County of Yolo
Department of General Services

Grasslands Regional Park Trail System Development Project

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

January 2017

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Table of Contents

A. BACKGROUND 1
B. SOURCES 2
D. DETERMINATION 3
E. INTRODUCTION 4
F. PROJECT DESCRIPTION 5
G. ENVIRONMENTAL CHECKLIST 11

I. AESTHETICS. 12
II. AGRICULTURE AND FOREST RESOURCES. 13
III. AIR QUALITY. 14
IV. BIOLOGICAL RESOURCES. 18
V. CULTURAL RESOURCES. 35
VI. GEOLOGY AND SOILS. 39
VII. GREENHOUSE GAS EMISSIONS. 43
VIII. HAZARDS AND HAZARDOUS MATERIALS. 45
IX. HYDROLOGY AND WATER QUALITY 47
X. LAND USE AND PLANNING. 50
XI. MINERAL RESOURCES. 51
XII. NOISE. 52
XIII. POPULATION AND HOUSING. 54
XIV. PUBLIC SERVICES. 55
XV. RECREATION. 56
XVI. TRANSPORTATION AND CIRCULATION. 57
XVII. UTILITIES AND SERVICE SYSTEMS. 59
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE. 61

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

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A. BACKGROUND

1. Project Title: Grasslands Regional Park Trail System Development Project

2. Lead Agency Name and Address:
Yolo County
Department of General Services
120 West Main Street, Suite D
Woodland, CA 95695

3. Contact Person and Phone Number:
Jamieson Scott
Park Planner
Department of General Services
(530) 406-4882

4. Project Location:
Grasslands Regional Park
30475 County Road 104 (Mace Boulevard) at Tremont Road
Davis, CA 95616

5. Existing General Plan Designation (Yolo County): Open Space (OS)

6. Existing Zoning Designations (Yolo County): Public Open Space (POS)

7. Project Description Summary:

The Grasslands Regional Park Trail System Development Project (proposed project) consists of limited accessibility improvements to an approximately 323-acre park, known as Grasslands Regional Park, located approximately four miles south of the City of Davis in Yolo County. The project would include construction of approximately 6,605 linear feet of standard unpaved trail, 1,122 linear feet of paved trail, and a small parking lot. In addition, the project would include shade structures, benches, and interpretive signs/kiosks along the proposed trails. The proposed project would be consistent with the County General Plan land use and zoning designations for the site.

B. SOURCES

It should be noted that all the technical reports and modeling results used for the purposes of this analysis are available upon request at the Yolo County Department of General Services office, 120 West Main Street, Suite D, Woodland, CA 95695. The following documents are referenced information sources utilized for the analysis within this Initial Study/Mitigated Negative Declaration (IS/MND):

1. Barnett Environmental. *Biological and Wetland Resources Assessment of the Yolo Grasslands Regional Park Trail System Development Project*. December 29, 2016.
2. California Department of Conservation. *Yolo County Important Farmland 2008*. February 2010.
3. California Department of Conservation. *Regulatory Maps portal*. Available at: http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps. Accessed December 5, 2016.
4. Caltrans. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed December 5, 2016.
5. California Department of Fish and Wildlife. *California Natural Diversity Database*. Accessed August 2016.
6. City of Davis. *General Plan*. Amended January 2007.
7. Tom Origer and Associates. *Historical Resources Study for the Grasslands Regional Park at Mace Boulevard and Tremont Road, Davis, Yolo County, California*. December 23, 2016.
8. Yolo County. *2030 Countywide General Plan.* Adopted November 2009.
9. Yolo County. *2030 Countywide General Plan EIR.* April 2009.
10. Yolo County. *Environmental Education and Sustainability Park Project Draft EIR*. Adopted November 2012.
11. Yolo County. *Yolo County Climate Action Plan: A Strategy for Smart Growth Implementation, Greenhouse Gas Reduction, and Adaptation to Global Climate Change*. March 15, 2011.
12. Yolo County Department of Planning and Public Works. *Grasslands Park Master Plan.* February 9, 2005.
13. Yolo County HCP/NCCP Joint Powers Agency. *Second Administrative Draft, Yolo Habitat Conservation Plan and Natural Community Conservation Plan*. March 2015.

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or as indicated by the checklist on the following pages.

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

D. DETERMINATION

On the basis of this initial study:

☐ 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 in the project have been made by or agreed to by the applicant. 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 a "potentially significant impact" or "potentially significant unless mitigated" on the environment, 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 all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report (EIR) pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Kevin Yarris	Yolo County
Printed Name	For

E. INTRODUCTION AND BACKGROUND

The County prepared a Master Plan for the 323-acre Grasslands Regional Park (February 9, 2005). The 2005 Master Plan is intended to provide a coordinated and comprehensive approach to management, recreational uses, habitat protection and enhancement, and unified design recommendations that reflect the site and surrounding uses. In terms of recreational uses, the Master Plan aims to provide improved general public use of the park, as the park does not have a designated trail system for more passive recreational opportunities such as hiking and bird watching. To that end, Section E of the Master Plan identifies the design concept for Signage and Educational/Interpretive Opportunities. The concept is described as follows (see page 14 of the Master Plan):

> Interpretive facilities should be developed including a trailhead kiosk, as well as self-guided trails that provide signage and displays to inform users of the park's resources. The self-guided trails will provide an opportunity for school groups and general users to enjoy the park's wildlife without intruding into the most sensitive park areas. The trailhead facility can be a stand-alone kiosk, or can be incorporated into a community facility to provide meeting space as well as permanent educational displays. These facilities should be located in the central portion of the park, where the most active use is anticipated.

The Master Plan's goals of providing improved public access and concomitant protection of sensitive natural resources are consistent with the goals of the Yolo County Parks and Open Space Master Plan (2006) and the Yolo County General Plan Conservation and Open Space Element (2009).

The Yolo County Department of General Services has designed signage, trail and other interpretive amenities for Grasslands Regional Park to achieve this component of the Master Plan's vision for the park. During the conceptual design phase, the Department of General Services held a public workshop to solicit input on the design of the improvements from various stakeholder groups, including individuals from various conservation, protection, and civic groups, such as the Burrowing Owl Preservation Society, the California Native Plant Society, Tuleyome, and the Sierra Club – Yolano. As a result of stakeholder input, the original trail design was shifted south to avoid sensitive habitats, the shade structure location was relocated, and a habitat-viewing platform was omitted from the design. To address concerns about construction impacts to vegetation and sensitive habitats, the amount of linear feet of the initial trail design was reduced slightly and a more compact loop system was employed.

To provide a substantial portion of the needed funding for such improvements, the Department of General Services prepared an application for the State Department of Parks and Recreation, Habitat Conservation Fund Program. On September 27, 2016, the Yolo County Board of Supervisors approved Resolution No. 16-90, approving the application for the State Department of Parks and Recreation, Habitat Conservation Fund Program, related to the Grasslands Regional Park Trail System Development Project. This IS/MND has been prepared to provide the necessary environmental clearance for the proposed Trail System Development Project.

Approach to CEQA Analysis

This IS/MND identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document are organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that shall be applied to the project are prescribed.

The mitigation measures prescribed for environmental effects described in this Initial Study will be implemented in conjunction with the project, as required by CEQA. The mitigation measures will be incorporated into the project through project conditions of approval. The County will adopt findings and a Mitigation Monitoring and Reporting Program for the project in conjunction with its approval of the project.

On November 10, 2009, the Yolo County Board of Supervisors adopted the 2030 Countywide General Plan (County General Plan) and 2030 Countywide General Plan Environmental Impact Report (County EIR) for the County. The County of Yolo owns the property on which the proposed project would be located and the proposed project is consistent with the County General Plan land use designation for the project site. As such, in accordance with CEQA Guidelines Section 15152, the analysis contained in this IS/MND will be tiered from the 2030 General Plan EIR. Pursuant to Section 15152(d):

> (d) Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:
> (1) Were not examined as significant effects on the environment in the prior EIR; or
> (2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

Specific sections of the analysis contained in this IS/MND will be based on site-specific technical analyses, including air quality, biological resources, and cultural resources.

F. PROJECT DESCRIPTION

The following provides a description of the project site's current environmental setting, as well as the components of the proposed project.

Project Location and Setting

The proposed area of project improvements is located within the approximately 323-acre park, known as Grasslands Regional Park, located approximately four miles south of the City of Davis in Yolo County (See Figure 1 and Figure 2). Vehicle access to the park is provided at the intersection of County Road 104 and Tremont Avenue. The park is made up of four parcels identified by the Yolo County Assessor as Assessor's Parcel Numbers (APNs) 033-130-002, -003, -008, and -009.

Figure 1
Regional Vicinity Map

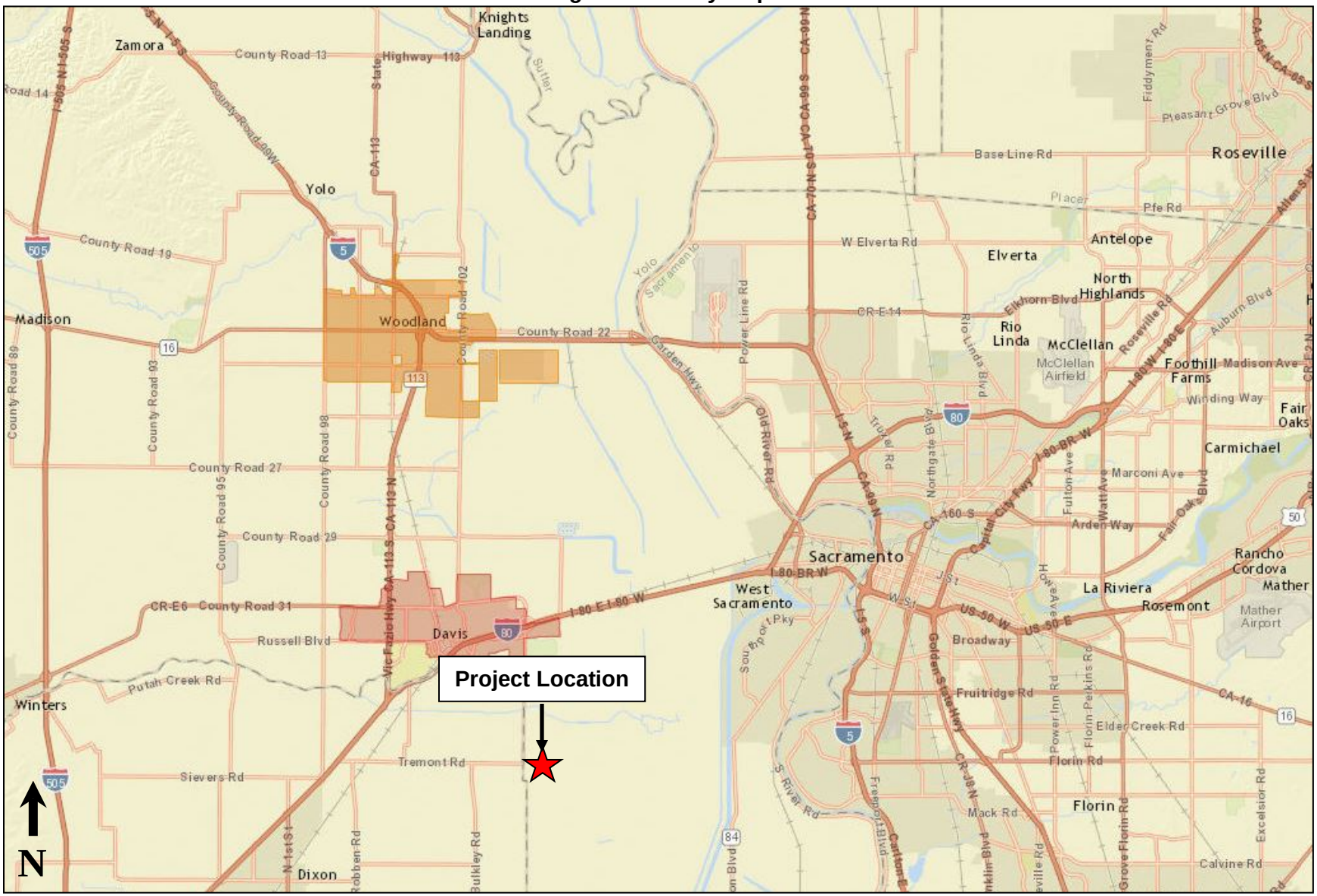
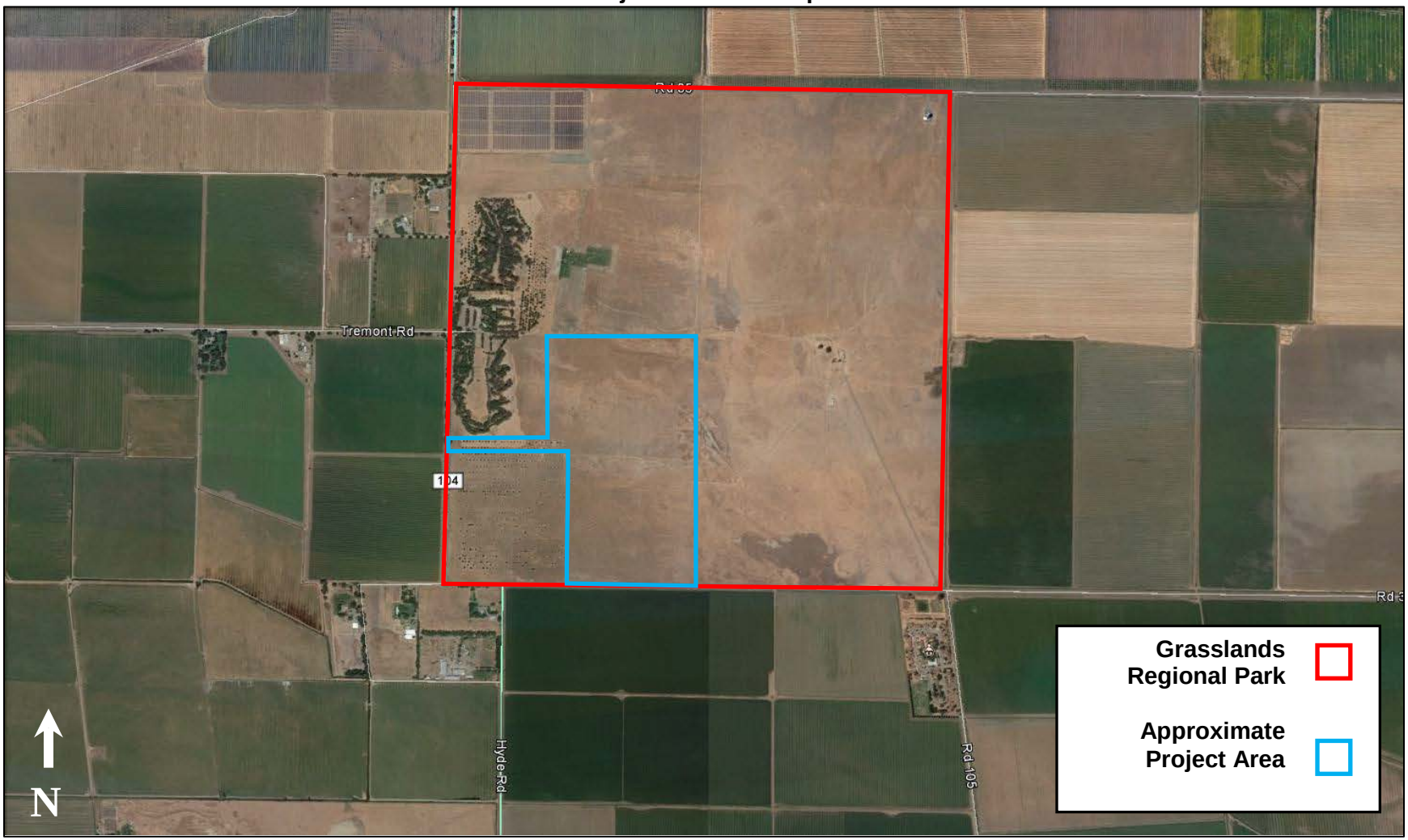


