFG should be consulted for current guidelines and methods for passive relocation of any owls found on the site. Implementation of these mitigation measures will reduce the impact to less-than-significant.</p>	<p>Less than significant</p>
<p><b>4.5-4:</b> Impacts to Special Status Species protected under the Migratory Bird Treaty Act (less than significant).</p>	<p>In order to minimize potential impacts to nesting birds' vegetation, removal shall be scheduled, to the greatest extent possible, during non-nesting seasons (September 1 - January 31). If vegetation removal has to occur during the typical nesting season (February 1-August 31), special precautions for identifying species and nests should be taken. A wildlife specialist shall conduct a preconstruction survey for nesting birds if vegetation removal is scheduled close to the nesting season. If nests are observed, the wildlife specialists shall provide recommendation as to how the nests can be relocated without harm to the birds. If nests cannot be relocated, construction activity shall be prohibited in the vicinity of the nest until the fledglings are gone. Implementation of these mitigation measures will reduce the impact to less-than-significant.</p>	<p>Less than significant</p>

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Transportation and Circulation</b>		
<p><b>4.6-1:</b> Temporary increase in traffic due to construction activity (potentially significant unless mitigated).</p>	<p>Marin County shall require contractors to transport material and equipment to and from the site outside of the peak congestion periods at the Highway 101/Atherton Avenue intersection to minimize any potential traffic conflicts. Congestion monitoring studies indicate that recurrent delays occur on southbound and northbound US 101 during the P.M. peak traffic period between 3:00 P.M. and 6:30 P.M., with the primary northbound P.M. peak period bottleneck developing north of the Atherton Avenue Interchange.<sup>17</sup> Implementation of these mitigation measures will reduce the construction traffic impacts to less-than-significant.</p>	<p>Less than significant</p>
<b>Noise</b>		
<p><b>4.7-1:</b> The Proposed Project would not expose people to or generate noise levels in excess of standards established in the Marin Countywide Plan or noise ordinance, or applicable standards of other agencies (less than significant).</p>	<p>None required. Marin County currently has noise abatement procedures in place and routinely provides pilots instructions on complying with the procedures. The noise abatement procedures would not change and Marin County will continue to communicate the procedures with pilots as they do today.</p>	<p>Less than significant</p>
<p><b>4.7-2:</b> Construction activities associated with the proposed project would not expose people to, or generate groundborne vibration or groundborne noise levels that exceed adopted noise compatibility guidelines (less than significant).</p>	<p>None required.</p>	<p>Less than significant</p>
<p><b>4.7-3:</b> The Proposed Project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (less than significant).</p>	<p>None required</p>	<p>Less than significant</p>
<p><b>4.7-4:</b> The Proposed Project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (less than significant).</p>	<p>None required</p>	<p>Less than significant</p>
<p><b>4.7-5:</b> The Proposed Project would not expose people residing or working in the project area to excessive noise levels (less than significant).</p>	<p>None required</p>	<p>Less than significant</p>
<b>Climate and Air Quality</b>		
<p><b>4.8-1:</b> Long-term increases in Air Pollution Emissions due to Airport activity (less than significant).</p>	<p>None required</p>	<p>Less than significant</p>

<sup>17</sup> Marin-Sonoma Narrow (MSN) HOV Widening Project Final Environmental Impact Report/Final Environmental Impact Statement, July 2009.

