



Shasta County

DEPARTMENT OF PUBLIC WORKS

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No. 702984

July 22, 2016

Subject: Notice of Availability and Intent to Adopt a Mitigated Negative Declaration for the Gas Point Road Corridor and Park Improvement Project, Cottonwood, CA

To Whom It May Concern:

This notice is to advise interested parties that an Initial Study has been prepared for the Gas Point Road Corridor and Park Improvement Project and is available for your review. This information is being circulated in order to solicit comments from public agencies and interested members of the community on environmental issues related to the scope of the Initial Study.

Project Summary

The Shasta County Department of Public Works is proposing to modify the Gas Point Road corridor near its intersection with Park Drive and to improve an adjacent parking lot associated with the Cottonwood Community Center and Park in the community of Cottonwood, Shasta County. Work would entail installation of a four-way signal at the intersection of Gas Point Road and Park Drive; lane modifications along Gas Point Road; construction of a pedestrian bridge over Crowley Gulch; removal of the barrier rail and resurfacing of the existing bridge over Crowley Gulch; paving of the parking lot; construction of a bioswale, curbs, sidewalk and planters; and relocation of utility poles. The proposed modifications would improve vehicle and pedestrian safety and provide parking lot upgrades. The project site is not identified as a hazardous waste facility, hazardous waste property, or hazardous waste disposal site.

Project Review Period

The 30-day public review period for the Initial Study ends on August 20, 2016.

Initial Study Availability

A copy of the Initial Study is available for review at the following locations:

- Shasta County Public Works Department, 1855 Placer Street, Redding, on Monday through Friday from 8:00 A.M. to 5:00 P.M.
- Cottonwood Community Library, 3427 Main St, Cottonwood, on Monday and Tuesday from 11:00 A.M. to 5:00 P.M., Wednesday from 11:00 A.M. to 6:00 P.M., and Saturday from 11:00 A.M. to 2:00 P.M.

- Online at Shasta County Department of Public Works website:
http://www.co.shasta.ca.us/index/pw_index/news_events.aspx.

Comment Submittal

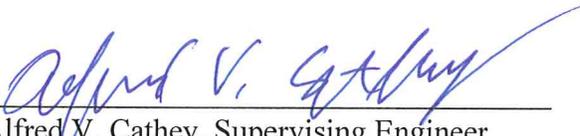
Written comments may be sent to John Crowe by mail or email at the following address. Comments must be received by August 20, 2016.

John Crowe, Associate Engineer
Shasta County Department of Public Works
1855 Placer Street
Redding, CA 96001
(530) 245-6795
jcrowe@co.shasta.ca.us

Sincerely,

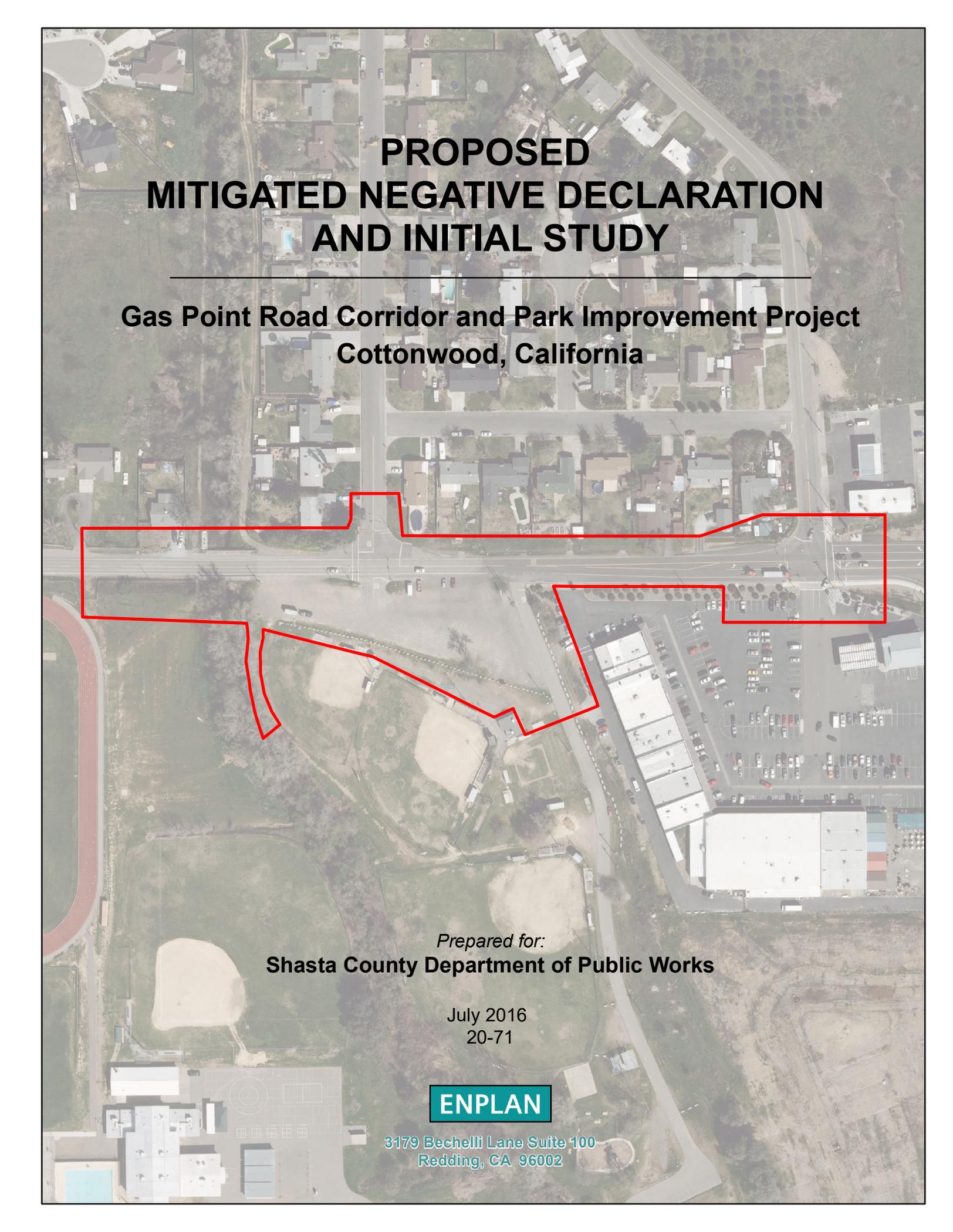
Patrick J. Minturn, Director

By



Alfred V. Cathey, Supervising Engineer
Road Design and Administration

AVC/JAC/ldr



PROPOSED MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY

**Gas Point Road Corridor and Park Improvement Project
Cottonwood, California**

Prepared for:
Shasta County Department of Public Works

July 2016
20-71

ENPLAN

3179 Bechelli Lane Suite 100
Redding, CA 96002

PROPOSED MITIGATED NEGATIVE DECLARATION

LEAD AGENCY: Shasta County Department of Public Works
1855 Placer Street
Redding, CA 96001

PROJECT: The proposed project entails modifications of the Gas Point Road corridor near its intersection with Park Drive and to an adjacent parking lot associated with the Cottonwood Community Center and Park. The proposed modifications would improve vehicle and pedestrian safety and provide parking lot upgrades.

LOCATION: The project site is located on and in the vicinity of Gas Point Road in the community of Cottonwood, California. See Figure 1 of the Initial Study.

PROJECT PROponent: Shasta County Department of Public Works

PROJECT NAME: Gas Point Road Corridor and Park Improvement Project

FINDINGS

As documented in the Initial Study, project implementation could result in disturbance of nesting migratory birds, disturbance of subsurface cultural resources, increased soil erosion and water quality degradation, increased air emissions, and temporarily increased noise levels. Design features incorporated into the project would avoid or reduce certain potential environmental impacts, as would compliance with existing regulations and permit conditions. Remaining impacts can be reduced to levels that are less than significant through implementation of the mitigation measures presented in the Initial Study. Because Shasta County will adopt mitigation measures as conditions of project approval and will be responsible for ensuring their implementation, it has been determined that the project will not have a significant adverse impact on the environment.

Signature

Date

Name

Title

INITIAL STUDY

**SHASTA COUNTY DEPARTMENT OF PUBLIC WORKS
GAS POINT ROAD CORRIDOR AND PARK IMPROVEMENT PROJECT
COTTONWOOD, CALIFORNIA**

July 2016

Prepared for:
**Shasta County Department of Public Works
1855 Placer Street
Redding, CA 96001**

Prepared by:
**ENPLAN
3179 Bechelli Lane, Suite 100
Redding, CA 96002
(530) 221-0440**

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Appendix A.

- California Natural Diversity Database RareFind Query Summary
- U.S. Fish and Wildlife Service IPaC Trust Resource Report
- Potential for Federally Listed, Proposed, and Candidate Species, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site
- List of Vascular Plant Species Observed

I. THE PROJECT

A. Introduction

The Shasta County Department of Public Works is proposing modifications of the Gas Point Road corridor near its intersection with Park Drive and to an adjacent parking lot associated with the Cottonwood Community Center and Park (park). The proposed modifications would improve vehicle and pedestrian safety and provide parking lot upgrades. The project site is located in the community of Cottonwood, Shasta County, California (Figure 1).

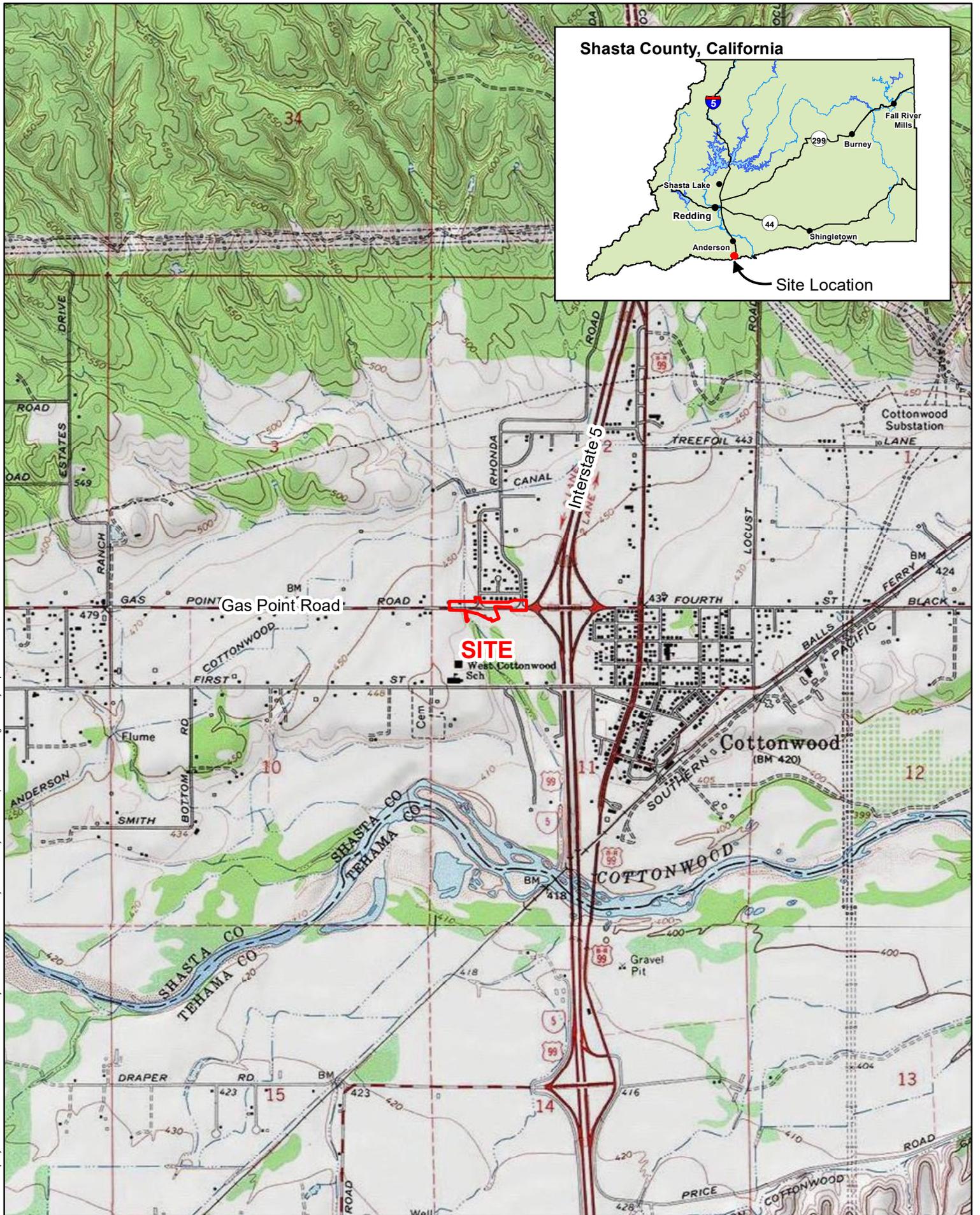
Gas Point Road is a two-lane collector road that runs east from its intersection with Interstate 5 to Clear Creek Road near the community of Igo. The Cottonwood Community Center and Park is located between Gas Point Road to the north and First Street to the south. In addition to the community center, the park includes a graveled parking lot, several baseball diamonds, a children's play area, and picnic tables. The north side of the park currently has two entrances from Gas Point Road; one at a partially signalized intersection across from Park Drive, and the other being a driveway between the park and the Holiday Market shopping center, which is located immediately east of the park. West Cottonwood School is also located between Gas Point Road to the north and First Street to the south; to the west of the park. Children routinely walk to and from the school using the existing bridge on Gas Point Road over Crowley Gulch.

