YOLO COUNTY
PLANNING, PUBLIC WORKS AND ENVIRONMENTAL SERVICES DEPARTMENT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
ZONE FILE # 2015-0013

2015 AMENDMENT TO
THE COUNTY AIRPORT LAYOUT PLAN

OCTOBER, 2015

Initial Environmental Study

1. **Project Title:** Zone File #2015-0013 (County Airport Layout Plan)

2. **Lead Agency Name and Address:**
   Yolo County
   625 Court Street
   Woodland, CA 95695

3. **Contact Person, Phone Number, E-Mail:**
   Eric Parfrey, Principal Planner
   (530) 666-8043
   eric.parfrey@yolocounty.org

4. **Project Location:** The County Airport is approximately 5 miles west of Davis, located west of County Road 96, south of County Road 29, east of County Road 95, and north of County Road 31 (APNs: 037-010-002 and -003; 040-220-022 and -023). See Figure 1 (Vicinity Map).

5. **Project Sponsor's Name and Address:**
   Yolo County (same as lead agency)

6. **Land Owner's Name and Address:**
   Yolo County (same as lead agency)

7. **General Plan Designation(s):** Public and Quasi-Public (PQ)

8. **Zoning:** Public and Quasi-Public (PQP)

9. **Description of the Project:** See attached "Project Description" on the following pages

10. **Surrounding Land Uses and Setting:**
    to the east: farmland and rural residences, including the Rolling Acres subdivision;
    to the west: farmland and rural residences;
    to the north: farmland;
    to the south: farmland and rural residences.

11. **Other public agencies whose approval is required:** Federal Aviation Administration (FAA)

    Other Project Assumptions: The Initial Study assumes compliance with all applicable State, Federal, and local codes and regulations including, but not limited to, County of Yolo Improvement Standards, FAA standards, the California Building Code, the State Health and Safety Code, and the State Public Resources Code

Project Description

The “project” that is analyzed in this Initial Study/Negative Declaration is an amendment to the existing Yolo County Airport Layout Plan (ALP). This document details the changes to the ALP since the previous ALP was approved by the Federal Aviation Administration (FAA) in 2011. An approved plan is necessary for an airport to receive grant funding for eligible capital improvements under the terms of the FAA’s Airport Improvement Program. An ALP creates a blueprint for airport development by depicting proposed facility improvements. Typically updated every 5 to 10 years, the ALP incorporates recent construction, recent obstructions removed, reflects new documentation requirements and illustrates future projects anticipated to occur over the next 20 years. The principal purpose for this update to the ALP set is to add recently-designed stormwater detention basins. This will make it possible for Yolo County (County) to receive FAA funding for the construction of these facilities. Other purposes of the update are to reflect new FAA airfield design standards and refine the layout for future hangar development. The components of the ALP amendment are described below following a brief discussion of the airport facility.

Background

Yolo County Airport, owned and operated by the County of Yolo since 1946, is located 5 miles west of Davis and about 20 miles west of Sacramento (Figure 1). The Airport consists of approximately 498 acres, and is located west of County Road 96, south of County Road 29, east of County Road 95, and north of County Road 31.

The airport was constructed circa 1942 by the U.S. Army Corps of Engineers. The Airport was ceded to Yolo County by the United States government following the end of World War II. The airport is a publicly-owned general aviation airport serving the communities west of Sacramento.

The existing north-south runway is approximately 6,000 feet long by 100 feet wide, and has a 35-foot-wide parallel taxiway, as well as several right angle taxiways along the parallel taxiway that service various aircraft hangars and aprons on the airport property (Figure 2). There is an additional hangar south of the airport's southern property line that has a "through the fence" access to the runway via a gravel taxiway. The northeastern corner of the airport property is currently leased to the Yolo Sportsmen's Association as a recreation area for its members.

Components of the Amendment to the Airport Layout Plan

The “project” entails updating the existing Yolo County Airport Layout Plan in accordance with the new FAA ALP Guidelines that were issued in October, 2013.

The airport is expected to retain its role as a general aviation facility throughout the 20-year planning horizon. It is expected that the airport will experience continued growth in general aviation activity. The changes proposed in this ALP update would allow the airport to continue to adequately serve the general aviation users while continuing to meet FAA safety and design standards.

Figure 1

Vicinity Map of County Airport

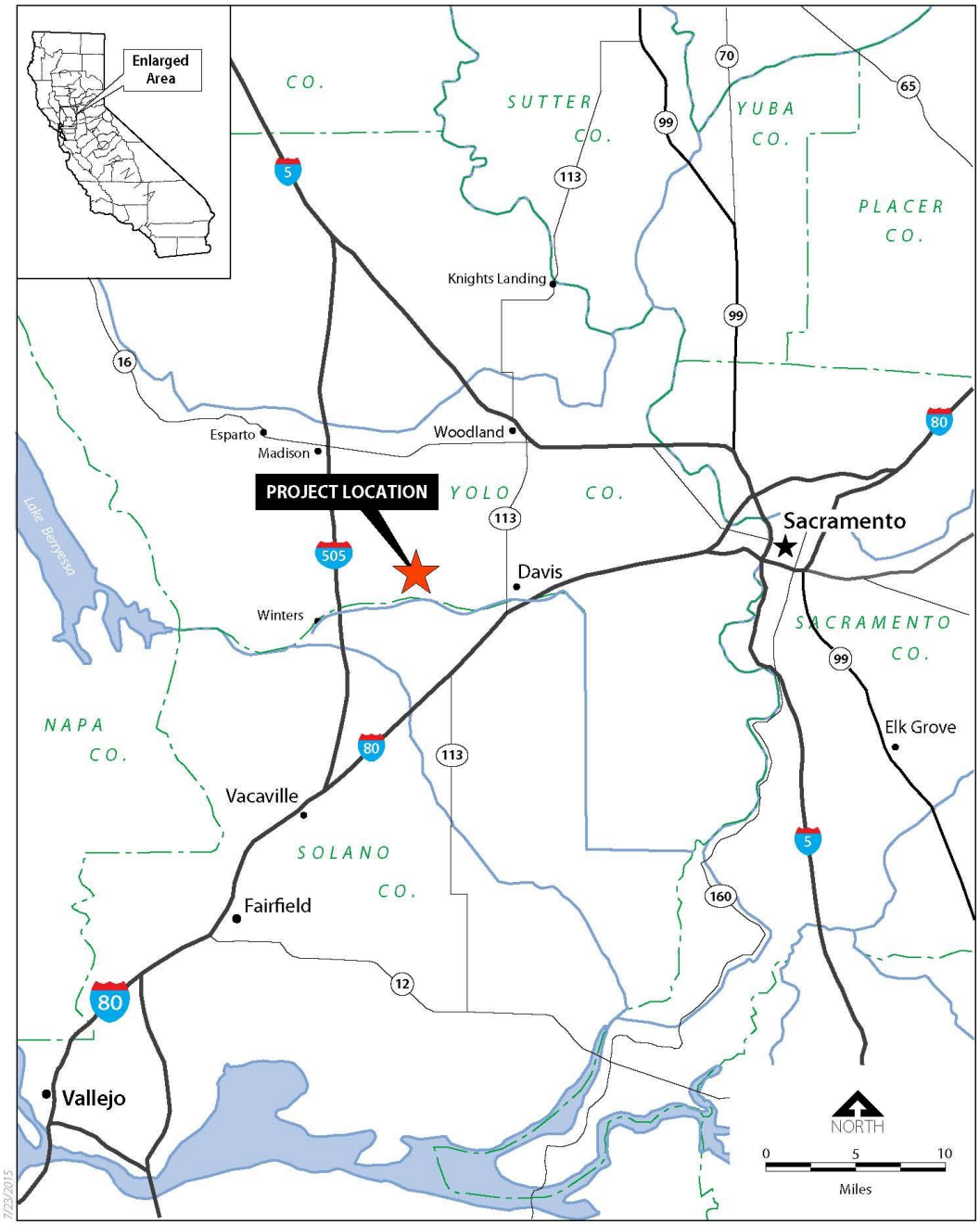


Figure 1
Yolo County Airport Regional Location

The ALP consists of a set of maps (Figure 4) and an accompanying narrative (Appendix A) that describes existing airport facilities, airport designations, and anticipated future facilities. The ALP documents the orderly development of the new facilities envisioned in the *Airport Master Plan*, including taxiways and aprons, graded safety areas, roadways, fencing, hangars and other buildings, drainage facilities, and other relevant features. The ALP also identifies obstructions in the vicinity of the airport.

The amendment is a minor ALP update. The amended ALP delineates all facilities for which the County may seek future funding from FAA to design or construct. All existing and future facilities that are shown on this update have appeared on previous ALP's, and are discussed and analyzed in either the current *Airport Master Plan* and its accompanying Environmental Impact Report (May, 1998), and/or the *Master Plan and ALP Update* and Mitigated Negative Declaration (April, 2001).

The Airport Layout Plan was last updated in 2011 (Figure 6). The 2011 Layout Plan illustrated proposed development on the airport site that includes new runway improvements, new hangers, and other improvements.

The existing Airport Reference Code (ARC) at the airport is B-II. The ARC is based on the largest aircraft that operates at least 500 times per year at the airport. For the airport, the aircraft currently meeting that requirement is the Beechcraft Super King Air. The airport's existing layout satisfies safety standards for a B-II airport.

Ultimately the airport's ARC may change to C-II as business jet traffic continues to increase. Previous Airport Master Plan and ALP efforts have contained this long-term shift to C-II and reflected the safety and design standard changes associated with the shift from B-II to C-II. Those long term changes have been brought forward with this ALP update.

The following specific changes to the 2011 Layout Plan are included in this amendment and are shown in two pages of the proposed 2015 Layout Plan (Figures 4 and 5):

- Add the locations and capacity of three proposed stormwater detention basins based on an updated drainage study. Four basins were originally shown on the 2009 ALP, but were removed in 2012 at the request of FAA. Now, FAA again requires the proposed detention basins to be shown on the ALP;
- Update future building area plans for the north and central hangar areas, including three new rows of hangars north and east of the existing hangars, for a total of 52 new hangar units compared to the 2009 ALP. Market demand will drive incremental building expansion, as has been true in the past. Note that the hangars can be built on fewer acres than the Master Plan's anticipated 181 developed acres;
- Add one new hangar that has been built since the last update;
- The central taxiway is no longer deemed necessary, and is deleted;
- Taxiway B is offset to comply with new FAA requirements;
- Add the future realignment of Aviation Avenue in case the Runway Safety Area is ever enlarged;
- Document the removal of trees that have occurred since the last ALP update; and
- Add other new drawings and information required by FAA for all revised ALP's.

Comparison with Master Plan

This updated Airport Layout Plan is broadly similar to the 1998 Master Plan but differs in specific details (e.g., future hangar locations). Both plans envision most aviation uses being concentrated in the area east of the parallel taxiway and west of Aviation Avenue. The Master Plan differs from the proposed Airport Layout Plan in that it also anticipated development of a small number of hangars west of the runway. Both plans anticipate some non-aviation commercial/industrial uses east of Aviation Avenue. Neither plan was specific on the extent of non-aviation uses.

It should be noted that less than half the development that was projected to occur by 2015 in the 1998 Airport Master Plan has actually been constructed (Table 1). The Master Plan anticipated that a total of 181 acres would be developed at the Airport by 2015, when in fact only an additional 6 acres have been developed since 1998, for a current total of only 49 developed acres. The Master Plan states that it identifies future development based on "logical and supportable recommendations for facility improvements and expansion based on aviation demand projections, and should only be implemented as justified by actual demand and needs as they occur over time."

Table 1

Existing and Previously Envisioned Development at the County Airport

Category	Existing in 1998	Envisioned by 2015	Existing Today
Based aircraft	70	145	82
Hangars	40	100+	76
Developed acreage	43	181	49
Annual operations	60,000	101,000	30-40,000

Existing and Project Aircraft Operations

Existing Operations

Yolo County recently requested that Davis Flight Support (DFS, the full-service fixed base operator on the Airport) to prepare an estimate of current operations Separate estimates were made for the distinct groups of aircraft that use the airport. These include:

- Aircraft associated with skydiving
- Flight training, both by major flight schools and currency training by individuals
- Operations by based and transient (i.e., visiting) aircraft not associated with flight training
- Agricultural aircraft
- Military and law enforcement
- Hot air balloons and light sport aircraft

The sum of these various categories of aircraft users was estimated to be 37,564 operations in 2014 (see details in Appendix A).

Another estimate was prepared using data gathered from Sacramento County Airport System's on-line flight tracking system (WebTrack). A 40-day sample was taken during the months of July and August in 2013. The sample showed an average of 88.9 operations per day. Assuming that this rate was consistent throughout the year, the total for 2013 would have been 32,450 operations.

There are currently 80 based aircraft at the airport. If the DFS estimate of 37,564 operations is divided by 80, it yields an implicit ratio of 470 annual operations per based aircraft. This would place the airport at the high end of the regional category of airports. Given the significant regular use by the skydiving and flight training aircraft, this is a plausible ratio. It may be a bit on the high side, but for the purposes of assessing environmental impacts, a slightly high number is to be preferred to one that is likely to be low.

Projected Future Operations

A future forecast of potential aircraft operations has been prepared based upon an assumed linear relationship between the addition of hangars at the airport and growth in operations. That is, over the long term, the growth in operations will mirror the growth in hangars. The current Airport Layout Plan anticipates the addition of 101 hangars. (However, the updated ALP shows only the addition of 52 hangars.) This amount of growth is likely to take more than 20 years to occur. While 20 years is the normal limit for aviation forecasting, it is appropriate to assess impact of the plan based upon full build-out as shown in the plan. Of the 101 hangars, all but seven are sized to accommodate one aircraft. The seven larger hangars are assumed to hold two based aircraft each. This would mean a total of 108 based aircraft could potentially be added to the airport at full buildout.

If the ratio of 470 operations per based aircraft is multiplied by 108, it yields an estimate of 50,760 new annual operations. Combined with the estimate of current operations, future annual operations at full buildout more than 20 years in the future could total 88,324. This is a "worst case" analysis prepared for CEQA analysis purposes. Such a high level of operations may never be realized.

Future Airport Projects

Estimates of Affected Acreage

As noted above, there is some uncertainty about the timing and amount of future airport projects, in part because neither the Master Plan nor the current Layout Pan is specific on the extent of future non-aviation uses. Individual airport projects will occur as funding from the FAA and elsewhere is secured.

The following development assumptions presented below in Table 2 and Figure 2 have been generated by the private aviation consultant and County staff to guide the environmental analysis.

The buildout of the Updated Layout Plan is assumed to affect a total of up to 180 acres of land. Approximately one-half of this total represents land that could be developed with new

Table 2

Assumed Future Development Under the Updated Layout Plan

Project Feature	Maximum Acres Affected
Detention basins and drainage improvements	29.17
New hanger facilities	32.32
Other aviation area facilities	9.65
Non-aviation facilities	9.76
Airfield areas that will be graded and reseeded	92.95
New airfield pavement	3.58
Pavement to be removed	1.36
Total	178.79

structures or pavement. However, just over one-half (93 acres) of this total includes airfield areas around the runway that will be graded and reseeded, but not developed with any structures or pavement.

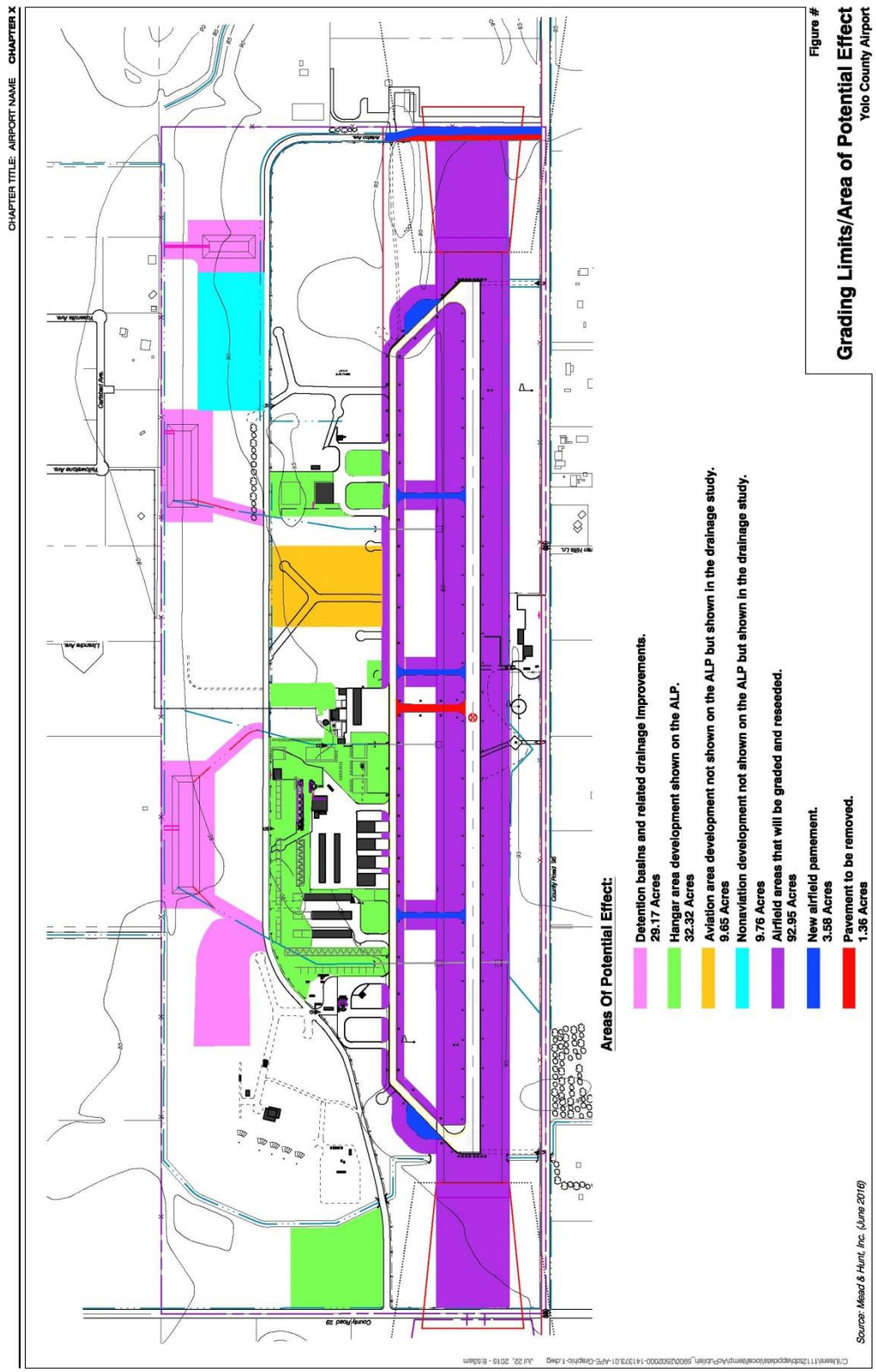
The most significant component of the Amendment to the 2009 Layout Plan involves proposed new drainage improvements. The size and location of the basins has been updated based on a September 2014 Yolo County Airport Drainage Plan Update. The three basins would be constructed incrementally as development occurs and the drainage capacity is required to serve the site. The total area taken up by the detention basins and drainage improvements would be approximately 29 acres.