Figure 2
Project Location Map



Land uses surrounding the park are primarily characterized by agricultural operations, with the exception of Tremont Church and Cemetery to the west and the Davis Migrant Children Center daycare facility to the southeast. A small number of single-family residences are located to the south of the project site.

General Setting of Grasslands Regional Park

The existing park is publicly accessible and contains intact grassland prairie, seasonal wetlands, and vernal pools. The western portion of the park includes an archery range, a small launch area used for model airplane activities, and a 63-acre section of land designated as a burrowing owl preserve for the City of Davis. The archery range area has been planted with both native and non-native trees such as valley oaks and eucalyptus. The County has formal agreements for park use with the Yolo County Bowmen Archery Club (expired on December 31, 2016, negotiations ongoing), the Sacramento Valley Soaring Society, and the City of Davis for the 63-acre Burrowing Owl Preserve in the northeast corner of the park. The southwest portion of the park is currently designated as a large dog park. A parking area is located at the entrance to the park. The County currently charges a parking fee for access to the park.

The park currently lacks a formal trail system, which leads to visitors wandering the property, and visitor access to views of on-site wildlife areas is restricted to the existing dirt road located between the on-site archery range and model airplane launch area.

Specific Setting of Proposed Trail Improvement Areas

The proposed project consists of improvements within the area of the park outlined in blue in Figure 2, and more specifically shown in Figure 3. The current physical condition of the proposed area of improvement consists primarily of annual grasslands. Dominant plants consist of upland and facultative upland grasses including wild oat (*Avena fatua, A. barbata*) and soft chess (*Bromus hordeaceous*). While the dog park and linear segment north of the dog park fence line have been planted with various trees, the areas of improvement are absent of trees, shrubs and other woody vegetation. The proposed improvement areas are generally flat.

Project Components

The proposed project consists of improvements to the southwest quadrant of Grasslands Regional Park. The project would include construction of approximately 6,605 linear feet of standard unpaved trail, 1,122 linear feet of paved trail, compliant with the Americans with Disabilities Act (ADA), two shade structures, one interpretive kiosk (associated with the main shade structure), four interpretive sign panels, three picnic tables, and four benches. Signage will educate park users about the sensitive nature of habitat located on the site and instruct visitors to stay on the trail system.

The proposed ADA accessible trail, shown in blue on Figure 3, would be approximately five feet wide. The ADA accessible trail would start at the proposed parking lot and would terminate at the northeast corner of the existing dog park. The terminus of the trail would include a large shade structure (main shade structure) with an informational kiosk and would serve as the starting point for the unpaved trail system. The kiosk would provide visitors with guidance through the trail network.

The proposed unpaved trail, shown in orange on Figure 3, would be composed of imported stable fill dirt built up to a height of four inches (after grading). The fill would raise the trail tread to slightly

above grade to prevent water from flowing onto the trail during storm events and to prevent puddling. The trail surface will be compacted to design specifications during construction to minimize erosion.

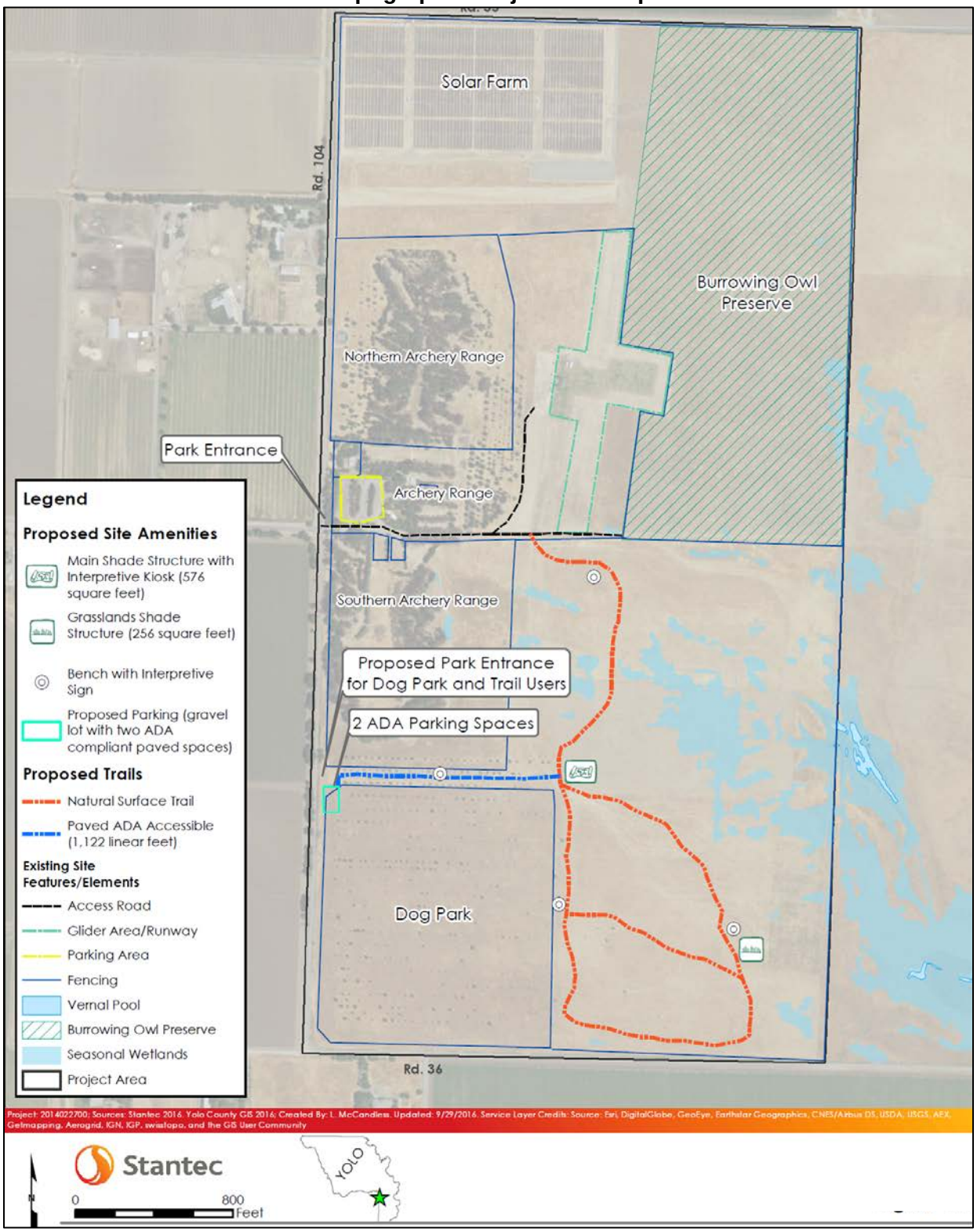
The unpaved trail system would include a large loop stretching south from the main shade structure and circling east to provide views of seasonal wetlands within the park. A short segment of trail would bisect the loop in order to provide a shorter route for visitors. Another section of unpaved trail would start at the existing dirt road between the archery range and the model plane launch area. Kiosks and interpretive signs throughout the unpaved trail system would provide information regarding sensitive habitats within the park, as well as key species that use the natural areas of the park. The proposed benches and shade structures would provide resting areas for visitors.

In addition to the features listed above, the project would include construction of fencing, access gates, and access signs in strategic locations to guide and manage public access at the site. With respect to access, the proposed project would also include construction of a 10-car gravel parking lot adjacent to County Road 104, near the northwest corner of the existing dog park (see Figure 3). Two of the parking spaces would be paved to allow for ADA compliance. A new driveway onto County Road 104 would provide convenient access to the new parking lot, trail system, and existing dog park. A half-section of a corrugated metal pipe (CMP) culvert would be laid parallel and adjacent to CR 104, under the surface of the proposed driveway, to allow unimpeded flow of stormwater through the existing, small roadside drainage ditch along the east edge of CR 104. The culvert would fully span the existing roadside drainage ditch.

Discretionary Actions

The discretionary entitlement for the project consists of County adoption of the CEQA IS/MND and MMRP.

Figure 3
Topographic Project Site Map



G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended, as appropriate, as part of the proposed project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 within a State 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 which would adversely affect day or nighttime views in the area?	☐	☐	✖	☐

a,c. A scenic vista is an area that is designated, signed, and accessible to the public for the express purpose of viewing and sightseeing. While Grasslands Regional Park has does not include such formally designated locations, the park contains large expanses of open space with sensitive habitats and a variety of wildlife. Views of such natural areas could be considered scenic. The proposed project is intended to improve public access and provide viewing opportunities of the open spaces at the park. All project components would be designed to complement the natural setting of the site, and the majority of improvements would not extend above the ground surface (i.e., natural and paved trails). The only vertical structures proposed for the project include the shade structures, interpretive kiosks and associated benches, and fencing, none of which would obstruct scenic views within the area, or substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista and would not substantially degrade the existing visual character and/or quality of the site and its surroundings, and a ***less-than-significant*** impact would occur.

b. Federally- or state-designated scenic highways do not occur within the County. The nearest Officially Designated State Scenic Highway is State Route 160, located approximately 10 miles southeast of the proposed project site. Therefore, the proposed project would not damage scenic resources within a State scenic highway, and ***no impact*** would occur.

d. The project would not include the addition of lighting fixtures or any materials that produce glare. Therefore, the proposed project would result in a ***less-than-significant*** impact regarding the creation of new sources of substantial light and/or glare that would adversely affect day or nighttime views in the area.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	☐	☐	✖	☐
b. Conflict with existing zoning for agricultural use, or 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)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	✖	☐
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 which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	☐	✖	☐

a,e. Per the California Department of Conservation Farmland Mapping and Monitoring Program, the site consists primarily of Farmland of Local Potential (Prime or Statewide Soils which are not presently irrigated or cultivated).[1] The western portion of the proposed improvement area is designated as "Other Land." Accordingly, the project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Natural Resources Agency, to non-agricultural use, and a ***less-than-significant*** impact would occur.

b. The site has a current Yolo County zoning designation of POS. The POS designation does not allow agricultural operations. Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract, and a ***less-than-significant*** impact would occur.

c,d. The proposed improvement area does not contain existing trees. As such, the improvement area would not be considered suitable timberland (as defined by Public Resources Code section 4526). In addition, the site is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would not result in a loss of forest land or conversion of forest land to non-forest uses, and a ***less-than-significant*** impact would occur.

1 California Department of Conservation. *Yolo County Important Farmland 2008.* February 2010.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	✖	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	✖	☐

a-c. Yolo County is located within the Sacramento Valley Air Basin (SVAB) and under the jurisdiction of the Yolo-Solano Air Quality Management District (YSAQMD). The federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) require that federal and State ambient air quality standards (AAQS) be established, respectively, for six common air pollutants, known as criteria pollutants. The SVAB is designated nonattainment for the federal particulate matter 2.5 microns in diameter ($PM_{2.5}$) and the State particulate matter 10 microns in diameter (PM_{10}) standards, as well as for both the federal and State ozone standards.

The CAA requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. Due to the nonattainment designations, YSAQMD, along with the other air districts in the SVAB region, periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the federal AAQS, including control strategies to reduce air pollutant emissions via regulations, incentive programs, public education, and partnerships with other agencies.