As shown in Figure 2, the proposed project and the associated improvements would entail installation of a four-way signal at the intersection of Gas Point Road and Park Drive, lane modifications along Gas Point Road, construction of a pedestrian bridge over Crowley Gulch, removal of the barrier rail and resurfacing of the existing bridge over Crowley Gulch, paving of the parking lot, construction of a bioswale, curbs, sidewalk, and planters; and relocation of utility poles.

B. Proposed Project Need

Modifications are needed to improve vehicle and pedestrian safety, and to provide parking lot upgrades. Existing roadway and pedestrian issues associated with this area include the following:

- Despite the two designated entrances to the park's parking lot from Gas Point Road, vehicles have the ability to enter and exit the parking lot from any location within the lot. This is due to a lack of curb, sidewalk, or median that would normally aid in controlling vehicle movement. A lack of traffic control in this area creates safety issues for vehicles and pedestrians.
- Vehicles leaving the park's graveled parking lot stir up dust and spread gravel out onto Gas Point Road, which has to be cleaned and maintained by the County.
- The intersection at Gas Point Road at Park Drive is signalized for eastbound and westbound traffic only. The entrances to the park and Park Drive off of Gas Point Road have only a warning light. This combination of signals at an intersection is no longer an acceptable form of traffic control and would need to be modified if any traffic control improvements to the intersection were made.
- There is only one crosswalk at the Gas Point Road at Park Drive intersection and no sidewalk along Gas Point Road from the bridge over Crowley Gulch to the Holiday Market shopping center. As a result, pedestrians have to walk along the road shoulder next to vehicle traffic, which is a safety issue for the public.



Path: N:\companyfiles\01_Jobs\Active\2020\71 Shasta County - Gas Point Road\Crowley Gulch\3-Map Documents\Fig 1 Vicinity Map 032316.mxd

All depictions are approximate. Not a survey product. 03.23.16



Figure 1
Project Vicinity



Path: N:\company\files\01-Jobs Active\02-071 Shasta County - Gas Point Road-Crowley Gulch\3-Map Documents\Fig 2-Proposed Improvements 04.13.16.mxd

- ▭ Study Area Boundary
- Proposed Striping, Curb, Gutter, & Sidewalk Improvements
- Proposed Signals & Supporting Infrastructure
- Utility Pole Relocation
- Pedestrian Bridge
- Bioswale

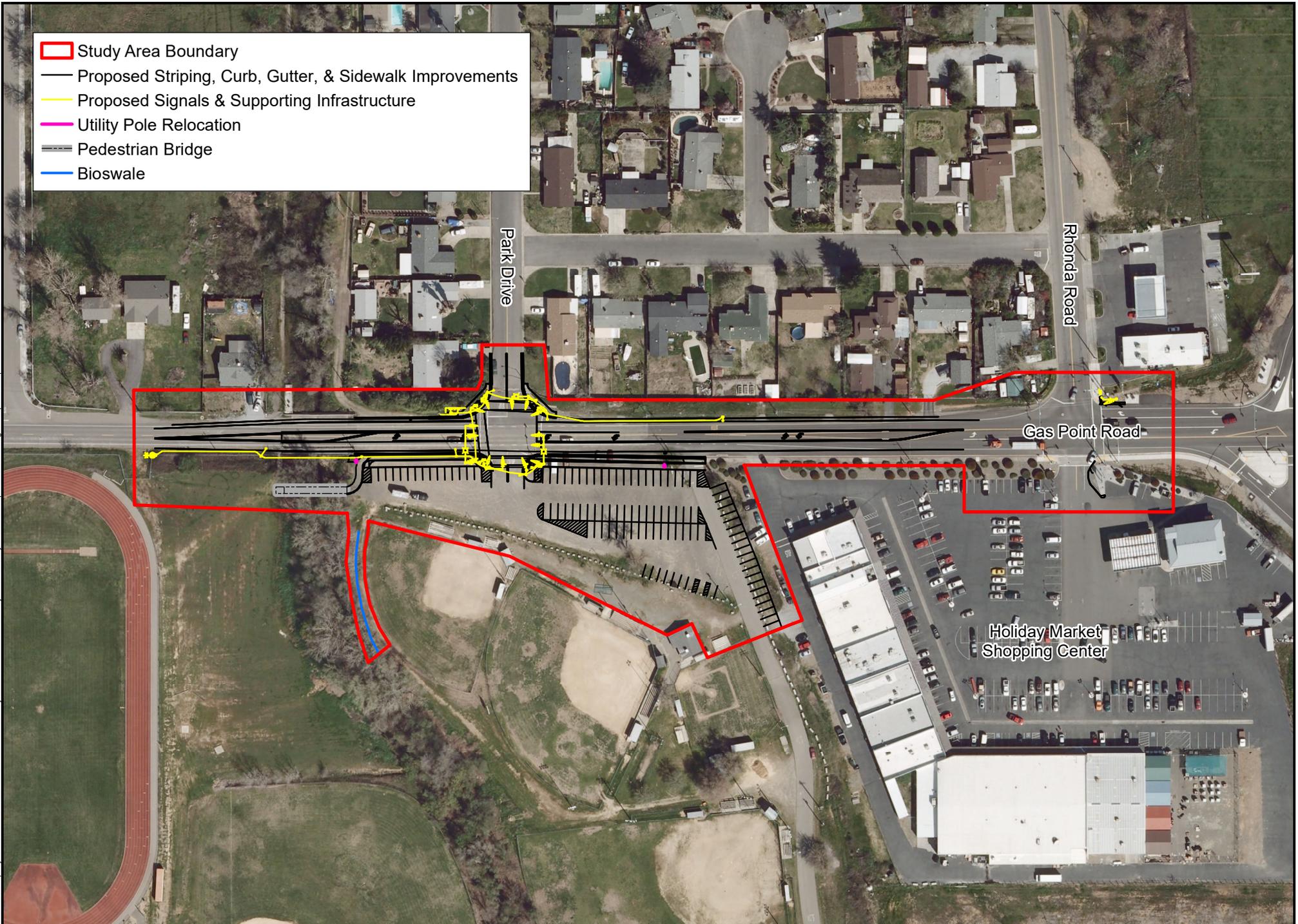


Figure 2
Proposed Modifications

All depictions are approximate. Not a survey product. 04.13.16

- The existing bridge over Crowley Gulch on Gas Point Road is partially barricaded for pedestrians (e.g., children walking from the school to the park). Due to the barrier rail, the bridge is too narrow to provide turn lanes on Gas Point Road at its intersection with Park Drive. An existing water pipeline runs along Gas Point Road and is suspended across Crowley Gulch on the bridge; the bridge itself cannot be widened without moving the pipeline.
- The signal poles at the northeast and southeast corners of the intersection of Gas Point Road and Rhonda Road are located too close to the intersection. Semi-trucks making a tight right-hand turn from Gas Point Road onto Rhonda Road, or a tight right-hand turn from the shopping center onto Gas Point Road, have side-swiped the signals on a number of occasions. The curbs and signals need to be further offset from the roadway to avoid contact with trucks.

C. Project Description

The County is proposing to construct modifications to areas along Gas Point Road and to the park's parking lot to address the issues described above. As shown in Figure 2, the proposed project would entail the following modifications:

- Signal lights would be installed to create a four-way signalized intersection at Gas Point Road and Park Drive. Roadway striping and re-striping would occur to provide left-turn lanes and crosswalks on Gas Point Road, and to delineate vehicle lanes on Gas Point Road, Park Drive, and the park entrance across from Park Drive. A signal/warning beacon would be installed near the western end of the Gas Point Road bridge to warn vehicles of the signalized intersection. Conduit supporting the beacon and the signals would be installed along portions of Gas Point Road. In addition, up to two utility poles along the south side of Gas Point Road would be shifted away from the roadway (to the south) to facilitate the proposed improvements.
- The barrier rail on the existing bridge on Gas Point Road over Crowley Gulch would be removed. The bridge surface would be ground and resurfaced, and the extent of the asphalt would be widened.
- A pedestrian bridge, comprised of a steel structure with concrete deck and railings, would be installed just south of the existing bridge over Crowley Gulch. The bridge would be delivered to the site in two pieces, assembled in the parking lot, and then lowered by crane across Crowley Gulch. The pedestrian bridge would be approximately 80 feet long and 10 feet wide and would free-span the creek. Concrete pads serving as bridge abutments would be located on either side of the creek. An Americans with Disabilities Act (ADA)-compliant concrete walkway would lead from the east end of the bridge and connect with the proposed sidewalk along Gas Point Road.
- The park's parking lot would be paved and parking spaces would be striped. Additional parking would be provided along the existing driveway entrance located adjacent to the shopping center, partially within an existing drainage swale. The drainage swale conveys minimal flow and diffuses to sheet flow south of the project site. Within the project site, the swale would be smoothed and graveled to allow parking. Even with a gravel surface, this swale would still function as a drainage, with low flows percolating to groundwater. Approximately 103 parking spaces would be provided.
- The existing community center driveway access onto Gas Point Road would be eliminated to minimize traffic conflicts.

- To provide drainage, detention, and pre-treatment of stormwater runoff exiting the newly paved parking lot, a bioswale would be constructed to the west of the baseball diamond, heading south along Crowley Gulch. The bioswale would be approximately 150 feet long and approximately 10 feet wide. Existing soil within the footprint of the bioswale would be excavated to a depth of five feet, replaced with permeable material (e.g., cobble), and be overcovered with approximately one foot of top soil. Drought-tolerant grasses would be planted for vegetative cover. In addition to receiving runoff from the parking lot, the bioswale would receive water from the creek (during periods of very high flow), and runoff from the adjacent ball field's irrigation system. Based on Caltrans' Biofiltration Swale Design Guidance (July 2010), it is anticipated that the bioswale would convey and store stormwater flows while meeting water quality and other flow criteria. According to Caltrans, parking lot pollutants associated with vehicle use would be pre-treated by filtration through the vegetation, uptake by plant biomass, sedimentation, adsorption to soil particles, and infiltration through the soil. Although water from the bioswale would ultimately discharge to Crowley Gulch, the footprint of the bioswale would end approximately 10 feet from the top of bank of the stream, and thus, would not impact the streambank.
- Curb, gutter, 5-foot-wide sidewalk, 8-foot-wide planter, and other landscaping, would be constructed along the south side of Gas Point Road from the pedestrian bridge east to the shopping center.
- Stormwater runoff from Gas Point Road would be directed to Crowley Gulch or to the graveled drainage swale on the east side of the parking lot. Rock slope protection may be placed at the graveled drainage outlet to dissipate flows.
- A signal pole and a pedestrian crossing pole at the northeast corner of the Gas Point Road and Rhonda Road intersection would be relocated further away from the corner and more offset from the roadway. At the southeast corner of the intersection, the signal pole would stay in place but the planter curb would be shifted further to the west.