New hanger facilities on approximately 32.3 acres are assumed to be developed over time, primarily on currently vacant lands near the existing facilities, between the runway and Aviation Avenue. In order to accommodate potential future growth in an orderly fashion, the hangar area layout was revised to include locations for 52 potential future hangars. The revised hangar layout designates where the County can accommodate a range of aircraft types in a configuration which allows for the orderly flow of aircraft. The revised hangar area also includes expanded parking and access to the Airport Park.

One new area that could be developed with hangars somewhat outside the existing footprint of the airport would be on about 10 acres of land northeast of the runaway (se Figure 2). Note that this possible hangar development area is not represented on the Updated Layout Plan diagram.

Development of other aviation area facilities is anticipated to amount to less than 10 acres, while non-aviation uses would similarly be expected to occur on about 9.76 acres of land.

The Layout Plan foresees only a small amount of new airfield pavement (3.6 acres). In addition, existing pavement of about 1.4 acres will be removed.


CHAPTER TITLE: AIRPORT NAME CHAPTER X
Figure #
Grading Limits/Area of Potential Effect
Yolo County Airport
Areas Of Potential Effect:
Detention basins and related drainage improvements.
29.17 Acres
Hangar area development shown on the ALP.
32.32 Acres
Aviation area development not shown on the ALP but shown in the drainage study.
9.65 Acres
Nonaviation development not shown on the ALP but shown in the drainage study.
9.76 Acres
Airfield areas that will be graded and reseeded.
92.95 Acres
New airfield pamement.
3.58 Acres
Pavement to be removed.
1.36 Acres
Source: Mead & Hunt, Inc. (June 2016)

Drainage Improvements

A detailed description and analysis of the proposed detention basins and flooding improvements are included in Section IX (Hydrology and Water Quality) of this Initial Study.

Modification of Future Taxiway Configuration

Several areas of the taxiway system have been modified slightly from the last 2011 ALP. The FAA has placed a high level of importance on reducing the chance for a runway incursion through physical design changes in the taxiway system. These changes in design guidance lead to a taxiway system which requires pilots to make a series of distinct and intentional directional changes before reaching a runway. This reduces the chances that a pilot will accidentally taxi an aircraft from an apron or parking position directly onto an active runway.

Relocation of Lillard Hall and West Plainfield Fire District Fire House

One of the functions of ALP sets is to identify objects that may be obstructions to flight. FAA design standards include a number of setbacks and vertical clearances that must be maintained free of objects. The prior ALP identified Lillard Hall and the West Plainfield Fire District fire house (and nearby accessory structures) as obstructions due to their location and height.

FAA standards mandate that these structures be identified for relocation. However, their location is not so sensitive that it is anticipated that there will be a near-term need to relocate the structures. However, it is appropriate to designate a potential site or sites where these facilities could be relocated. Investigations beyond the scope of this ALP update would be needed to identify and validate a specific site.

Therefore, as part of this ALP update, three possible sites have been identified. Figure 3 illustrates the location of the existing facilities and the three alternative relocation sites. One or more off-airport sites may subsequently be identified. There is the potential that FAA grant funds could be used to relocate these buildings.

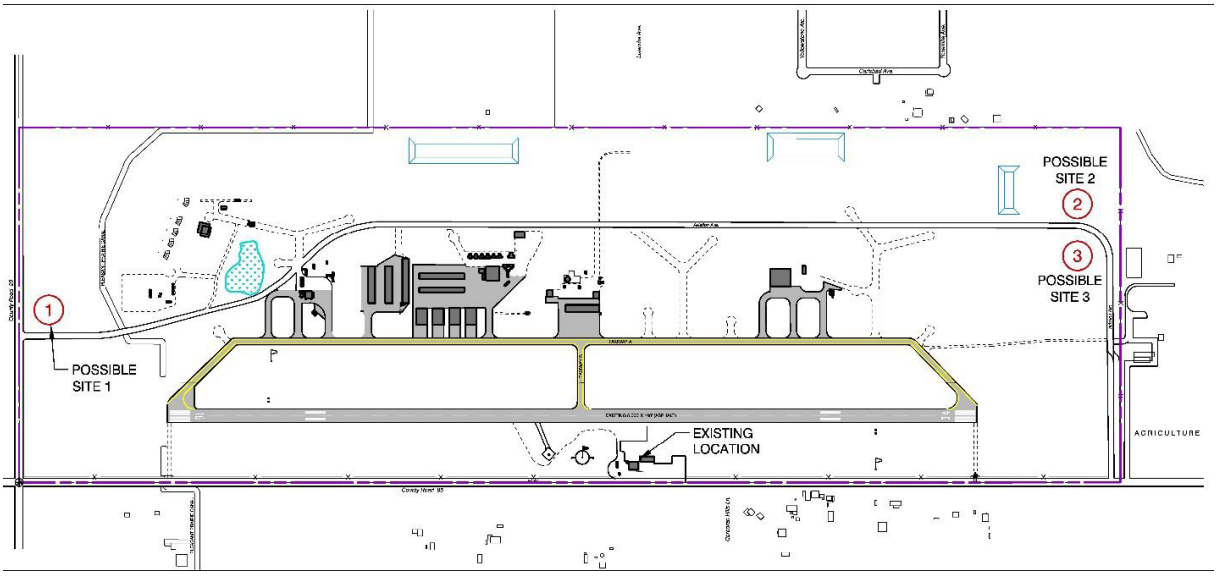


Figure 4
2015 Amendment to the Airport Layout Plan

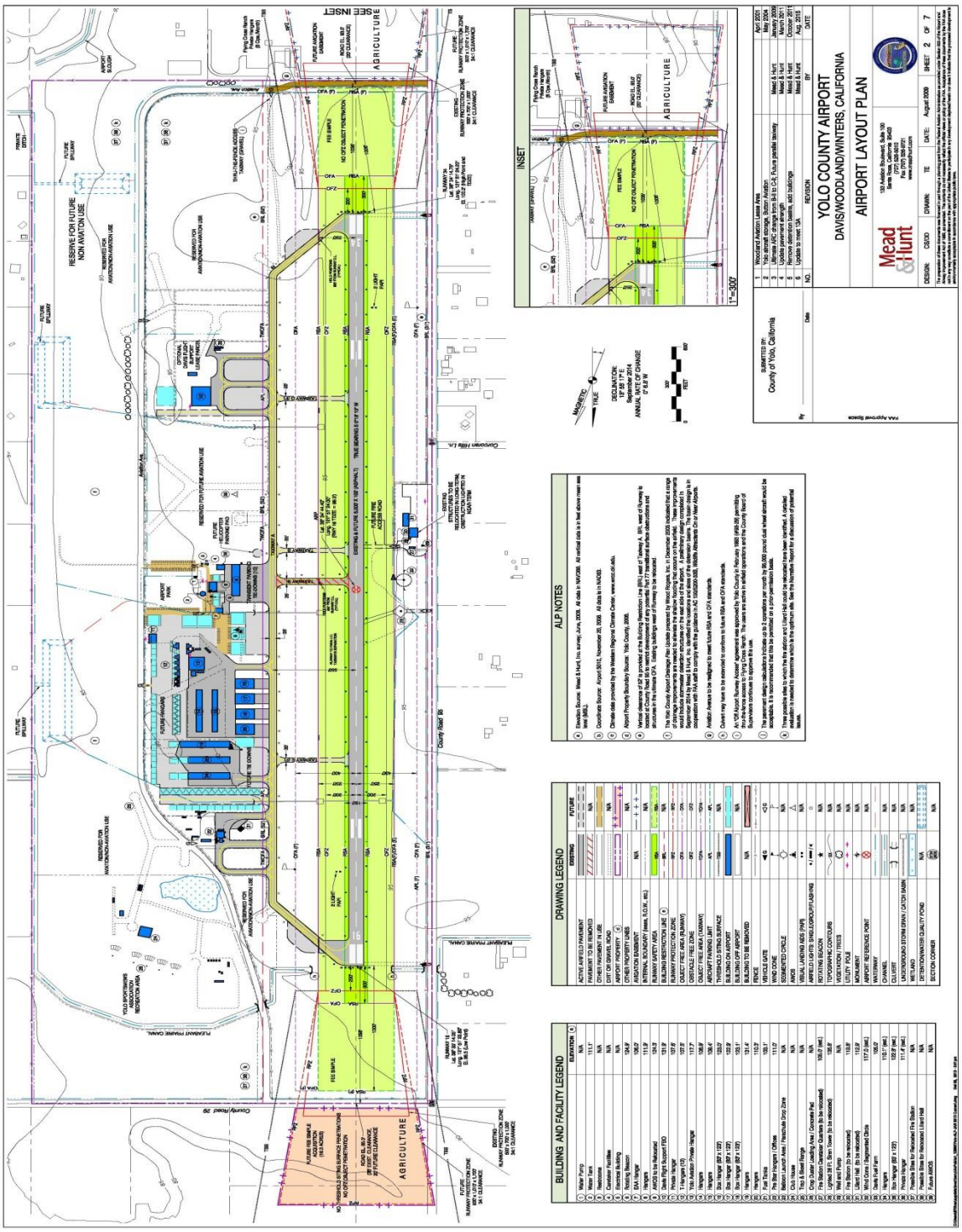


Figure 5

2015 Amendment to the Airport Layout Plan
Proposed Hangar Layout

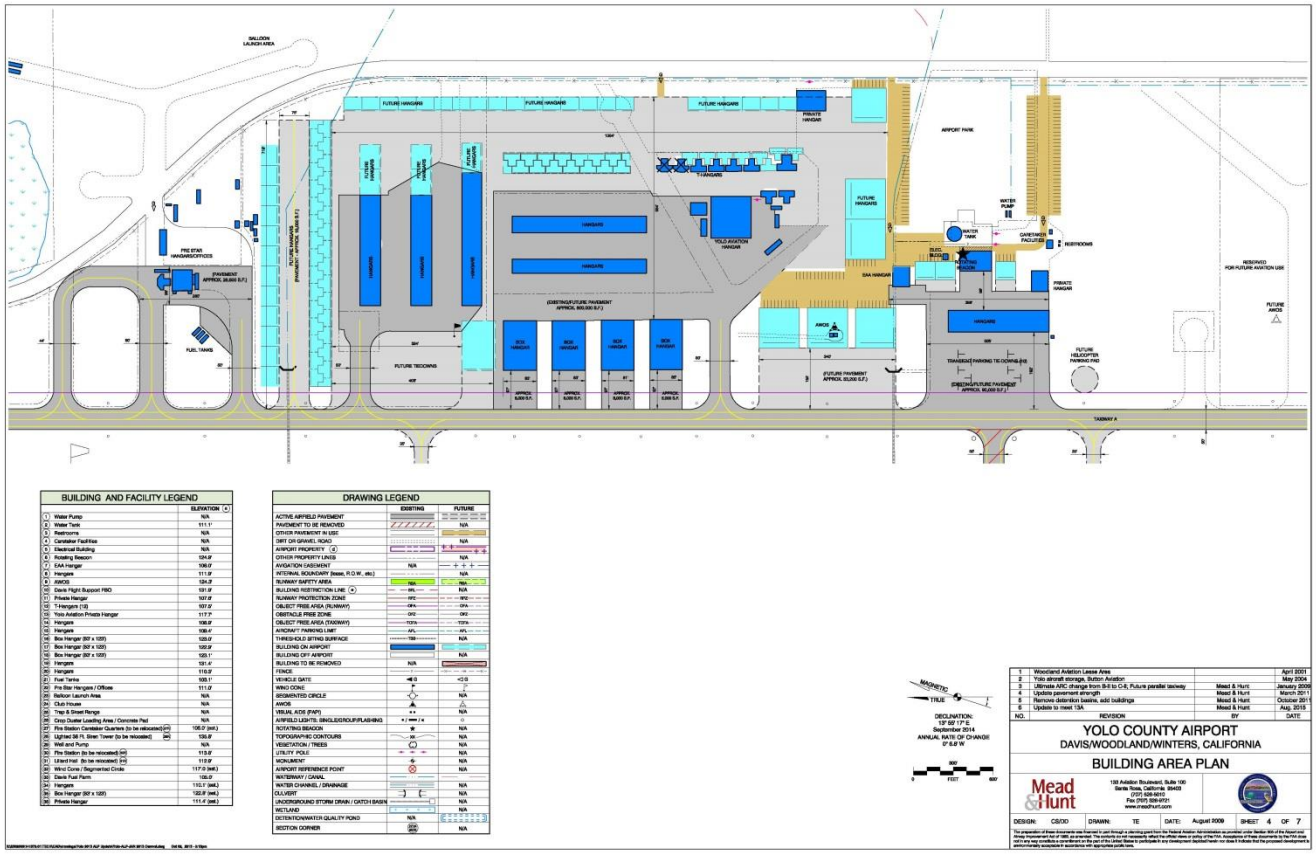
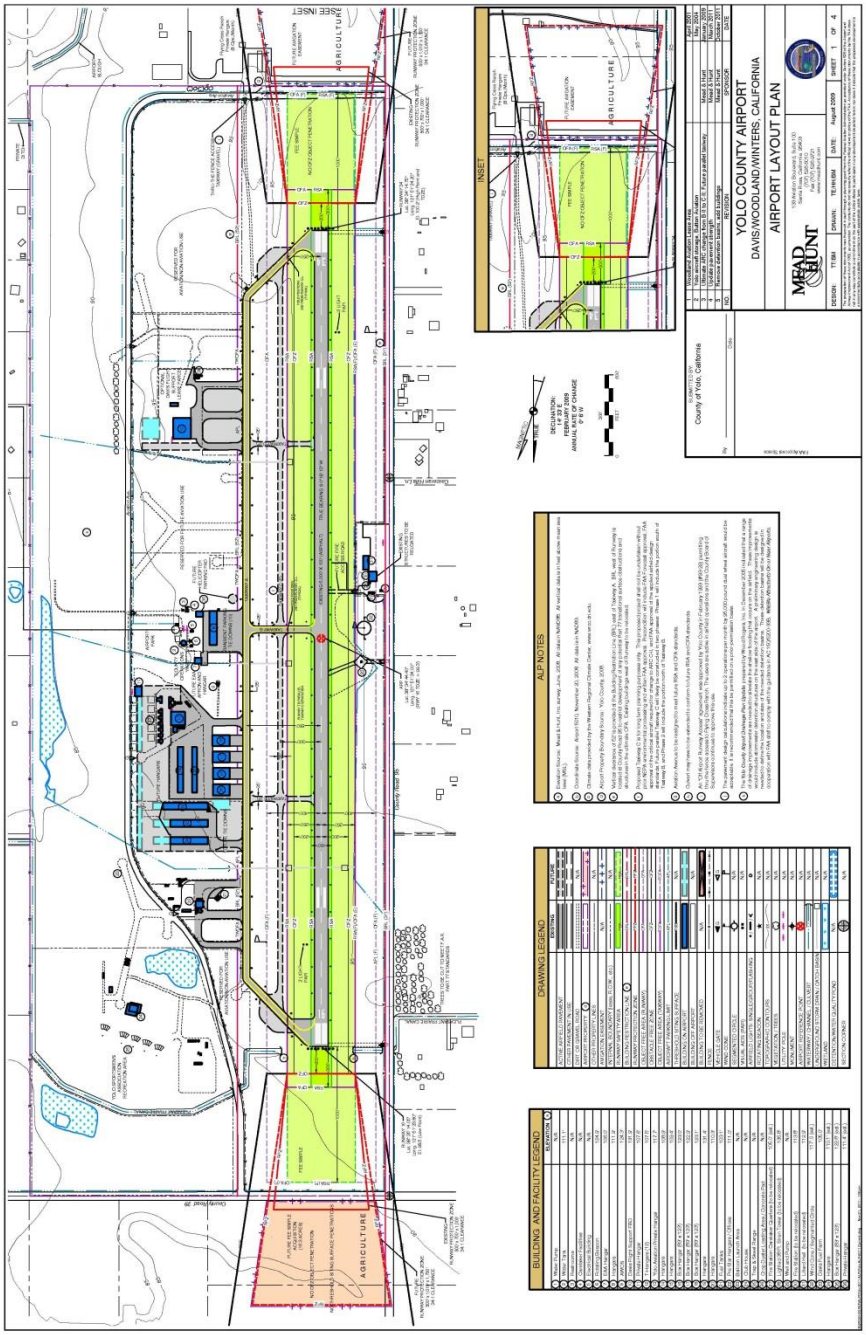


Figure 6

Existing 2011 Airport Layout Plan



Environmental Factors Potentially Affected

The environmental factors checked below could potentially be affected by this project, involving at least two impacts that are a "Potentially Significant Impact" (before any proposed mitigation measures have been adopted or before any measures have been made or agreed to by the project proponent) as indicated by the checklist on the following pages.