General conformity requirements of the SIP include whether a project would cause or contribute to new violations of any federal AAQS, increase the frequency or severity of an existing violation of any federal AAQS, or delay timely attainment of any federal AAQS. In addition, a project would be considered to conflict with, or obstruct implementation of, an applicable air quality plan if the project would be inconsistent with the emissions inventories contained in the air quality plan. Emission inventories are developed based on projected increases in population, employment, regional vehicle miles traveled (VMT), and associated area sources within the region, which are based on regional projections that are, in turn, based on General Plans and zoning designations for the region. The proposed project would be consistent with the existing County General Plan land use designation and zoning for the site. Therefore, the project would be expected to be consistent with emissions inventories within the SIP.

Due to the nonattainment designations of the area, YSAQMD has developed plans to attain the State and federal standards for ozone and particulate matter. The plans include the 2013 Ozone Attainment Plan, the $PM_{2.5}$ Implementation/Maintenance Plan, and the 2012 Triennial Assessment and Plan Update. Adopted YSAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. Thus, by exceeding the YSAQMD's mass emission thresholds for operational or construction emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the YSAQMD's air quality planning efforts. The YSAQMD mass emission thresholds for operational and construction emissions are shown in Table 1 below.

Table 1
YSAQMD Thresholds of Significance

Pollutant	Construction Thresholds	Operational Thresholds
ROG	10 tons/yr	10 tons/yr
NO_X	10 tons/yr	10 tons/yr
PM_{10}	80 lbs/day	80 lbs/day

Source: YSAQMD. Handbook for Assessing and Mitigating Air Quality Impacts. July 11, 2007.

Construction of the proposed project is anticipated to begin in the summer of 2016 and would include grading of the parking lot and associated driveway, as well as grading of the proposed trail system. Overall, approximately 457 cubic yards of fill dirt is anticipated to be imported to the project site and used for construction of the unpaved trail system and parking lot. Following site preparation and grading activities, 5,520 square feet of trail, and two parking spaces in the parking lot, would be paved. In addition, the proposed project would include construction of two shade structures as well as various other amenities associated with the proposed parking lot and trail system.

During construction of the proposed project, various types of equipment and vehicles would temporarily operate on the project site. Construction exhaust emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes PM_{10} emissions.

The proposed project's estimated construction-related emissions are presented in Table 2. As shown in the table above, the proposed project's construction emissions ROG, NO_X, and PM_{10} would be below the applicable YSAQMD thresholds of significance. Therefore, the proposed project's construction-related emissions would not result in a contribution to the region's nonattainment status of ozone or PM, and would not violate an air quality standard or contribute substantially to an existing or projected air quality violation.

As noted in Section XVI, *Transportation and Circulation*, of this IS/MND, the increase in vehicle trips associated with the public access improvements related to this project would be negligible and would not result in generation of substantial operational emissions.

Table 2 Maximum Project Construction-Related Emissions		
Pollutant	**Project Emissions**	**YSAQMD Thresholds of Significance**
ROG	0.03 tons/yr	10 tons/yr
NO_X	0.19 tons/yr	10 tons/yr
PM_{10}	1.60 lbs/day	80 lbs/day
Source: CalEEMod, December 2016.		

Based on the above analysis, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant, and a ***less-than-significant*** impact would occur.

d. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the single-family residences located approximately 0.3-mile south of the project site.

Due to their potential health effects, the major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminant (TAC) emissions. Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would not substantially increase traffic volumes on streets near the project site, and the project site is not located in the vicinity of any high-volume intersections. Thus, the proposed project would not cause any substantial levels of localized CO emissions at any intersection. Major sources of TACs include, but are not limited to, freeways and high traffic roads, distribution centers, and rail yards. The proposed project would not involve the creation of any sources of TAC emissions and is not located in the vicinity of any existing major sources of TACs. Therefore, the proposed project would not expose any sensitive receptors to substantial concentrations of any pollutants, and impacts would be ***less than significant***.

e. Odors are generally regarded as an annoyance rather than a health hazard. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Certain land uses such as wastewater treatment facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. The project site is not located in the vicinity of any existing or planned such land uses. In addition, the proposed project would not involve any operations that would create objectionable odors. Although less common, diesel fumes associated with construction equipment and delivery trucks could be found to be objectionable; however, construction activities are minor and would be temporary. In addition, all construction equipment and operation thereof would be regulated per the statewide In-Use Off-Road Diesel Vehicle Regulation. Construction equipment would also be required to comply with applicable YSAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would

help to minimize air pollutant emissions as well as any associated odors. Therefore, the proposed project would not create objectionable odors affecting a substantial number of people, and a ***less-than-significant*** impact would occur.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 Wildlife 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, and regulations or by the California Department of Fish and Wildlife or US 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, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	✖	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of 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 Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	✖

a. The Biological Resources section of the IS/MND is based upon the technical report prepared by Barnett Environmental, entitled *Biological & Wetland Resources Assessment of the Yolo Grasslands Regional Park Trail System Development Project* (December 29, 2016).

Methods of Analysis

Barnett Environmental conducted extensive research on biological resources within the Study Area, defined as the area bounded in yellow on Figure 4, to determine the potential for the proposed improvements to impact 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 Wildlife or U.S. Fish and Wildlife Service. Research included review of a number of documents, studies and plant collections pertaining to the park obtained from Ellen Dean and Jean Shepard at the U.C. Davis Center for Plant Diversity, including:

1. *CALFED At-Risk Plant Species, Habitat Restoration and Recovery, and Non-Native Species Management (ERP-02-P46) Final Conservation and Management Plan* (ESA, 2005);
2. *Vernal Pool Restoration and Management Issues for Yolo County's Grasslands Regional Park* (UC Davis, 2010)*;*
3. *Environmental Assessment Yolo County Department of General Services Land Release County of Yolo, California* (Michael Brandman Associates, 2012)*;* and
4. *County of Yolo - Environmental Education and Sustainability Park Project Draft EIR* (Michael Brandman Associates, 2012).

Barnett Environmental also reviewed the Solano County Water Agency's Multi-Species Habitat Conservation Plan; several administrative drafts of the Yolo County Habitat / Natural Communities Conservation Plan; and Yolo County 2030 Countywide General Plan EIR's Setting, Impacts and Mitigation Measures chapter on Biological Resources for a larger regional perspective and any additional, specific information pertinent to Grasslands Regional Park and its vicinity.

Besides reviewing past studies of Grasslands Regional Park and its vicinity to assess the project area's biological resources, Barnett Environmental queried the California Department of Fish and Wildlife's online California Natural Diversity Database (CNDDB; RareFind 5) for a list of special status plant and animal species known to occur in the Saxon and Davis USGS 7.5-minute quadrangle maps, reviewed information on special-status species and sensitive communities in Sacramento County maintained by the U.S. Fish and Wildlife Service (USFWS iPac, 2016), and queried the California Native Plant Society's online Inventory of Rare & Endangered Plants in California (CNPS 2016).

Vegetation Communities within the Study Area

The following three habitat types are present within the Study Area, but only the annual grasslands vegetation community occurs within the areas of proposed improvements.

Annual Grasslands

Vegetation within the annual grassland habitat of the project area is typical of similar habitat throughout the Central Valley. Dominant plants consist of upland and facultative upland grasses including wild oat (*Avena fatua, A. barbata*) and soft chess (*Bromus hordeaceous*). Less dominant grasses include ripgut grass (*Bromus diandrus*), hare barley (*Hordeum murinum* ssp. *leporinum*), annual fescues (*Vulpia* ssp.), and medusa-head grass (*Taeniatherum caput-medusae*). Forbs also present and subdominants are listed in the general order of abundance as follows: yellow star-thistle (*Centaurea solstitialis*), bind weed (*Convolvulus arvensis*), spring vetch (*Vicia sativa*), rose clover (*Trifolium hirtum*), redstem filaree (*Erodium cicutarium*), Fitch's tarplant (*Hemizonia fitchii*), common fiddleneck (*Amsinkia menziessii*), and Pursh's lotus (*Lotus purshianus*). Patches of California poppy (*Eschscholzia californica* var. *californica*) and milk thistle (*Silybum marianum*) are scattered throughout.

Vernal Pools

A series of five "created" vernal pools occur along the northeastern boundary of the project area, while a portion of a single, fenced natural vernal pool occurs along the project area's east-central boundary and extends into the adjacent Grasslands Regional Park land to the east. These pools support a prevalence of hydrophytic plant species typical of Sacramento Valley vernal pools, including: cupped downingia (*Downingia insignus*), woolly marbles (*Psilocarphus brevissimus*), stipitate popcorn flower (*Plagiobothrys stipitatus*), coyote thistle (*Eryngium vaseyi*), purslane speedwheel (*Veronica peregrina* ssp. *xalapensis*), and hyssop loosestrife (*Lythrum hyssopifolia*). Subdominant hydrophytic species in the larger vernal pool basin at the southeastern corner of the adjacent Grasslands Regional Park land include: Sacramento mesamint (*Pogogyne zizyphoroides*), annual hairgrass (*Deschampsia danthanoides*), Fremont goldfields (*Lasthenia fremontii*), common spike-rush (*Eleocharis macrostachya*), bractless hedge-hyssop (*Gratiola ebracteata*), American pillwort (*Pilularia americana*), water-starwort (*Callitriche marginata*), vernal buttercup (*Ranunculus bonarienis* var. *trisepalus*), and water pigmy-stonecrop (*Crassula aquatica*). Vernal pool margins support a prevalence of hydrophytic vegetation and are generally dominated by Mediterranean barley (*Hordeum marinum* var. *gussoneanum*), common toad rush (*Juncus bufonius*), and annual Italian ryegrass (*Lolium multiflorum*).

Trees

Approximately 40 acres of the adjacent park land to the west of the project area (bounded by County Roads 104 and 36) were planted with valley oaks (*Quercus lobata*) in the early 1980s, but not irrigated for more than a few years so that the trees were not able to effectively set their tap roots and are consequently stunted, in poor health, and have little wildlife value beyond a moderate annual yield of acorns for the numerous ground squirrels in the area.

Special-Status Species

The CNDDB lists records of 10 special-status plant and 11 special-status animal species within the project vicinity. However, available habitats in and adjacent to the project area reduce the number of species with the actual potential to occur here to the four plant and six animal species discussed below.

Four special-status plant species occur in vernal pools within the project area and in pools or grasslands within the larger Grasslands Regional Park lands to the east, including Solano grass (*Tuctoria mucronata*), Colusa grass (*Neostapfia colusana*), Alkali milk vetch (*Astragalus tener* var. *tener*), and San Joaquin spearscale (*Atriplex joaquinana*). These plants are dependent upon the particular conditions found in these vernal pools or on high-alkali soils and are restricted to these features and not found in the adjacent annual grasslands of the project area.

Six special-status animal species also occur in the project area, including the vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), burrowing owls (*Athene cunicularia*), white-tailed kites (*Elanus leucurus*), northern harriers (*Circus cyaneus*), and Swainson's hawks (*Buteo swainsoni*).

The following section provides details on the life history and possible presence of these species in the Study Area.

Special-Status Plants

The section below describes the potential for the four special-status plants species to occur on the project site.

Solano grass

Solano grass (*Tuctoria mucronata;* FE, SE, CNPS List 1B) has been federally and state listed as endangered since 1978. The Neostapfia, Tuctoria, and Orcuttia genera are in the Orcuttieae tribe of grasses – often described as California's most unusual and rarest grasses. They are endemic to vernal pools or alkaline playas and are not closely related to any other grass genera. Their ancestors were adapted to a terrestrial environment along the edges of an ancient inland sea that once filled the Great Central Valley of California. As the sea receded and the climate changed, these terrestrial plants colonized isolated saline and alkaline pools and evolved into aquatic species. Solano grass is found only in the Solano-Colusa Vernal Pool Region – at the Yolo Grasslands Regional Park and the Jepson Prairie Preserve core areas – though the latter population is thought to be extirpated, making the Grasslands Regional Park plants the only known extant population remaining. Solano grass populations at Grasslands Regional Park are restricted to the created vernal pools in the northern portion of the project area and the large vernal pools immediately east of the project area. Solano grass blooms April through July. No trail or associated amenities are proposed where the plants are found to occur within USFWS-designated Critical Habitat Unit 1 for this species within the park, however, and consequently no adverse impacts to this endangered plant population is anticipated.

Colusa Grass

Colusa grass (*Neostapfia colusana;* FT, SE, CNPS List 1B) was listed as endangered by the State of California in 1979 and federally listed as threatened in 1997. It shares its unique evolutionary history and photosynthetic mechanisms with Solano grass, but its distribution is not confined to claypan vernal pools and it has also been found in volcanic bedrock vernal pools on the east side of the Sacramento Valley. There are currently 42 extant occurrences of this species – two in Solano County at Jepson Prairie Preserve and two at the Yolo Grasslands Regional Park. The remaining occurrences are distributed between Stanislaus and Merced Counties along the east side of the San Joaquin Valley. Very little is known about the biology and ecology of Colusa grass. Its seed germinates underwater in spring and seedlings produce one or two juvenile aquatic leaves. Terrestrial shoots and inflorescences are produced after the pools become dry. Approximately three to four weeks after the pools become dry, the plant will produce flowers. Flowering typically occurs from May through August. Flowers are wind pollinated and following maturity, they begin to shatter. Seed dispersal occurs as the pools begin to fill the following rainy season.

Population densities can vary significantly year-to-year depending on climatic variation (e.g., temperatures and rainfall), seed bank size, and seedling mortality.