Construction would involve activities such as site preparation, grading, excavation, and paving. All project-related construction activities would be conducted during daylight hours, on weekdays between 7:00 a.m. and 7:00 p.m. Typical construction equipment necessary to implement the proposed project would include backhoes, graders, trenchers, haul trucks, water trucks, compactors, excavators, and a crane. Construction is anticipated to be completed during the summer, likely June to September, in 2017.

D. Permits and Approvals

The following permit and approval would be needed prior to implementation of the proposed project.

- Shasta County – Adoption of a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the proposed project.
- Central Valley Regional Water Quality Control Board (RWQCB) – Construction General Permit and preparation of a Storm Water Pollution Prevention Plan (SWPPP).

II. ENVIRONMENTAL SETTING

General Plan Designation: The project site is designated under the Shasta County General Plan as Other Planning Area.

Zoning: Shasta County zones the project site as Public Facilities (PF), Open Space (OS), Community Commercial (C-2), Interim Rural Residential (I-R), One Family Residential – Building Site District (R-1-BSM), Community Commercial – Design Review District (C-2-DR), and Unclassified (U).

Surrounding Land Uses: The project site is surrounded by residential, commercial, and public uses. West Cottonwood School’s track and baseball field are located west and south of the project site. A park is located to the south, and a shopping center is located to the east. Residences, including a residential subdivision, are located north of the project site.

Topography: The project site is relatively flat, with elevation varying from approximately 443 feet to approximately 435 above sea level, and sloping slightly downhill from the north to the south.

Soils: According to the Natural Resource Conservation Service, soils within the project site are mapped as Perkins series, 0 to 3 percent slopes, and Churn series, 0 to 3 percent slopes.

Terrestrial Habitats: Terrestrial habitats present at the project site are limited to riparian and non-native grassland. Riparian vegetation occurs along Crowley Gulch and consists primarily of Himalayan blackberry, Goodding’s willow, valley oak, cattails, and Fremont’s cottonwood. Non-native grassland occurs between West Cottonwood School’s track and Crowley Gulch and along the margins of the ballfield and parking lot and consists primarily of rip-gut brome, geranium, and cleavers.

Water Features: Water features in the project site are limited to Crowley Gulch, an intermittent stream that crosses under the bridge on Gas Point Road. This stream is inundated in part from an Anderson-Cottonwood Irrigation District (ACID) weir to the north, and flows south to Cottonwood Creek, approximately 0.8 miles from the project site. This stream is subject to state and federal jurisdiction.

III. ENVIRONMENTAL CHECKLIST FORM

A. Environmental Factors Potentially Affected

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

- | | | |
|--------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Population and Housing |
| <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Transportation/Circulation |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Noise | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

B. Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been 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 significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." 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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



 Signature

7/13/16

 Date

John Crowe

 Name

Associate Engineer

 Title

C. Evaluation of Environmental Impacts

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

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

The environmental analysis in this section is patterned after the Initial Study Checklist recommended in the State CEQA Guidelines. For the preliminary environmental assessment undertaken as part of this Initial Study, a determination that there is a potential for significant effects indicates the need to more fully analyze the project's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the project. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.
- **Less-Than-Significant Impact.** The project will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Potentially Significant Impact Unless Mitigation Incorporated.** The project will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the project's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact.** The project will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

1. AESTHETICS. Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a.

Views of the project site do not meet the definition of a scenic vista because most of the area is dominated by commercial and residential development, and public facilities, and there are no designated scenic vistas in the project vicinity. As such, the proposed project would not have a substantial adverse effect on a scenic vista.

b.

The nearest officially designated State Scenic Highway is Route 151 (Shasta Dam Boulevard), located approximately 22 miles north of the project site; thus, project implementation would not damage scenic resources within a designated State Scenic Highway. Portions of Highway 299, Highway 44, and Highway 89 in Shasta County are designated as Eligible State Scenic Highways by Caltrans. However, the project site is located over 12 miles from these designated stretches of highway, and thus, these roadways would not be affected.

c.

The proposed project entails modifications of the Gas Point Road corridor near its intersection with Park Drive and to an adjacent parking lot associated with the park, in an area supporting commercial and residential land uses, and public facilities. The resulting visual character of the site would be consistent with that of the surrounding area. Potential visual impacts resulting from project implementation are considered less than significant.

d.

New lighting proposed as part of the project design would include signal lights at the intersection of Gas Point Road and Park Drive, and installation of a signal/warning beacon near the western end of the Gas Point Road bridge to warn vehicles of the signalized intersection. In addition, a signal pole at the intersection of Gas Point Road and Rhonda Road would be relocated further away from the corner and more offset from the roadway. The project would not introduce new sources of reflective surfaces that could cause glare. New or changes to street lighting along Gas Point Road could affect residents adjoining the north side of the project site. However, the lighting intensity would be similar to levels widely experienced throughout developed areas of the state, and would not be substantial. As such, the project would not introduce new sources of substantial light that would adversely affect day or nighttime views.

Mitigation

None necessary

Documentation

Caltrans. 2015. California State Scenic Highway Mapping System. Shasta County. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed December 2015.

ENPLAN. Field survey. March 4, 2016.
Shasta County. 2006. Shasta County General Plan, As Amended Through September 2004. 6.8 Scenic Highways.
http://www.co.shasta.ca.us/docs/Resource_Management/docs/68scenic.pdf?sfvrsn=0. Accessed December 2015.
Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

2. AGRICULTURAL AND FORESTRY RESOURCES.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.

According to data maintained by the Farmland Mapping and Monitoring Program (FMMP), no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs in or adjacent to the project site.

b, e.

No lands in or adjacent to the project site are used for agricultural production, zoned for agricultural use, or subject to a Williamson Act contract. Therefore, the proposed project would not directly or indirectly affect farmland or agricultural uses.

c, d.

The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland zoned Timberland Production. The project would not result in the loss of forest land or conversion of forest land to non-forest use.

Mitigation

None necessary

Documentation

Shasta County. 2016. GIS Data provided to ENPLAN from Shasta County.

_____. 2016. Shasta County Internet Zoning Viewer. <http://gis.co.shasta.ca.us/Zoning/>. Accessed February 2016.

State of California, Department of Conservation, Farmland Mapping and Monitoring Program. 2012. Shasta County Important Farmland 2012. <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/sha12.pdf>. Accessed December 2015.

State of California, Department of Conservation. 2013. Shasta County Williamson Act FY 2006/2007.

ftp://ftp.consrv.ca.gov/pub/dlrp/wa/shasta_w_06_07_WA.pdf. Accessed December 2015.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a-d.

Both the Federal and State governments have developed standards for air pollutants of principal concern. Pollutants for which national ambient air quality standards have been developed are nitrogen dioxide (NO₂), ozone (O₃), sub 2.5-micron particulate matter (PM_{2.5}), sub 10-micron particulate matter (PM₁₀), sulfur dioxide (SO₂), carbon monoxide (CO), and lead (Pb). The State has adopted similar or more stringent criteria for these pollutants and has also adopted standards for hydrogen sulfide (H₂S), vinyl chloride, and visibility reducing particles. These ambient air quality standards are intended to address regional air quality conditions, not project-specific emissions.

Shasta County is in compliance with the Federal Clean Air Act for all criteria pollutants (considered attainment or unclassified). With respect to the California Clean Air Act, Shasta County is considered non-attainment for O₃ and PM₁₀. Shasta County adopted Rule 2:1 to establish pre-construction review requirements for new and modified stationary sources of air pollution, air quality impacts, and to ensure that the operation of such sources does not interfere with the attainment or maintenance of ambient air quality standards. As depicted in Table 1, consistent with Rule 2:1, the Shasta County Air Quality Management District (SCAQMD) has adopted daily emission thresholds that will be used in conjunction with the Planning Division's use of an air emissions modeling program. These thresholds were developed to evaluate operational emissions. Additionally, according to SCAQMD staff (Ross Bell, pers. comm.), they provide general guidance for the purpose of evaluating construction emissions.

**Table 1
Thresholds of Significance for Criteria Pollutants of Concern (lbs/day)**

Pollutants	Level A	Level B
NO _x	>25	>137
ROG	>25	>137
PM ₁₀	>80	>137

Source: Shasta County General Plan, Air Quality

The proposed project would not result in long-term operational emissions because it would not result in an increase in traffic volume. However, the proposed project would result in short-term emissions during project construction. To estimate emissions resulting from project construction, the CalEEMod air emissions modeling program (CalEEMod

2013.2.2) was employed. The software provides results for NO_x, PM_{2.5}, PM₁₀, SO₂, CO, reactive organic gases (ROG)/volatile organic compounds (VOC), and carbon dioxide (CO₂). The remaining pollutants, consisting of lead, ozone, hydrogen sulfide, vinyl chloride, and visibility reducing pollutants, are evaluated on an individual basis. CO₂ is not addressed as a pollutant of concern, but is of interest because it is a common greenhouse gas (see Section III.C.3, "Greenhouse Gas Emissions").

As shown in Table 2, with the exception of NO_x, construction emissions would not exceed the Level "A" thresholds listed in Table 1. Although the thresholds of significance adopted by Shasta County apply to operational emissions, the SCAQMD recommends various mitigation measures to reduce construction emissions. For projects that do not exceed Level "A" thresholds, implementation of Standard Mitigation Measures as defined by SCAQMD, (e.g., fugitive dust suppression), would provide appropriate air quality controls during project construction. Regarding NO_x emissions, adherence to the In-Use Off-Road Diesel Vehicle Regulation, adopted by the California Air Resources Control Board (CARB) in 2008, would sufficiently mitigate for NO_x emissions resulting from project construction (Ross Bell, Air Quality District Manager, pers. comm.). The off-road regulation:

- imposes limits on idling
- requires all vehicles be reported to CARB and subsequently labeled
- restricts the adding of older vehicles into fleets starting on January 1, 2014
- requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (VDECS) (i.e., exhaust retrofits)

With implementation of Standard Mitigation Measures, and adherence to the In-Use Off-Road Diesel Vehicle Regulation, impacts to air quality resulting from project construction would be less than significant.

Table 2
Projected Construction Emissions (lbs/day)

NO _x	PM _{2.5}	PM ₁₀	SO ₂	CO	ROG/VOC	CO ₂
31.35	2.63	4.26	0.04	22.34	3.01	4,204.26

Likewise, the proposed project would not result in significant impacts associated with lead, ozone, hydrogen sulfide, vinyl chloride, or visibility reducing pollutants, as discussed below.

- According to the U.S. Environmental Protection Agency (EPA), the majority of lead emissions produced nationally are associated with combustion of leaded aviation gasoline by piston-driven aircraft. Elevated levels of airborne lead at the local level are usually found near industrial operations that process materials containing lead, such as smelters. As these conditions are not applicable to the proposed project, the potential for lead emissions is less than significant.
- Ozone is formed primarily from photochemical reactions between two major classes of air pollutants: ROGs and nitrogen dioxide. ROGs are emitted from a variety of sources, including motor vehicles, chemical manufacturing facilities, refineries, factories, consumer and commercial products, and natural (biogenic) sources (mainly trees). Nitrogen dioxide emissions are primarily emitted from motor vehicles, power plants, and off-road equipment. Because project construction would generate relatively low amounts of both ROG and NO_x, the potential for ozone production/emissions is less than significant.
- Hydrogen sulfide is formed during the decomposition of organic material in anaerobic environments. As these conditions are not applicable to the proposed project, the potential for hydrogen sulfide emissions is less than significant.
- Vinyl chloride is used to manufacture polyvinyl chloride (PVC) plastic and other vinyl products. Approximately 98 percent of vinyl chloride produced in the United States is used during the manufacture of PVC. Additionally, vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaners, degreasing agents, adhesive solvents, paint removers, etc.). The potential for vinyl chloride exposure is primarily limited to areas in close proximity to PVC production facilities. Because project

implementation would not involve PVC manufacturing or result in an increased use of chlorinated solvents, potential vinyl chloride emissions associated with the proposed project would be less than significant.