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Climate and Air Quality</b>		
<p><b>4.8-2:</b> Short-term increases in Air Pollution Emissions due to construction activity (potentially significant unless mitigated).</p>	<p>Marin County shall ensure that all possible measures would be taken to reduce emissions during construction by requiring the construction contractor to submit a proposed method of erosion and dust control, and disposal of waste materials pursuant to guidelines included in FAA, <i>Standards for Specifying Construction of Airports</i>.<sup>18</sup> The BAAQMD also requires the use of the following BMPs:</p> <ul style="list-style-type: none"> <li>• The use of Alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet;</li> <li>• The use of local building materials (within 100 miles) of at least 10 percent; and</li> <li>• Recycle at least 50 percent of construction waste or demolition materials.</li> </ul> <p>Marin County shall implement all feasible and practicable control measures for construction emissions of PM<sub>10</sub>.</p> <ul style="list-style-type: none"> <li>• The use of alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet.</li> <li>• Water all active construction areas at least twice daily.</li> <li>• Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.</li> <li>• Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.</li> <li>• Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (graded areas inactive for 10 days or more).</li> <li>• Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).</li> <li>• Limit traffic speeds on unpaved roads to 15 mph.</li> <li>• Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>• Replant vegetation in disturbed areas as quickly as possible.</li> <li>• All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.</li> <li>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for workers at all access points.</li> <li>• All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation</li> <li>• Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours.</li> </ul>	<p>Less than significant</p>

<sup>18</sup> FAA, *Standards for Specifying Construction of Airports*, Item P-156, *Temporary Air and Water Pollution, Soil Erosion, and Siltation Control*, AC 150/5370-10A, February 17, 1989.

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Historic, Architectural, Archaeological, and Cultural Resources</b>		
<p><b>4.9-1:</b> The Proposed Project would not directly affect any known cultural resources. However, there is always the possibility that currently unknown subsurface cultural resources may be present and could be impacted by project construction. (Potentially significant unless mitigated)</p>	<p><u>Non-Human Remains/Artifacts:</u> In the event that archaeological artifacts are encountered during project construction, work in the area shall halt until a qualified archaeologist evaluates the nature and significance of the find. If the remains are deemed significant, the project, if necessary, shall be modified to allow the artifacts or features to remain in place, or the archaeological consultant shall undertake the recovery of the deposit or feature. The archaeologist shall prepare a summary outlining the methods followed and summarizing the results of the mitigation program. The report shall outline the methods followed, list and describe the resources recovered, map their exact locations and depths, and include other pertinent information. Marin County shall submit the report to the Northwest Information Center and the California State Historic Preservation Officer. If the suspected remains prove to be non-significant or non-cultural in origin, work will recommence immediately. Implementation of mitigation measure will reduce the potential impact to less-than-significant.</p> <p><u>Human Remains:</u> In the event that human skeletal remains are discovered at the site during construction, work shall be discontinued in the area of the discovery and the County Coroner shall be contacted. If skeletal remains are found to be prehistoric Native American remains, the Coroner shall call the Native American Heritage Commission within 24 hours. The Commission will identify the person(s) it believes to be the "Most Likely Descendant" of the deceased Native American. The Most Likely Descendant would be responsible for recommending the disposition and treatment of the remains. The Most Likely Descendant may make recommendations to the landowner or the person responsible for the excavation/grading work for means of treating or disposing of the human remains and any associated grave goods as provided in California Public Resources Code Section 5097.98. Implementation of mitigation measure will reduce the potential impact to less-than-significant.</p>	<p>Less than significant</p>
<p><b>4.9-2:</b> The Proposed Project would have the potential to increase noise over two historic sites (less than significant).</p>	<p>None required</p>	<p>Less than significant</p>