Colusa grass was first discovered in Grasslands Regional Park in 1993 and has been recorded from the created vernal pools in the northern portion of the project area and several other vernal pools immediately east of the project area within the park. No trail or associated amenities are proposed where the plants are found to occur within USFWS-designated Critical Habitat Unit 1 for this species within the park, however, and consequently no adverse impacts to this endangered plant population is anticipated.

Alkali milk vetch

Alkali milk vetch (*Astragalus tener* var. *tener*; CNPS 1B) is a federal Species of Special Concern and is listed by the CNPS as a species that is rare or endangered in California and elsewhere (List 1B). Alkali milk vetch grows at slightly higher elevations than the at-risk grasses (e.g. Colusa and Solano grasses) discussed above and is typically found on the higher flats and swales adjacent to the vernal pools. The dates and conditions under which seeds of *Astragalus tener* var. *tener* germinate are not known, except that the annual herb blooms from March through June and plants become inconspicuous within a few weeks of flowering. Previously known from 13 counties in California, the 36 presumed extant occurrences of alkali milk vetch are now restricted to Alameda, Merced, Napa, Solano, and Yolo Counties. Yolo County reportedly has 12 occurrences, but five of these are believed to no longer exist. One of the occurrences listed as possibly extirpated is the Yolo Grasslands population, but surveys conducted since 2004/05 documented an extant, vigorous population adjacent to a large vernal pool in the park's southeastern corner, along County Road 36. No trail or associated amenities are proposed to occur where these plants do or have occurred however, and no adverse impacts to this rare plant population are anticipated.

San Joaquin spearscale

San Joaquin spearscale (*Atriplex joaquinana;* CNPS 1B) is an annual herb between one and three feet tall that blooms from April to October. Very little information is available on the ecology of San Joaquin spearscale, though it typically occurs in alkali grassland and alkali meadow, or on the margins of alkali scrub and occurs on clay soils in areas of high alkalinity. San Joaquin spearscale occurs along the western side of the Central Valley from Glenn to Merced County and in the small valleys of the inner Coast Ranges in the broad flood basins of the valley floor and on alluvial fans associated with the major streams draining from the inner Coast Ranges foothills. The species has been observed in the park since 2004 on the margins of alkali vernal pools in the east-central portion of the park, though not in or near the created vernal pools in the project area. No trail or associated amenities are proposed to occur where these plants do or have occurred however, and no adverse impacts to this rare plant population are anticipated.

Special-Status Wildlife

The section below describes the potential for the identified special-status wildlife species to occur on the project site.

Federally Listed Species

Two federally listed animal species have the potential, and are known to occur within Grasslands Regional Park or surrounding vicinity, including vernal pool tadpole shrimp and vernal pool fairy shrimp, which are discussed in further detail below.

Vernal pool tadpole shrimp

Vernal pool tadpole shrimp (*Lepidurus packardi*; FE), a crustacean listed as endangered by the U.S. Fish and Wildlife Service, is generally five centimeters long and occurs in deeper vernal pools with clear-to-turbid water. Their eggs are drought-tolerant cysts that hatch within three weeks of a pool or swale filling with water. The adults mature around day 38 and are able to reproduce at day 54. The new eggs encyst and bury themselves in the muddy soil. Vernal pool tadpole shrimp prefer large, turbid, playa-type vernal pool habitat. Their life history pattern is similar to that of other vernal pool crustaceans, with an adult water-dwelling phase and a summer cyst/egg phase adapted to ephemeral wetlands. This species is found only in the Central Valley and San Francisco Bay Area of California, and is not abundant (often found in less than 20 percent of vernal pools surveyed) even in vernal pool areas. Critical Habitat has been designated by the USFWS for this species in Alameda, Amador, Butte, Colusa, Fresno, Kings, Madera, Merced, Sacramento, Shasta, Solano, Stanislaus, Tehama, Tulare, Yolo, and Yuba Counties, California. Critical Habitat in Yolo County consists of Unit 10, located southeast of the City of Davis and south of the South Fork of Putah Creek within Yolo Grasslands Regional Park (coincides with Colusa and Solano Grass Critical Habitat Unit 1). No trail or associated amenities are proposed to occur within USFWS-designated Critical Habitat Unit 10 or where the shrimp are found in the park, however, and no adverse impacts to this endangered population is anticipated.

Vernal pool fairy shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*; FT), a crustacean listed as threatened by the U. S. Fish and Wildlife Service, ranges in size from 0.43 to 0.98 inches and occurs in vernal pools, seasonal wetlands and wetland swales through most of the Central Valley to Tulare County. The habitats can be grass- or mud-bottomed, with clear to tea-colored water, and can be underlain by claypan or basalt-flow hardpan in grasslands. Vernal pool fairy shrimp have a lifespan of two months – from January to early March. Females lay drought-resistant eggs that embed into the soil and hatch the following rainy season, when pools refill. Unlike tadpole shrimp, the species appears to prefer smaller, shallower pools, usually of less than 0.5 acre in size. Vernal pool fairy shrimp are found in 28 counties of California, including the coastal range, southland, and Central Valley. While this species' distribution is fairly wide relative to other vernal pool crustaceans, it is generally uncommon throughout its range and not abundant where it does occur. Critical Habitat for this species in California has been designated in 24 California counties and the closest Critical Habitat unit is Unit 7, north of the project area near Marysville in Yuba County. Fairy shrimp have been found in vernal pools east of the project area within the larger Grasslands Regional Park, but no trail or

associated amenities are proposed to occur where the shrimp are found in the park and no adverse impacts to this endangered population is anticipated.

California (State) Listed Species

State listed species are plants and animals that are legally protected under the California Endangered Species Act (CESA). The two State listed species that have the potential to occur in the project area are discussed in further detail below.

Swainson's hawk

The California threatened Swainson's hawk (*Buteo swainsoni*; ST) is a large (1.75 - 2 pounds), broad-winged bird-of-prey (raptor) that frequents open country. It is a long-distance migrator that nests in the Central Valley from February 15 to September 15 and over-winters in Mexico or South America. This hawk forages almost exclusively in agricultural row crops and grasslands. Its favored prey is voles and small rodents that are more readily available in suitable densities on agricultural lands. Unlike some other local raptors, urban areas or dense vegetation do not provide suitable foraging habitat for this hawk. Sacramento, Yolo, and San Joaquin Counties support most of the Central Valley Swainson's hawk breeding population. Narrow riparian systems and scattered Valley oak trees, combined with suitable agricultural foraging habitat, provide high-quality habitat conditions in Yolo County, where an estimated 300 pairs nest.[1] Swainson's hawks are monogamous and actively nest from February 15 to September 15. Nests of twigs and grasses are constructed in isolated trees or bushes, shelterbelts, riparian groves, or abandoned homesteads, approximately nine to 15 feet above the ground in cottonwood, poplar, oak and the occasional pine tree in the Central Valley. The incubation period is 34 to 35 days, with fledging at about 38 to 46 days. The CNDDB contains approximately 35 recorded occurrences of Swainson's hawk within two miles of the project area and nine within one mile of the project area – with three of these nest occurrences in trees immediately adjacent to project area boundaries. Construction of the proposed trail and associated amenities, however, should not adversely affect nesting or foraging Swainson's hawks, though preconstruction surveys would be required to confirm this assumption.

White-tailed Kite

The California fully protected white-tailed kite (*Elanus leucurus*; FP) is a medium-sized raptor (12-15 inches long) with long, narrow, pointed wings and a long white tail. The outer portion of the top of the wings is grey with a black inner portion. This species has a white face and underside with exception of a black spot on the inner portion of each of its wings. Additionally, white-tailed kites have yellow feet and red eyes. Their diet consists of mainly small mammals, as well as some birds, lizards, and insects. It is commonly found in savanna, open woodlands, marshes, grasslands, partially cleared lands, and cultivated fields. Nests are typically found in the upper third of trees in open country growing in isolation or at the edge of or within a forest that range in size from 10-160 feet tall. Nests take the form of a

[1] Yolo County HCP/NCCP Joint Powers Agency. *Second Administrative Draft, Yolo Habitat Conservation Plan and Natural Community Conservation Plan*. March 2015, p. 5-63.

shallow bowl made mostly of small twigs and lined with grass, hay, or leaves. Females usually lay four eggs per clutch with an incubation period of 30-32 days. White tailed kites are frequently seen foraging over the project area, but the last observation of an active nest in the vicinity was in 2003. Construction of the proposed trail and associated amenities should not adversely affect nesting or foraging white-tailed kites foraging over the project area, though preconstruction surveys would be required to confirm this assumption.

California (State) Species of Concern

The California Species of Concern (CSC) that have the potential to occur in the project area due to their known habitat requirements are discussed in further detail below.

Western burrowing owl

Western burrowing owl (*Athene cunicularia*; CSC) is a California Species of Special Concern that is found in annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. They are subterranean nesters dependent upon burrowing animals like the California ground squirrel, black-tailed jackrabbit, or gophers to excavate their burrows. Western burrowing owls are opportunistic feeders with a diet consisting of arthropods, small mammals, birds, and amphibians and reptiles. They nest in single pairs and in colonies within underground burrows in grasslands or prairies. The nests are constructed by a wide variety of material, most common being animal dung. Breeding takes place in late March through September in open grasslands or prairies. Incubation lasts 28-30 days, with young dispersing to nearby burrows in early fall. Burrowing owls are not uncommon within Grasslands Regional Park, CNDDB records indicate numerous occurrences within the park and individuals have been observed in the project vicinity as recently as early December of 2016. While no owls have been observed in the project area within the past 6-12 months, some do presently occur to the east, within a few hundred yards of the project area boundary. Consequently, preconstruction surveys would be required to confirm that no owls would be adversely affected by proposed project improvements.

Northern Harrier

Northern Harrier (*Circus cyaneus*, CSC) is a raptor that is found in annual or perennial grasslands, fields, and marshes characterized by grasses or wetlands with low, thick vegetation. Northern harriers are slender, medium sized raptors with long broad wings and a long-rounded tail with a white rump patch. Male raptors have grey wings with black wingtips and white feathers underneath. Females on the other hand have white under wings with brown streaks. Additionally, they have a flat, owl-like face with a small sharp hooked bill. The northern harrier's diet consists mainly of small mammals such as mice and voles, reptiles, amphibians, and birds. They tend to breed in dry upland habitats and nests are usually located in dense clumps of vegetation comprised on willows, grasses, sedges, reeds, bulrushes, and cattails. Breeding takes place during the summer months where the female lays four to five eggs per clutch. Incubation lasts 28-36 days, with a nesting period of 14 days. While the CNDDB contains no records of harriers within five miles of the project area, past studies (ESA, 2005) have shown harriers to nest

in the tall upland grasslands of Grasslands Regional Park. ESA biologists observed four northern harrier nests in Grasslands Regional Park in 2004 and 2005. While construction of the proposed trail and associated amenities should therefore not adversely affect nesting or foraging white-tailed kites within the project area, preconstruction surveys would be required to confirm this assumption.

Migratory Birds

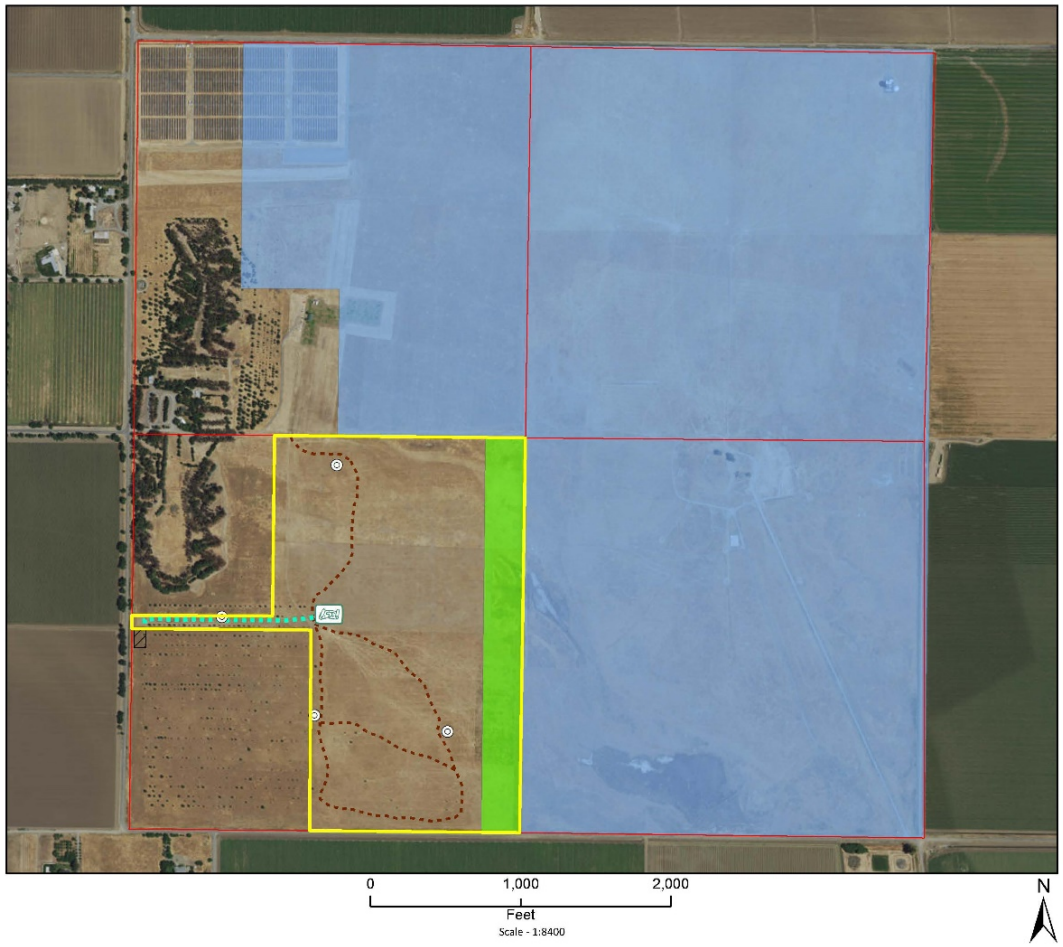
The existing trees and groundcover in the project area could provide habitat for various migratory bird species. Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All migratory bird species are protected by the MBTA. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is restricted under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a 'take' of the species under federal law. In addition to the above-discussed special-status birds, the project area provides nesting and foraging habitat for other migratory birds.