- Visibility reducing pollutants generally consist of sulfates, nitrates, organics, soot, fine soil dust, and coarse particulates. These pollutants contribute to the regional haze that impairs visibility, in addition to affecting public health. In Shasta County, the California Air Resources Board (CARB) monitors the LAVO site for visibility reducing pollutants. This site is comprised of Lassen Volcanic National Park, Caribou Wilderness, and Thousand Lakes Wilderness. According to the California Regional Haze Management Plan, natural wildfires and biogenic emissions are the primary contributors to visibility reducing pollutants for this site. For the proposed project, visibility reducing pollutants (e.g., PM_{2.5} and PM₁₀), would be generated only during construction activities. Because only relatively low amounts of particulates would be generated, potential impacts with respect to visibility reducing pollutants are less than significant.

e.

During project construction, the proposed project may result in the release of diesel fumes, paint fumes, or other potentially objectionable odors. Total project duration is estimated at 65 days and would include the following phases: site preparation, grading, concrete forming/placement, signal installation, and paving. The site preparation, grading and paving phases would be completed in an estimated 20 days and would produce the majority of project emissions. Concrete forming/placement and signal installation is estimated at 45 days and would produce comparatively few emissions. A small residential neighborhood abuts the project site to the north, which could be affected by objectionable odors. However, with the majority of emissions being limited to a 20-day period, potentially objectionable odors resulting from the proposed project (e.g., paint fumes and diesel exhaust) would not be significant.

Mitigation

Because the proposed project would be constructed in accordance with existing requirements of the SCAQMD and CARB, no mitigation would be necessary.

Documentation

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

4. BIOLOGICAL RESOURCES. Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.

The following evaluation of potential impacts on special-status species is based on the findings of a review of California Natural Diversity Data Base (CNDDDB) and U.S. Fish and Wildlife Service (USFWS) records, as well as botanical and wildlife surveys completed by ENPLAN. In addition, a field review of the project site was conducted with California Department of Fish and Wildlife (CDFW) staff on April 6, 2016. Evaluation of potential effects on federally listed, proposed, or Candidate species entailed review of plant and animal species under jurisdiction of the USFWS and anadromous fish species under the jurisdiction of the National Marine Fisheries Service (NMFS). An IPaC Trust Resource Report was generated for species of concern to the USFWS. The potential presence of anadromous fish was determined through review of in-house records and the aforementioned record searches.

Special-Status Plant Species

Review of the USFWS IPaC Trust Resource Report for the project site (Appendix A) identified one federally listed plant species as potentially being affected by the proposed project: slender Orcutt grass. The project site does not contain designated critical habitat for federally listed plant species. Review of CNDDDB records showed that no occurrences of special-status plant species have been mapped to include the project site. However, four special-status plant species have been reported within a five-mile radius of the project site: pink creamsacs, silky cryptantha, woolly meadowfoam, and Red Bluff dwarf rush.

To determine the potential for presence/absence of special-status plant species, ENPLAN conducted a botanical survey of the project site on April 14, 2016. Based on the survey, it was determined that the site has a negligible potential to support special-status plant species. Documentation regarding the potential for special-status plant species to occur on the project site is provided in Appendix A. As shown in Appendix A, the project site has no potentially suitable habitat for any of the special-status plant species, and no other special-status plant species are expected to be present.

Special-Status Wildlife Species

Review of the USFWS IPaC Trust Resource Report for the project site (Appendix A) identified six federally listed or Candidate animal species as potentially being affected by the proposed project: California red-legged frog, conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, Delta smelt, and steelhead – Central Valley Distinct Population Segment (DPS). The project site does not contain designated critical habitat for federally listed animal species.

Review of CNDDDB records showed that no occurrences of special-status animal species have been mapped to include the project site. However, 8 special-status animal species have been reported within a five-mile radius of the project site: bald eagle, bank swallow, Chinook salmon - Sacramento River winter-run Evolutionary Significant Unit (ESU), steelhead - Central Valley DPS, tricolored blackbird, valley elderberry longhorn beetle, western red bat, and western spadefoot.

To determine the presence/absence of special-status animal species, ENPLAN conducted a wildlife survey of the project site on March 4, 2016. Several of the special-status animal species potentially occurring on the project site would have been evident at the time the fieldwork was conducted. The potential presence of species not identifiable during the field study was readily determined on the basis of observed habitat characteristics. The potential for special-status animal species to utilize the project site is evaluated in Appendix A. Although no special-status wildlife species were observed during the wildlife survey, two special-status fish species—Chinook salmon (Sacramento River winter-run ESU) and steelhead (Central Valley DPS)—are known to occur in Crowley Gulch. These species are described in greater detail below.

Chinook Salmon – Sacramento River Winter-Run ESU and Steelhead – Central Valley DPS

Anadromous salmonids are known to occur in Cottonwood Creek, which is federally designated as critical habitat for Chinook salmon. Because Crowley Gulch is tributary to Cottonwood Creek, Central Valley steelhead and Chinook salmon may occur within the project site during the wet season, when flows are sufficient to support fish. As discussed below, project activities would not directly affect anadromous salmonids but could have a negligible effect on habitat for these fish.

Project implementation would not result in direct effects to the creek channel. The pedestrian bridge would be assembled in the adjacent parking lot, lowered into place by a crane, and would free-span the creek, with the abutments located upslope of the top of bank. Installation of the abutments would result in removal of up to ±160 square feet of Himalayan blackberry. In addition, one Goodding's willow (*Salix gooddingii*), approximately 18 inches in diameter at breast height (dbh) would be removed from the east bank of the creek, and the lower limbs would be removed from a second Goodding's willow (having two trunks, approximately 12 inches and 9 inches in dbh) on the west bank of the creek. Although the willow trees are outside of the ordinary high water mark of the stream, they provide some streamside shading, which is beneficial for fish. The loss of shade from tree removal/limbing would be at least partially offset by shading provided by the new pedestrian bridge.

Because the bridge abutments would be installed outside of the top of bank and the bridge would be installed via crane, it is unlikely that any sediment would enter the creek and degrade fish habitat. Although grinding and resurfacing of the existing Gas Point Road bridge has some potential for the release of material to the creek, containment devices would be used during this work to prevent the entry of this material into the creek. Further, the potential for increased sedimentation and turbidity in the creek would be minimized through the implementation of Best Management Practices (BMPs) for erosion control and spill prevention (see Section III.C.6, "Geology and Soils"). Therefore, due to the design and placement of the pedestrian bridge, and with implementation of the BMPs, project implementation would not adversely affect Central Valley steelhead or Chinook salmon, and impacts on habitat for these species would be negligible.

b, c.

Sensitive natural communities present on the project site include a stream (Crowley Gulch) and riparian habitat. These communities are described below.

Crowley Gulch

The project site includes a portion of Crowley Gulch, an intermittent stream. No wetlands occur on the project site. Crowley Gulch flows north to south, and drains to Cottonwood Creek, which is tributary to the Sacramento River. As discussed previously, with project implementation, a free-span pedestrian bridge would be installed over Crowley Gulch using a crane. This construction would affect upland areas but would not result in fill of the creek. BMPs for soil stabilization, sediment control, and spill prevention would be implemented throughout the duration of the project to ensure that sediment/pollutant transport into Crowley Gulch is avoided or minimized.

Riparian

Riparian habitat (primarily Himalayan blackberry and willows) exists along Crowley Gulch. As described previously, construction of the pedestrian bridge would result in removal of approximately ±160 square feet of Himalayan blackberry, as well as limbing of one willow and removal of a second willow. In addition, a few willows (all less than one inch in dbh) would be removed to facilitate construction of the bioswale. However, because very little riparian vegetation would be removed, implementation of the proposed project would not result in a significant impact on riparian habitat. Photos of Crowley Gulch within the project site are provided below.



View of Crowley Gulch looking east across proposed pedestrian bridge alignment.



View of Crowley Gulch looking south towards proposed pedestrian bridge alignment.

d.

Project implementation would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites. Numerous native resident and migratory fish and wildlife species inhabit Shasta County. Most notable among the migratory species are anadromous salmonids, black-tailed deer, and various species of migratory birds. As described above, anadromous salmonids would not be adversely affected with implementation of BMPs to avoid/minimize the potential for sediment to enter Crowley Gulch. The black-tailed deer is not designated as a special-status species, but is of concern to CDFW. Review of the Shasta County General Plan found that the project site is not located within a critical deer wintering area; thus, project implementation would have no significant impact on critical deer wintering areas.

The project site is located within the Pacific Flyway, and it is possible that migratory birds could nest on the site. The federal Migratory Bird Treaty Act (MBTA) and related international treaties and domestic laws provide protection for migratory birds. The MBTA established that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. The MBTA is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to each country (i.e., they occur in each country at some point during their annual life cycle). The USFWS is the federal agency primarily responsible for protection of migratory birds.

Project activities could impact nesting birds. As called for in Mitigation Measure 4.1, to comply with the requirements of the MBTA, vegetation removal and construction activities should occur outside of the nesting season, if possible. In the local area, most birds nest between February 1 and August 31. Accordingly, the potential for adversely affecting nesting birds can be greatly minimized by removing vegetation and conducting construction activities either before February 1 or after August 31. If this is not possible, a nesting survey would be conducted within one week prior to removal of vegetation and/or the start of construction. If active nests are found on the project site, work would need to be postponed in the vicinity of the nests until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, vegetation removal and construction activities would not occur within 500 feet of an active nest unless a smaller buffer zone is authorized by CDFW and USFWS. If required by the agencies, a qualified biologist could monitor active nest(s) during construction for signs of disturbance to the nesting birds.

e.

Review of the Shasta County General Plan confirmed that the proposed project is consistent with local policies and ordinances protecting biological resources.

f.

No adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans are applicable to the project site.

Mitigation

MM 4.1. To ensure that active nests of migratory birds are not disturbed, vegetation removal and construction activities shall occur between August 31 and February 1, if feasible. If vegetation removal or construction must occur during the nesting season, a nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than one week prior to the initiation of vegetation removal or facility construction. If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no vegetation removal or construction activities shall occur within 500 feet of an active nest, unless a smaller buffer zone is authorized by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service (the size of the construction buffer zone may vary depending on the species of nesting birds present).

Documentation

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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5. CULTURAL RESOURCES. Would the project:

- | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

a, b, d.

A cultural resources study, including a records search, Native American consultation, and field survey, was completed for the project by ENPLAN.

Consultation with the Native American Heritage Commission did not reveal any known sacred sites or cultural resources in the project site. Consultation with the Native American community resulted in responses from four individuals. The Wintu Tribe of Northern California expressed concern over the project’s proximity to a seasonal water source and a field meeting was held on July 1, 2016 to address these concerns. Implementation of Mitigation Measure 5.1 would address the issues raised by the Tribe. The records search included review of the data filed with the California Historical Resources Information System, Northeast Information Center, at California State University, Chico, as well as other sources. The records search indicated that five historic and prehistoric sites have been previously recorded within one-half-mile of the project site. The sites include a house and barn, concrete foundation, ACID diversion feature, lithic scatters, midden deposits, and evidence of historic mining activities. Records indicate that fourteen cultural resource surveys have been previously conducted within a half-mile of the project site; however, none encompassed any portion of the project site.

ENPLAN conducted a pedestrian survey on March 4, 2016; no historic properties or resources were identified as a result of the survey.

Given the above findings, project implementation would not cause a substantial adverse change in the significance of a historical resource or archaeological resource. However, the project area is considered moderately sensitive for the presence of historic and prehistoric features, and it is possible that undocumented cultural remains could be encountered during subsurface excavations. Implementation of Mitigation Measures 5.2 and 5.3 below would ensure that potential impacts associated with the proposed project would be less than significant.

c.

According to the California Geological Survey, the majority of the project site is comprised of Quarternary deposits. Although this formation is old enough to contain paleontological resources, implementation of the proposed project would not require extensive grading or excavation, and no unique geologic features, or paleontological sites are known to exist in the vicinity of the project site. Impacts to paleontological resources are not expected.

Mitigation

MM 5.1. If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly-modified lithics, historic artifacts, etc.) are encountered, the County shall notify the Wintu Tribe of Northern California.