☐ Aesthetics	☒ Agricultural and Forestry Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☒ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because the project is consistent with an adopted general plan and all potentially significant effects have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT, the project is exempt from further review under the California Environmental Quality Act under the requirements of Public Resources Code section 21083.3(b) and CEQA Guidelines Section 15183.

		Eric Parfrey
Planner's Signature	Date	Planner's Printed name

Purpose of this Initial Study

This Initial Study has been prepared consistent with CEQA Guideline Section 15063, to determine if the project as described herein may have a significant effect upon the environment.

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. A "Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less than Significant Impact". The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from Section XVIII, "Earlier Analyses", may be cross-referenced.)
5. A determination that a "Less than Significant Impact" would occur is appropriate when the project could create some identifiable impact, but the impact would be less than the threshold set by a performance standard or adopted policy. The initial study should describe the impact and state why it is found to be "less than significant."
6. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D) of the California Government Code. Earlier analyses are discussed in Section XVIII at the end of the checklist.
7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

I.	AESTHETICS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☐	☒

DISCUSSION

a) Have a substantial adverse effect on a scenic vista?;
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?; *and*
c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No Impact. For purposes of determining significance under CEQA a "scenic vista" is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. There are no officially designated scenic vistas near the project area, and the project would not substantially degrade the existing visual character of the surrounding vicinity, which includes farmland and rural residences. There are no significant trees, rocks, historic structures or scenic highways in the vicinity. The project consists of an updated Airport Layout Plan which will allow construction of three new detention basins, up to 52 new hangar units, and other minor improvements. The new hangar construction will occur adjacent to the existing hangars within the already developed portion of the airport. The hangars will be similar in size and height to the existing units. The three detention ponds will be constructed along the eastern edge of the airport, adjacent to the Rolling Acres rural subdivision, which is composed of approximately 25 five-acre lots. The detention basins would be enclosed with fencing, which would not affect any scenic views. None of the components of the project have the potential to degrade the existing visual character or quality of the site and its surroundings.

d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

No Impact. Construction of the new hangars and detention ponds could produce additional sources of light to the adjacent rural residential area. However, a condition of the project approval will require a lighting plan before building permits are issued. Any new lighting would be required to be low-intensity and shielded and/or directed away from adjacent properties, and the night sky. The project will not create a new source of light that would adversely affect views in the area.

II.	AGRICULTURE AND FOREST RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☒	☐	☐
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

DISCUSSION

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less than Significant Impact with Mitigation Incorporated. The Airport consists of approximately 498 acres of developed and undeveloped land. Approximately 50 acres of the site is developed with a runway, hangars and other aviation-related uses, or other non-aviation uses (the Sportsmans Club shooting range). The property that is developed is identified by the State of California Farmland Mapping and Monitoring Program (FMMP) as "Urban and Built Up Land."

The remainder of the lands that are outside the developed areas consist of active agricultural fields and unfarmed fields that contain ruderal vegetation (see Figure 8). Most of these lands are identified by the FMMP as "Farmland of Local Importance." The fields east of Aviation Avenue, which marks the edge of the developed airport facilities, are under continuous active agricultural production (alfalfa or oat hay). Small fingers of vacant land between existing hangars and aviation buildings west of

Aviation Avenue are also farmed. Fields south of the airport runway and developed facilities, and west of Aviation Avenue, are under active cultivation, as is a smaller field immediately north of the runway. The eucalyptus grove that surrounds the Sportsmans Club shooting range and wetlands is not farmed. As noted above, most of these farmed fields are identified as "Farmland of Local Importance." A small area of farmland north of the airport runway is identified as "Prime Farmland" or "Farmland of Statewide Importance."

Future aviation and non-aviation development, including construction of the three proposed detention ponds, would convert approximately 140 acres of land (Table 3 and Figure 6). However, not all of this land has historically been under agricultural production. It is estimated that a total of 111 acres of agricultural land that is identified as "Farmland of Local Importance" could be converted to aviation and non-aviation development in the future. In addition, another 12.5 acres of unfarmed land northeast of the runaway would be devoted to hangar development. A total of up to 140.2 acres of agricultural land would be potentially lost to future development.

Table 3

Agricultural Land Affected by the Project

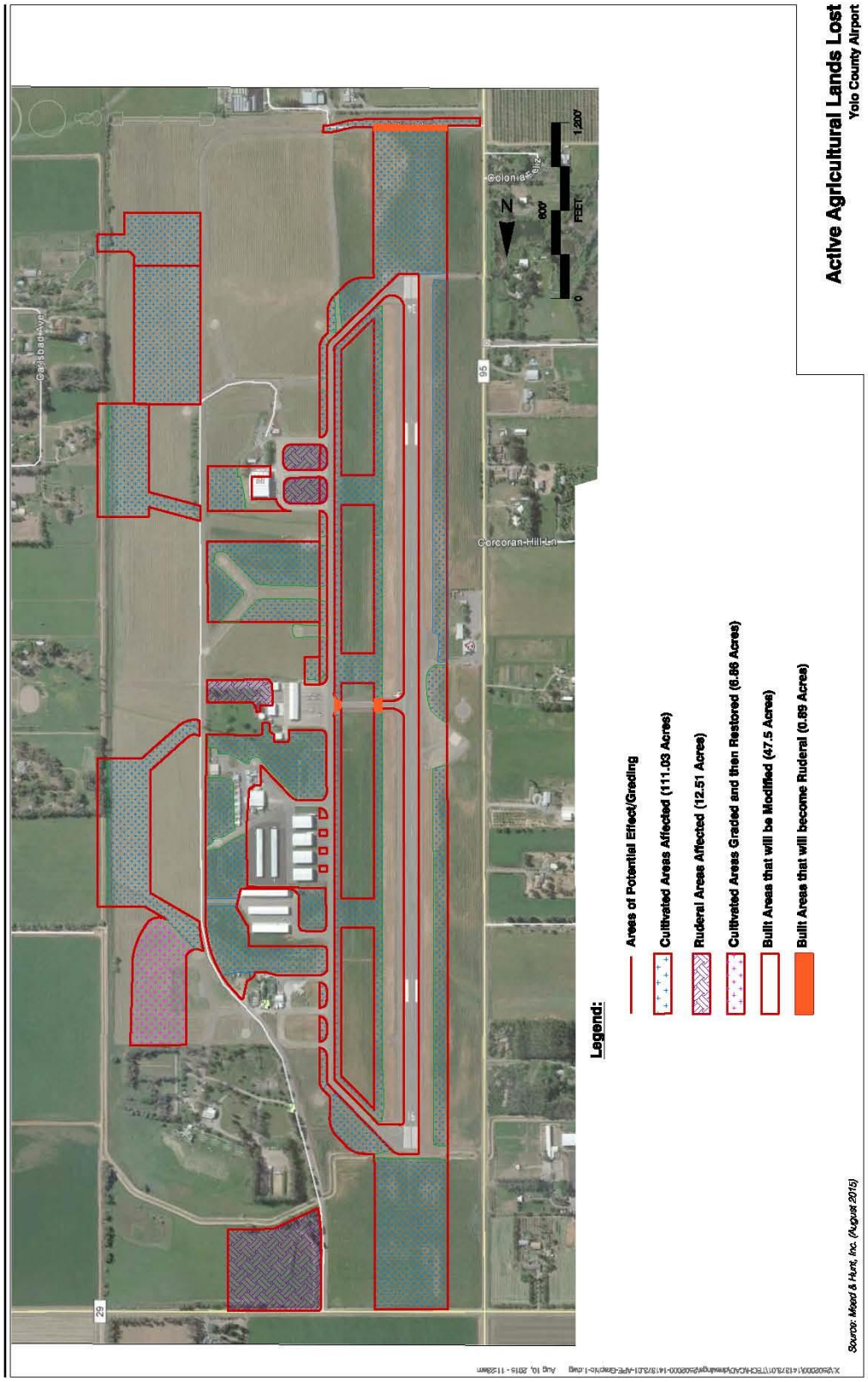
Project Feature	Maximum Acres Affected
Cultivated areas affected	111.03
Ruderal areas affected	12.51
Sub-total	123.54
Cultivated areas graded and restored (no land ag loss)	6.86
Other built areas that will be developed (no ag land loss)	9.76
TOTAL	140.16

Yolo County has an adopted Agricultural Conservation and Mitigation Program (Section 8-2.404 of the Yolo County Code) which requires mitigation for loss of agricultural lands at various ratios depending on the location and other factors. The ordinance was last updated on July 28, 2015, becoming effective on August 29, 2015. The revised 2015 ordinance contains a provision which allows projects whose applications have been deemed "complete," such as this one, to mitigate at a ratio of 1:1 (one acre conserved through easement for every acre converted).

The previous ordinance in effect until August, 2015, exempted public projects without qualification. Section 8-2.404(c)(2)(ii) of the updated ordinance contains the following modified exemption:

"Public uses such as parks, schools, cultural institutions, and other public agency facilities and infrastructure that do not generate revenue. The applicability of this exemption to public facilities and infrastructure that generate revenue shall be evaluated by the approving authority on a case-by-case basis. The approving authority may partly or entirely deny the exemption if the approving authority determines the additional cost of complying with this Program does not jeopardize project feasibility and no other circumstances warrant application of the exemption."

Thus, the Board of Supervisors, in its independent judgement, may require agricultural mitigation for future development projects at the County Airport which convert productive agricultural land, or may exempt projects (partially or completely) if the Board determines that the mitigation requirement "does


Active Agricultural Lands Lost
Yolo County Airport
Legend:
Areas of Potential Effect/Grading
Cultivated Areas Affected (111.03 Acres)
Ruderal Areas Affected (12.51 Acres)
Cultivated Areas Graded and then Restored (6.86 Acres)
Built Areas that will be Modified (47.5 Acres)
Built Areas that will become Ruderal (0.69 Acres)
Source: Mead & Hunt, Inc. (August 2015)
N
0
600'
1,200'
FEET
Colonial Heights
Carlsbad Ave
Corcoran Hill Ln
95
29

not jeopardize project feasibility and no other circumstances warrant application of the exemption." The mitigation below has been phrased according to the requirements of the ordinance.

Mitigation Measure AG-1:

Future individual development applications for new structures and activities on the County Airport site, whether they are ministerial or discretionary, that convert productive agricultural lands outside of the existing development footprint (which is generally west of Aviation Avenue), shall mitigate for the loss of agricultural land according to the requirements of the Agricultural Conservation and Mitigation Program (Section 8-2.404 of the Yolo County Code). However, the Board of Supervisors, in its independent judgement, may exempt projects (partially or completely) if the Board determines that the mitigation requirement jeopardizes project feasibility and other circumstances warrant application of the exemption, as allowed by the ordinance.

b) Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

No Impact. The site is not zoned for agricultural use, although large portions are in agricultural production, and no portion of the site is under any Williamson Act contracts.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?; *and*

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The proposed amendment to the Airport Layout Plan would not conflict with existing zoning for, or cause rezoning of, or result in the loss or conversion of forest or timberland. There is very little forest in Yolo County.

e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project proposes no other changes to the existing environment, other than future aviation and non-aviation development, including the three detention ponds, that could result in conversion of farmland to a non-agricultural use.

III.	AIR QUALITY.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

DISCUSSION

Thresholds of Significance:

The project site is within the Yolo-Solano Air Quality Management District (YSAQMD), and the Sacramento Valley Air Basin regulates air quality conditions within Yolo County. Yolo County is classified as a non-attainment area for several air pollutants, including ozone (O_3) and particulate matter 10 microns or less in diameter (PM_{10}) for both federal and state standards, the partial non-attainment of the federal particulate matter 2.5 ($PM_{2.5}$), and is classified as a moderate maintenance area for carbon monoxide (CO) by the State.

Development projects are most likely to violate an air quality plan or standard, or contribute substantially to an existing or project air quality violation, through generation of vehicle trips.

For the evaluation of project-related air quality impacts, the YSAQMD recommends the use of the following thresholds of significance:

- Long-term Emissions of Criteria Air Pollutants (ROG, NO_X, and PM_{10})—The criteria air pollutants of primary concern include ozone-precursor pollutants (ROG and NO_X) and PM_{10}. Significance thresholds have been developed for project-generated emissions of reactive organic gases (ROG), nitrogen oxides (NO_X), and particulate matter of 10 microns or less (PM_{10}). Because $PM_{2.5}$ is a subset of $PM_{10,}$ a separate significance threshold has not be established for $PM_{2.5}$. Operational impacts associated with the proposed project would be considered significant if project-generated emissions would exceed YSAQMD-recommended significance thresholds, as identified below:

Table 4

YSAQMD-Recommended Quantitative Thresholds of Significance for Criteria Air Pollutants

Pollutant	Threshold
Reactive Organic Gases (ROG)	10 tons/year (approx. 55 lbs/day)
Oxides of Nitrogen (NO_X)	10 tons/year (approx. 55 lbs/day)
Particulate Matter (PM_{10})	80 lbs/day
Carbon Monoxide (CO)	Violation of State ambient air quality standard

Source: Handbook for Assessing and Mitigating Air Quality impacts (YSAQMD, 2007)

- Emissions of Criteria Air Pollutants (ROG, NO_X, and PM_{10})—Construction impacts associated with the proposed project would be considered significant if project-generated emissions would exceed YSAQMD-recommended significance thresholds, as identified in Table AQ-1, and recommended control measures are not incorporated.

- Conflict with or Obstruct Implementation of Applicable Air Quality Plan— Projects resulting in the development of a new land use or a change in planned land use designation may result in a significant increase in vehicle miles traveled (VMT). Substantial increases in VMT, as well as, the installation of new area sources of emissions, may result in significant increases of criteria air pollutants that may conflict with the emissions inventories contained in regional air quality control plans. For this reason and given the region's non-attainment status for ozone and PM_{10}, project-generated emissions of ozone precursor pollutants (i.e., ROG and NO_x) or PM_{10} that would exceed the YSAQMD's recommended project-level significance thresholds, would also be considered to potentially conflict with or obstruct implementation of regional air quality attainment plans.

- Local Mobile-Source CO Concentrations—Local mobile source impacts associated with the proposed project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e., 9.0 ppm for 8 hours or 20 ppm for 1 hour).

- Toxic Air Contaminants. Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than 1.

- Odors. Odor impacts associated with the proposed project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors.

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The project consists of an updated Airport Layout Plan which will allow construction of three new detention basins, up to 52 new hangar units, and other minor improvements. The project would not substantially conflict with or obstruct implementation of the Yolo Solano Air Quality Management District Air Quality Attainment Plan (1992), the Sacramento Area Regional Ozone Attainment Plan (1994), or the goals and objective of the Yolo County 2030 Countywide General Plan. Development of the project is within the growth projections for the area adopted by the Countywide General Plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact with Mitigation Incorporated. Potential air quality impacts are divided into two categories: short-term construction-related impacts and long-term operational impacts.

Regarding short-term construction-related impacts, as noted in the Project Description, the buildout of the amended Layout Plan is assumed to affect a total of up to 180 acres of land. Approximately one-half of this total represents land that could be developed with new structures or pavement. However, just over one-half (93 acres) of this total includes airfield areas around the runway that will be graded and reseeded, but not developed with any structures or pavement.

Construction of new structures and grading of land adjacent to the airport runaway would generate potentially significant amounts of air pollutants, including particulate matter (PM_{10}), reactive organic gases (ROG), oxides of nitrogen (NOX), and carbon monoxide (CO). Individual projects and grading are not expected to reach the YSAQMD thresholds of significance, since the projects will be relatively small and temporary in scale. The most significant component of the Amendment to the 2011 Layout Plan involves the excavation of three detention basins and construction of new drainage improvements. However, these improvements will be staged separately and will not occur as one project.

Application of the standard YSAQMD air quality mitigation measure will ensure that individual project impacts are mitigated to a less than significant level.

***Mitigation Measure AIR-1*:**

(a) Future individual development applications for new structures and activities on the County Airport site, whether they are ministerial or discretionary, that involve grading or other ground disturbance, shall mitigate for impacts related to emissions of particulate matter (PM_{10}) by incorporating trip reduction measures and specific design features into the project, and/or adopting other measures that are recommended by the Yolo Solano Air Quality Management District (YSAQMD). Construction activities on the site shall incorporate the standard PM_{10} dust suppression requirements recommended by the YSAQMD, including:

- Nontoxic soil stabilizers according to manufacturer's specifications shall be applied to all inactive construction areas (previously graded areas inactive for ten days or more).
- Ground cover shall be reestablished in disturbed areas quickly.
- Active construction sites shall be watered at least three times daily to avoid visible dust plumes.
- Paving, applying water three times daily, or applying (non-toxic) soil stabilizers shall occur on all unpaved access roads, parking areas and staging areas at construction sites.
- Enclosing, covering, watering daily, or applying non-toxic soil binders to exposed stockpiles (dirt, sand, etc.) shall occur.
- A speed limit of 15 MPH for equipment and vehicles operated on unpaved areas shall be enforced.

- All vehicles hauling dirt, sand, soil, or other loose materials shall be covered or shall be maintained at least two feet of freeboard.
- Streets shall be swept at the end of the day if visible soil material is carried onto adjacent public paved roads.