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

<b>Environmental Impact and Significance Level</b>	<b>Mitigation Measures</b>	<b>Level of Significance After Mitigation</b>
<b>Aesthetic and Visual Resources</b>		
<b>4.10-1:</b> Visual impacts to residential areas to the south, the park areas to the northwest, and from motorists on U.S. Highway 101 (less than significant).	None required	Less than significant
<b>4.10-2:</b> Impacts due to light and glare (less than significant).	None required	Less than significant
<b>State and National Scenic Rivers</b>		
<b>4.11-1:</b> The Proposed Project would not impact any wild and scenic rivers. As there are no State or National Scenic Rivers within Marin County, there would be no impacts to wild and scenic rivers as a result of the Proposed Project (less than significant).	None required	Less than significant
<b>Public Parks and Recreation Facilities</b>		
<b>4.12-1:</b> The Proposed Project would not increase the use of public parks or recreational facilities (less than significant).	None required	Less than significant
<b>Public Services and Utilities</b>		
<b>4.12-2:</b> The Proposed Project would not create new or expand existing recreational facilities (less than significant).	None required	Less than significant
<b>4.13-1:</b> The proposed project would require water during construction including for use as dust control (less than significant).	None required	Less than significant
<b>4.13-2:</b> Increased aircraft operations may increase the need for police and/or fire protection services (less than significant).	<u>It is recognized that there is an 8-inch waterline located to the south of Runway 13/31 that would require relocation as a result of the Proposed Project. However, this can be accomplished as part of the project design with no disruption to water service during or after construction.</u> None required	Less than significant
<b>4.13-3:</b> Increased aircraft operations may place increased demand on water and wastewater facilities (less than significant).	None required	Less than significant
<b>4.13-4:</b> The Proposed Project will not impact school enrollment or require new schools (less than significant).	None required	Less than significant
<b>4.13-5:</b> The Proposed Project will increase the amount of solid waste generated at DVO due to construction (less than significant).	None required. However recycling would reduce the overall amount of solid waste.	Less than significant

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

<b>Environmental Impact and Significance Level</b>	<b>Mitigation Measures</b>	<b>Level of Significance After Mitigation</b>
<b>Energy and Natural Resources</b>		
<b>4.14-1:</b> Construction activity would consume fuel to operate construction equipment (less than significant).	None required	Less than significant
<b>4.14-2:</b> Implementation of the Proposed Project would increase the consumption of aircraft fuel, including Jet-A and AvGas, due to the increase taxi time associated with the extended runway and taxiway (less than significant).	None required	Less than significant
<b>4.14-3:</b> Implementation of the Proposed Project would increase the demand for electricity to light the extended runway and taxiway (less than significant).	None required	Less than significant
<b>Socioeconomic</b>		
<b>4.15-1:</b> There would be no direct or indirect substantial growth induced as a result of the Proposed Project (less than significant).	None required	Less than significant
<b>4.15-2:</b> There would be no displaced housing necessitating construction of replacement housing elsewhere as a result of the Proposed Project (less than significant).	None required	Less than significant
<b>4.15-3:</b> There would be no people displaced necessitating construction of replacement housing elsewhere as a result of the Proposed Project (less than significant).	None required	Less than significant
<b>4.15-4:</b> The Proposed Project would not result in a fiscal surplus or deficit (less than significant).	None required	Less than significant
<b>4.15-5:</b> The Proposed Project would not result in blighting or abandonment of existing development (less than significant).	None required	Less than significant

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Hazardous Materials</b>		
<b>4.16-1:</b> The proximity of Redwood Landfill and Recycling Center to the proposed runway extension and the wildlife attracted by working face of the landfill could conflict with aircraft activity (less than significant).	None required beyond that which was included in the RLI EIR.	Less than significant
<b>4.16-2:</b> The Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (less than significant).	None required	Less than significant
<b>4.16-3:</b> The Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (less than significant).	Pollution prevention measures will be required to control and properly manage the short-term use or generation of hazardous and non-hazardous materials and waste common to construction materials. Appropriate materials management measures would be followed to prevent pollution and to minimize the use and manage disposal of hazardous and non-hazardous substances, examples of which are listed in Section 4.16, Table 4.16-2 (see also Appendix L)	Less than significant
<b>4.16-4:</b> The Proposed Project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and therefore, would not result in a significant hazard to the public or the environment (less than significant)	None required	Less than significant
<b>4.16-5:</b> The Proposed Project is located within an airport land use plan and is located at a public use airport. However, the project would not result in a safety hazard for people residing or working in the project area (less than significant).	None required	Less than significant
<b>4.16-6:</b> The Proposed Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan (less than significant).	None required	Less than significant
<b>4.16-7:</b> The Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands (less than significant).	The Marin County Airport shall coordinate with the Novato Fire Protection District in reviewing and revising, if necessary, the emergency vehicle access plan for the airport.	Less than significant