While the project would not result in the removal of any trees within the study area, ground vegetation would be removed during construction of the trail improvements. Should any ground-nesting migratory birds be nesting on-site during construction activities, adverse impacts could result.

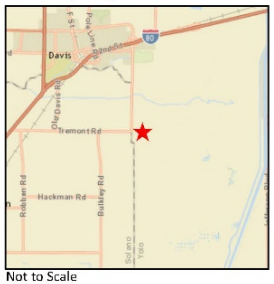
Critical Habitat

The Federal Endangered Species Act (FESA) requires the federal government to designate critical habitat for any listed species. Critical habitat is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. According to the U.S. Fish and Wildlife Service, critical habitat for Solano grass (*Tuctoria mucronata*), Colusa grass (*Neostapfia colusana*), and vernal pool tadpole shrimp (*Lepidurus packardi*) occurs within Yolo Grasslands Regional Park, but outside of the proposed improvement areas (see Figure 4).

Figure 4
USFWS Designated Critical Habitat



Vincinity Map



Not to Scale

	Area (SF)	Area (Acres)
Critical Habitat Area Inside Project	690,196	15.845
Critical Habitat Area Outside Project	18,463,923	423.875
Total:	**19,154,119**	**439.720**
Critical Habitat Species		
Common Name	**Scientific Name**	
Colusa Grass	*Neostapfia colusana*	
Solano Grass	*Tuctoria mucronata*	
Vernal Pool Tadpole Shrimp	*Lepidurus packardi*	

- Project Boundary
- Grasslands Park Parcels
- Critical Area Outside Project
- Critical Area Inside Project
- Proposed Parking
- Paved ADA Access Trail
- Proposed Natural Surface Trail
- Main Shade Structure (576 SF)
- Bench with Interpretive Sign

Yolo Grasslands Regional Park Trail Project - Yolo County, CA
Special Status Species - FESA Critical Habitat In the Project Vicinity

Data Source: Barnett Environmental
Image Source: ESRI Basemaps
Projected Coordinate System: NAD 1983 State Plane CA II

Impact Discussion

The proposed project's potential to impact special-status species is discussed in further detail below.

Swainson's hawk

The highest concentration of Swainson's hawks in the U.S. occurs within the Davis-Woodland region and the CNDDB contains approximately 35-recorded occurrences of Swainson's hawk within two miles of the project area and nine within one mile. Though no suitable nest trees occur in the project area, or within the larger Grasslands Regional Park, Swainson's hawks are frequently seen foraging over, and do nest near the park. Consequently, Barnett Environmental recommends preconstruction surveys based on the Swainson's Hawk Technical Advisory Committee's (2000) *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* to locate nesting Swainson's hawks and reduce the potential for nest failures as a result of project activities/disturbances.

The proposed project should not result in a significant impact to potential Swainson's hawk foraging habitat, as the proposed trail and amenities would result in disturbance of only approximately 1.04 acres (trail = 0.76-acre; ADA access trail and parking lot = 0.27-acre; shade structure = 0.01-acre) of the 635 acres of adjacent foraging habitat available in the project area and larger Grasslands Regional Park and abundance of ground squirrel, jackrabbit and rodent prey on these parklands. As the remainder of the park, especially within endangered species critical habitat, should be preserved in perpetuity as natural habitat, Barnett Environmental recommends no compensatory mitigation for these anticipated less-than-significant project impacts on raptor foraging habitat, as these disturbances would be negligible relative to the availability of foraging habitat in the region, including Grassland Park lands and numerous surrounding alfalfa fields that provide equally or even more desirable foraging habitat for the species.

White-tailed Kite

Although no suitable nest trees for white-tailed kite occur in the proposed improvement areas, suitable nest trees are found within the larger Grasslands Regional Park. If white-tailed kite are nesting at Grasslands Regional Park during construction, construction activities could disturb nesting birds if the activities are occurring in close proximity to active nests.

Western Burrowing Owl

No western burrowing owls were observed within the project area during Barnett field surveys in 2016, though owls were found in an abandoned ground squirrel colony nearby, to the east of the project area within Grasslands Regional Park. The owls are not uncommon visitors to the park and have been recorded a number of times within park boundaries. If burrowing owls are nesting on-site during construction, owls could be adversely impacted by construction activities.

Northern Harrier

Past studies (ESA, 2005) have recorded northern harriers to nest in the tall upland grasslands of Grasslands Regional Park and biologists observed four northern harrier nests in Grasslands Regional Park in 2004 and 2005. Subsequent sheep grazing of parklands, however, has precluded the persistence of tall grasses in the park and favored shorter grasses to encourage burrowing owl nesting. If northern harrier are nesting on-site during construction, harrier could be adversely impacted by construction activities.

Special-Status Plants

Barnett Environmental does not anticipate adverse impacts to special-status plant species occurring near the project area, as these species are restricted to specific habitats associated with vernal pools or alkali soils, all of which are located well outside of the proposed improvement areas (see Figure 4). However, to ensure no such adverse impacts, Barnett Environmental recommends pre-construction surveys for these species – according to CDFW's 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* – prior to the commencement of any activities that may modify vegetation, such as clearing, mowing, or ground-breaking activities.

Conclusion

Because of the potential for special-status plant and wildlife species to be found on-site, development of the proposed project could have an adverse effect, either directly or through habitat modifications, on an established resident or migratory wildlife corridor or on a species identified as a special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS. Therefore, a ***potentially significant*** impact could result.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impacts to a *less-than-significant* level.

Western Burrowing Owl, Northern Harrier, and other Ground-Nesting Birds

The following survey requirements are sufficient to address potential impacts to western burrowing owl, northern harrier, and other ground-nesting birds. The methodology follows Appendix D: *Breeding and Non-breeding Season Surveys protocol of the 2012 CDFW Staff Report on Burrowing Owl Mitigation.*

IV-1(a). *A preconstruction survey shall be conducted by a qualified biologist or ornithologist during both the wintering and nesting season, unless the species is detected on the first survey. If possible, the winter survey shall be conducted between December 1 and January 31 (when wintering owls are most likely to be present) and the nesting season survey should be conducted between April 15 and July 15 (the peak of breeding season). Surveys conducted from two hours before sunset to one hour after, or from one hour before to two hours after sunrise, are preferable. The survey techniques shall be consistent with the Staff Report survey protocol and include a 260-foot-wide buffer zone surrounding the Study Area. Repeat*

surveys should also be conducted not more than 30 days prior to initial ground disturbance to inspect for re-occupation and the need for additional protection measures. If no burrowing owls are detected during preconstruction surveys, then no further mitigation is required.

IV-1(b). *If active burrowing owl burrows or northern harrier ground nests are identified during the breeding season (February 1 - August 31), project activities shall not disturb the burrow/nest during the nesting season or until a qualified biologist has determined that the young have fledged or the burrow/nest has been abandoned. A no disturbance buffer zone of 260 feet shall be established around each active burrow/nest until the young have fledged the burrow/nest, as determined by a qualified biologist.*

If active burrowing owl burrows are identified during the non-breeding season (September 1 - January 31), a no disturbance buffer zone of 160 feet shall be established around each active burrow.

IV-1(c). *If the County determines it is not feasible to maintain a 160-foot buffer around each occupied burrow during the non-breeding season, passive relocation of the burrowing owls shall be conducted prior to construction. Passive relocation involves installing a one-way door at the burrow entrance, encouraging owls to move from the occupied burrow, and subsequently filling in the burrow to prevent reoccupation. No permit is required to conduct passive relocation; however, this process shall be conducted by a qualified biologist and in accordance with CDFW guidelines. In addition, to offset the loss of foraging and burrow habitat in the project area, a minimum of 6.5 acres of foraging habitat (calculated on a 300-ft foraging radius around the burrow) per pair or unpaired resident bird, shall be acquired and permanently protected at a location acceptable to the CDFW.*

Swainson's hawk, White-tailed kite, and other Migratory Birds

IV-2(a). *A preconstruction nesting bird survey shall be conducted on-site and within a ½ mile radius around all project activities within 15 days prior to construction during the March 1st to September 15th nesting season. No surveys shall be required if disturbance associated with the project would occur outside of the nesting season.*

IV-2(b). *If Swainson's hawk or white-tailed kite are identified as nesting immediately adjacent to the project area, a 500-foot non-disturbance buffer shall be established around this nest, or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with painted orange lath or via the installation of orange construction fencing. Disturbance within the buffer shall be postponed until a qualified ornithologist has determined that the young have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.*

Special-Status Plants

IV-3(a). Surveys shall be conducted by a qualified botanist from mid-April to early-July to capture the blooming period of the target species, when species are both evident and identifiable (see species accounts above), using systematic field techniques in all project area habitats to ensure thorough coverage of potential impact areas, including areas that will be directly or indirectly affected by the project.

IV-3(b). Surveys would consist of walking the entire site to ensure thorough coverage sufficient to provide comprehensive reporting, noting all plant taxa observed.

IV-3(c). Prior to surveying the project area, botanist(s) will visit nearby, known reference sites within Grasslands Regional Park to determine whether those species are identifiable at the time of the survey and to obtain a visual image of the target species, associated habitat, and associated natural community.

IV-3(d). The following information will be recorded for locations of each special status plant or natural community detected during a project area field survey:

- *a. A detailed map (1:24,000 or larger) showing locations and boundaries of each special status species occurrence or natural community found as related to the proposed project. Mark occurrences and boundaries will be marked as accurately as possible and locations documented by use of global positioning system (GPS);*
- *b. The site-specific characteristics of occurrences, such as associated species, habitat and microhabitat, structure of vegetation, topographic features, soil type, texture, and soil parent material will be recorded. A description of the direction of flow and integrity of surface or subsurface hydrology and adjacent off-site hydrological influences will be described for wetland-associated species;*
- *c. The number of individuals in each special status plant population will be counted (if population is small) or estimated (if population is large) and the number of individuals of the species per unit area will be estimated (or counted), identifying areas of relatively high, medium and low density of the species over the project area;*
- *d. Information about the percentage of individuals in each life stage will be recorded, as appropriate; and*
- *e. Digital photographic images of the target species and representative habitats will be taken to support information and descriptions.*

IV-3(e). Yolo County, the U.C. Davis Center for Plant Diversity and CDFW would be notified of any special-status plant populations encountered within proposed project impact areas following recordation by the surveying botanist(s). Consultation with these agencies/organizations would ensue to determine appropriate mitigation of project impacts, including relocation of project components to avoid any extant populations.

b. Riparian habitat is not located within the proposed improvements areas, nor is such habitat located within the broader Study Area evaluated in the Biological Resources and Wetland Assessment. Other sensitive communities are present within the Study Area, as discussed above, including U.S. Fish and Wildlife Service critical habitat for Solano grass (*Tuctoria mucronata*), Colusa grass (*Neostapfia colusana*), and vernal pool tadpole shrimp (*Lepidurus packardi*). However, as shown in Figure 4, the proposed improvements are not located within these sensitive communities, and as such, the proposed project would result in a ***less-than-significant*** impact to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