MM 5.2. If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall make an assessment of the discovery and recommend/implement mitigation measures as necessary.

MM 5.3. If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly-modified lithics, historic artifacts, etc.) are encountered, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary.

Documentation

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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6. GEOLOGY AND SOILS. Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| 1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2) Strong seismic ground-shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a. The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- 1) Rupture of a known earthquake fault:

According to the Alquist-Priolo Earthquake Fault Zoning Map for Shasta County, there are no Alquist-Priolo Special Study Zones in the project vicinity. The nearest Alquist-Priolo Special Study Zones, which identify fault areas considered to be of greatest risk in the state, occur primarily in eastern Shasta County. Review of the U.S. Geological Survey’s earthquake fault map shows that the nearest earthquake faults are east and west trending faults that run nearly parallel with Cottonwood Creek, approximately one mile south and east of the project site.

- 2), 3) Strong seismic ground shaking or seismic-related ground failure, including liquefaction:

According to the *Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan*, fault lines located in southern and eastern Shasta County could produce low to moderate ground shaking, which is the principal cause of damage in a seismic event and could catalyze dam failures, landslides, and fires. According to the U.S. Geological Survey, lifeline systems such as highways, bridges, water and gas pipelines, railroads, and utility services, can experience substantial damage from ground shaking. However, areas within the County have not sustained damages attributed to earthquakes, dam failures, or landslides as far as records

have been maintained and Shasta County has never proclaimed a state of emergency due to earthquakes events. Regardless, as stated in Chapter 16.08.010, "Codes adopted," in the Shasta County Code of Ordinances, the County has adopted the building standards, rules and regulations contained in the most recent edition of those codes specified in Sections 17922 and 18938 of the California Health and Safety Code, and in Appendix Chapter 1 of Title 24, Part 2, of the California Code of Regulations. These codes provide standardized building requirements for all new structures and are intended to promote public safety. Compliance with these standards ensures that potential impacts associated with new construction, such as those related to seismic ground shaking or seismic-related ground failure, are less than significant.

Liquefaction results from an applied stress on the soil, such as earthquake shaking or other sudden change in stress condition, and is primarily associated with saturated, cohesionless soil layers located close to the ground surface. During liquefaction, soils lose strength and ground failure may occur. This phenomenon is most likely to occur in alluvial (geologically recent, unconsolidated sediments) and stream channel deposits, especially when the groundwater table is high. Soils of the project site may be underlain with quaternary deposits which are considered geologically recent and include alluvium or stream channel deposits. However, the project site is not located on or in close proximity to any known active seismic sources; thus, the potential for liquefaction is low.

Based on the information provided above, the potential for adverse effects resulting from seismic ground shaking, or seismic-related ground failure, including liquefaction, is less than significant.

4) Landslides:

According to the *Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan*, landslides may occur throughout Shasta County; however, landslides are more prevalent in the eastern and northern portions of the County and are commonly related to the sedimentary and volcanic rocks in these vicinities. The proposed project would not result in substantial earthwork or vegetation removal that could increase exposure of people or structures to landslides. Minor slumping could occur along the banks of Crowley Gulch; however, overall, the site is relatively flat with no potential for landslides. Potential effects from landslides on the project site or in the project vicinity are expected to be less than significant.

b.

Soils within the project site are mapped as Perkins series, 0 to 3 percent slopes, and Churn series, 0 to 3 percent slopes. Project soil types are summarized in Table 3.

**Table 3
Soil Type and Characteristics**

Soil Name	Soil Type	Slope (%)	Erosion Potential	Permeability	Drainage	Runoff Rate
Perkins series	Gravelly loam	0-3	Low	Slow	Well drained	Very slow
Churn series	Gravelly loam	0-3	Low	Moderately slow	Well drained	Medium
Churn series	Gravelly loam, deep	0-3	Low	Slow	Well drained	Slow

Sources: U.S. Department of Agriculture, Natural Resources Conservation Service, 2015; U.S. Department of Agriculture, Soil Conservation Service et al., 1974.

BMPs for erosion and sediment control would be implemented during project construction, as required by the Construction General Permit Order issued by the Central Valley RWQCB; the order requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for all projects that disturb one or more acres of soil. Measures that may be implemented to minimize erosion include limiting construction to the dry season; use of straw wattles, silt fences, and/or gravel berms to prevent sediments from discharging off-site; and revegetating temporarily disturbed sites upon completion of construction. In the long-term operation of the project, a bioswale would direct and detain stormwater runoff exiting the newly paved parking lot, before the runoff is ultimately discharged to Crowley Gulch. Controlling runoff and reducing flow rates would reduce the potential for erosion and sedimentation on- and off-site. Because BMPs for erosion and sediment control would be implemented in accordance with existing requirements, and construction of a bioswale is proposed, the potential for soil erosion and loss of top soil would be less than significant.

c.

The potential hazards associated with liquefaction and landslides are addressed in impacts (a)3 and (a)4 above. In regard to the potential for lateral spreading, subsidence, or collapse, according to the Natural Resources Conservation Service (NRCS), soils on the project site have a low likelihood of becoming unstable, and are not likely to be limited in regards to shallow excavations. Compliance with the provisions of the Uniform Building Code, which has been adopted by Shasta County, will ensure that geologic and soils hazards associated with the proposed project are less than significant.

d.

Expansive soils contain higher levels of clay and present hazards for development since they expand and shrink depending on water content. NRCS data shows that soils in the project site have some potential for soil expansion/contraction, but that any such limitations can be overcome or minimized through proper planning, design, and/or construction. No substantial risks to life or property are anticipated.

e.

The proposed project entails roadway, parking improvements, and a pedestrian bridge. As such, the project would not require the use of septic tanks or alternative wastewater disposal systems.

Mitigation

None necessary

Documentation

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- Shasta County. 2011. *Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan*. http://www.co.shasta.ca.us/docs/Resource_Management/generalplanupdate/HazardMitigationPlan.pdf?sfvrsn=0. Accessed December 2015.
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- _____. 2010 Geologic Map of California. <http://www.quake.ca.gov/gmaps/GMC/stategeologicmap.html>. Accessed December 2015.
- U.S. Department of Agriculture, Natural Resource Conservation Service. 2015. Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Accessed December 2015.
- U.S. Department of Agriculture, Soil Conservation Service and Forest Service; University of California Agricultural Experiment Station. 1974. Soil Survey of Shasta County Area, California.
- U.S. Geological Survey. 2015. Interactive Fault Map. <http://earthquake.usgs.gov/hazards/qfaults/map/>. Accessed December 2015.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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7. GREENHOUSE GAS EMISSIONS. Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.

The proposed project would not result in long-term operational emissions, including greenhouse gas emissions, because it would not result in an increase in traffic volumes. However, project construction would result in a temporary increase in greenhouse gas emissions, such as nitrous oxide (NO_x) and carbon dioxide (CO₂).

SCAQMD has not adopted thresholds of significance for greenhouse gases. According to SCAQMD staff, the District’s greenhouse gas policy is to quantify, minimize, and mitigate greenhouse gas emissions, as feasible. As documented in Section III.C.3, “Air Quality”, project construction would result in peak emissions of about 31.35 lbs/day of NO_x and 4,204.26 lbs/day of CO₂; minor amounts of methane would also be present in vehicle emissions. As described in Section III.C.3, “Air Quality”, implementation of Standard Mitigation Measures and adherence to the In-Use Off-Road Diesel Vehicle Regulation would minimize construction emissions, including greenhouse gases. Based on this information, greenhouse gas emissions resulting from project construction would be less than significant.

b.

The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Mitigation

None necessary

Documentation

Shasta County Air Quality Management District. Ross Bell, Air Quality District Manager, pers. comm.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

- | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a, b.

Project operation would not result in an increased use of hazardous materials, nor would it increase the potential for a release of hazardous materials to the environment. Project construction would involve use of relatively small quantities of materials such as diesel, gasoline, oils, and other engine fluids. Existing State standards govern the transport, use, and disposal of hazardous materials; because work would be conducted in accordance with these existing requirements, potential impacts would be less than significant and no mitigation measures are warranted.

c.

During construction, the proposed project would emit potentially hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing school. West Cottonwood School's track is located directly adjacent to the project site, with the main buildings located over 500 feet to the south. However, the majority of the construction activities would take place during the summer months when most, if not all, school programs are not in session. Further, as described under a) above, project construction would involve use of relatively small quantities of materials such as diesel, gasoline, oils, and other engine fluids. Existing State standards govern the transport, use,

and disposal of hazardous materials; because work would be conducted in accordance with these existing requirements, potential impacts would be less than significant and no mitigation measures are warranted.

d.

Review of the State's EnviroStor and GeoTracker databases showed that the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e, f.

There are no airports, public or private, located in the project vicinity. Lake California Air Park, the closest airport, is located approximately four miles to the southeast of the project site. Implementation of the proposed project would not result in an aviation-related safety hazard for people residing or working in the project area.

g.

The proposed project does not involve a use or activity that could interfere with emergency-response or emergency-evacuation plans for the area. Although an increase in traffic volume could interfere with emergency-response times, construction-related traffic associated with the proposed project would be minor and temporary in nature. Impacts are expected to be less than significant.

h.

The proposed project would be located in a relatively urbanized area. According to data maintained by CAL FIRE, the project site is designated as a "Non-Very High Fire Hazard Severity Zone" (Non-VHFHSZ); further, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Impacts are expected to be less than significant.

Mitigation

None necessary

Documentation

CAL FIRE. 2008. Shasta County, Very High Fire Hazard Severity Zones in LRA.

http://frap.fire.ca.gov/webdata/maps/shasta/fhszl_map.45.pdf. Accessed December 2015.

Department of Toxic Substances Control. 2015. EnviroStor.

http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=&x=-119&y=37&zl=18&ms=640,480&mt=m&findaddress=True&city=cottonwood,%20ca&zip=&county=&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&ca_site=true&tiered_permit=true&evaluation=true&military_evaluation=true&school_investigation=true&operating=true&post_closure=true&non_operating=true. Accessed December 2015.

State Water Resources Control Board. 2015. GeoTracker.

<http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=cottonwood+ca>. Accessed December 2015.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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9. HYDROLOGY AND WATER QUALITY. Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Violate any water quality standards or waste-discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f. Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Place within a 100-year flood-hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j. Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.

The proposed project has the potential to temporarily degrade water quality due to increased erosion during project construction, and in the long-term operation of the project. However, as previously described in Section III.C.6, "Geology and Soils," BMPs would be implemented to provide soil stabilization, sediment control, and spill prevention throughout the duration of the project to minimize impacts to water quality. In addition, in the long-term operation of the project, a bioswale would direct, detain, and pre-treat stormwater runoff leaving the parking lot, before the runoff ultimately enters Crowley Gulch. Controlling runoff, reducing flow rates, and allowing for pre-treatment would reduce

the potential for erosion and sedimentation on- and off-site, which would also minimize impacts to water quality. With implementation of BMPs and a bioswale, potential impacts on water quality would be less than significant.

b.

The proposed project would not require new groundwater supplies for construction or operation of the project. The project would result in overcovering of ground surfaces—pavement of the parking lot—that could potentially reduce groundwater recharge. However, it is likely the graveled surface is already compacted due to vehicle traffic, which inhibits water percolation. Further, soils on the site have moderately slow to slow permeability. For these reasons, effects on groundwater levels would be negligible.

c.

With the exception of the pedestrian bridge and bioswale, the proposed project would occur in a previously developed area. Construction of the project, and specifically, paving of the parking lot, would alter the existing drainage patterns of the site. However, as previously described, BMPs for erosion and sediment control would be implemented during project construction. In addition, future site drainage from the parking lot would be directed to the bioswale. The bioswale would filter potential contaminants associated with vehicle use of the parking lot, before water is ultimately discharged to Crowley Gulch. The bioswale would also slow the movement of water which would prevent the potential for erosion or siltation on- or off-site. In addition, stormwater runoff from Gas Point Road would be directed to Crowley Gulch or to the graveled drainage swale on the east side of the parking lot. Rock slope protection may be placed at the western drainage outlet to dissipate flows. Therefore, no significant impacts with respect to drainage patterns, erosion, or siltation are expected as a result of project construction or operation.

d.