(b) The project shall incorporate the standard NOx reduction requirements recommended by the YSAQMD, including:

- To the extent that equipment and technology is available and cost effective, the applicant shall encourage contractors to use catalyst and filtration technologies;
- Minimize idling time to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required; and
- District Rule 2.3 requires controlling visible emissions not exceeding 40% opacity for more than three minutes in any one-hour.

Regarding long-term impacts related to the operation of the airport, as with the previously adopted Master Plan for the Airport, the 2015 ALP update anticipates growth in the number of based aircraft and growth in aircraft operations. The increase in operations will result in increases in emissions associated with aircraft, associated support equipment, aircraft fueling operations and related automobile trips. The background information and modeling contained in the Environmental Impact Report (EIR) for the 1998 Master Plan remains useful, however, the 1998 modeling results but must be scaled to reflect the updated forecast of aircraft operations in this ALP update (see Appendix A). Additionally, the thresholds of significance for the various emissions adopted by the YSAQMD have changed since 1998 (see Table 5).

The 1998 Airport Master Plan EIR calculated air emissions associated with aircraft and automobile use when the airport had an assumed existing level of 60,000 annual aircraft operations. However current operations are approximately 30,000. For this 2015 environmental analysis, projections have been prepared that indicate the CEQA "worst case" potential of 88,324 annual operations (see discussion in "Project Description").

Table 5

Projected Emissions for Selected Air Pollutants (1998 and 2015)

Pollutant	1998			2015 Forecast			Threshold (lbs/day)
	Motor Vehicles	Aircraft	Total Emissions	Motor Vehicles	Aircraft	Total Emissions	
ROG	2.6	32.4	35.0	3.83	47.69	51.52	55
NOx	2.0	5.3	7.3	2.94	7.80	10.74	55
PM_{10}	0.02	8.2[1]	8.22	0.03	12.07	12.10	80

[1] Estimated based upon data for similar airports.

The projected emissions for combined motor vehicle and aircraft operations are all under the threshold values adopted by the YSAQMD, so no further mitigation is required.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. The Yolo-Solano Region is a non-attainment area for state particulate matter (PM_{10}) and ozone standards, the federal ozone standard, and the partial non-attainment of the federal particulate matter 2.5 ($PM_{2.5}$). The project involves construction of small individual hangars and other projects over time, plus grading of land near the runway. The air pollutants generated would be primarily dust and particulate matter during construction and grading. Dust generated by construction activity would be required to be controlled through effective management practices, such as water spraying, and would therefore be a less than significant impact, as already noted above.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. See discussion in (b) and (c), above. The proposed project is in a rural agricultural area. There are no sensitive receptors nearby ("sensitive receptors" refer to those segments of the population most susceptible to poor air quality, i.e. children, elderly, and the sick, and to certain at-risk sensitive land uses such as schools, hospitals, parks, or residential communities.) Construction activities may generate some pollutant concentrations related to equipment exhaust, however, the emissions would be intermittent and temporary in nature.

e) Create objectionable odors affecting a substantial number of people?

No Impact. New development at the County Airport would not generate any new odors.

IV.	BIOLOGICAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

SETTING

The following is excerpted from a letter report by Jim Estep, a private consulting biologist under contract to the County who conducted a reconnaissance-level biological survey of the project site on June 10, 2015 (Estep Environmental Consulting, 2015).

Existing airport facilities, including hangers, office buildings, Skydance Skydiving, and parking areas occur entirely within the center of the project site between the runway and Aviation Avenue, which extends through the project site from County Road 29 south to nearly the southern end of the project site, where it turns westward and connects with County Road 98 (Figure 2 in the Project Description). The 6,000-foot runway, west of the airport facilities, extends most of the length of the project site. Other uses within the project site boundary include The West Plainfield Fire Station, which is along County Road 95 near the west-central boundary of the project site, and the Yolo Sportsman Association facility, which occupies the northeast corner of the project site.

Other than the Yolo Sportsman Association facility, nearly the entire undeveloped portion of the project site is under active cultivation. At the time of the survey, the entire project site, which appeared to have consisted entirely of oat hay, had been mowed and disked. Thus, virtually all of the non-

developed space on the project site, not including the Yolo Sportsman facility, consisted of recently disked bare dirt (Plates 1 and 2).

Plate 1 looking northeast from the southern end of the project site.

Plate 2. Looking west from the east-central border of the project site. Buildings and ornamental trees in the background are part of existing airport facilities. Note the drainage ditch that conveys runoff water toward the eastern edge of the project site.

The project site is flat, sloping gently eastward from approximately 90 to 86 feet in elevation. Outside of the Yolo Sportsman's facility, few trees occur on the project site. Several ornamental trees are present along Aviation Avenue and several willow trees are present along the water conveyance channel bordering the eastern edge of the project site. Trees are present on the Yolo Sportsman's facility including willow and cottonwood trees along the western boundary and eucalyptus trees and several small valley oaks and walnut trees along the southern boundary and within the facility. A row of eucalyptus trees also occurs along County Road 29 east of Aviation Avenue (Figure 7)

County roads border the western and northern boundaries of the project site (Figure 7); and an approximately five foot high berm extends the length of the eastern boundary of the project site (Plate 3).

Water Conveyance Channels and Wetlands

Drainage and water conveyance through the project site is managed through a system of permanent and temporary canals and ditches. The Pleasant Prairie Canal extends through the northern portion of the project site, just north of the runway, through the Yolo Sportsman facility, and turns southward along the eastern border of the project site. It extends for approximately 1,530 feet along the eastern boundary before turning eastward. This permanent feature is periodically cleared of vegetation. Runoff flows from west to east through the majority of the project site. These flows are contained within several temporary shallow ditches that extend west-east across the cultivated lands and empty into a narrow semi-permanent conveyance ditch along the eastern border at the toe of the eastern berm (Plates 2 through 4).

Wetlands on the project site include a depression or pond that holds seasonal water and supports wetland vegetation within the Yolo Sportsman's facility (Figure 7). In addition, the conveyance ditch along the eastern boundary also supports wetland vegetation (Plate 5) and toward the far southern end, approximately 15 willow trees have grown in or adjacent to the ditch (Plate 6). However, this man-made ditch, which was created to capture and convey runoff water, is likely not jurisdictional and therefore not regulated. It does, however, have value to local wildlife.

Description of the Surrounding Area

Lands surrounding the project site consist mostly of farmland and rural residences. Rural residences and associated farmland occur to the east, west, and south of the project site. Open farmland occurs to the north. The Rolling Acres rural residential subdivision also occurs immediately east of the project site (Figure 7).

General Wildlife Use

The majority of the project site supports wildlife typical of active agricultural fields. The absence of other biological, topographical, or habitat features limits wildlife occurrences to those species that breed, forage, or find cover in flat, agricultural landscapes. During the survey relatively few wildlife species were observed in the cultivated habitats, including turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), Swainson's hawk (*Buteo swainsoni*). American kestrel (*Falco sparverius*), ring-necked pheasant (*Phasianus colchicus*), killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), western meadowlark (*Sternella neglecta*), and Brewer's blackbird (*Euphagus cyanocephalus*). The only mammals observed were California ground squirrel (*Otospermophilus beecheyi*), blacktailed jackrabbit (*Lepus californicus*), and coyote (*Canis latrans*) sign.

Where trees occurred within and near the Yolo Sportman's facility and the southern end of the eastern drainage ditch, additional species were observed including red-shouldered hawk (*Buteo lineatus*), western kingbird (*Tyrannus verticalis*), scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), and house finch (*Haemorhous mexicanus*).

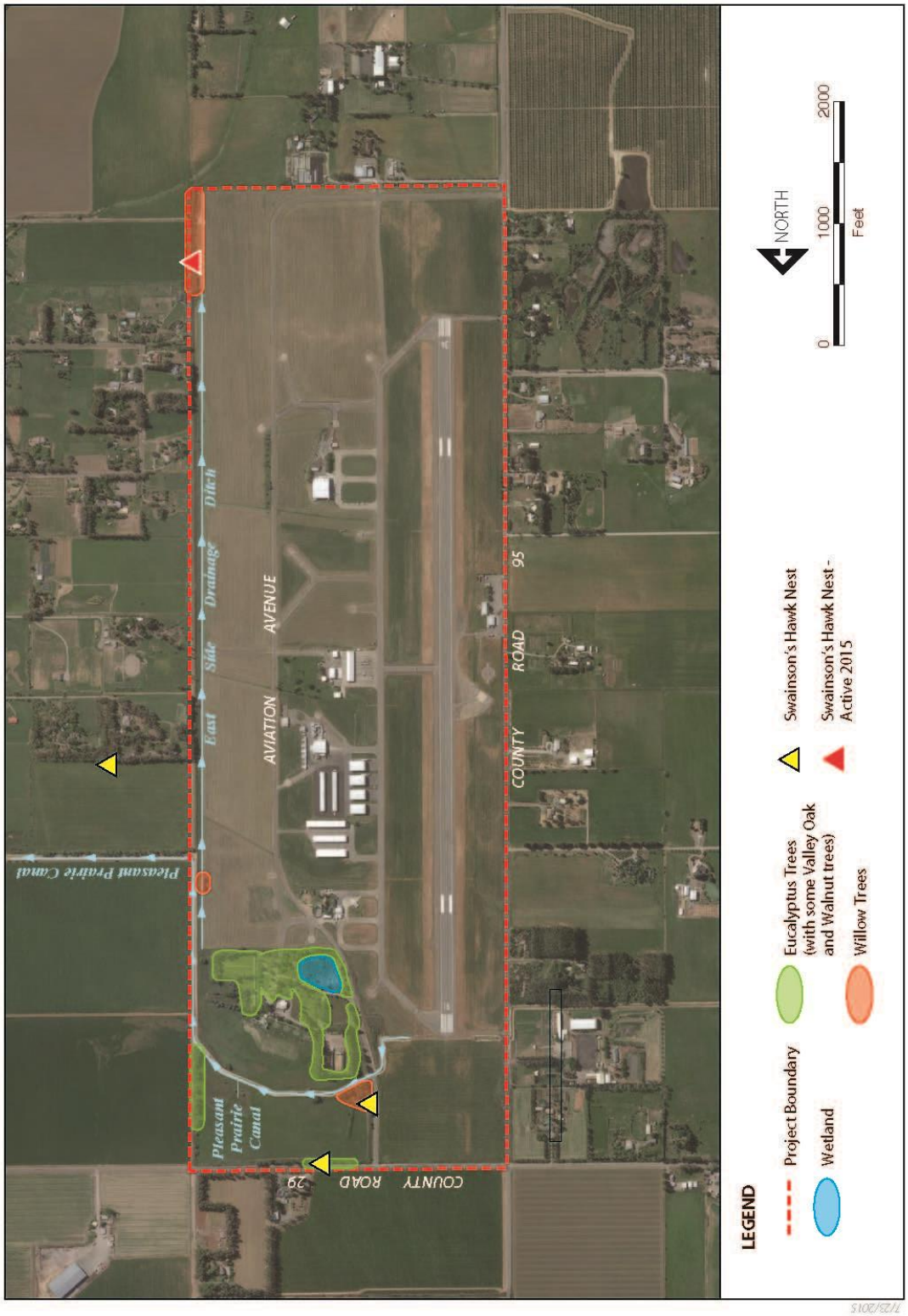


Figure 3
Yolo County Airport - Location of Biological Resources

Plate 3. Looking north along the eastern boundary of the project site. Trees in the distant background surround the Yolo Sportsman's facility. Note the berm on the right, which is the eastern boundary of the project site. The eucalyptus grove is on the adjacent property.

Plate 4. Looking north along the eastern boundary of the project site. Note the water conveyance ditch and associated wetland vegetation at the toe of the berm. This ditch, which conveys runoff water from the airport property southward, extends the length of the eastern boundary from the Yolo Sportsman's facility to the southern boundary.

Plate 5. Looking north along the eastern boundary of the project site from near the southern end. This is the same water conveyance ditch that runs the length of the eastern boundary. At the time of the survey the ditch contained water and wetland vegetation, including hardstem bulrush.

Plate 6. Looking south along the eastern conveyance ditch. Several Willow trees have grown up along the southern portion of the eastern conveyance ditch.

Methods

The biologist conducted a survey of the 498-acre Yolo County Airport on June 10, 2015. Surveys focused on areas addressed in the amendment to the ALP, and emphasized the proposed sites for the three detention basins. The biologist walked meandering transects throughout the project site to characterize the vegetation community, species composition, and wildlife habitats, document wildlife occurrences, and search for potentially occurring special-status species. The biologist also examined the adjacent and surrounding land uses and conducted a search of the California Natural Diversity Data Base and other data sources for information on special-status species occurrences on and in the vicinity of the project site. Based on the results of the survey, The biologist assessed the potential impacts of implementing the amended ALP, determined the likelihood of impacting unique biological communities or special-status species, and provided mitigation measures to avoid or reduce the effect of any potentially significant impacts.

Special-Status Species

Special-status species are generally defined as species that are assigned a status designation indicating possible risk to the species. These designations are assigned by state and federal resource agencies (e.g., California Department of Fish and Wildlife, U.S. Fish and Wildlife Service) or by private research or conservation groups (e.g., National Audubon Society, California Native Plant Society). Assignment to a special-status designation is usually done on the basis of a declining or potentially declining population, either locally, regionally, or nationally. To what extent a species or population is at risk usually determines the status designation. The factors that determine risk to a species or population generally fall into one of several categories, such as habitat loss or modification affecting the distribution and abundance of a species; environmental contaminants affecting the reproductive potential of a species; or a variety of mortality factors such as hunting or fishing, interference with man-made objects (e.g., collision, electrocution, etc.), invasive species, or toxins.

For purposes of environment review, special-status species are generally defined as follows:

- Species that are listed, proposed, or candidates for listing under the federal Endangered Species Act (50 CFR 17.11 – listed; 61 FR 7591, February 28, 1996 - candidates);
- Species that are listed or proposed for listing under the California Endangered Species Act (Fish and Game Code 1992 Sections 2050 et seq.; 14 CCR Sections 670.1 et seq.);
- Species that are designated as Species of Special Concern by DFG;
- Species that are designated as Fully Protected by DFG (Fish and Game Code, Section 3511, 4700, 5050, and 5515;
- Species included on Lists 1B or 2 by the California Native Plant Society;
- Species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380).

Table 6 indicates the special-status species that have potential to occur in the project area, along with their habitat association, the availability of habitat on the project site, and whether or not the species has been detected on the project site.

Table 6

Special-status wildlife species with potential to occur in the vicinity of the Yolo County Airport

Species	Status State/ Federal	Habitat Association	Habitat Availability on the Project Site	Reported Occurrence on the Project Site
Conservancy fairy shrimp *Branchinecta conservatio*	-/FE	Vernal pools and other seasonal pools	None	No
Vernal pool fairy shrimp *Branchinecta lynchi*	-/FT	Vernal pools	None	No
Vernal pool tadpole shrimp *Lepidurus packardi*	-FE	Vernal pools and swales	None	No
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	-/T	Elderberry shrubs	None	No
Giant garter snake *Thamnophis gigas*	T/T	Emergent marsh, open water, water conveyance channels, flooded rice fields	None	No
Western pond turtle *Actinemys marmorata*	CSC/-	Streams, ponds, water conveyance channels	Potential, but marginal aquatic habitat along Pleasant Prairie Canal.	No
Redhead *Aythya americana*	CSC/-	Emergent wetlands with cattails and tules interspersed with areas of deep open water.	None	No
White-tailed kite *Elanus leucurus*	FP/-	Nests in trees, forages in grasslands, seasonal wetlands, and fields.	Suitable nesting habitat along eastern ditch and around the Yolo Sportsman's facility and suitable foraging habitat in cultivated fields.	Yes
Swainson's hawk *Buteo swainsoni*	T/-	Nests in trees, forages in grassland and cultivated fields	Nesting habitat along eastern ditch and around the Yolo Sportsman's facility and suitable foraging habitat in cultivated fields.	Yes

Species	Status State/ Federal	Habitat Association	Habitat Availability on the Project Site	Reported Occurrence on the Project Site
Northern harrier *Circus cyaneus*	CSC/-	Grasslands, seasonal marshes, some agricultural edges	Suitable foraging habitat in cultivated fields.	Yes
Merlin *Falco columbarius*	CSC/-	Wintering habitat includes open forests, grasslands, and cultivated fields.	Suitable, but marginal winter foraging habitat.	No
Mountain plover *Charadrius montanus*	FP,CSC/-	Wintering habitat includes short grass prairies; may use newly plowed or sprouting grain fields.	Suitable habitat in harvested fields.	No
Black tern *Chlidonias niger*	CSC/-	Freshwater lakes, ponds, marshes, and flooded agricultural fields for nesting.	None	No
Short-eared owl *Asio flammeus*	CSC/-	Grasslands, prairies, marshes and agricultural fields. Nests on the ground.	Marginal habitat in agricultural fields	No
Burrowing owl *Athene cunicularia*	CSC/-	Grasslands, field edges with ground squirrel activity	Suitable, but marginal habitat along field edges and berms.	No
Loggerhead shrike *Lanius ludovicianus*	CSC/-	Grasslands, scrub, agricultural areas	Suitable nesting habitat in willow trees and suitable foraging habitat in agricultural fields.	No
Bank swallow *Riparia riparia*	T/-	Vertical banks with friable soils.	None	No
Tricolored blackbird *Agelaius tricolor*	CSC/-	Emergent marshes, blackberry thickets, silage, grasslands, pastures	No nesting habitat, potential foraging in agricultural fields.	No
Grasshopper sparrow *Ammodramus savannarum*	CSC/.-	Grasslands on rolling hills, lowland plains and valleys, and on lower mountain slopes	None.	No
Palid bat *Antrozous pallidus*	CSC/-	deserts, grasslands, shrub lands,	None	No

		woodlands, and forests.		
Townsends big-eared bat *Corynorhinus townsendii*	CSC/-	caves and mines, bridges, buildings, rock crevices and tree hollows	None	No

T=threatened; E=Endangered; CSC=California species of species concern; FP=state fully protected

Only one special-status species, Swainson's hawk, was detected during the survey. However, Table 6 indicates that suitable habitat for several species occurs on the project site. These species are addressed in greater detail below.