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

<b>Environmental Impact and Significance Level</b>	<b>Mitigation Measures</b>	<b>Level of Significance After Mitigation</b>
<b>Mineral Resources</b>		
<b>4.17-1:</b> The Proposed Project would not directly impact any mineral resource sites (less than significant).	None required	Less than significant
<b>4.17-2:</b> The Proposed Project would result in the use of aggregate baserock, asphalt, concrete, wood, and metal material during construction (less than significant).	None required	Less than significant
<b>Agricultural Resources</b>		
<b>4.18-1:</b> The Proposed Project would not convert agricultural land to nonagricultural uses or impair the productivity of prime agricultural land (less than significant).	None required	Less than significant

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Wetlands</b>		
<p><b>4.19-1:</b> Fill of approximately 11.83 acres of wetlands protected by Section 404 of the CWA, of which 2.66 acres are also protected by Section 10 of the RHA (potentially significant unless mitigated).</p>	<p>The Marin County Airport does not have enough property to mitigate for the fill of 11.83 acres of wetlands on-site. In addition, the FAA would not support a mitigation program that created new wetlands on airport property north of the proposed runway extension. Accordingly, mitigation for filled wetlands, with the exception of the ditches/channel that will be mitigated on site, will have to be located off-site. An individual permit under Section 404 of the CWA would be required to construct the project. Permitting under Section 10 of the RHA would also be required. The mitigation will be finalized during the USACOE Section 404 and RHA Section 10 permitting processes. <u>To date, the USACOE San Francisco District Office has not set a policy for acceptable wetland or stream mitigation for this project. However, the USACOE regulations at 33 CFR 332.3 (b) identify the order of preference for different types of compensatory mitigation for aquatic impacts from most preferable to least preferable as:</u></p> <ul style="list-style-type: none"> <li>• <u>Mitigation bank credits</u></li> <li>• <u>In-lieu fee program credits</u></li> <li>• <u>Permittee-responsible mitigation under a watershed approach</u></li> <li>• <u>Permittee-responsible mitigation through on-site and in-kind mitigation</u></li> <li>• <u>Permittee-responsible mitigation through off-site and/or out-of-kind mitigation.</u></li> </ul> <p><del>The environmental analysis found that there are wetland mitigation banks in the area with available credits to compensate for the loss of wetlands due to the Proposed Project, including several San Francisco Bay National Wildlife Refuge projects associated with restoration of tidal marsh habitat areas; off site restoration by a private entity within Marin County; and off-site restoration by a conservation group or public entity in San Francisco Bay watersheds and along Pacific coasts of San Mateo, Marin, and Sonoma Counties, or the Sonoma Land Trust's Sears Point Wetlands and Watershed Restoration Project located in southern Sonoma County on the edge of San Pablo Bay between the Petaluma River and Tolay Creek, Marin County, as the Airport Sponsor, must develop a mitigation plan for impacts to wetlands that will be acceptable to the USACOE. Potential options are discussed in Section 2.8.2.1. The impacts to jurisdictional ditch/canal features identified for the Proposed Project will be 'replaced in kind' on site in an amount that would be at a minimum of 2:1 per Federal and local guidelines. Therefore, permits for these identified impacts may not be necessary as the mitigation is built into the Proposed Project. Thereby reducing wetland impacts to a less-than-significant level.</del></p>	<p>Less than significant</p>

**Table 2-2, Continued  
SUMMARY OF IMPACTS AND MITIGATION  
Gross Field Airport**

Environmental Impact and Significance Level	Mitigation Measures	Level of Significance After Mitigation
<b>Floodplains</b>		
<b>4.20-1:</b> Development within the 100-year floodplain (less than significant).	None required	Less than significant
<b>4.20-2:</b> <u>The Proposed Project will not result in an impact on sea level rise, but is located within an area that could be subject to sea level rise. (less than significant).</u>	<u>None required</u>	<u>Less than significant</u>
<b>Coastal Resources</b>		
<b>4.21-1:</b> The Proposed Project would not impact coastal resources (less than significant).	None required	Less than significant

Source: Landrum & Brown, 2011.