Project implementation would result in minor changes in drainage patterns, as well as overcovering of soils and a commensurate increase in the amount of surface runoff. However, as described above, future site drainage in the parking lot would be directed to a bioswale that would ultimately discharge to Crowley Gulch, and stormwater from Gas Point Road would be directed to Crowley Gulch, or to a graveled drainage swale east of the parking lot. In addition, the proposed bioswale would also provide stormwater detention which would slow the rate of runoff leaving the project site. Further, in accordance with the Construction General Permit requirements, post-construction peak runoff volume would not exceed pre-construction peak runoff volume. Therefore, no significant impacts with respect to on-site or off-site flooding are expected as a result of the proposed project.

e.

The proposed project would not exceed the capacity of existing and planned stormwater drainage systems. Minor amounts of erosion could occur during project construction, and in the long term, the paved parking lot would collect oil drips and other contaminants associated with vehicle use, which would ultimately enter the stormwater drainage system or Crowley Gulch. However, as noted above, a bioswale would be constructed, which would adequately handle on-site drainage associated with the parking lot, and stormwater from Gas Point Road would be directed to Crowley Gulch or to a graveled drainage swale east of the parking lot. BMPs for pollutant control would also be required during construction of the proposed project. The project would not constitute a substantial additional source of polluted runoff.

f.

Project construction could contribute to water quality degradation through increased erosion and sedimentation or through the release of fuels, paints, or other potentially hazardous materials. The use of BMPs for erosion control and spill prevention, combined with compliance with existing requirements governing the transport, use, and disposal of fuels and other potentially hazardous materials, would reduce the potential for water quality degradation during construction to an insignificant level. In the long-term operation of the project, it is anticipated that construction of the bioswale would provide pre-treatment of parking lot runoff before the runoff is ultimately conveyed to Crowley Gulch. Impacts on water quality would be reduced to a less-than-significant level.

g.

The proposed project would not involve the construction of any housing. Further, the project site is not within a 100-year floodplain, as mapped on any flood hazard delineation map.

h.

The project site is not within a 100-year floodplain and the proposed project would not involve the construction of structures within a 100-year mapped floodplain.

i.

Although a portion of the project site—in and around Crowley Gulch—is located within an area subject to flooding, the project would not expose people or structures to a significant risk of loss, injury or death involving flooding. Other areas of the project site are not subject to flooding.

j.

The project site is located within the interior of California where there is no threat of a tsunami. Although Whiskeytown and Shasta Lake could experience seiches as a result of very strong ground-shaking, these water bodies are approximately 20 and 24 miles respectively, from the project site; therefore, there is no risk for inundation of the project site resulting from seiches. According to the *Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan*, the potential for mudflows would be limited to volcanic activity (Lassen Peak and Mt. Shasta). The project site is located in an area whereas inundation by seiche, tsunami, or mudflow would not pose a risk to the project.

Mitigation

None necessary

Documentation

Federal Emergency Management Agency. 2015. National Flood Hazard Layer.

<http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30>.

Accessed December 2015.

Shasta County. 2011. *Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan*. Accessed December 2015.

http://www.co.shasta.ca.us/docs/Resource_Management/generalplanupdate/HazardMitigationPlan.pdf?sfvrsn=0.

Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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10. LAND USE AND PLANNING. Would the project:

- | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with any applicable land use plan, policy, or regulation 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 an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.

Gas Point Road is a main roadway serving the community of Cottonwood and providing access over Crowley Gulch. The proposed project would entail modifications of the Gas Point Road corridor near its intersection with Park Drive and to an adjacent parking lot. No established access routes would be eliminated, nor would project implementation physically divide an established community. Lane(s) of Gas Point Road in the project site may be closed during construction of the proposed project. A detour would not be provided since alternate routes exist and lane(s) would remain open.

b.

As discussed in Section II, "Environmental Setting," the Shasta County General Plan designates the project site as Other Planning Area, and the County zones the project site as Public Facilities (PF), Open Space (OS), Community Commercial (C-2), Interim Rural Residential (I-R), One Family Residential – Building Site District (R-1-BSM), Community Commercial – Design Review District (C-2-DR), and Unclassified (U). Because the project entails roadway corridor and parking lot improvements, in a primarily developed area that supports these uses, the project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

c.

Review of the California Regional Conservation Plans Map found no Habitat Conservation Plans or Natural Community Conservation Plans that include the project site.

Mitigation

None necessary

Documentation

- California Department of Fish and Wildlife. 2015. California Regional Conservation Plans Map. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>. Accessed February 2016.
- Shasta County. 2016. GIS Data provided to ENPLAN from Shasta County.
- _____. 2016. Shasta County Internet Zoning Viewer. <http://gis.co.shasta.ca.us/Zoning/>. Accessed February 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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11. MINERAL RESOURCES. Would the project:

- | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a, b.

A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. The designation is applied to sites determined by the California Geological Survey as being a resource of regional significance, and is intended to help maintain any mining operations and protect them from encroachment of incompatible uses. The project site has not been classified by the California Geological Survey as containing significant mineral resources.

According to Section 6.3, “Minerals,” of the Shasta County General Plan, mining is important to the economy of Shasta County, and numerous minerals occur throughout the area. Although mineral resources are known to occur in local creeks, such as Cottonwood Creek, no mineral resources are known to occur in Crowley Gulch. Regardless, if minerals were known to occur in the project site, mining of these resources would be impractical due to the density of development in the area. Project implementation would not result in a change in land use patterns and would therefore have no effect on the on-site or off-site availability of mineral resources.

Mitigation

None necessary

Documentation

Shasta County. 2004. Shasta County General Plan, As Amended Through September 2004. 6.3 Minerals. http://www.co.shasta.ca.us/docs/Resource_Management/docs/63minerals.pdf?sfvrsn=0. Accessed December 2015.

Department of Conservation, California Geological Survey. 2007. SMARA Mineral Land Classification Maps. <http://www.quake.ca.gov/gmaps/WH/smaramaps.htm>. Accessed December 2015.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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12. NOISE. Would the project result in:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a, c, d.

Project implementation has the potential to increase noise levels in the short term during project construction. No increase in noise levels would be expected in the long-term operation of the project. With respect to short-term noise level increases, construction equipment anticipated to be used for project construction typically generate maximum noise levels ranging from 80 to 88 decibels (dBA) at a distance of 50 feet. Noise from construction activities generally attenuates at a rate of 6 dBA per doubling of distance, assuming the intervening ground is a smooth surface without much vegetation. Typical sound levels and relative loudness for various types of noise environments are described in Table 4. At an attenuation rate of 6 dBA, 80 to 88 dBA noise levels would drop to 74 to 82 dBA at a distance of 100 feet and 68 to 76 dBA at a distance of 200 feet.

Approximately 11 residences are located directly adjacent to the project site, with numerous other residences located in the nearby vicinity. West Cottonwood School’s track is also located directly adjacent to the project site; with the main buildings located over 500 feet south of the project site. While the residences located adjacent to the project site would experience mostly unobstructed noise levels associated with construction activities, surrounding residences located further from the site, as well as the school would experience much less noise, with maximum noise levels of approximately 68 dBA. Construction noise levels at and near the project site would fluctuate, depending on the number and type of construction equipment operating at any given time. Shasta County does not have a noise ordinance or General Plan policy for noise impacts associated with construction activities.

Construction activities associated with the proposed project are expected to be completed between July and September. Work would occur on weekdays between the hours of 7:00 a.m. and 7:00 p.m. With construction activities confined to daytime hours, the short duration of the activities, and small-scale nature of the activities, construction noise levels would be less than significant.

The proposed project would not alter the local noise environment in the long term because implementation of the project would not result in additional vehicle traffic.

**Table 4
Examples of Construction Equipment
Noise Emission Levels**

Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Loader	85
Paver	89
Pile-Driver (Impact)	101
Pile-Driver (Sonic)	96
Pump	76
Saw	76
Truck	88

Source: Federal Transit Administration 2006:12-6, adapted by ENPLAN 2016

b.

The proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels. The majority of project construction would consist excavating, grading, and paving. Work would not involve the use of explosives, pile driving, or other intensive construction techniques that could generate significant groundborne noise or vibration.

e, f.

The airport nearest the project site is the Lake California Air Park, which is located approximately four miles to the southeast. Due to the airport’s relatively small traffic volume and its distance from the project location, people working within the project area would not be exposed to excessive aircraft-generated noise levels.

Mitigation

None necessary

Documentation

Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06.

Washington, DC: Office of Planning and Environment.

http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed February 2016.

Shasta County. 2004. Shasta County General Plan as Amended Through September 2004. 5.5 Noise. Accessed

February 2016. http://www.co.shasta.ca.us/docs/Resource_Management/docs/55noise.pdf?sfvrsn=0.

Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

13. POPULATION AND HOUSING. Would the project:

- | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.

The proposed project would not directly or indirectly induce substantial population growth in the area. Construction-related jobs may be temporarily created, but most are expected to be filled by existing Shasta County residents. Due to the short-term nature of the jobs, project construction is not likely to attract new residents to the area. The existing housing stock in the local area is more than adequate to serve any new residents that may be attracted to the area. The potential for population growth as a result of replacing the existing bridge is expected to be less than significant.

b.

Project implementation would not remove any existing housing, displace any people, or necessitate the construction of additional housing.

c.

For the reason described in response to item (b) above, implementation of the proposed project would not displace any people, or necessitate the construction of replacement housing elsewhere.

Mitigation

None necessary

Documentation

Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

14. PUBLIC SERVICES.

a. 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:

i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-i, ii.

The proposed project entails modifications of the Gas Point Road corridor near its intersection with Park Drive and to an adjacent parking lot associated with the park. As such, no adverse effects with respect to police or fire protection are anticipated as a result of the proposed project.

a-iii.

The proposed project does not include the construction of any new housing units and would not result in any increase in the community’s population or increased numbers of students served by local schools.

a-iv.

The proposed project would provide improvements to existing park facilities (i.e., a paved parking lot, landscaping, additional parking), and would not adversely affect any existing park facilities.

a-v.

The proposed project is not intended for human occupancy, and would not result in a substantial increase of construction-related or operational traffic on local roadways. Therefore, the project is not expected to result in a significant impact on other public facilities.

Mitigation

None necessary

Documentation

Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

15. RECREATION. Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a.

The proposed project does not include the construction of houses or businesses that would increase the number of residents in the area. As a result, implementing the proposed project would not result in an increased demand for recreational facilities.

b.

The proposed project would improve an existing recreational facility by converting graveled parking to a paved parking lot with construction of pedestrian facilities.

Mitigation

None necessary

Documentation

Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

16. TRANSPORTATION AND CIRCULATION. Would the project:

- | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a, b.

Access to the project site is provided by Gas Point Road, with Park Drive and Rhonda Road as the nearest cross roads. Short-term increases in the traffic volume would occur on Gas Point Road during construction activities. This traffic would consist of construction workers traveling to, around, and from the site, truck trips to haul materials and supplies to the project site, as well as truck trips to haul debris off-site for disposal. However, because of the small scale and temporary nature of the construction activities, the proposed project would not cause a substantial increase in the number of vehicle trips on local roadways, highways, or freeways.

Implementation of the proposed project would entail modifications of the Gas Point Road corridor near its intersection with Park Drive and to an adjacent parking lot associated with the park. No long-term increase in traffic volume would occur as a result of the project. The proposed project would not conflict with an applicable program, plan, ordinance, or policy related to traffic.

c.

The proposed project does not involve any aviation-related uses and would not result in a change in air traffic patterns.

d.

The proposed project would not increase hazards due to a design feature nor would it introduce incompatible traffic types on local roads as a result of project construction.

e.

Project implementation would require the temporary closure of a portion of lane(s) on Gas Point Road, Park Drive, and Rhonda Road during construction. However, because alternate routes exist in the vicinity, project construction would not substantially interfere with emergency-response or emergency-evacuation plans for the area; any impacts would be temporary and less than significant.

f.

The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Mitigation

None necessary

Documentation

Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

17. UTILITIES AND SERVICE SYSTEMS. Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a.

The proposed project would not exceed wastewater treatment requirements of the Central Valley RWQCB. Minor quantities of wastewater may be generated during project construction, but no additional wastewater would be generated during project operation. No impact would occur.

b.