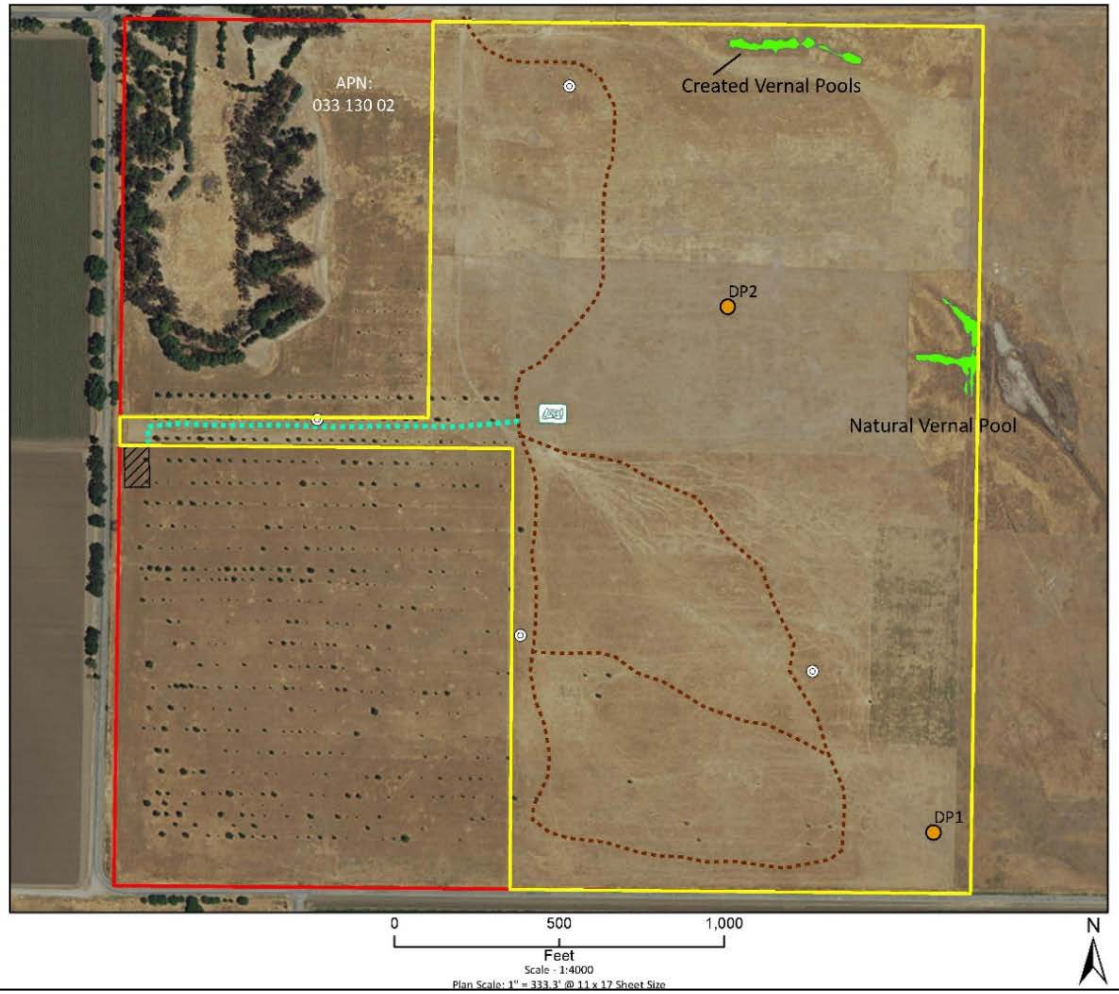
c. The Study Area has been delineated several times over the past 20+ years. The U.S. Fish & Wildlife Service's National Wetland Inventory shows project area wetlands. EDAW Consultants mapped Grassland Park wetlands in 2004, and Helm Biological Consulting conducted an extensive mapping of park wetlands again in 2010. These wetland maps are included in the Biological & Wetland Resources Assessment, available for review at the Department of General Services. These various mapping efforts reveal changing conditions over the period, likely due to fluctuating annual precipitation, changing grazing regimes and other habitat management activities, including mowing and disking. Barnett Environmental, therefore, also conducted a field delineation of wetland features identified during these previous mapping efforts within the project area on December 1, 2016 to determine whether these features persist today.

Barnett Environmental sampled each previously (2004, 2010) identified feature within the project area using the U.S. Army Corps of Engineers' (1987 Wetland Delineation Manual) Level 3, routine onsite determination methodology to evaluate the three parameters that identify and delineate the boundaries of jurisdictional wetlands in the project area, including wetland vegetation, hydric soils, and hydrologic conditions that result in periods of inundation or saturation on the surface from flooding or ponding.

After 5+ years of drought, it is not surprising that Barnett Environmental found no apparent indicators of these previously identified wetland features persisting today within the project area, except for a moderately large (fenced) vernal pool on site project area's eastern boundary. A single data point taken in a relatively large depression in the project area's southeastern corner (see Figure 5) did not reveal any defining wetland characteristics, such as wetland vegetation, hydric soils, or other hydrologic indicators.

The proposed project is expected to have no direct or indirect impacts on extant wetlands and/or "other waters of the U.S." within the project area. Barnett Environmental found no extant (2016) wetland features persisting in the project area apart from the created vernal pools approximately 600 feet east of the proposed trail (see Figure 5). The County has also planned this trail to avoid even those features identified in 2004 and 2010 wetland assessments (see the Biological and Wetland Resources Assessment for further information), but no longer evident in the project area. Though the proposed trail does cross a swale identified by the National Wetlands Inventory, this feature no longer exhibits wetland soils, hydrology or vegetation and its crossing would not require U.S. Clean Water Act permitting with the either U.S. Army Corps of Engineers and Central Valley Regional Water Quality Control Board, nor a California Fish & Game Code, Section 1602 Lake & Streambed Alteration Agreement with the CDFW. Therefore, the proposed project would result in a ***less-than-significant*** impact to protected wetland habitats.

Figure 5
2016 Wetlands Inventory



Vincinity Map

Not to Scale

Legend

- Project Boundary
- Vernal Pools
- Parcel Line
- Proposed Parking
- Main Shade Structure (576 SF)
- Bench with Interpretive Sign
- Upland Data Point
- Paved ADA Access Trail
- Proposed Natural Surface Trail

Potential Waters of the US

Name	Area (SF)	Area (Acres)
Created Vernal Pools	9,111	0.209
Natural Vernal Pools	11,532	0.265
Total:	20,643	0.474

d. The proposed trail improvements would not create barriers to the movement of wildlife through the Grasslands Regional Park. Connectivity to/from open lands to the west and east of the project area would remain. Therefore, the project would have a ***less-than-significant*** impact with respect to interfering substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

e. While trees are located within the Study Area evaluated by Barnett Environmental, the proposed trail improvements would not result in impacts to any existing trees. As a result, the project would have a ***less-than-significant*** impact with respect to conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f. The Yolo HCP/NCCP, under development by the Yolo Habitat Conservancy, is a Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) and Local Conservation Plan for Yolo County, California. The Yolo HCP/NCCP aims to conserve natural open space and agricultural areas that provide habitat for special-status and at-risk species found within the habitats and natural communities in Yolo County.[1]

The Second Administrative Draft Yolo HCP/NCCP was released on March 31, 2015, and the public comment period for the Second Administrative Draft closed on May 29, 2015. The Yolo Habitat Conservancy expects to submit the final HCP/NCCP to the wildlife agencies for issuance of permits by December 2017. When completed and approved, the Yolo HCP/NCCP will incorporate measures to conserve important biological resources, provide streamlined permitting for appropriate urban growth and public infrastructure projects, and support the preservation of Yolo County's rich agricultural heritage.

However, because the Yolo HCP/NCCP has not yet been adopted by the City or County, ***no impact*** would occur regarding a conflict with an adopted HCP/NCCP.

1 See http://www.yolohabitatconservancy.org/about; accessed January 3, 2017.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c. Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	☐	✖	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries.	☐	✖	☐	☐
e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	☐	✖	☐	☐

a. The following discussion is primarily based on a Historical Resources Study (HRS) prepared for the proposed project by Tom Origer and Associates.[4]

Archival research conducted as part of the HRS included examination of the library and project files at Tom Origer & Associates. A review was completed of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park, California. Sources of information included, but were not limited to, the current listings of properties on the National Register of Historic Places, California Historical Landmarks, California Register of Historical Resources, and California Points of Historical Interest as listed in the Office of Historic Preservation's Historic Property Directory. Archival research focused on the proposed parking lot area and the proposed trail system area (proposed improvement areas). A review of historical maps did not reveal evidence of 19th or early 20th century buildings or structures within the vicinity of the proposed parking lot or trail system.

A field survey of the proposed improvement areas was completed on December 13, 2016. The proposed improvement area was examined intensively by walking a 50-foot wide corridor centered on the proposed trail routes and by examining the proposed bench/sign locations, shade structure locations, the proposed parking lot site, and the area surrounding such features out to 20 feet. Historic period site indicators were not found on-site during the survey. Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

Therefore, the proposed project would not cause any adverse change in the significance of a historical resource, and a ***less-than-significant*** impact would occur.

b-d. The NWIC archival records search completed for the study area by Origer & Associates determined that surveys within the proposed trail system and park amenities areas have not been conducted previously. One survey was conducted within a quarter-mile (Jones

4 Tom Origer and Associates. *Historical Resources Study for the Grasslands Regional Park at Mace Boulevard and Tremont Road, Davis, Yolo County, California.* December 23, 2016.

& Stokes Association, Inc. 1999); however, that study did not identify any cultural resources.

As discussed above, a field survey was conducted of the proposed improvement areas by Origer & Associates on December 13, 2016. Based on the results of the prefield research, it was anticipated that prehistoric-period resources could be found within the study area. Prehistoric archaeological site indicators expected to be found in the region include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements such as slabs and hand-stones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire affected stones.

Cultural resources were not found on-site during the intensive field survey. Determining the potential for buried archaeological deposits includes analyzing information regarding landform age, distance to water, slope, and archaeological data (Meyer *et al.* 2016). The study area is located on generally level land consisting of Recent and Pleistocene alluvial fan deposits dating up to the Holocene epoch (11,700 years ago - present) (Strand and Koenig 1965), and very close to two intermittent water sources. Such deposits are contemporaneous with human arrival and occupation of California. Based on criteria derived from King's (2004) soil sensitivity for buried sites, the study area is categorized as having a high sensitivity for buried sites (King 2004). This roughly translates to a 3%-5% chance of a site being discovered within a 24-acre area. However, historical maps indicate that Patwin villages were usually erected along major rivers and near abundant resources (Johnson 1978:350) and the current study area is far from the Sacramento River, which indicates a much lower sensitivity for buried sites.

Nevertheless, ground-disturbing activities associated with the proposed project could uncover previously unknown buried archaeological or paleontological materials. Ground-disturbing improvements would generally consist of site preparation and grading of the proposed parking lot and trail system areas. Therefore, the project could result in a ***potentially significant*** impact with respect to causing a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5 and/or disturbing human remains.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

V-1. *If any prehistoric artifacts or other indications of archaeological resources are found during grading and construction activities, all work within 100 feet of the find shall cease and the applicant shall retain a qualified archaeologist to evaluate the find(s). If the resource is determined to be eligible for inclusion in the California Register of Historical Resources and project impacts cannot be avoided, data recovery shall be undertaken. Pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and*

Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation. The language of this mitigation measure shall be included on any future grading plans approved by the County for the proposed project site.

V-2. *In the event of the discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 24 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the Yolo County Department of General Services.*

e. Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), tribal consultation requirements, a project notification letter was distributed to the Cortina Rancheria Band of Wintun Indians of California, the Yocha Dehe Wintun Nation, the Ione Band of Miwok Indians, the United Auburn Indian Community, and the Torres Martinez Desert Cahuilla Indians. The letters were distributed on December 1, 2016. The mandatory 30-day response period closed on December 31, 2016, and a request for consultation was received by United Auburn Indian Community of the Auburn Rancheria (UAIC). The County has initiated consultation, as requested. The UAIC has indicated that there are tribal cultural resources within the project area. No additional information was provided regarding the location or type of tribal cultural resources generally identified by the UAIC.

A records search of the Sacred Lands File was performed by the Native American Heritage Commission (NAHC). The NAHC indicated that the Sacred Lands File does not contain information about the presence of Native American cultural resources in the immediate project area. In addition, the HRS performed for the study area concluded that ethnographic sites are not reported in the vicinity (Johnson 1978:350; Kroeber 1925:354);

and the field survey conducted by Origer & Associates did not identify the presence of any historic resources within the proposed improvement areas.

While the project would disturb a relatively small area (approximately 1-acre), and resources have not been identified on-site, the possibility exists that construction of the proposed project could result in a ***potentially significant*** impact to tribal cultural resources.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level by ensuring that, in the unlikely event that subsurface tribal cultural resources are discovered during construction, the resource(s) shall be appropriately treated.

V-3. *The project proponent shall submit grading details to tribes who have requested consultation on this project under Public Resources Code Section 21080.3.1. The grading details can be submitted in the form of a grading plan and shall set forth the plan and methodology for grading, including a timeline, grading locations, and other pertinent details including but not limited to the types of equipment to be used. At least 10 business days prior to project grading, the County shall contact the tribe(s), who have requested consultation, to notify the tribe(s) of grading. Tribe(s) shall be allowed access to the site for monitoring purposes during ground disturbing activities only, if they so desire.*

For any resources identified as meeting the definition of tribal cultural resources set forth in Public Resources Code Section 21074, significance determinations shall be measured in terms of criteria for inclusion on the California Register of Historical Resources (Title 14 CCR, §4852[a]). The evaluation of the tribal cultural resource(s) shall include culturally appropriate temporary and permanent treatment, which may include avoidance of tribal cultural resources, in-place preservation, and/or re-burial on project property so the resource(s) are not subject to further disturbance in perpetuity. Any reburial shall occur at a location predetermined between the landowner and tribe.

The landowner shall relinquish ownership of all sacred items, burial goods, and all archaeological artifacts that are found on the project area to the tribe for proper treatment and disposition.

VI. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. 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 based on other substantial evidence of a known fault?	☐	☐	✖	☐
ii. Strong seismic ground shaking?	☐	☐	✖	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	✖	☐
iv. 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	✖	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code?	☐	☐	✖	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖

ai-ii. According to the California Geological Survey (CGS) Alquist-Priolo Earthquake Fault Zone Maps, the proposed project site is not located within the vicinity of an Alquist-Priolo Earthquake Fault Zone. However, the project area is surrounded by several faults in the San Andreas Fault system to the west and the Eastern Sierra fault system to the east. A series of faults also run along the eastern base of the foothills west of the County. Per the County General Plan, the level of earthquake hazard at the site is relatively low.[5]

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC). Such codes provide minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on site, and the strength of ground shaking with specified probability of occurring at a site. Structures built according to the seismic design provisions of the CBC should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some nonstructural

5 Yolo County. *2030 Countywide General Plan EIR* [pg. 688-691]. April 2009.

damage; and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.

While damage to structures and risks to people from ground rupture and ground failure is unlikely at the project site, all project structural components would be required to adhere to the provisions of the 2013 CBC. The CBC contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards.