Western Pond Turtle. Western pond turtles are closely associated with permanent water bodies, such as lakes, ponds, slow moving streams, and irrigation canals that include basking sites as down logs or rocks, and that support sufficient aquatic prey. Western pond turtles also require upland habitat that is suitable for building nests and to overwinter. Suitable upland habitat must have the proper thermal and hydric conditions in which to build nests (Jennings and Hayes 1994). Nests are constructed in sandy banks immediately adjacent to aquatic habitat or if necessary, females will climb hillsides and sometimes move considerable distances to find suitable nest sites. Sloughs, such as nearby Dry Slough, and larger irrigation channels provide suitable habitat for this species. The species likely occurs along Dry Slough just southeast of the project site. The Pleasant Prairie Canal provides marginal habitat for this species due to intermittent flows and lack of associated vegetation or basking habitat, and therefore would likely be used only for dispersal or local movement when water is present.

Swainson's Hawk. The Swainson's hawk nests in mature native and nonnative trees and forages in grassland and agricultural habitats. Although a state-threatened species, the Swainson's hawk is relatively common in Yolo County due to the availability of nest trees and the agricultural crop patterns that are compatible with Swainson's hawk foraging. Several nests have been documented in the immediate vicinity of the project site, particularly along nearby Dry Slough (Estep 2008, LSA 2009). At least 48 nest sites have been documented within approximately 5 miles of the project site boundary (Estep 2008). Three nests have been documented on the project site, one in a isolated valley oak tree north of the runway that was removed several years ago, another in a willow tree bordering Airport Avenue adjacent to the Yolo Sportsman's Association facility, and a third in a eucalyptus tree along County Road 29. During the survey, the biologist located a previously unreported active nest site along the eastern drainage ditch near the southern end of the project site (Figure 3). The nest is in a willow tree adjacent to the ditch and within a cluster of willow trees that have developed at this location as a result of water availability along the ditch (Plate 7). The open agriculture land on the project is considered suitable foraging habitat for the Swainson's hawk.

White-tailed kite. White-tailed kites nest in native (primarily willow, valley oak, cottonwood, and walnut) and some nonnative trees and forage in grassland, seasonal wetland, and agricultural habitats. This species occurs throughout most of Yolo County, but only in low breeding densities. A white-tailed kite was observed on the project site and an active white-tailed kite nest was found by LSA Associates in a tree south of the airport near County Road 31 in 2009 (LSA Associates 2009). Other nearby reported nest sites include 2.1 miles east of the project site along Dry Slough, 3.2 miles west of the project site just north of Dry Slough, and approximately 4.5 miles southeast of the project site along Putah Creek (Estep 2008). The trees around the Yolo Sportsman's facility and the willow trees along the southern end of the eastern water conveyance ditch represent suitable nesting habitat for this species. The open agricultural lands on the project site are considered suitable foraging habitat for the white-tailed kite.

Plate 7. Looking east toward eastern boundary near the southern end of the project site. These willow trees are along the eastern conveyance ditch. An active Swainson's hawk nest is in the center tree.

Northern harrier. The northern harrier nests on the ground in grassland or marshy areas and forages in grasslands, seasonal wetland, and cultivated habitats. The species is frequently observed throughout most of Yolo County; however, there are relatively few reported nest sites. The project site supports marginally suitable nesting habitat due to regular cultivation. The open agricultural lands on the project site are considered suitable foraging habitat for the northern harrier. LSA Associates (2009) reported northern harrier foraging use of the project site in 2009.

Merlin. The merlin is an occasional winter visitor to Yolo County. This small falcon roosts in trees and shrubs and forages in grassland, seasonal wetland, and cultivated habitats. The project site provides suitable winter foraging habitat for this species.

Mountain Plover. The mountain plover was formerly an occasional winter visitor to a specific area of Yolo County near Woodland, but reported occurrences have declined sharply in at least the last decade. During winter, the species roosts and forages in short grass prairies and occasionally – as with most of the reported occurrences in Yolo County – in disked agricultural fields. While not expected to occur, the open agricultural land on the project site could represent suitable winter habitat for the mountain plover.

Short-eared Owl. The short-eared owl is a ground-nesting species that occurs mainly in open grassland, seasonal wetland, and freshwater marsh habitats. The species has been reported to nest in Yolo County, including in the Yolo Basin and near the Yolo County landfill, but reported occurrences have declined in the last couple of decades. The project site does not support suitable nesting habitat

for this species, but the open agricultural lands are considered marginally suitable foraging habitat for short-eared owls.

Burrowing Owl. The burrowing owl nests in ground burrows, usually those constructed by ground squirrels. Associated primarily with grassland habitats, this species is also found along roadside and field edges, grassy levees, and in remnant grassland or ruderal patches within cultivated landscapes. Burrowing owls are found in habitats with short vegetation and avoid tall or dense vegetation. The majority of burrowing owl occurrences are from the Yolo Bypass and the grasslands and pastures immediately west of the Yolo Bypass in southeastern Yolo County. The species also occurs at locations in the City of Davis and less frequently elsewhere in the county. CNDDB reports a record of an historic burrowing owl colony adjacent to the Yolo County Airport along County Road 95 approximately 0.7 miles north of County Road 31 (CNDDB 2014). The colony was abandoned due to flooding and was considered extirpated by 1983. Burrowing owls usually rely on the burrows of California ground squirrel to provide burrow nesting and wintering habitat. During the survey, very few ground squirrels or ground squirrel burrows were observed. The open agricultural lands on the project site are otherwise considered suitable foraging habitat, and if suitable burrows were present, the site could also potentially be occupied by nesting or wintering burrowing owls.

Loggerhead Shrike. The loggerhead shrike occurs in open habitats with scattered trees, shrubs, posts, fences, utility lines, or other perches. It nests in small trees and shrubs and forages for small rodents, reptiles, and insects in pastures and agricultural lands. It has been reported from numerous locations in Yolo County (CNDDB 2014). The trees and shrubs around the Yolo Sportsman's facility and the trees at the southern end of the eastern drainage ditch are suitable for nesting and the open agricultural lands are considered suitable foraging habitat for the loggerhead shrike.

Tricolored Blackbird. The tricolored blackbird nests in colonies from several dozen to several thousand breeding pairs. They have three basic requirements for selecting their breeding colony sites: open accessible water; a protected nesting substrate, including either flooded or thorny or spiny vegetation; and a suitable foraging space providing adequate insect prey within a few miles of the nesting colony (Beedy and Hamilton 1999). Nesting colonies are found in freshwater emergent marshes, in willows, blackberry bramble, thistles, or nettles, and in silage and grain fields (Beedy and Hamilton 1999). Recently reported tricolored blackbird colonies in Yolo County include a site on the Conaway Ranch in eastern Yolo County and at a site in the Dunnigan Hills. The project site or surrounding lands do not support suitable nesting habitat for this species, but the open agricultural lands on the project site are considered suitable foraging habitat for the tricolored blackbird.

DISCUSSION

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact with Mitigation Incorporated. Potential impacts of the proposed project include several possible projects that may be implemented as part of the updated ALP, including creating detention basins and related drainage improvements, constructing new hangers, developing other facilities within the aviation area, developing other facilities outside of the aviation area, and adding new airfield pavement.

A total of up to 140.2 acres of cultivated and non-cultivated agricultural land that is considered Swainson's hawk foraging habitat would be potentially lost to future development. (Table 7 and Figure 8). This includes the currently farmed lands that would be converted plus 12.5 acres of unfarmed land northeast of the runaway would be devoted to hangar development. There are an additional almost 7 acres around the runway and taxiways that will be graded and reseeded. However, because this

Table 7

Project features and associated acres potentially affected

Project Feature	Maximum Acres Affected
Cultivated areas affected	111.03
Ruderal areas affected	12.51
Sub-total	123.54
Cultivated areas graded and restored (no habitat affected	6.86
Other built areas that will be developed (no habitat affected)	9.76
Sub-total	16.62
TOTAL	140.16

activity is not substantially different than the annual disking and planting of all open space areas, it is not considered an additional impact and is therefore not included in the impact calculation.

Impacts are considered potential because some actions may not be required or needed. Individual projects will be implemented on an as needed basis or if mandated by the Federal Aviation Administration or the California Department of Transportation. For purposes of this assessment, the total maximum acres are used to assess potential impacts. However, any required mitigation is assumed to be based on actual implementation of specific project features as they occur.

Cultivated Land

The majority of project features will affect only the open cultivated land within the project site boundary. A maximum total of 111 acres of cultivated land would be removed. It is anticipated that remaining open cultivated lands will continue to be farmed or maintained as a managed grassland. The removal of 111 acres of cultivated land would be mitigated (see previous "Agricultural Resources" section).

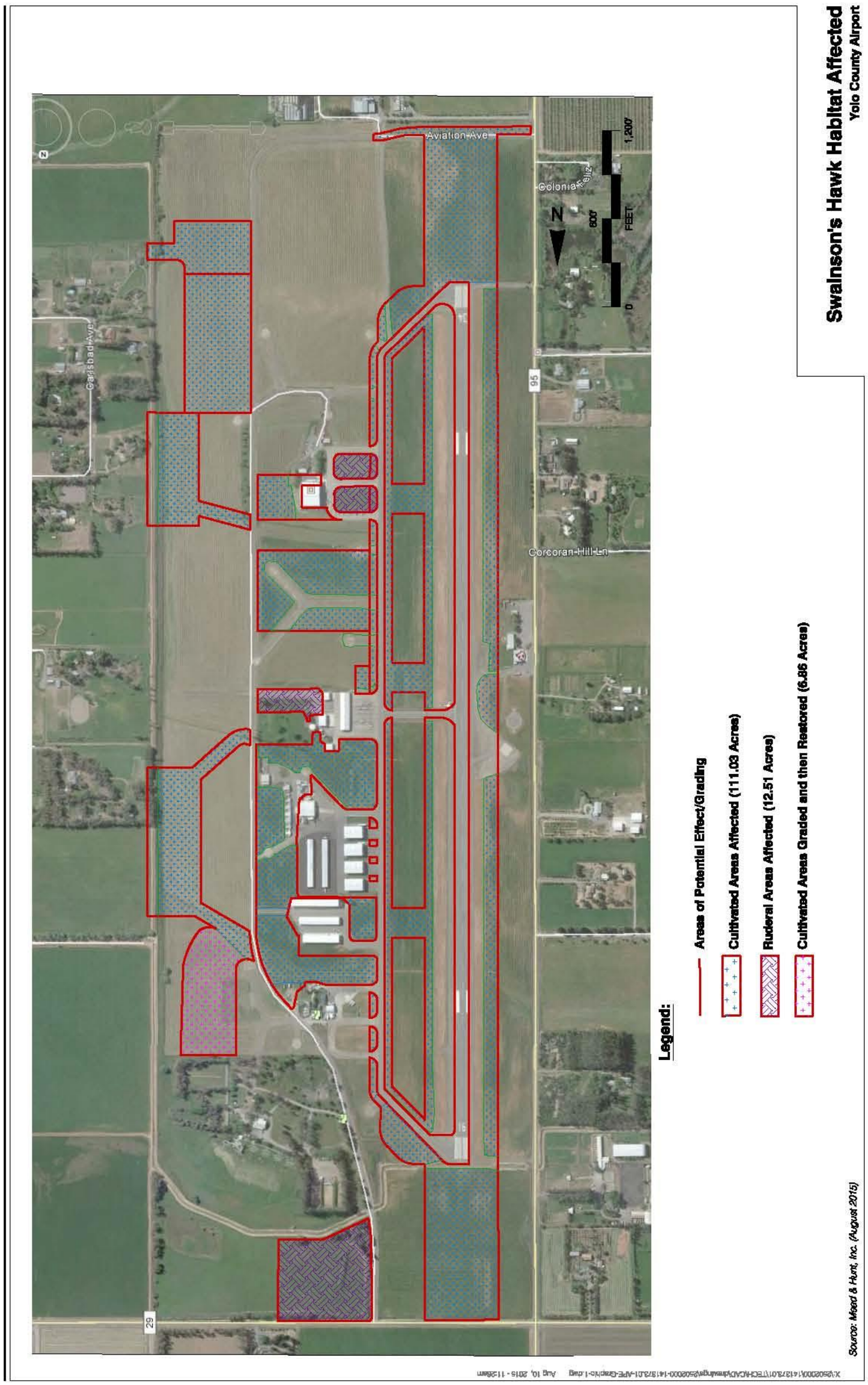
Wildlife

Common wildlife use of the project site is not expected to be significantly altered from implementation of proposed projects in the 2015 ALP amendment. The loss of 111 acres of cultivated land does not represent a significant loss of wildlife habitat. The conversion of approximately 30 acres of cultivated habitat to detention basin could enhance the wildlife value of the site by providing periodic open water habitat during the winter/spring seasons, and uncultivated grass during the summer/fall seasons.

Special-Status Species. Special-status species with potential to occur on or in the vicinity of the project are addressed below.

Western Pond Turtle. The only potential habitat for western pond turtle is the aquatic habitat within the Pleasant Prairie Canal. This water conveyance feature will not be affected by project activities and thus no impacts to western pond turtle are expected.

Swainson's Hawk. The project will remove 111 acres of suitable Swainson's hawk foraging habitat. This loss of habitat contributes to a significant cumulative loss of Swainson's hawk foraging habitat in the region and is subject to the County's Swainson's Hawk Interim Mitigation Program.


Swainson's Hawk Habitat Affected
Yolo County Airport
Aviation Ave
Colonia
Gadsbad Ave
Corcoran Hill Ln
95
29
N
0
600'
1,200'
FEET
Legend:
Areas of Potential Effect/Grading
Cultivated Areas Affected (111.03 Acres)
Ruderal Areas Affected (12.51 Acres)
Cultivated Areas Graded and then Restored (6.86 Acres)
Source: Mead & Hunt, Inc. (August 2015)

The loss of approximately 111 acres of cultivated land will remove foraging habitat for the state-threatened Swainson's hawk. The remaining open cultivated land on the project site will continue to provide habitat value. To address this loss of Swainson's hawk foraging habitat, development projects that occur within this region are generally subject to mitigation due to their contribution to a broader cumulative loss of agricultural foraging habitat. To address this impact in a more comprehensive and consistent manner, the Yolo County Swainson's Hawk Interim Mitigation Program has been established to offset this cumulative loss of habitat. This program, managed through the Joint Powers Authority of the Yolo Habitat Conservancy, is available to this project for purposes of mitigating impacts on Swainson's hawk foraging habitat. The standard mitigation procedure for projects that impact more than 40 acres includes providing mitigation lands at a 1:1 replacement ratio to offset loss of foraging habitat. A conservation easement approved by the CDFW would be placed on one or more offsite parcels within Yolo County and would require the land be maintained in agriculture under restrictions that would also maintain Swainson's hawk foraging habitat. Similarly, the applicant could purchase Swainson's hawk foraging habitat credits in a CDFW-approved mitigation bank. For projects impacting less than 40 acres, an applicant may alternatively elect to pay the applicable Swainson's Hawk mitigation fee.

One active Swainson's hawk nest occurs on the project site. The nest is in a willow tree along the southern end of the eastern drainage ditch. This nest site is not within the footprint of any of the project features; however, the nest and other active nests that may occur on the project site prior to implementation could be disturbed by construction activities occurring near the nest. Disturbance of active nests leading to possible nest abandonment is considered a significant impact. The nest tree along the eastern drainage ditch may also be at risk from routine maintenance. Vegetation is periodically removed from and adjacent to the ditch to reduce or avoid the impediment of flows. Removal of the active nest tree would be considered a significant impact and would be considered a take pursuant to the state endangered species act. Removal of the nest would therefore require an incidental take permit issued by the California Department of Fish and Wildlife.

White-tailed Kite, Northern Harrier, Short-eared Owl, Burrowing Owl, Loggerhead Shrike. While not currently nesting on the project site, habitat conditions are considered suitable to marginally suitable for these species. The relatively small amount of nesting and foraging habitat that could be removed would not represent a significant impact due to the local and regional abundance of similarly suitable nesting and foraging habitat. However, if present, each could potentially be displaced by project activities. Because projects in the 2015 amended ALP could be implemented over the course of several years, these species could inhabit the project site prior to impacts occurring. The loss of active nests that may be present in the future could represent a potentially significant impact.

Merlin. The merlin occurs in the Central Valley only during the winter. The removal of 111 acres of cultivated land does not represent a significant loss of winter foraging habitat for this species.

Mountain Plover. The mountain plover has a very restricted known distribution in Yolo County and has been only rarely reported in the last several years. This species is not known to occur on the project site and there are no records of occurrence in the immediate vicinity. Winter habitat in Yolo County is restricted to disked agricultural fields and thus is not associated with any unique biological communities. Because of the lack of occurrences and the association with disked agricultural fields, which are abundant in Yolo County during the winter, the loss of 111 acres of cultivated land on the project site is not considered a significant impact to this species.

Tricolored Blackbird. There is no nesting habitat present for the tricolored blackbird on or in the immediate vicinity of the project site. While the species could forage in the cultivated habitats, this removal of 111 acres is not considered sufficient to result in a significant loss of foraging habitat for tricolored blackbird in Yolo County.