Construction of the proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

c.

Project implementation would include the construction of new stormwater drainage facilities. However, the bioswale would tie into an existing drainage, Crowley Gulch, and would minimize impacts related to erosion caused by runoff. Rock slope protection may also be placed at the western drainage outlet off Gas Point Road to dissipate flows into Crowley Gulch. Impacts would be less than significant.

d.

The proposed project would not require additional water supplies, or new or expanded entitlements. Relatively small amounts of water would be consumed during project construction, and no increase in water consumption would occur as a result of project implementation.

e.

Minor quantities of wastewater may be generated during project construction (e.g., through use of port-a-potties), but no wastewater would be generated during project operation. The proposed project would not require new wastewater treatment capacity.

f.

Construction of the proposed project may result in a minimal amount of debris requiring disposal at a landfill. This one-time impact is not expected to significantly affect the capacity of local landfills.

g.

The proposed project would comply with all federal, state, and local statutes and regulations as they relate to solid waste.

Mitigation

None necessary

Documentation

Shasta County Department of Public Works. Personal communications with ENPLAN. January – April 2016.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
----------------------------------------------	--------------------------------	--------------------------------------------------------	------------------------------	-----------

18. MANDATORY FINDINGS OF SIGNIFICANCE.

- | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| <p>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?</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>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)?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a.

As documented in the Initial Study, project implementation could result in disturbance of nesting migratory birds, disturbance of subsurface cultural resources, increased soil erosion and water quality degradation, increased air emissions, and temporarily increased noise levels. Design features incorporated into the project would avoid or reduce certain potential environmental impacts, as would compliance with existing regulations and permit conditions. Remaining impacts can be reduced to levels that are less than significant through implementation of the mitigation measures presented in the Initial Study. Because Shasta County will adopt mitigation measures as conditions of project approval and will be responsible for ensuring their implementation, it has been determined that the project will not have a significant adverse impact on the environment.

b.

Based on the discussion and findings of this Initial Study and in consideration of recently approved projects in the general area, there is no evidence to suggest that the project would have impacts that are cumulatively considerable.

c.

As described herein, the project does not have characteristics that could cause substantial adverse effects on human beings either directly or indirectly.

IV. LIST OF PREPARERS

ENPLAN

Donald Burk Environmental Services Manager
Lindsay Kantor Environmental Planner
John Luper Environmental Scientist
Darrin Doyle Environmental Scientist
Jessica McCoy..... Archaeologist
Hazen Kazaks Production Coordinator

Shasta County Department of Public Works

John Crowe Associate Engineer

APPENDIX A.

- California Natural Diversity Database RareFind Query Summary
- U.S. Fish and Wildlife Service IPaC Trust Resource Report
- Potential for Federally Listed, Proposed, and Candidate Species, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site
- List of Vascular Plant Species Observed

RareFind (CNDDDB) Report Summary (February 2015 Data)

Gas Point Road Corridor and Park Improvement Project

Listed Element	Quadrangle ¹						Status ²
	OL	CO	BF	BE	HO	MG	
Wildlife							
Bald eagle			•	•			FD, SD, SFP
Bank swallow			•				ST
Chinook salmon - Sacramento River winter-run ESU		•	•	•			FE, SE
Hoary bat		•					None
Osprey		•			•		None
Silver-haired bat		•					None
Steelhead - Central Valley DPS	•	•	•	•	•	•	FT
Tricolored blackbird		•					SSSC
Valley elderberry longhorn beetle		•			•		FT
Western red bat		•					SSSC
Western spadefoot					•		SSSC
Yuma myotis		•					None
Plants							
Pink creamsacs	•						1B.2
Red Bluff dwarf rush	•						1B.1
Silky cryptantha		•	•	•	•		1B.2
Woolly meadowfoam	•						4.2
Natural Communities							
Great Valley Mixed Riparian Forest		•					None
Great Valley Cottonwood Riparian Forest			•				None
<p>Highlighting denotes the quadrangle in which the project site is located.</p> <p>The 5-mile search radius contains portions of the following quadrangles: Olinda, Cottonwood, Balls Ferry, Bend, Hooker, and Mitchell Gulch. The CNDDDB records for the two fish species—chinook salmon - Sacramento River winter-run ESU and steelhead - Central Valley DPS—within the search radius were mapped to also contain portions of numerous other quadrangles; north, west, and south of the project site. Those other quadrangles are not included.</p> <p>¹Quadrangle Code OL = Olinda CO = Cottonwood BF = Balls Ferry BE = Bend HO = Hooker MG = Mitchell Gulch</p> <p><i>Federal</i> FE = Federally Listed - Endangered FT = Federally Listed - Threatened FC = Federal Candidate Species FP = Federal Proposed Species FD = Federally Delisted FSC = Federal Species of Concern</p> <p><i>State</i> SE = State Listed - Endangered SR = State Rare SE = State Listed - Endangered ST = State Listed - Threatened SC = State Candidate SD = State Delisted SFP = State Fully Protected SSSC = State Species of Special Concern</p> <p><i>Other</i> None = Non special-status species</p> <p>California Rare Plant Rank List 1A = Presumed extirpated in California and either rare or extinct elsewhere List 1B = Rare or Endangered in California and elsewhere List 2A = Presumed extirpated in California, but more common elsewhere List 2B = Rare or Endangered in California, but more common elsewhere List 3 = Plants for which we need more information - Review list (generally not considered special-status, unless unusual circumstances warrant) List 4 = Plants of limited distribution - Watch list (generally not considered special-status, unless unusual circumstances warrant)</p> <p>Threat Ranks 0.1 = Seriously Threatened in California 0.2 = Fairly Threatened in California 0.3 = Not Very Threatened in California</p>							

IPaC Trust Resource Report

Generated March 02, 2016 12:34 PM MST, IPaC v2.3.2

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



US Fish & Wildlife Service

IPaC Trust Resource Report

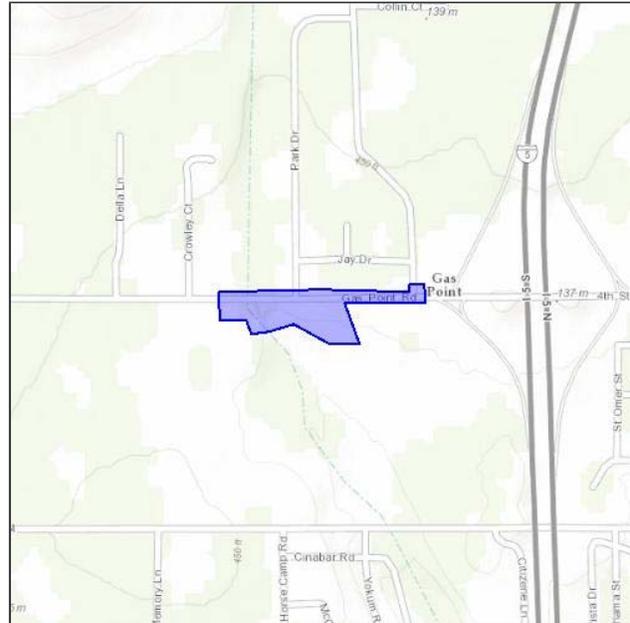


LOCATION

Shasta County, California

IPAC LINK

<https://ecos.fws.gov/ipac/project/EIN7L-5Q75J-CBJEE-F4QX7-7RNME4>



U.S. Fish & Wildlife Contact Information

Trust resources in this location are managed by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require FWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from the Regulatory Documents section in IPaC.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Amphibians

California Red-legged Frog *Rana draytonii* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=D02D

Crustaceans

Conservancy Fairy Shrimp *Branchinecta conservatio* Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=K03D

Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=K03G

Vernal Pool Tadpole Shrimp *Lepidurus packardii* Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=K048

Fishes

Delta Smelt *Hypomesus transpacificus* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=E070

Steelhead *Oncorhynchus (=Salmo) mykiss* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=E08D

Flowering Plants

Slender Orcutt Grass *Orcuttia tenuis* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=Q1AZ

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>

The following species of migratory birds could potentially be affected by activities in this location:

Bald Eagle <i>Haliaeetus leucocephalus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008	Bird of conservation concern
Black Swift <i>Cypseloides niger</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0FW	Bird of conservation concern
Burrowing Owl <i>Athene cunicularia</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0NC	Bird of conservation concern
Calliope Hummingbird <i>Stellula calliope</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0K3	Bird of conservation concern
Fox Sparrow <i>Passerella iliaca</i> Season: Breeding	Bird of conservation concern
Lawrence's Goldfinch <i>Carduelis lawrencei</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0J8	Bird of conservation concern

Lewis's Woodpecker <i>Melanerpes lewis</i> Season: Wintering https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HQ	Bird of conservation concern
Loggerhead Shrike <i>Lanius ludovicianus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FY	Bird of conservation concern
Nuttall's Woodpecker <i>Picoides nuttallii</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HT	Bird of conservation concern
Oak Titmouse <i>Baeolophus inornatus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MJ	Bird of conservation concern
Peregrine Falcon <i>Falco peregrinus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU	Bird of conservation concern
Rufous-crowned Sparrow <i>Aimophila ruficeps</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MX	Bird of conservation concern
Short-eared Owl <i>Asio flammeus</i> Season: Wintering https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD	Bird of conservation concern
Swainson's Hawk <i>Buteo swainsoni</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B070	Bird of conservation concern
Western Grebe <i>aechmophorus occidentalis</i> Season: Wintering https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EA	Bird of conservation concern
Williamson's Sapsucker <i>Sphyrapicus thyroideus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FX	Bird of conservation concern
Willow Flycatcher <i>Empidonax traillii</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6	Bird of conservation concern
Yellow-billed Magpie <i>Pica nuttalli</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0N8	Bird of conservation concern

Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuges in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands in this location

Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Plants							
Pink creamsacs	<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	1B.2	Pink creamsacs is an annual herb that occurs on serpentine soils in openings in chaparral or valley and foothill grasslands. The species is reported from sea level to 3,000 feet in elevation. The flowering period is April through June.	No	No	No	No potentially suitable habitat for pink creamsacs is present in the project site. The species is not expected to be present.
Silky cryptantha	<i>Cryptantha crinita</i>	1B.2	Silky cryptantha is an annual herb that occurs along low-gradient seasonal streams with broad floodplains, usually on the valley floor, where it is found on gravelly or cobbly substrates. The species also occurs in vernal moist uplands. Less frequently, it occurs along perennial streams, including the Sacramento River. The species is found between 200 and 4,000 feet in elevation. The flowering period is April and May.	No	No	No	No potentially suitable habitat for silky cryptantha is present in the project site. The species is not expected to be present.
Slender Orcutt grass	<i>Orcuttia tenuis</i>	FT, 1B.1	Slender Orcutt grass is an annual herb that occurs in vernal pools and similar habitats, occasionally on reservoir edges or stream floodplains, on clay soils with seasonal inundation in valley grassland to coniferous forest or sagebrush scrub. The species is found between 100 and 5,800 feet in elevation. The flowering period is May through September.	No	No	No	No potentially suitable habitat for slender Orcutt grass is present in the project site. The species is not expected to be present.
Woolly meadowfoam	<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	4.2	Woolly meadowfoam is an annual herb that generally occurs in vernal pools in valley foothill and grasslands, cismontane woodland, and chaparral. The species is reported between 200 and 3,600 feet in elevation. The flowering period is March through June.	No	No	No	No potentially suitable habitat for woolly meadowfoam is present in the project site. The species is not expected to be present.