As a result of the above considerations, seismic activity in the area of the proposed project would not expose people or structures to substantial adverse effects involving rupture of a known earthquake fault or strong seismic ground shaking. Therefore, the proposed project would have a ***less than significant*** impact.

aiii,aiv,

c. Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary loss of shear strength due to pore pressure buildup under the cyclic shear stresses associated with intense earthquakes. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). According to the General Plan EIR (see page 691), liquefaction is expected to be relatively higher in the Great Valley portion of the County, particularly along the floodplains of streams, where the sediments are generally sandier than other areas. The project site is located within the Great Valley. However, according to Figure IV. L-4, Regional Ground Shaking Hazard, of the Yolo County General Plan EIR, the Grasslands site is located within areas identified as being distant from known active faults, and as a result would likely experience lower levels of ground shaking during an earthquake. The expected minimal amount of ground shaking during an earthquake at the project site would reduce the potential for seismic-related ground failure or liquefaction.

Landslides and lateral spreading occur in areas containing substantially sloped ground, whereas the ground surface on the project site is essentially level. Significant slopes that would create a danger of landslide on- or off-site or would cause lateral spreading to occur do not exist at the site and, as a result, the proposed project would not create any risks associated with landslides or lateral spreading.

Subsidence occurs when loose, sandy soils settle during earthquake shaking. Because the proposed project site is located in an area of relatively low earthquake hazard and the proposed structures are small in scale, the proposed project would not be affected by or cause subsidence of on-site soils.

All project components would be built in conformance with the CBC, which includes design standards to ensure damage to structures as a result of seismic activity is minimized. Therefore, the proposed project would not expose people or structures to substantial adverse effects involving landslides or seismic-related ground failure, including liquefaction, and would not 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. Therefore, a ***less-than-significant*** impact would occur.

b. During construction of the proposed parking lot and trail system, including associated amenities, topsoil would be exposed. During such exposure, the potential exists for

topsoils to be transported by wind or water during storm events, leading to erosion, which could affect the project area and potentially inadvertently transport eroded soils to the aquatic features within the eastern portion of the park. However, exposure of loose topsoils would be temporary during site preparation and would cease after completion of parking lot and trail construction. The fill dirt brought in for the unpaved trails would be mechanically compacted to minimize erosion potential.

As discussed in Section IX, *Hydrology and Water Quality*, of this IS/MND, in accordance with County Code Section 10-9.303, the proposed project would be required to implement Best Management Practices (BMPs) during construction activities to prevent the discharge of pollutants, to the maximum extent practicable, from the site into the County storm drain system or natural surface waters. Such pollutants may include, but are not limited to, soils, construction wastes or debris, contaminants from construction materials, tools, and equipment. In addition, construction activities would be required to comply with all applicable County recommendations for erosion control, such as those set forth in the County of Yolo Improvement Standards, Section 11.[6]

Implementation of an erosion control plan, containing appropriate BMPs, would be necessary during construction activities to control and prevent discharge of sediments, and possibly other pollutants generated by construction activities, into sensitive habitats within the larger Grasslands Regional Park, to avoid a ***potentially significant*** impact.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VI-1. *Prior to the issuance of a grading permit, the Department of General Services shall prepare and submit an Erosion Control Plan to Yolo County Division of Public Works that includes Best Management Practices (BMPs) to prevent erosion of topsoils during construction of the proposed project. Actions should include, but are not limited to, the following:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways;*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

The Erosion Control Plan shall be reviewed and approved by the Public Works Division prior to prior to initiation of construction activities.

d. Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). Such cycles may result in changes in the volume of the soils. Structural damage to building and infrastructure may occur if the potentially expansive soils are not considered in building design and during construction.

6 County of Yolo. *Improvement Standards, Section 11, Stormwater Quality, Erosion and Sediment Control.* August 1, 2006.

According to the County General Plan, the proposed project site contains expansive soils (i.e., Brentwood Silty Clay Loam).[7] As noted above, the structures included in the proposed project (two shade structures) would be designed in accordance with the CBC. As such, the structures would not be damaged by expansive forces. Therefore, while the project could potentially be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, the shade structures included in the project would not be damaged by expansion or contraction of such soils, and a ***less-than-significant*** impact would occur.

e. The proposed project would not include the construction or operation of any restroom facilities. Thus, septic tanks or alternative wastewater disposal systems would not be required for the proposed project. Therefore, ***no impact*** would occur relating to soils incapable of adequately supporting the use of septic tanks.

7 Yolo County. *2030 Countywide General Plan* [pg. 692]. Adopted November 2009.

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	✖	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✖	☐

a,b. Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

A number of regulations currently exists related to GHG emissions, predominantly Assembly Bill (AB 32), Executive Order S-3-05, and Senate Bill (32). AB 32 sets forth a statewide GHG emissions reduction target of 1990 levels by 2020. Executive Order S-3-05 sets forth a transitional reduction target of 2000 levels by 2010, the same target as AB 32 of 1990 levels by 2020, and further builds upon the AB 32 target by requiring a reduction to 80 percent below 1990 levels by 2050. SB 32 also builds upon AB 32 and sets forth a transitional reduction target of 40 percent below 1990 levels by 2030. In order to implement the statewide GHG emissions reduction targets, local jurisdictions are encouraged to prepare and adopt area-specific GHG reduction plans and/or thresholds of significance for GHG emissions. Yolo County has adopted a Climate Action Plan (March 15, 2011) that is intended to fulfill the requirements of state legislation, including those regulations described above. The Climate Action Plan sets forth GHG emission reduction targets for the County consistent with the statewide reduction targets.

The YSAQMD, in the District's *Handbook for Assessing and Mitigating Air Quality Impacts*, acknowledges that new emissions generated by development projects could potentially conflict with existing GHG emissions reductions targets, and thus a need for development of GHG emissions thresholds exists. However, the district has not yet prepared such thresholds. In addition, the County's Climate Action Plan does not set forth project-specific GHG emission reduction targets, but rather overall, countywide targets and associated reduction measures. In the absence of thresholds of significance, the YSAQMD is currently recommending GHG analysis consistent with Sacramento Metropolitan Air Quality Management District's (SMAQMD) approach. The SMAQMD adopted the following CEQA thresholds of significance for GHG emissions on October 23, 2014:

- 1,100 $MTCO_2e$ per year for construction and operational GHG emissions; and
- 10,000 direct $MTCO_2e$ per year for stationary sources.

The thresholds of significance established by SMAQMD, and used by YSAQMD, were developed to identify emissions levels for which a project would not be expected to

substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. Because the County's Climate Action Plan includes GHG emission reduction targets consistent with the statewide reduction targets, use of the thresholds of significance presented above would be expected to address consistency with the Climate Action Plan as well.

Only minor construction activities would be required for implementation of the proposed project. Due to the extent of construction required for the proposed project, emissions of GHG associated with construction activities would not be expected to be substantial. Although short-term in nature and likely relatively nominal, the proposed project's construction-related emissions have been estimated and compared to the recommended threshold of significance for construction GHG emissions. The project's projected maximum construction emissions and the applicable threshold of significance is shown in Table 3 below.

Table 3
Maximum Project Construction GHG Emissions

	Annual GHG Emissions ($MTCO_2e$/yr)	**Threshold of Significance ($MTCO_2e$/yr)**
Maximum Annual Construction-related GHG Emissions	23.71	1,100

Source: CalEEMod, December 2016.

As shown in Table 3, the proposed project would generate 23.71 $MTCO_2e$/yr during construction, which is well below the SMAQMD standard of 1,100 $MTCO_2e$/yr. Therefore, the proposed project would not generate significant GHG emissions or conflict with the YSAQMD recommendations during construction.

Once the site improvements are completed, the proposed project would not involve any on-site operations, with the exception of vehicle trips coming and going to and from the site. The proposed project is not anticipated to involve a substantial increase in vehicle trips from existing levels such that GHG emissions associated with the increase would result in a significant impact on the environment or conflict with any adopted plan, policy, or regulation for reduction GHG emissions.

Because the proposed project would result in GHG emissions below the applicable thresholds of significance during both construction and operation, the proposed project would not be considered to conflict with applicable plans or policies related to the reduction of GHG emissions, including statewide and Yolo County GHG reduction targets. Therefore, the proposed project's GHG emissions would not be considered to have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, and impacts would be ***less than significant***.

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 accident conditions involving the likely 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 the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	✖	☐

a-d. During operation, the proposed project would not require the routine transport, use, or disposal of hazardous materials. As such, accident conditions involving a release of hazardous materials into the environment would not occur as a result of the proposed project. Furthermore, the nearest school, Marguerite Montgomery Elementary, is located approximately 3.5 miles northwest of the project site. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and does not contain any existing hazardous materials. Therefore, the proposed project would have a ***less-than-significant*** impact with regard to hazardous materials.

e,f. The project area is not located within the vicinity of a public airport or a private airstrip; nor is the site within an airport land use plan. The nearest airport to the project site is the UC

Davis Airport, located approximately 5.6 miles northwest of the site. It should be noted that the park contains a 17-acre flying field used for recreational operation of radio control model sailplanes and electric powered aircraft. Such uses are not anticipated to introduce hazards to people or structures within the proposed project site. Therefore, because the proposed project would not be located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip, the project would result in a ***less-than-significant*** impact.

g. According to the City of Davis General Plan, the project site is located along an identified emergency evacuation route (Mace Boulevard / County Road 104 southbound).[8] While the proposed project would include construction of a gravel driveway connecting the proposed parking lot to County Road 104, the construction would occur over a relatively short period of time and would not substantially impede traffic on the roadway. Overall, the proposed project does not involve any operations or changes to the existing roadway network that would impair implementation or physically interfere with the City's Multi-Hazard Functional Planning Guide or the Yolo County Emergency Operations Plan. Therefore, the proposed project would not impede implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and a ***less-than-significant*** impact would occur.

h. According to Cal Fire maps for Yolo County, a portion of the project site is located within a Local Responsibility Area "Moderate" Fire Hazard Severity Zone.[9] However, the proposed project would not include the placement of residential structures or other inhabitable buildings on the site. The project would consist of minor improvements to the site in the form of a trail system and a parking lot and would not make any changes to the site that would increase the risk for wildland fires in the area. Therefore, implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, and a ***less-than-significant*** impact would occur.

8 City of Davis. *General Plan* [pg. 321]. Amended January 2007.

9 Cal Fire. *Yolo County FHSZ Map.* Available at: http://www.fire.ca.gov/fire_prevention/fhsz_maps_yolo. Accessed December 29, 2016.

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	✖	☐
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 (i.e., the production rate of pre-existing nearby wells would drop to a level which 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 which would result in substantial erosion or siltation on- 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 which would result in flooding on- or off-site?	☐	☐	✖	☐
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?	☐	☐	✖	☐
f. Otherwise substantially degrade water quality?	☐	☐	✖	☐
g. Place housing within a 100-year floodplain, 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 floodplain structures which would impede or redirect flood flows?	☐	☐	✖	☐
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. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	✖

a,f. The proposed project would include construction of 6,605 linear feet of standard unpaved trail, 1,122 linear feet of an approximately 5-foot wide paved trail, and a 10-car gravel parking lot with two paved parking spaces. As previously discussed, in accordance with County Code Section 10-9.303, the proposed project would be required to implement BMPs during construction activities to prevent the discharge of pollutants, to the maximum extent practicable, from the site into the County storm drain system or natural surface waters. Such pollutants may include, but are not limited to, soils, construction wastes or debris, contaminants from construction materials, tools, and equipment. The County's

stormwater quality protection requirements are intended to achieve the same objectives of the State's National Pollution Discharge Elimination System permit process, as shown in the following excerpt of Section 10-9.303:

> Any facility which demonstrates to the satisfaction of the Administrator that it is in compliance with a State or Federal NPDES permit waste discharge requirements or waiver from waste discharge requirements for stormwater discharges shall be deemed to have met the requirements of the Chapter.

The proposed project would disturb approximately 1.04 acres as a result of the proposed improvements. Construction activities that disturb land equal to or great than one acre require permitting under the NPDES construction general permit. As such, a NPDES construction general permit from the Regional Water Board would be required to be obtained for the proposed project. Under the NPDES permitting program, the preparation and implementation of storm water pollution prevention plans (SWPPPs) are required for construction activities that disturb more than 1-acre in area. The SWPPP must identify potential sources of pollution that are reasonably expected to affect the quality of stormwater discharges, as well as identify and implement BMPs that ensure the reduction of these pollutants during stormwater discharges. Federal and state law provide that BMPs must achieve specific quantitative numeric effluent limitations, and monitoring and reporting requirements will apply. The project would implement an SWPPP prior to the issuance of permits. The implementation of the SWPPP would ensure that runoff associated with short-term construction activities would not contribute to the degradation of water quality in downstream waterways.

Consistency with the NPDES construction general permit requirements and the County's stormwater quality protection requirements, as well as the BMPs outlined in Mitigation Measure VI-1 of this IS/MND would ensure that the proposed project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality. Therefore, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise degrade water quality, and a ***less-than-significant*** impact would occur.

b. The proposed project would not include restroom facilities, drinking fountains, irrigation, or any other operations that would require a demand for water supplies. Thus, groundwater supplies would not be affected as a result of the proposed project. In addition, the proposed project would include less than 6,000 square feet of impervious area (approximately 5,610 square feet of paved trail and two paved parking spaces), and any stormwater associated with the impervious surfaces would be allowed to drain to the ground, where natural percolation through the soil could occur. The proposed project site is an existing park with dense vegetation that allows for adequate groundwater recharge to occur in the project area. Thus, the proposed project would not substantially interfere with groundwater recharge, and a ***less-than-significant*** impact related to groundwater supplies and recharge would occur.

c-e. The natural unpaved trail would be composed of imported stable fill dirt overlying the existing Brentwood silty clay loam soil present on-site. The existing soil is well-drained, has a medium runoff class, and is not prone to ponding. The fill dirt would be built up to a height of four inches above the existing grade to prevent the accumulation of standing water on the surface of the trail. The dirt would be mechanically compacted to minimize erosion potential. In addition, small swales would be created, if necessary, to direct water

away from the tread surface of the trail. The proposed trail alignment would not intersect any wetlands or other hydrologic features.