Conclusions and Mitigation Measures

The proposed projects in the 2015 ALP amendment will have no significant impacts on vegetation or wildlife habitat. It will not affect animal movement or migratory patterns, will not affect reproductive potential, and will not affect the range, distribution, or abundance of any species. The project will also not impact any sensitive biological communities, such as wetlands, riparian, or oak woodlands; with the possible exception of periodic clearing of the east side drainage ditch, which could result in the removal of a narrow band of wetland vegetation and several willow trees. The project will remove 111 acres of suitable foraging habitat for the Swainson's hawk and the removal of willow trees along the east side drainage ditch could result in the removal of an active Swainson's hawk nest. If other special-status wildlife species inhabit the project site prior to full implementation of the project, these resources could also be affected. Several mitigation measures are provided to ensure that all potential impacts to special-status species are avoided or mitigated.

The following measures are recommended to avoid and minimize the potential for impacts and ensure that all potential impacts are reduced to a level of less than significant.

Mitigation Measure BIO-1: Conduct Preconstruction Surveys and Avoid Impacts to Special-status Species

To avoid disturbance-related impacts to nesting Swainson's hawks and other potentially occurring special-status species, including burrowing owl, short-eared owl, northern harrier, white-tailed kite and loggerhead shrike, a qualified biologist should conduct a pre-construction survey of the project site prior to any ground disturbing activities during each year construction activities are planned. The surveys shall be submitted to the Planning, Public Works and Environmental Services Department. These surveys should be conducted between approximately March 15 and August 31 and within 30 days of planned construction activity. If active nests of these species are found, establish the following no-disturbance set-backs until young have fledged.

- Swainson's hawk – 1,300 feet
- White-tailed kite – 1,300 feet
- Northern harrier – 300 feet
- Short-eared owl – 300 feet
- Burrowing owl – 200 feet
- Loggerhead shrike – 100 feet

Mitigation Measure BIO-2: Avoid Disturbance to Other Nesting Birds

To avoid impacting nesting birds covered under the federal Migratory Bird Treaty Act, removal of vegetation (i.e. trees and shrubs) should occur outside of the nesting season (September 1 to February 14) to reduce the potential of impacting nesting birds on or adjacent to the project site. If vegetation removal must occur during the nesting season, conduct preconstruction nesting season surveys to determine the presence or absence of nesting birds. These surveys should be conducted between approximately March 15 to August 31 and within two weeks of planned construction activity. If nesting birds are found in locations subject to habitat removal, no-disturbance set-backs will be established and vegetation removal will be postponed until young have fledged.

Mitigation Measure BIO-3: Contribute to the Yolo County Swainson's Hawk Interim Mitigation Program

Future individual development applications for new structures and activities on the County Airport site, whether they are ministerial or discretionary, that convert Swainson's hawk foraging habitat lands, shall mitigate for the loss of habitat through the County Swainson's Hawk Interim Mitigation Program or through participation in the pending Yolo County Habitat Conservation Plan. The mitigation shall be in place at the time of the issuance of any grading or building permits.

Mitigation Measure BIO-4: Obtain a Section 2081 Incidental Take Permit for Removal of Swainson's Hawk Nest Tree

If the active Swainson's hawk nest located at the southern end of the eastern drainage ditch is active at any time during the five years prior to removal of the tree, this would be considered a take pursuant to the state Endangered Species Act. The removal of the active nest tree during the breeding season will be prohibited by CDFW to avoid destruction of eggs or young. However, the tree can be removed if it is not supporting an active nest. To do so and to avoid unpermitted take of the nest tree, the county should obtain a Section 2081 Incidental Take Permit (ITP) from the CDFW prior to removal. The ITP will include additional mitigation to offset the loss of the nest tree.

Mitigation Measure BIO-5: Avoid Disturbance to or Compensate for Impacts to Active Burrowing Owl Nesting and Wintering Burrows

As indicated above, surveys should be conducted prior to construction to ensure avoidance of occupied burrowing owl burrows that may occupy the site prior to development. If active burrowing owl burrows are found, standard avoidance and mitigation measures recommended by CDFW shall be employed to offset impacts (California Burrowing Owl Consortium1993). They include the following:

- Conduct preconstruction surveys within 30 days prior to ground disturbing activity to determine presence or absence of occupied burrows. If no burrowing owls are found, no further mitigation is required.

- If active burrows are found, do not disturb active site by establishing a 50 meter (approximately 160 feet) no-disturbance buffer around occupied burrows during the non-nesting season (September 1 to January 31) and a 75 meter (approximately 250 feet) buffer around occupied burrows during the nesting season (February 1 through August 31). Buffer size is determined through a review of site-specific conditions including the type and extent of the impact, the timing and duration of the impact, visibility to the impact, and other environmental factors.

- During the non-nesting season (September 1 through January 31), passive relocation (e.g., one-way doors) can be used to exclude owls from active winter burrows and potential burrows within the project area when no other avoidance alternatives are available. This will also require the installation of artificial burrows that are beyond 50 meters of the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair of relocated owls. Relocation of owls should only be implemented during the non-nesting season.

- Compensate for loss of active burrows and associated foraging habitat. The extent of occupied habitat removed and subject to compensation is determined through a site-specific assessment of burrowing owl use. Compensation can be accomplished through an approved mitigation bank.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. Water conveyance channels, including the Pleasant Prairie Canal and the eastern drainage ditch will not be affected by project activities. Each will continue to function

as water conveyance channels. Disturbance to temporary ditches, which occurs regularly during harvesting or disking of the cultivated lands will not affect vegetation or wildlife habitat.

No wetlands will be affected by project activities. Wetland vegetation occurring within the eastern drainage ditch may be periodically affected through routine maintenance in order to maintain water flows through the ditch. However, maintenance of this ditch, including clearing of vegetation, likely occurs periodically and is not considered a new impact associated with the 2015 ALP update. Maintenance is expected to continue, however, under the updated ALP. Following channel maintenance, wetland vegetation in this narrow channel is expected to recover rapidly to its current form and its periodic removal does not represent a significant impact to wetland vegetation or wildlife species that may occur. Approximately 15 small willow trees may also be removed from the southern end of the eastern drainage ditch to avoid impediments to flow. This also does not represent a significant loss of willow trees due to their abundance in the area. However, while also related to periodic channel clearing and not directly related to the 2015 ALP update, this activity could also potentially result in the removal of a Swainson's hawk nest, which is addressed above.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. As noted above in "Conclusions," **t**he project will not interfere substantially with the movement of any native resident or wildlife species.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The proposed project would not conflict with any other local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The County does not have any other conservation ordinances, except for a voluntary oak tree preservation ordinance that seeks to minimize damage and require replacement when oak groves are affected by development. There are no proposed oak tree removals to accommodate the project.

f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Yolo County Natural Heritage Program, a Joint Powers Agency composed of the County, the cities, and other entities, is in the process of preparing a Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for Yolo County. The NCCP/HCP will focus on protecting habitat of terrestrial (land, non-fish) species. In the interim, the program has implemented a mitigation program acceptable to the Department of Fish and Wildlife for a main species of concern, the Swainson's hawk. The agreement requires that local agencies review all discretionary applications for potential impacts to the hawk or hawk habitat, and either pay a per-acre in-lieu fee or purchase a conservation easement (or mitigation credits) to mitigate for loss of habitat. The project's conditions of approval are specified in (a), above. No conflict with the developing NCCP/HCP is anticipated, as potential impacts to Swainson's hawk foraging habitat have already been addressed.

V.	CULTURAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Setting

A cultural resources survey of the County Airport was completed in 2011 as part of the removal of off-site trees (*Environmental Assessment for Off-Site Obstruction Removal*, Yolo County, 2011). Historical and cultural resource field surveys were performed to identify resources within the project's area of potential effect (APE), such as sites listed on the National Register of Historic Places (NRHP) or eligible for inclusion on the NRHP. The historic and archaeological survey included:

- A Record Search at the Northwest Information Center at Sonoma State University and the Yolo County Historical Society to identify previously documented historic and archaeological sites;
- Pedestrian field surveys to identify potential archaeological features and features in the built environment on residential/ranch properties within the APE boundaries; and
- Consultation with Native American Heritage Commission and federally recognized tribes in the area to identify potential sacred sites.

The results of the literature search did not identify any NRHP-listed or NRHP-eligible within the APE. The County conducted a field survey of 14 parcels adjacent to the airport and determined that no historic-age properties were eligible for the NRHP.

A pedestrian survey was conducted on February 2010 to identify potential archaeological deposits within the APE. Some freshwater clam shells were identified but no other archaeological indicators were identified in association with the shells, and the shells were considered natural occurrences.

In conclusion, neither historic nor archaeolgocial resources were identified with the APE based on the results of research and field surveys. The results of the geoarchaeological investigation indicate that the proposed project area has a low to moderate sensitivity to contain buried archaeological deposits.

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? *and*

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. As noted above, the project will not affect any historic, cultural, or paleontological resources known or suspected to occur on the project site. The project site is within the aboriginal territories of the Yocha Dehe Wintun Nation, however the site is not known to have any significant historical, archaeological, or paleontological resources as defined by the criteria with the CEQA Guidelines.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. No human remains are known or predicted to exist in the project area. However, the potential exists during any future construction to uncover previously unidentified resources. Section 7050.5 of the California Health and Safety Code states that when human remains are discovered, no further site disturbance shall occur until the County coroner has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendation concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours.

VI.	GEOLOGY AND SOILS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
	1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
	2. Strong seismic groundshaking?				
	3. Seismic-related ground failure, including liquefaction?				
	4. Landslides?				
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c.	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

DISCUSSION

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture or a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42).

No Impact. The project is not located within an Alquist-Priolo Earthquake Special Study Zone. No landforms are known to be on the project site that would indicate the presence of active faults. Although several earthquake fault zones are present within the County, none are present within proximity of the project site. Surface ground rupture along faults is generally limited to a linear zone a few yards wide. Because the project site is not located within an Alquist-Priolo Earthquake Special Study Zone, ground rupture that would expose people or structures at the site to substantial adverse effects is unlikely to result in any significant impacts. Any future development that may occur as a result of the updated Layout Plan will be required to comply with all applicable Uniform Building Code and County Improvement Standards and Specifications requirements in order to obtain permit approval from the Yolo County Planning, Public Works and Environmental Services Department.

ii) Strong seismic ground shaking?

No Impact. Ground shaking occurs as a result of energy released during faulting, which could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion. Because known active seismic sources are located fairly distant from the project site, strong seismic ground shaking would not be anticipated at the project site and is unlikely to result in any impact.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid. Factors determining the liquefaction potential are the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Liquefaction poses a hazard to engineered structures, as the loss of soil strength can result in bearing capacity insufficient to support foundation loads.

The potential for seismic ground shaking on the site is low, and even though the groundwater table in the area is generally higher than other areas of the County, there is a low potential for seismic-related ground failure at the site. Any future projects submitted for approval under the updated Layout Plan will be required to provide a geotechnical report for the building foundations in order to obtain a building permit from the Yolo County Planning, Public Works and Environmental Services Department.

iv) Landslides?

No Impact. A landslide involves the downslope transport of soil, rock, and sometimes vegetative material *en masse*, primarily under the influence of gravity. Landslides occur when shear stress (primarily weight) exceeds shear strength of the soil/rock. The shear strength of the soil/rock may be reduced during high rainfall periods when materials become saturated. Landslides also may be induced by ground shaking from earthquakes.

The project site is flat and has a low landslide susceptibility due to the slope class and material strength. Mass movements are unlikely to occur at the site, particularly large landslides with enough force and material to expose people or structures on the project site to potentially substantial adverse effects, including the risk of loss, injury, or death.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact. The land surface at the project site is flat. The project is located in an area with little potential for erosion; substantial soil erosion or loss of topsoil is unlikely to occur. The project would be required to comply with all applicable Uniform Building Code requirements.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

No Impact. The project is not located in an area of unstable geologic materials, and the project is not expected to significantly affect the stability of the underlying materials, which could potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Any future projects submitted for approval under the updated Layout Plan would be required to comply with all applicable Uniform Building Code requirements.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?

No Impact. The site is located in an area of "low" expansive soils. The project would be required to comply with all applicable Uniform Building Code requirements and submit a geotechnical report.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project site is currently served by septic systems and the soils are adequate to dispose of wastewaters.

VII. GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE.		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Generate greenhouse gas emissions either directly or indirectly, that may have a significant impact on the environment.	☐	☐	☒	☐
b.	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	☐	☐	☐	☒
c.	Be affected by climate change impacts, e.g., sea level rise, increased wildfire dangers, diminishing snow pack and water supplies, etc.?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The issue of combating climate change and reducing greenhouse gas emissions (GHG) has been the subject of state legislation (AB 32 and SB 375). The Governor's Office of Planning and Research has adopted changes to the California Environmental Quality Act (CEQA) Guidelines, and the environmental checklist which is used for Initial Studies such as this one. The changes to the checklist, which were approved in 2010, are incorporated above in the two questions related to a project's GHG impacts. A third question has been added by Yolo County to consider potential impacts related to climate change's effect on individual projects, such as sea level rise and increased wildfire dangers.

Yolo County has adopted General Plan policies and a Climate Action Plan (CAP) which addresses these issues. In order to demonstrate project-level compliance with CEQA relevant to GHG emissions and climate change impacts, applications for discretionary projects must demonstrate consistency with the General Plan and CAP. The adopted 2030 Yolo Countywide General Plan contains the following relevant policies and actions:

Policy CO-8.2: Use the development review process to achieve measurable reductions in greenhouse gas emissions.

Action CO-A117: Pursuant to the adopted Climate Action Plan (CAP), the County shall take all feasible measures to reduce its total carbon dioxide equivalent (CO2e) emissions within the unincorporated area (excluding those of other jurisdictions, e.g., UC-Davis, Yocha Dehe Wintun Nation, DQ University, school districts, special districts, reclamation districts, etc.), from 648,252 metric tons (MT) of CO2e in 2008 to 613,651 MT of CO2e by 2020. In addition, the County shall strive to further reduce total CO2e emissions within the unincorporated area to 447,965 MT by 2030. These reductions shall be achieved through the measures and actions provided for in the adopted CAP, including those measures that address the need to adapt to climate change. (Implements Policy CO-8.1)

Action CO-A118: Pursuant to and based on the CAP, the following thresholds shall be used for determining the significance of GHG emissions and climate change impacts associated with future projects:

> 1) Impacts associated with GHG emissions from projects that are consistent with the General Plan and otherwise exempt from CEQA are determined to be less than significant and further CEQA analysis for this area of impact is not required.
>
> 2) Impacts associated with GHG emissions from projects that are consistent with the General Plan, fall within the assumptions of the General Plan EIR, consistent with the CAP, and not exempt from CEQA are determined to be less than significant or mitigated to a less than significant level, and further CEQA analysis for this area of impact is generally not required.
>
> To be determined consistent with the CAP, a project must demonstrate that it is included in the growth projections upon which the CAP modeling is based, and that it incorporates applicable strategies and measures from the CAP as binding and enforceable components of the project.
>
> 3) Impacts associated with GHG emissions from projects that are not consistent with the General Plan, do not fall within the assumptions of the General Plan EIR, and/or are not consistent with the CAP, and are subject to CEQA review are rebuttably presumed to be significant and further CEQA analysis is required. The applicant must demonstrate to the County's satisfaction how the project will achieve its fair share of the established targets including:

- Use of alternative design components and/or operational protocols to achieve the required GHG reductions; and

- Use of real, additional, permanent, verifiable and enforceable offsets to achieve required GHG reductions. To the greatest feasible extent, offsets shall be: locally based, project relevant, and consistent with other long term goals of the County.

The project must also be able to demonstrate that it would not substantially interfere with implementation of CAP strategies, measures, or actions. (Implements Policy CO-8.5)

DISCUSSION

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. The update of the Layout Plan could result in future aviation and non-aviation projects that would generate an incremental increase in the amount of GHG emissions. Any future projects submitted for approval under the updated Layout Plan would be subject to additional environmental review of GHG and other impacts and could require mitigation, if necessary. The project does not require an amendment to the General Plan or any rezoning and is consistent with the County Airport Master Plan, a part of the Yolo Countywide General Plan. Further development at the County Airport is anticipated under the County General Plan.

As noted above in General Plan Action CO-A118, "impacts associated with GHG emissions from projects that are consistent with the General Plan, fall within the assumptions of the General Plan EIR, are consistent with the CAP, and not exempt from CEQA are determined to be less than significant or mitigated to a less than significant level, and further CEQA analysis for this area of impact is generally not required."

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The proposed project would not conflict with any applicable plan, policy or regulation adopted to reduce GHG emissions, including the numerous policies of the adopted 2030 Yolo Countywide General Plan and Climate Action Plan.

c) Be affected by climate change impacts, e.g., sea level rise, increased wildfire dangers, diminishing snow pack and water supplies, etc.?

No Impact. As discussed below in the Hydrology and Water Quality section, a portion of the project site is located in a flood zone, as designated by the Federal Emergency Management Agency (FEMA). The updated Layout Plan includes future construction of three detention basins that would ameliorate local flooding. The project, however, would not expect to be directly affected by any climate change impacts such as flooding, wildfires, diminished water supply, or sea level rise.