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Red Bluff dwarf rush	<i>Juncus leiospermus</i> var. <i>leiospermus</i>	1B.1	Red Bluff dwarf rush is an annual herb that typically occurs along the edges of vernal pools and vernal drainages, or on clay-rich terrace soils. The species is found between 100 and 3,400 feet in elevation. The flowering period is March through May.	No	No	No	No potentially suitable habitat for Red Bluff dwarf rush is present in the project site. The species is not expected to be present.
Invertebrates							
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE	Conservancy fairy shrimp inhabit large, cool-water vernal pools with moderately turbid water.	No	No	No	No vernal pools or other potentially suitable habitats for Conservancy shrimp are present in the project site. Conservancy fairy shrimp would thus not be present.
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT	The valley elderberry longhorn beetle is found only in association with elderberry shrubs (<i>Sambucus</i> spp.). The species' elevational range extends from sea level to 3,000 feet. The species is known to occur in the Central Valley and foothills.	Yes	No	No	No elderberry shrubs were observed in the project site. The valley elderberry longhorn beetle would thus not be present.
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	Vernal pool fairy shrimp inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools.	No	No	No	No vernal pools or other potentially suitable habitats for vernal pool fairy shrimp are present in the project site. Vernal pool fairy shrimp would thus not be present.
Vernal pool tadpole shrimp	<i>Lepidurus packardi</i>	FE	Vernal pool tadpole shrimp occur in vernal pools in California's Central Valley and in the surrounding foothills.	No	No	No	No vernal pools or other potentially suitable habitats for vernal pool tadpole shrimp are present in the project site. Vernal pool tadpole shrimp would thus not be present.

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Birds							
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FD, SE, SFP	Bald eagles nest in large, old-growth trees or snags in mixed stands near open bodies of water. Adults tend to use the same breeding areas year after year and often use the same nest, though a breeding area may include one or more alternate nests. Bald eagles usually do not begin nesting if human disturbance is evident. In California, the bald eagle nesting season is from February through July.	No	No	No	No large, old-growth trees or snags in mixed stands near open bodies of water are present on the project site. Thus, the bald eagle is not expected to nest on the project site.
Bank swallow	<i>Riparia riparia</i>	ST	Bank swallows require vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, or the ocean for nesting.	No	No	No	No vertical rock cliffs or cliffs with fine-textured or sandy soils are present on the project site. The bank swallow was not observed during the wildlife survey and is not expected to nest on the project site.
Tricolored blackbird	<i>Agelaius tricolor</i>	SSSC	Tricolored blackbirds are colonial nesters and generally nest near open water. Nesting areas must be large enough to support a minimum colony of about 50 pairs. Tricolored blackbirds generally construct nests in dense cattails or tules, although they can also nest in thickets of willow, blackberry, wild rose and tall herbs.	No	No	No	No potentially suitable nesting habitat for tricolored blackbirds is present in the project site. The species is not expected to nest on the project site.

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Amphibians							
California red-legged frog	<i>Rana draytonii</i>	FT, SSSC	Suitable aquatic habitat for the California red-legged frog (CRLF) consists of permanent water bodies of virtually still or slow-moving fresh water, including natural and man-made ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. Historically, in California, CRLF has been found along the coast and Coast Ranges from Marin County, inland to Shasta County, and south to San Diego County. In addition, the species has been known to occur into the foothills of the Sierra Nevada mountains, south to Tulare County, and possibly Kern, San Bernardino and Riverside Counties. The current range of CRLF entails isolated localities in the Sierra Nevada, Northern Coast and Northern Transverse Ranges; the San Francisco Bay area (including Marin County); and along the Central Coast.	No	No	No	Crowley Gulch in the project site does not provide suitable breeding habitat for the CRLF due to the lack of emergent vegetation and overhanging willows/blackberries. Although the project site is within the historic range of the CRLF, there is substantial documentation that the species has been extirpated from Shasta County for many decades*. Given that the nearest confirmed sighting of the CRLF is approximately 27 miles southwest of the project site in mountainous terrain in western Tehama County, and that the species is presumed to be extirpated from the project vicinity, the CRLF is not expected to be present.
Western spadefoot	<i>Spea hammondi</i>	SSSC	Western spadefoots breed from January through May in shallow, temporary pools that persist for at least three weeks. Breeding pools are generally absent of bullfrogs, fish, and crayfish. After breeding, adults seek shelter underground either by excavating a subterranean burrow or retreating into a small mammal burrow nearby. Tadpoles transform within three weeks. Following transformation, juveniles leave breeding pools and seek shelter underground. Western spadefoots remain underground until breeding pools form the following spring.	No	No	No	No potentially suitable habitat for western spadefoots is present in the project site. The species is not expected to occur on the project site

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Fish							
Chinook salmon – Sacramento River winter-run ESU	<i>Oncorhynchus tshawytscha</i>	FE, SE	California coastal Chinook salmon migrate up and spawn in rivers/streams that flow directly into the ocean and in tributaries to rivers. Spawning and rearing streams typically are perennial, flow swiftly (riffles predominate over pools), and have clear water, cool water temperatures, undercut banks, riparian shading, and a diverse assemblage of invertebrates. Spawning migrations begin in late summer and early fall. Redds are constructed in clean gravel substrates. After hatching, alevins remain in gravel for approximately 12 weeks. Fry emerge from gravel in the spring and rear in freshwater streams for one year before migrating to the ocean. Adults spend between 1-7 years in the ocean before returning to spawn in freshwater streams.	Yes	No	Potentially present	Because Crowley Gulch is tributary to Cottonwood Creek—where anadromous salmonids are known to occur— California coastal Chinook salmon could be present in Crowley Gulch during the wet season.
Delta smelt	<i>Hypomesus transpacificus</i>	FT, SE	Delta smelt primarily inhabit the brackish waters of Sacramento-San Joaquin River Delta. Most spawning occurs in backwater sloughs and channel edgewater.	No	No	No	The project site is well outside the range of Delta smelt. Delta smelt would thus not be present.
Steelhead – Central Valley DPS	<i>Oncorhynchus mykiss irideus</i>	FT	Central Valley steelhead inhabit cold-water tributaries of the Sacramento and San Joaquin rivers. Adults begin their upstream spawning migration between August and March. Spawning occurs between December and April. Spawning habitat is characterized by loose, clean gravel in cold, swiftly flowing, shallow water.	Yes	No	Potentially present	Because Crowley Gulch is tributary to Cottonwood Creek—where anadromous salmonids are known to occur—Central Valley steelhead could be present in Crowley Gulch during the wet season.

Potential for Federally Listed, Proposed, and Candidate Species Identified by the IPaC Trust Resource Report, and Special-Status Species Identified by the CNDDDB to Occur on the Project Site

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Mammals							
Western red bat	<i>Lasiurus blossevillii</i>	SSSC	In California, western red bats occur primarily below 650 feet in elevation, although individuals have been detected up to nearly 8,200 feet. The species roosts primarily in riparian vegetation and are strongly associated with riparian habitats that are over 160 feet wide. Western red bats roost on the foliage of large trees, and less often on the foliage of shrubs and vines. Such roosting usually occurs on the underside of overhanging leaves. Roosting bats often hang from one foot on the leaf petiole but may occasionally hang from a twig or branch and may resemble a fruit or dead leaf. Breeding occurs in August and September and young are born from May through July.	No	No	No	Although riparian vegetation occurs in the project site, it is low-lying and sparse. Because western red bat requires foliage of large trees, and less often on the foliage of shrubs and vines, and in large expanses of riparian habitat, western red bat is not expected to roost in the project site.

Federal Status

FE = Federally Listed – Endangered
 FT = Federally Listed – Threatened
 FC = Federal Candidate Species
 FP = Federal Proposed Species
 FD = Federally Delisted
 FSC = Federal Species of Concern

State Status

SFP = State Fully Protected
 SR = State Rare
 SE = State Listed – Endangered
 ST = State Listed – Threatened
 SC = State Candidate
 SD = State Delisted
 SSSC = State Species of Special Concern

California Rare Plant Rank

List 1A = Presumed extirpated in California and either rare or extinct elsewhere
 List 1B = Rare or Endangered in California and elsewhere
 List 2A = Presumed extirpated in California, but more common elsewhere
 List 2B = Rare or Endangered in California, but more common elsewhere
 List 3 = Plants for which we need more information - Review list (generally not considered special-status, unless unusual circumstances warrant)
 List 4 = Plants of limited distribution - Watch list (generally not considered special-status, unless unusual circumstances warrant)

Threat Ranks

0.1 = Seriously Threatened in California; 0.2 = Fairly Threatened in California; 0.3 = Not Very Threatened in California

*U.S. Fish and Wildlife Service. 2002. Recovery Plan for the California Red-Legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon.

*U.S. Fish and Wildlife Service, Designation of Critical Habitat for the California Red-Legged Frog. Federal Register, April 13, 2006, Volume 71, No. 71.

*U.S. Fish and Wildlife Service, Determination of Threatened Status for the California Red-Legged Frog. Final Rule. Federal Register, May 23, 1996, Volume 61, No. 1

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Gas Point Road-Crowley Gulch

April 16, 2016

Apiaceae

Torilis arvensis

Aristolochiaceae

Aristolochia californica

Asteraceae

Centaurea solstitialis
Cirsium sp.
Conyza sp.
Hypochaeris glabra
Leontodon saxatilis
Matricaria discoidea
Senecio vulgaris
Soliva sessilis
Sonchus asper subsp. *asper*
Taraxacum officinale

Brassicaceae

Capsella bursa-pastoris
Hirschfeldia incana
Lepidium sp.
Raphanus raphanistrum

Caryophyllaceae

Spergularia rubra

Convolvulaceae

Convolvulus arvensis

Crassulaceae

Crassula sp.

Fabaceae

Albizia julibrissin
Lupinus bicolor
Medicago ploymorpha
Trifolium glomeratum
Trifolium hirtum
Trifolium repens
Vicia sativa
Vicia villosa

Fagaceae

Quercus douglasii
Quercus lobata
Quercus wislizeni

Geraniaceae

Erodium botrys
Erodium cicutarium

Carrot Family

Field hedge-parsley

Birthwort Family

Pipevine

Sunflower Family

Yellow star thistle
Thistle
Horseweed
Smooth cat's ear
Hawkbit
Pineapple weed
Old-man-in-the-Spring
Lawn burweed
Prickly sow thistle
Dandelion

Mustard Family

Shepherd's purse
Shortpod mustard
Peppergrass
Jointed charlock

Pink Family

Ruby sand spurry

Morning Glory Family

Bindweed

Stonecrop Family

Pygmy weed

Legume Family

Silk tree
Bicolored lupine
California bur-clover
Sessile-headed clover
Rose clover
White clover
Garden vetch
Winter vetch

Oak Family

Blue oak
Valley oak
Interior live oak

Geranium Family

Long-beaked filaree
Red-stemmed filaree

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Gas Point Road-Crowley Gulch

Erodium moschatum

Geranium sp.

White-stemmed filaree

Geranium

Lamiaceae

Mentha sp.

Mint Family

Mint

Malvaceae

Malva sp.

Mallow Family

Mallow

Molluginaceae

Mollugo verticillata

Carpet-weed Family

Green carpetweed

Moraceae

Morus sp.

Mulberry Family

Mulberry

Pinaceae

Pinus sabiniana

Pine Family

Grey pine

Plantaginaceae

Plantago coronopus

Plantago lanceolata

Plantain Family

Cut-leaf plantain

English plantain

Poaceae

Avena barbata

Avena fatua

Bromus diandrus

Bromus hordeaceus

Cynodon dactylon

Festuca myuros

Festuca perennis

Hordeum murinum

Leersia oryzoides

Poa annua

Poa bulbosa

Sorghum halepense

Triticum aestivum

Grass Family

Slender wild oats

Wild oats

Ripgut grass

Soft chess

Bermuda grass

Foxtail fescue

Annual ryegrass

Foxtail barley

Rice cutgrass

Annual bluegrass

Bulbous bluegrass

Johnson grass

Wheat

Polygonaceae

Polygonum sp.

Polygonum aviculare

Rumex sp.

Buckwheat Family

Smartweed

Common knotweed

Dock

Rosaceae

Poteridium sanguisorba

Prunus cerasifera

Rubus armeniacus

Rose Family

Garden burnet

Cherry plum

Himalayan blackberry

Rubiaceae

Galium aparine

Madder Family

Cleavers

Salicaceae

Populus fremontii subsp. *fremontii*

Willow Family

Fremont cottonwood

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Gas Point Road-Crowley Gulch

Salix sp.

Salix gooddingii

Salix lasiolepis

Willow

Goodding's black willow

Arroyo willow

Typhaceae

Typha sp.

Cattail Family

Cattail