Both the parking lot and the unpaved driveway would be designed to minimize effects of the project on the existing on-site drainage patterns. While the proposed ADA-accessible trail and the two proposed paved parking spaces would create a small amount of impervious area, the project as a whole would not involve substantial alterations to the existing on-site drainage. Because the project would be located within a natural setting with ample vegetation, a stormwater drainage system is not required for the site, as sufficient area for natural percolation of stormwater through the soil is available.

Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in erosion, siltation, or flooding on- or off-site and would not 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. As such, a ***less-than-significant*** would occur.

g-i. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the proposed project site is located within Flood Hazard Zone D, which is described by FEMA as an area of undetermined, but possible, flood hazard.[10]

The proposed project would include the addition of a new trail system, a small parking lot, and various amenities along the proposed trails. The project would not include the placement of housing or any structures that could impede flood flows. The proposed project would not be expected to attract large volumes of people to the site. In addition, visitors to the site could be warned of any potential trail flooding by the proposed seasonal trail-closure signs. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam. As a result, a ***less-than-significant*** impact would occur.

j. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir, which has a destructive capacity that is lesser than that of tsunamis. Seiches typically occur during earthquakes. Tsunamis are defined as sea waves created by undersea fault movement. A tsunami poses little danger away from shorelines; however, when a tsunami reaches a shoreline, a high swell of water breaks and washes inland with great force. Mudflow typically occurs in mountainous or hilly terrain. As the proposed project site is not located near waters subject to tidal changes, large closed bodies of water, or hilly or mountainous terrain, ***no impact*** related to inundation by seiche, tsunami, or mudflow would occur.

10 Federal Emergency Management Agency. *Flood Insurance Rate Map Number 06095C0225E and 06113C0710G.* June 2010.

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

a. The project site is located in a rural area away from any established communities. The proposed project site comprises a regional park, and, as such, does not contain residential development. Therefore, the proposed project would not physically divide an established community, and ***no impact*** would occur.

b. The County General Plan designates the project site as OS, and the site is zoned as POS. The proposed project comprises improvements to the existing park and would not alter the existing uses of the site. The proposed improvements include, but are not limited to, a new trail system, a small parking area, and various benches, shade structures, and informational kiosks/signs. As noted previously, such improvements were recommended in the 2005 Grasslands Master Plan. As such, the project would be consistent with both the 2005 Grasslands Master Plan, the 2006 Yolo County Parks and Open Space Master Plan and the 2016 Parks Sustainability Study. The existing park is compliant with all applicable land use regulations and the proposed project would not alter the existing uses of the site. Therefore, the project would result in a ***less-than-significant*** impact regarding conflict with applicable land use plans, policies, or regulations.

c. As discussed in the *Biological Resources* section of this Initial Study/Mitigated Negative Declaration (IS/MND), the Yolo HCP/NCCP has not yet been adopted for the project area. In addition, the proposed project includes improvements to the existing park, which are designed to preserve natural habitats for native plant and wildlife species. Therefore, ***no impact*** related to a conflict with an adopted HCP/NCCP would occur.

XI. MINERAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	✖	☐

a,b. The County General Plan EIR identifies Mineral Resource Zones throughout the County. The proposed project site is not located in any such zones.[11] In addition, the site is a park with sensitive habitats, as discussed in the Biological Resources section of this IS/MND, and, thus, extraction of mineral resources within the site area would be incompatible with the vision for the park as expressed in the 2005 Grasslands Park Master Plan. Therefore, the proposed project would not 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 would not 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. Thus, a ***less-than-significant*** impact related to mineral resources would occur.

11 Yolo County. *2030 Countywide General Plan EIR* [pg. 685]. April 2009.

XII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	✖	☐
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?	☐	☐	☐	✖

a,c,d. The existing noise environment in the project vicinity is defined primarily by vehicle noise from CR 104 and surrounding agricultural operations. The nearest sensitive receptor to the project site is a single-family home located approximately 0.3-mile south of the nearest proposed construction activity. Implementation of the proposed project would include construction of a gravel parking lot with two paved spaces, approximately 1,122 linear feet of paved trail, and approximately 6,605 linear feet of standard unpaved trail. The construction activities would temporarily increase the level of noise produced on the project site.

While regional parks are not typically associated with high noise levels, the proposed improvements to the existing park could increase the number of visitors to the site, thereby marginally increasing the amount of noise produced on site. However, due to the distance of the site from the nearest sensitive receptors and the low levels of noise expected to be produced as a result of the proposed improvements, the proposed project would not be expected to increase noise levels in excess of levels deemed generally acceptable in the County General Plan.

Therefore, the proposed project would result in a ***less-than-significant*** impact related to permanent or temporary increases in ambient noise levels or the exposure of persons to or the generation of noise levels in excess of applicable standards.

b. Heavy-duty construction equipment may be used in the construction of the proposed project (e.g., tractors, pavers). Such equipment has the potential to generate groundborne

vibrations. Levels of vibration include imperceptible vibrations at low levels, low rumbling and minor vibration at moderate levels, and structural or architectural damage at high levels. For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards and 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern.

The nearest building is a structure located on the east side of the existing parking lot. The building is located approximately 1,200 feet away from the nearest proposed construction activity. For the purpose of this IS/MND, the 0.2 in/sec PPV threshold offers a conservative value with regard to structural damage and is used as the threshold of significance for the analysis. Table 4 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Table 4
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Large Bulldozer	0.089
Loaded trucks	0.076
Small bulldozer	0.003

Source: Caltrans, Transportation and Construction Vibration: Guidance Manual, September 2013.

Given the substantial distance between the proposed areas of construction and the nearest existing building, the vibration levels shown in Table 4 would be substantially reduced at the building, and below the threshold of 0.2 in/sec PPV. Therefore, the proposed project would not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, and a ***less-than-significant*** impact would result.

e,f. As noted previously, the proposed project site is not located within the vicinity of a public airport or a private airstrip, nor is the site addressed by an airport land use plan. The nearest airport to the project site is the UC Davis Airport, located approximately 5.6 miles northwest of the site. While the proposed trail system and parking lot would be located near the existing model airplane launch area, the noise associated with the launch area is relatively minor and would result in the exposure of park visitors to excessive noise levels. Therefore, the proposed project would not be located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip, and would not expose people residing or working in the project area to excessive noise levels associated with airports. Thus, ***no impact*** would occur.

XIII. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	✖	☐
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	✖	☐

a-c. The proposed project involves minor improvements to an existing open space recreation area. The improvements would allow for greater pedestrian access within a portion of the existing park. While the improvements have the potential to attract new visitors to the park, the magnitude of the improvements is such that the project is not anticipated to induce substantial population growth either directly or indirectly. In addition, the proposed project does not involve the demolition of existing housing, the creation of new housing, or the extension of major infrastructure. As such, the project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere. Thus, the proposed project would result in a ***less-than-significant*** impact with regard to population and housing.

XIV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 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?	☐	☐	☐	✖

a,b. Under contract with the No Man's Land Fire Protection District, an independent fire district, the City of Davis provides fire protection services for the existing park.[12] The Davis Fire Department has three fire stations located throughout the City of Davis. Of the three stations, Station 33 is the closest to the project site at a distance of 8.5 miles. The site would additionally be served by the California Department of Forestry (CAL FIRE), which has equipment and staff available in the County during the fire season (May through October). Police protection services at the park are primarily provided by the Yolo County Sheriff's Department (YCSD). The YCSD headquarters office is located at 2500 East Gibson Road in the City of Woodland.

The proposed project would consist of minor improvements to the existing park. Such improvements would not increase demand for police or fire protection services at the site, and would not necessitate the construction of new police or fire protection facilities. Consequently, the proposed project would result in a ***less-than-significant*** impact to fire protection and police protection services.

c-e. The proposed project consists of improvements to the existing publicly accessible park. The proposed project would not create housing and would not result in an increase in population in the surrounding area. Thus, the proposed project would not directly or indirectly result in an increase in demand for schools, parks, or other public facilities. Therefore, ***no impact*** would occur.

12 Yolo County. *Environmental Education and Sustainability Park Project Draft EIR*. Certified November 2012.

XV. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project 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. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	✖	☐

a,b. The proposed project site comprises a regional park. Because the project would improve pedestrian access to portions of the park, the project is intended to increase the number of people visiting the park. However, given the scale of improvements proposed, the project is not anticipated to cause substantial physical deterioration of park facilities, nor require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. The surrounding area does not contain other recreational facilities that would be affected by the proposed project. Consequently, the proposed project would not result in the physical deterioration of existing neighborhood or regional parks or other recreational facilities, nor would it require construction or expansion of recreation facilities, and a ***less-than-significant*** impact would occur.

XVI. TRANSPORTATION AND CIRCULATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 features (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?	☐	☐	✖	☐

a,b. The existing park receives a relatively low volume of daily visitors and the proposed improvements would not be expected to significantly increase public usage of the park. The nearest roadway to the proposed site is CR 104, which is considered a "local road" that is not analyzed for Level of Service (LOS) or other congestion management standards in the Yolo County 2030 Countywide General Plan EIR.[13] In addition, vehicle trips to the park would likely be highest during non-peak hours (e.g. weekends). Thus, implementation of the proposed project would not increase traffic on nearby roadways (CR 104) to levels in excess of standards established in the County General Plan and the project would not conflict with an applicable congestion management program.

In addition, the project does not involve the placement of housing or any other land use that would require alternative transportation options. Thus, the proposed project would not conflict with any adopted policies supporting alternative transportation. As such, a ***less-than-significant*** impact would occur.

13 Yolo County. *Yolo County 2030 Countywide General Plan EIR.* April, 2009.

c. As noted previously, the proposed project is not located near an airport. In addition, the project consists of minor improvements to the existing park, and, thus, would not involve any operations that would have the potential to affect air traffic patterns or interfere with recreational flight activities associated with the existing model airplane launch area at the existing park. Therefore, the proposed project would not 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, and ***no impact*** would occur.

d,e. The proposed project would construct a driveway connecting CR 104 to the proposed parking lot. The proposed driveway would be designed in conformance with County standards to allow for safe access to the proposed parking lot and would not be considered a hazardous design feature. The proposed project would not alter the existing use of the park and, therefore, would not introduce incompatible uses to the area. Construction activity related to implementation of the proposed project would be relatively minor in both extend and duration and would not impede emergency vehicle travel along CR 104. Therefore, the proposed project would not substantially increase hazards due to a design features or incompatible uses and would not result in inadequate emergency access. Thus, a ***less-than-significant*** impact would occur.

XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 storm water 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 are new or expanded entitlements needed?	☐	☐	✖	☐
e. Result in a determination by the wastewater treatment provider which 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?	☐	☐	✖	☐

a,b, d,e. The proposed project consists of improvements to an existing County-owned public open space recreation area. The project would not introduce new residents or employees to the area. Furthermore, the project would not include construction of restroom facilities or necessitate irrigation. As such, the proposed project would not involve any demand for water supply and would not generate any wastewater. Therefore, the project would not exceed any wastewater treatment requirements, require or result in the construction of new water or wastewater treatment facilities or expansion of any existing facilities, affect water supplies available to serve the project, or result in a determination by the wastewater treatment provider which 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. Consequently, a ***less-than-significant*** impact would occur.

c. As discussed in Section IX, *Hydrology and Water Quality*, of this IS/MND, development of the proposed project would not substantially increase the amount or rate of stormwater runoff. Furthermore, the project would not connect to an existing storm water drainage system. Therefore, the proposed project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, and a ***less-than-significant*** impact would occur.

f,g. Solid waste and recycling services for the park are provided by the Yolo County Division of Integrated Waste Management. The proposed project would increase public usage of the park by creating a trail system and associated amenities. Visitors using the proposed trail system would be expected to generate small amounts of trash, including food and beverage containers and food scraps. However, the amount of waste generated by the project would be inconsequential in relation to Yolo County Central Landfill capacity available to serve the project. Therefore, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and a ***less-than-significant*** impact would occur.

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, 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 which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✖	☐

a. As described throughout this IS/MND, implementation of the proposed project would have the potential to adversely impact the environment by adversely affecting protected wildlife and plant species and. However, with implementation of the mitigation measures required by this IS/MND, compliance with General Plan policies and County Code requirements, development of the proposed project would not result in any of the following: 1) degradation of the quality of the environment; 2) substantial reduction of or impact to the habitat of fish or wildlife species; 3) fish or wildlife populations to drop below self-sustaining levels; 4) elimination of a plant or animal community; 5) reduction of the number or restriction of the range of a rare or endangered plant or animal; or 6) elimination of important examples of the major periods of California history or prehistory. Therefore, a ***less-than-significant*** impact would occur.

b. The proposed project would consist of relatively minor improvements to an existing park. The proposed project would be consistent with the General Plan land use designation and zoning for the project site and, as such, the proposed project was included in the cumulative analysis of County buildout in the County General Plan. Applicable policies from the General Plan would be implemented as part of the proposed project, as well as the project-specific mitigation measures included in this IS/MND, to ensure any potential impacts of the proposed project would be individually limited and not cumulatively considerable. As demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level with implementation of project-specific mitigation measures and compliance with applicable General Plan policies. When viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, development of the proposed project would not contribute to cumulative impacts in Yolo County, and the project's cumulative impact would be ***less than significant***.

c. As described in this IS/MND, implementation of the proposed project would not result in significant direct or indirect impacts to human beings. Therefore, the project's impact would be ***less than significant***.