VIII.	HAZARDS AND HAZARDOUS MATERIALS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h.	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?	☐	☐	☐	☒

DISCUSSION

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?; *and*

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. Heavy equipment used during site grading and construction of future buildings and detention basins allowed under the updated Layout Plan the project would require the routine use of fuels and lubricants. A standard condition attached to the approval of any project over one acre in size would require the County or private applicant to prepare and submit a Storm Water

Pollution Prevention Plan (SWPPP), which includes spill prevention and control measures for responding to accidental spills on the project site.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The project site is not located within one-quarter mile of an existing or proposed school, and will not emit hazardous materials.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The areas of the County Airport that are proposed for future development project is not located on a site that has been included on a list of hazardous materials sites.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?; *and*

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is at a public airport. Construction of future buildings and detention basins allowed under the updated ALP would not create any safety hazard that would endanger people residing or working in the project area. No changes to the operation of the existing runaway and to operation of aircraft is proposed under the updated Layout Plan.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The location of the project would not affect any emergency response plan.

h) 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?

No Impact. The project site is not located in a designated Fire Hazard Severity Zone and, therefore, would not be at significant risk from wildland fires.

IX.	HYDROLOGY AND WATER QUALITY.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on-site or off-site?	☐	☐	☐	☒
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site?	☐	☒	☐	☐
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f.	Otherwise substantially degrade water quality?	☐	☐	☐	☒
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h.	Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	☐	☐	☐	☒
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

SETTING

The following discussion and analysis of impacts is summarized from the *Yolo County Airport Drainage Plan Update* (Mead & Hunt, September, 2014). The proposed three detention basin improvements recommended by the updated drainage plan are incorporated into the proposed Updated Layout Plan.

Existing drainage facilities on the County Airport property include a network of ditches and underground pipes designed to keep the airport's runway and other primary facilities drained during storm events.

According to local knowledge, historically on-site runoff created only minor flooding on the airport property in the initial years following the construction of the airport. However, areas developed on the east side of the airport property since the airport was developed now experience flooding during certain storm events due to changes in the drainage system adjacent to the airport. Flooding in the low-lying portions of the Airport property occurs fairly regularly in the winter months, particularly after a heavy or prolonged storm, or a series of storms. This is primarily the result of alterations to adjoining and nearby drainage facilities and other natural drainage patterns that have occurred east of the airport which have raised receiving waters and restrict the outlet at the southeastern corner of the airport property. As a result, a regulatory (100-year) floodplain area is delineated on airport property (FEMA, 2010).

The existing Airport Layout Plan was updated in 2009, and proposes development as described in the Project Description. The proposed development would add impervious area to the contributing watershed, which if not mitigated, would increase runoff volume and peak discharge into drainage facilities. As part of the planning efforts of the Yolo County Airport to accommodate existing and potential development on the airport property, as well as to bring the Yolo County Airport Drainage Plan up to current County drainage standards, the County updated the Yolo County Airport Drainage Plan.

On-site runoff on the airport property generally drains from west to east under the runway and main taxiway, into three primary drainage ditches that drain east to a single north-south drainage ditch, which parallels the Pleasant Prairie Canal/Flightline Ditch (Figure 9). This north-south drainage ditch conveys flows southward along the eastern boundary of the airport property parallel to the Pleasant Prairie Canal, eventually draining to Airport Slough to the south. The on-site tributary area is approximately 357.2 acres, and consists of a mix of undeveloped and developed land.

Figure 9 shows the existing regional drainage features near the airport. Currently, a large portion of the area to the west of the airport drains to the north end of the airport, then flows south along the north-south airport drainage ditch, east and then north along the Airport Slough, and finally crosses County Road 29 before flowing into Union School Slough. This long, circuitous route contains many culverts and flow restrictions which exacerbate flooding in the residential area east of the airport. Additionally, another large portion of the area to the west of the airport drains into Airport Slough south of the airport before flowing through the same residential area.

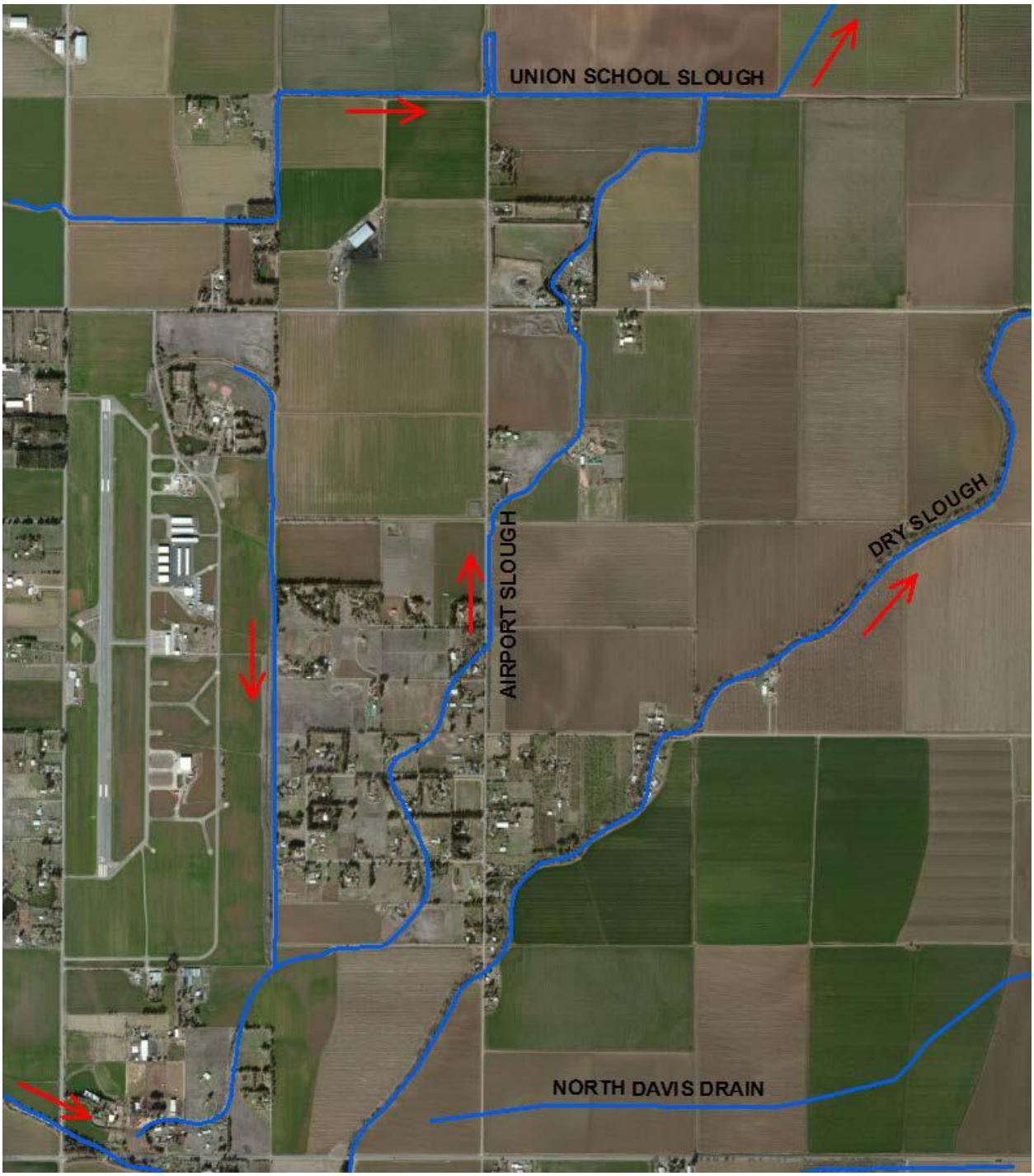
The airport is also subject to runoff that drains from off-site. The tributary area for the off-site runoff component is approximately 230.8 acres of agricultural land. West of the airport, flow drains generally from west to east. Portions of this land drain southeasterly and directly to Airport Slough. The remainder flows northeasterly, with the majority of the runoff collecting and pooling in a low-lying area on the western side of the airport, between the airstrip and County Road 95. The water that drains to this location has two outlets: a 36-inch reinforced concrete pipe that drains eastward under the airstrip and onto the Airport property, and a section of low lying ground which allows water to spill northward, eventually overtopping County Road 29 and draining to Union School Slough. As the invert of the pipe is considerably lower than the ground serving as an overland release to the north, flow will primarily flow east until the capacity of the pipe is exceeded.

DISCUSSION

a) Violate any water quality standards or waste discharge requirements?

No Impact. The updated Layout Plan does not propose any new development that would discharge any pollutants into the water system, nor result in any violations of existing requirements. No water quality standards or waste discharge requirements will be violated.

FIGURE 9
Existing Drainage Facilities



b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No Impact. The updated Plan does not propose any significant new development that would require large amounts of domestic or non-potable water from any existing or new wells. The proposed project will not lower the local groundwater level and could have a beneficial impact on groundwater recharge through construction of on-site detention basins.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?

No Impact. The updated Plan does not propose any substantial alteration of a stream or river.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact With Mitigation Incorporated. The Updated Airport Drainage Plan analyzes three phases of future airport development which have been considered to size and stage drainage improvements, as described below. The phased development plans are based on the existing 2009 Airport Layout Plan (County of Yolo, 2009), along with additional detail provided on the phased improvements plan (Figure 10). For the purposes of the study, it was assumed that no low-impact development (LID) mitigation measures will be included as part of the planned development. Any LID measures added in conjunction with the development (e.g. porous pavement, green roofs) could reduce the size of the required drainage facility improvements or possibly eliminate them altogether.

Phase 1 consists of existing development constructed since 2005 as well as development planned for the near future. Existing development which has been constructed since the last drainage plan update includes new hangars and pavement area. Development planned for the near future includes new hangars, new pavement area, and new aircraft runup aprons. Some pavement area will be removed and replaced with grass area as part of the Phase 1 improvements, as shown in Figure 10.

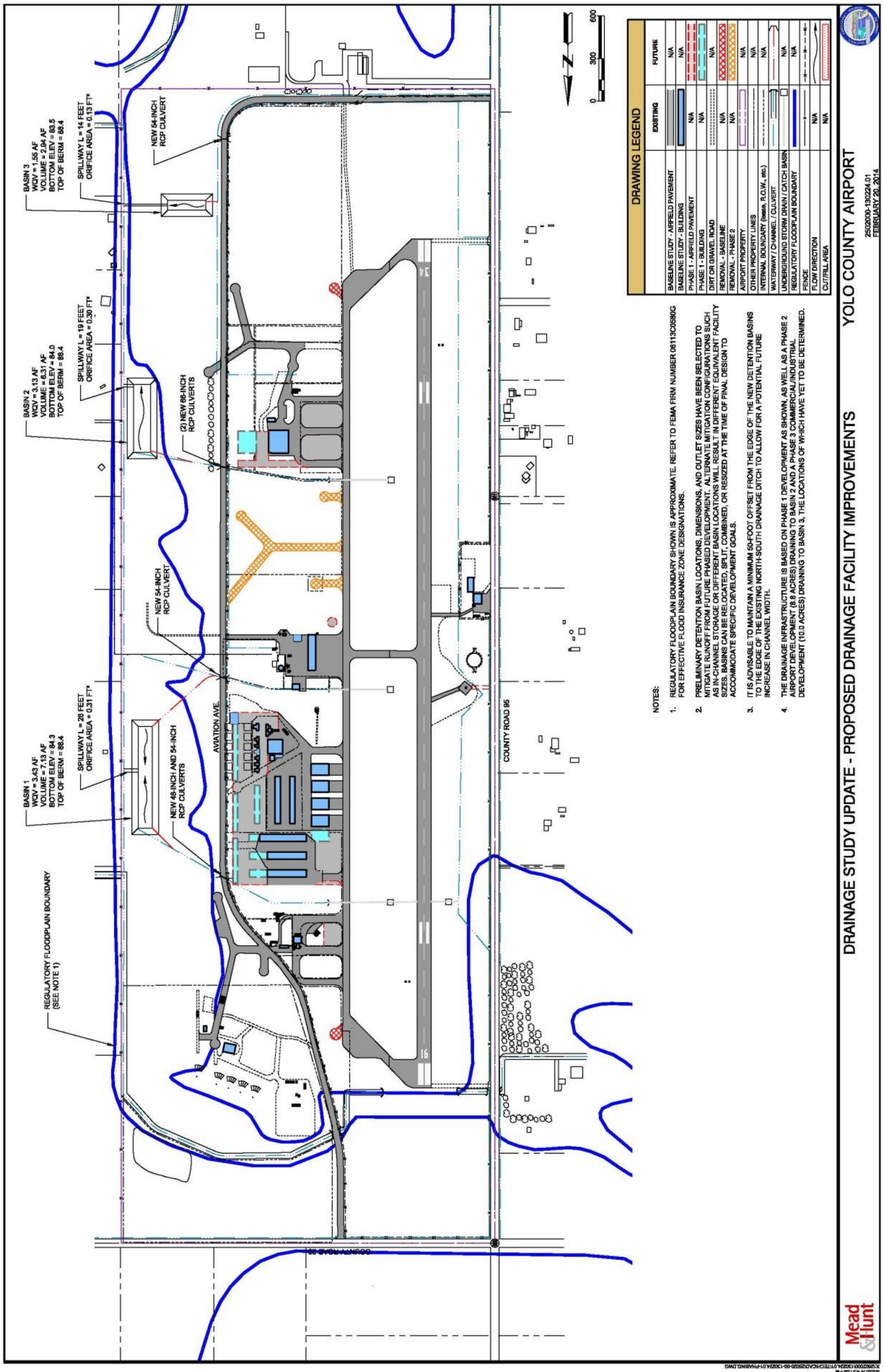
The Phase 2 development assumes 8.8 acres of new airport development and removal of some pavement area. The future development site is located between the existing north-south taxiway and Aviation Avenue.

Phase 3 assumes a future 10.0 acre commercial/industrial development site east of Aviation Avenue.

The drainage study concludes that Basin 1 needs to be constructed to bring the airport into compliance for the existing development constructed since 2005 near the general aviation hangars area. Basin 1 will also mitigate for Phase 1 development near the general aviation hangars area that is planned for the near future.

Basin 2 needs to be constructed concurrent with Phase 1 development (south runup apron and Davis Flight Support area). Basin 2 will also mitigate for the future Phase 2 Airport development (8.8 acres).

Basin 3 needs to be constructed concurrent with the future Phase 3 commercial development (10 acres).



DRAINAGE STUDY UPDATE - PROPOSED DRAINAGE FACILITY IMPROVEMENTS
YOLO COUNTY AIRPORT
2502000-130224.01
FEBRUARY 20, 2014
DRAWING LEGEND
EXISTING
FUTURE
BASELINE STUDY - AIRFIELD PAVEMENT
BASELINE STUDY - BUILDING
PHASE 1 - AIRFIELD PAVEMENT
PHASE 1 - BUILDING
DIRT OR GRAVEL ROAD
REMOVAL - BASELINE
REMOVAL - PHASE 2
AIRPORT PROPERTY
OTHER PROPERTY LINES
INTERNAL BOUNDARY (lease, R.O.W., etc.)
WATERWAY / CHANNEL / CULVERT
UNDERGROUND STORM DRAIN / CATCH BASIN
REGULATORY FLOODPLAIN BOUNDARY
FENCE
FLOW DIRECTION
CUT/FILL AREA
N/A
NOTES:
1. REGULATORY FLOODPLAIN BOUNDARY SHOWN IS APPROXIMATE. REFER TO FEMA FIRM NUMBER 06113C0580G FOR EFFECTIVE FLOOD INSURANCE ZONE DESIGNATIONS.
2. PRELIMINARY DETENTION BASIN LOCATIONS, DIMENSIONS, AND OUTLET SIZES HAVE BEEN SELECTED TO MITIGATE RUNOFF FROM FUTURE PHASED DEVELOPMENT. ALTERNATE MITIGATION CONFIGURATIONS SUCH AS IN-CHANNEL STORAGE OR DIFFERENT BASIN LOCATIONS WILL RESULT IN DIFFERENT EQUIVALENT FACILITY SIZES. BASINS CAN BE RELOCATED, SPLIT, COMBINED, OR RESIZED AT THE TIME OF FINAL DESIGN TO ACCOMMODATE SPECIFIC DEVELOPMENT GOALS.
3. IT IS ADVISABLE TO MAINTAIN A MINIMUM 50-FOOT OFFSET FROM THE EDGE OF THE NEW DETENTION BASINS TO THE EDGE OF THE EXISTING NORTH-SOUTH DRAINAGE DITCH TO ALLOW FOR A POTENTIAL FUTURE INCREASE IN CHANNEL WIDTH.
4. THE DRAINAGE INFRASTRUCTURE IS BASED ON PHASE 1 DEVELOPMENT AS SHOWN, AS WELL AS A PHASE 2 AIRPORT DEVELOPMENT (8.8 ACRES) DRAINING TO BASIN 2 AND A PHASE 3 COMMERCIAL/INDUSTRIAL DEVELOPMENT (10.0 ACRES) DRAINING TO BASIN 3, THE LOCATIONS OF WHICH HAVE YET TO BE DETERMINED.
BASIN 1
WQV = 3.43 AF
VOLUME = 7.13 AF
BOTTOM ELEV = 84.3
TOP OF BERM = 88.4
SPILLWAY L = 28 FEET
ORIFICE AREA = 0.31 FT²
BASIN 2
WQV = 3.13 AF
VOLUME = 6.31 AF
BOTTOM ELEV = 84.0
TOP OF BERM = 88.4
SPILLWAY L = 19 FEET
ORIFICE AREA = 0.30 FT²
BASIN 3
WQV = 1.55 AF
VOLUME = 2.94 AF
BOTTOM ELEV = 83.5
TOP OF BERM = 88.4
SPILLWAY L = 14 FEET
ORIFICE AREA = 0.13 FT²
NEW 54-INCH RCP CULVERT
(2) NEW 66-INCH RCP CULVERTS
NEW 48-INCH AND 54-INCH RCP CULVERTS
REGULATORY FLOODPLAIN BOUNDARY (SEE NOTE 1)
AVIATION AVE.
COUNTY ROAD 95
COUNTY ROAD 29
0
300
600
Mead &Hunt

The required mitigation for existing and future airport development could potentially be accomplished in tandem with a more comprehensive, regional drainage solution. This solution would be a cooperative effort by several stakeholders, including the Airport, Yolo County, Yolo County Flood Control and Water Conservation District, local residents, and environmental interests.

In addition to those three detention basins proposed by the amended Layout Plan, the updated drainage plan proposed a more comprehensive regional drainage solution that could be studied in the future. The regional solution could involve creating a supplementary bypass channel to take flow from both ends of the existing north-south airport drainage ditch (including the upstream portion of Airport Slough) and route it along County Road 29 to rejoin Airport Slough downstream of the residential area. This would result in a steeper grade along the new drainage channel compared to the existing Airport Slough route and would add valuable conveyance and storage capacity, reducing peak flood elevations in the region. Essentially, a portion of the flow would be re-routed from Airport Slough to the new drainage ditch, relieving pressure on the existing system. The new ditch would likely have fewer culverts than the existing Airport Slough reach. A new dry detention basin could also be constructed south of County Road 29, just north of the Yolo Sportsmen's Association facility for water quality and peak flow reduction purposes.

The airport and its neighbors could benefit from this type of regional solution because the new drainage system would route airport and other runoff around the residential area, clearly segregating any perceived consequences of airport development from those affected properties. Another benefit is that constructing a single dry detention basin on the north side of the airport could be more cost-effective than constructing three separate basins adjacent to the existing north-south ditch. The airport has much to offer toward a regional drainage solution because it possesses a continuous length of undeveloped land which can be used to bypass the Airport Slough around the residential area. It should be noted, however, that no cost-benefit analysis of this regional solution has been performed as part of this study. Such a solution might be more expensive overall because of the need to cross the existing canal, and the need to acquire right-of-way for almost a mile along County Road 29. A feasibility study could be conducted to identify specific merits and challenges associated with this solution.

Mitigation Measure HYDRO-1

The County shall require the phased construction of drainage improvements (detention basins) according to the *Yolo County Airport Drainage Plan Update* as part of, or prior to, approval of any new development applications for the airport site.

f) Otherwise substantially degrade water quality?

No Impact. The project would not otherwise degrade water quality.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No Impact. The Updated Layout Plan does not propose construction of any housing and there is no existing housing on the site.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. See (h), above. The project site is located in the large Lake Berryessa dam inundation zone.

j) Result in inundation by seiche, tsunami, or mudflow?

No Impact. The project area is not located near a body of water that could potentially pose a seiche or tsunami hazard. The project site is level, and is not located near any physical or geologic features that would produce a mudflow hazard.

X.	LAND USE AND PLANNING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

DISCUSSION

a) Physically divide an established community?

No Impact. The proposed project is located within an unincorporated area of Davis, in a rural agricultural area. The project would not divide any established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The County does not have an adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP), although a draft plan is now being prepared by the Yolo County Habitat Conservation Plan Joint Powers Agency (the Joint Powers Agency).

XI.	MINERAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

DISCUSSION

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?; *and*

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The project area is not located within any identified area of significant aggregate deposits, as classified by the State Department of Mines and Geology. Most aggregate resources in Yolo County are located along Cache Creek in the Esparto-Woodland area.

XII.	NOISE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:					
a.	Exposure of persons to or generation of noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☐	☒
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

DISCUSSION

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?;

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?;

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?;

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. Yolo County has not adopted a noise ordinance which sets specific noise levels for different zoning districts or for different land uses in the unincorporated area. However, the State of California Department of Health Services developed recommended Community Noise Exposure standards, which are set forth in the State's General Plan Guidelines (2003). These standards are also included in the Yolo County 2030 Countywide General Plan and used to provide guidance for new development projects. The recommended standards provide acceptable ranges of decibel (dB) levels. The noise levels are in the context of Community Noise Equivalent Level (CNEL) measurements, which reflect an averaged noise level over a 24-hour or annual period.

The project site is surrounded by rural residential and agricultural uses. The noise guidelines define up to 65 dB CNEL for outdoor noise levels in residential areas as "normally acceptable," and 55 to 70 dB CNEL as "conditionally acceptable." Existing noise contours for the County Airport indicate that the 65 dB contour line lies within the airport property, i.e., noise above 65 dB does not affect any nearby residences (Yolo County, 2009).

During construction of new hangars or other buildings, temporary noise levels would be increased due to use of construction equipment, however the temporary increase would not considered a significant increase in ambient noise levels in the area.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?;

Less than Significant Impact. The proposed project site is within an airport land use plan.

The 1998 Airport Master Plan EIR calculated noise levels associated with aircraft and automobile use when the airport had an assumed existing level of 60,000 annual aircraft operations. The Yolo Countywide General Plan indicates the existing 65 dB noise contour line falls within the airport boundaries and that there are no incompatible land uses located or planned with the CNEL 65 dB noise contours (Yolo County, 2009). The General Plan requires the mitigation of noise impacts to "sensitive receptors," which are defined as "residentially designated land uses; hospitals; nursing/convalescent homes; and similar board and care facilities; hotels and lodging; schools and day care center; and neighborhood parks." The only sensitive receptor in the area is the rural residential zoning of the Rolling Acres subdivision of five acre lots, which is not affected by the 65 dB contour line.

The Airport Master Plan EIR also included an analysis of projected 2015 noise levels based on over 101,000 operations. For the projected 2015 operations the EIR found that the significant increase in aircraft operations would slightly expand the existing 65 dB noise contour line to include one additional residence west across County Road 95 near the north end of the runway. As already noted, current operations are approximately 38,000. For this 2015 environmental analysis, projections have been prepared that indicate the CEQA "worst case" potential of 88,324 annual operations (see discussion in "Project Description"). Thus, noise impacts due to the increase in aircraft would not be anticipated to have an adverse impact on any nearby residences.

Construction of new structures and grading of land adjacent to the airport runaway could generate short term construction noise. The most significant component of the Amendment to the 2011 Layout Plan involves the excavation of three detention basins and construction of new drainage improvements. However, these improvements will be staged separately and will not occur as one project. Thus, the project would not expose individuals to excessive noise levels associated with construction or aircraft operations.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The project is not within the vicinity of a private airstrip.

XIII.	POPULATION AND HOUSING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?;
b) Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?; *and*
c) Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?

No Impact. The Updated Layout Plan project proposes a modest amount of future aviation and non-aviation uses that will not induce substantial population growth in the area. The project would not displace any existing housing or current residents.

XIV.	PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:					

XIV.	PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Fire protection?	☐	☐	☐	☒
b.	Police protection?	☐	☐	☐	☒
c.	Schools?	☐	☐	☐	☒
d.	Parks?	☐	☐	☐	☒
e.	Other public facilities?	☐	☐	☐	☒

DISCUSSION

a) Fire protection?
b) Police Protection?
c) Schools?
d) Parks?
e) Other public facilities?

No Impact. The Updated Layout Plan project proposes a modest amount of future aviation and non-aviation uses that will not generate the need for new government facilities such as fire and police protection, schools, parks, or other public facilities such as libraries, hospitals, satellite County offices, etc. Property tax revenues and applicable impact fees collected at the time of building permits issued for any new projects at the airport would help to defer any additional costs required for service delivery, such as fire or sheriff.

XV.	RECREATION.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

DISCUSSION

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?; *and*
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The updated Layout Plan would not require the construction of additional recreational facilities nor substantially increase the use of existing recreational facilities.

XVI.	TRANSPORTATION/TRAFFIC.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e.	Result in inadequate emergency access?	☐	☐	☐	☒
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The County Airport is located in a rural agricultural area. The airport is lightly used most of the year and does not generate any major traffic except for occasional skydiving and other special weekend events. There are no major traffic generators nearby.

The airport is served by rural County Road (CR) 95, CR 96, CR 29, and CR 31. All of these roads in the vicinity of the airport have very low current traffic levels.

Level of Service (LOS) is a quantitative measure of traffic operating conditions whereby a letter grade A through F is assigned to an intersection or roadway segment, representing progressively worsening traffic conditions. LOS A, B, and C are considered satisfactory to most motorists, and allow for the relatively free movement of traffic. LOS D is marginally acceptable, with noticeable delays and unstable traffic speeds. LOS E and F are associated with increased congestion and delay.

County Road 31 is the only roadway in the area that currently experiences traffic levels of less than LOS A or B. CR 31 between CR 95 and CR 98 measures approximately 490 vehicles during the PM peak hour, equivalent to LOS C (Yolo County, 2009).

DISCUSSION

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?; and

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. As noted in the Project Description, the buildout of the amended Layout Plan is assumed to affect a total of up to 180 acres of land. Approximately one-half of this total represents land that could be developed with new structures or pavement. However, just over one-half (93 acres) of this total includes airfield areas around the runway that will be graded and reseeded, but not developed with any structures or pavement.

Construction of new structures and grading of land adjacent to the airport runaway would generate some additional traffic in the form of construction equipment being driven to the County Airport and employees driving to the work site. During construction and grading the movement of crews, and equipment would result in temporary increases in traffic on the surrounding roadways. The small number of addition vehicle trips related to construction and operation of individual projects such as new hangars, detention basins, and grading adjacent to the runway are not expected to significantly impact area roadways. No critical intersections that currently experience congestion would be affected and no level of services standards would be degraded, since the projects will be relatively small and temporary in scale. The most significant component of the Amendment to the 2009 Layout Plan involves the excavation of three detention basins and construction of new drainage improvements. However, these improvements will be staged separately and will not occur as one project.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The project site is a public airport. The proposed update of the Airport Layout Plan does not propose any change in air traffic patterns or any increase in traffic levels that would result in substantial safety risks. The project, an update of the Airport Layout Plan, would increase safety by complying with FAA standarads.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Layout Plan contains no new features that could increase hazards due to a design feature or incompatible uses.

e) Result in inadequate emergency access?

No Impact. The project would not result in inadequate emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The project would not result in any features that would affect or alter existing public transit, bicycle, or pedestrian facilities nor interfere with the construction of any planned facilities.

XVII.	UTILITIES AND SERVICE SYSTEMS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

DISCUSSION

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The existing airport is currently served by on-site well sand septic systems. No new water or wastewater systems are proposed.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. The amended Airport Layout Plan includes the construction of three new detention basins and associated drainage improvements that would serve the airport and ameliorate existing localized flooding. The potential impacts related to the construction of these facilities is analyzed, and mitigation measures are recommended, in Section IV, Biological Resources, and Section IX, Hydrology and Water Quality, above.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?

e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The proposed project would not have a significant impact on wastewater requirements or water supplies. Additionally, any solid waste resulting from future development as a result of the Layout Plan will not significantly impact disposal capacity at the County Central Landfill.

XVIII.	MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☐	☒
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

DISCUSSION

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact. Based on the analysis provided in this Initial Study and the project's required conditions of approval, the project would not degrade the quality of the environment. As discussed in Section IV, Biological Resources, of this Initial Study, the proposed project could potentially impact raptor foraging habitat, a nest site for the Swainson's hawk, and burrowing owls. However, mitigation measures recommended by this Initial Study would reduce impacts to biological resources to less than significant levels so that the habitat and/or range of any special status plants or

animals are not endangered. No important examples of major periods of California history or prehistory in California were identified.

b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

No Impact. Based on the analysis provided in this Initial Study, the project would have no significant cumulative impacts.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. Based on the analysis provided in this Initial Study, there would be no impacts to human beings resulting from the proposed project.

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APPENDIX A

Appendix

Operations Forecasts

Introduction

This forecast was prepared to support an assessment of air quality impacts associated with the implementation of the Airport Layout Plan (ALP) update. The ALP update includes provision of additional aircraft storage hangars and improvements to facilities service transient aircraft. Therefore, forecasts are needed to assess changes in activity levels that will occur as a result of the proposed project. Recent master plan forecasts are not available. As a result, forecasts have been developed as a part of this environmental document. Forecasts are limited to aircraft operations. An operation is either a landing or a takeoff. This appendix describes the forecasting methodology and resulting forecasts that have been used in this document.

Methodology

Current Operations

The first step in the forecasting process is to develop an estimate of current operations. At airports with active air traffic control towers, the number of aircraft operations is counted during the hours the tower is open. Yolo County Airport, like most civilian airports, does not have an air traffic control tower; therefore, the number of aircraft operations must be estimated. Historically, the California Division of Aeronautics created estimates using an acoustical counter. Aeronautics staff would take two-week samples at an airport three times during a year and then extrapolate this data to provide an annual estimate. Unfortunately, the Division discontinued this practice some years ago.

Fortunately, Yolo County recently requested that Davis Flight Support (DFS, the full-service fixed base operator on the Airport) to prepare an estimate of current operations (see Table 1). DFS's initial step was to document operations through fuel sales and aircraft maintenance records. An adjustment factor was applied to these numbers to account for known after-hours activity (based on tiedown (i.e., aircraft parking) fees). Separate estimates where then made for the distinct groups of aircraft that use the Airport. These include:

- Aircraft associated with skydiving
- Flight training, both by major flight schools and currency training by individuals
- Operations by based and transient (i.e., visiting) aircraft not associated with flight training
- Agricultural aircraft
- Military and law enforcement
- Hot air balloons and light sport aircraft

Table 1

Yolo County Airport ALP Update Project
Estimate of Aircraft Operations

2014 Estimate	2014 Operations (take off / landings)	Adjust-ment Factor	Factor Count	2014 Total Count
DFS Jet	260	20%	52	312
DFS Piston	2,335	25%	584	2,919
WA	2,025	20%	405	2,430
Skydance/Prestar	2,600	20%	520	3,120
Transient	2,920	0%	0	2,920
Based	3,650	0%	0	3,650
Other/Unknown	7,300	0%	0	7,300
Balloons	48	0%	0	48
AG	625	0%	0	625
Flight School	2,500	0%	0	2,500
Training	11,680	0%	0	11,680
Law Enforcement	60	0%	0	60
Military	60	0%	0	60
LSA	60	0%	0	60
Total	**36,123**			**37,564**

Source:

Davis Flight Support (2015)

AG = agricultural applicators ('crop dusters")
Balloons = hot air balloons
Based = aircraft stored at the Airport
DFS = Davis Flight Support
Flight School = training operations by known flight schools
Law enforcement = mostly helicopters with some single-engine piston aircraft (e.g., Highway Patrol)
LSA = light sport aircraft: light weight single-engine aircraft designed for recreational use
Military = mostly helicopters with some single-engine training aircraft
Other/Unknown = a catch-all category
Skydance/Prestar = aircraft associated with skydiving
Training = other training operations
Transient = aircraft not based at the Airport
WA = Woodland Aviation

The sum of these various categories of aircraft users was 37,564 operations in 2014. Another estimate was prepared using data gathered from Sacramento County Airport System's on-line flight tracking system (WebTrack). A 40-day sample was taken during the months of July and August in 2013. The sample showed an average of 88.9 operations per day. Assuming that this rate was consistent throughout the year, the total for 2013 would have been 32,450 operations.

There is no direct means of directly validating either estimate. However, where actual or sample counts are not available, a commonly used means of estimating annual aircraft operations at general aviation airports is to utilize an assumed ratio between the number of based aircraft and the number of annual operations. The range of values for this ratio was developed using data from towered airports. The ratios of annual operations per based typically used are shown in Table 2.

There are varieties of limitations to this based aircraft ratio approach. First, no airport will exactly fit these characteristics. The data was originally generated several years ago and the relative use by personal and business aircraft have changed. However, this approach is useful for evaluating forecasts prepared by other methods.

There are currently 80 based aircraft at the Airport. If the DFS estimate of 37,564 operations is divided by 80, it yields an implicit ratio of 470 operations per based aircraft. This would place the Airport at the high end of the regional category of airports. Given the significant regular use by the skydiving and flight training aircraft, this is a plausible ratio. It may be a bit on the high side, but for the purposes of assessing environmental impacts, a slightly high number is to be preferred to one that is likely to be low.

Forecast Operations

The forecast of operations will be based upon an assumed linear relationship between the addition of hangars at the Airport and growth in operations. That is, over the long term, the growth in operations will mirror the growth in hangars. The current Airport Layout Plan (ALP) anticipates the addition of 101 hangars. This amount of growth is likely to take more than 20 years to occur. While 20 years is the normal limit for aviation forecasting, it is appropriate to assess impact of the plan based upon full build-out as shown in the plan. Of the 101 hangars, all but seven are sized to accommodate one aircraft. The seven larger hangars are assumed to hold two based aircraft each. This would mean a total of 108 based aircraft would be added to the Airport.

If the ratio of 470 operations per based aircraft is multiplied by 108, it yields an estimate of 50,760 new annual operations. Combined with the estimate of current operations, future annual operations would total 88,324.

Table 2

Ratios of Operations per Based Aircraft
Based Upon Airport Characteristics

Airport Characteristics	Annual Operations per Based Aircraft
Limited Use	100-200
• Aircraft mainly used for recreational purposes • Few transient (visiting) aircraft • Very limited flight training • No specialized flight operations (e.g., agricultural or skydiving) • Runway at shorter end of spectrum (e.g., less than 3,000 feet) • Rural setting	
Community	200-350
• Substantial recreational use, but also some business use • Modest level of transient aircraft use • Limited flight training • Limited specialized flight operations • Runway at least 3,600 feet • Rural or urban fringe setting	
Regional	350-500
• Substantial recreational use • High levels of transient aircraft use • Business use includes turboprops and possibly some jets • Significant flight training • May have significant specialized flight operations • Runway at least 4,000 feet • Metropolitan setting	
Metropolitan	500-700
• Significant recreational use • Substantial business use including turboprops and jets • High levels of transient aircraft use • Substantial flight training • May have significant specialized flight operations • Runway at least 5,000 feet • Metropolitan setting	