

3.0 CUMULATIVE IMPACTS

This section identifies the cumulative impacts associated with the proposed project. Cumulative impacts are the result of combining the potential effects of the project with other past, present, and planned developments, as well as foreseeable development projects. The following discussion considers the cumulative impacts of the project as discussed in Chapter 2 of this document that are identified as Potentially Significant or Less than Significant Impacts with Mitigation for purposes of CEQA and those impacts that are identified as a Potentially Adverse or Adverse Impact for purposes of NEPA.

REGULATORY SETTING

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

Federal

A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

State

CEQA Guidelines, Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines.

PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

Table 3.0-1 lists the current land uses and planned developments within and near the project site.

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**TABLE 3.0-1
LAND USES AND PLANNED DEVELOPMENTS**

Quadrants	Current Land Uses	Current Zoning	Approved or Planned Plans or Developments
Southeast (City of Elk Grove)	This area consists of churches, residences, two commercial businesses, two dog grooming businesses associated with single-family residential homes, undeveloped parcels, and a Caltrans Park and Ride Lot.	General Commercial (GC), Agricultural-Residential (AR-5)	Sheldon Pacific, a large residential subdivision, is currently under construction in the Southeast quadrant.
Northeast (City of Elk Grove)	This area consists of newly developed residential properties, undeveloped grassy fields, and farm buildings.	Laguna Community Floodplain Special Planning Area	This area is designated as the approved Calvine Special Planning Area. The Community Services District (CSD) is planning a park in this quadrant as part of the mitigation for rapid housing developments and residential growth in the area. The park will be approximately 10 acres. The CSD is currently working with engineers to design access to and from the park that would meet the City's needs and be compatible with the Sheldon Road Interchange improvement project.
Northwest (City of Sacramento)	This area consists of a cemetery, vacant properties, single-family residences, commercial businesses, and a golf driving range facility.	Rural Estates (RE-1/4) and General Commercial (C-2-R)	No development is currently planned in this quadrant. Vacant parcels are located north of existing businesses on West Stockton Boulevard, and vacant parcels, and abandoned homes are located on Sheldon Road.
Southwest (City of Elk Grove)	This area consists of a supermarket, fast food restaurants, gas station, residential properties, and undeveloped land.	Shopping Center Land Use Zone (SC)	Park Meadow Apartments is a 152-unit apartment complex that was recently approved. Also, Park Meadows residential subdivision is under construction.

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Below is a compilation of the potentially significant cumulative impacts that may result from the implementation of the project and past, present, and future development.

Cultural Resources

Impact 3.0-1 Build-out of approved and planned projects (i.e., the East Franklin Specific Plan, Lent Ranch, South Pointe,) and associated infrastructure projects (e.g., improvement of the Grant Line Road Interchange) have the potential to inadvertently uncover previously unknown cultural resources. The inadvertent discovery of previously unknown cultural resources could result in a cumulative impact to cultural resources.

MITIGATION MEASURES

MM 2.1.6-1 While there are no historic properties or historical resources in the project APE, the following measures will be implemented to reduce any potential impacts to undiscovered cultural resources:

1. If buried cultural materials are encountered during construction, work shall stop in that area until a qualified archaeologist can evaluate the nature and significance of the find(s). In addition, further investigations may be needed if the project changes to include areas not previously surveyed.
2. If human remains are discovered, State Health and Safety Code Section 7050.5 states that disturbances and activities shall cease in vicinity of the find and the County Coroner must be notified of the find immediately so that he/she may ascertain the origin of the remains. If the remains are determined to be Native American, then the stipulations in Public Resources Code Section 5097.98 shall be followed.

CEQA FINDING

The possibility for the late discovery of historical resources during ground disturbing activities is considered a **potentially significant impact**. Implementation of mitigation measure 2.1.6-1 will reduce the potential for harm to a **less than significant impact**.

Geological and Soil Resources

Impact 3.0-2 Build-out of approved and planned uses within the City have the potential to impact water quality as a result of site grading and construction phases of projects that involve earth movement and the use of heavy machinery. The effects of erosion and sediment deposition can be cumulative in nature within a watershed. Since the project would involve grading, other earth movement, and the use of heavy machinery, there is the potential for erosion and sedimentation impacts resulting from the construction of the project.

MITIGATION MEASURES

As discussed in the Geology and Soils Resources section of chapter 2, BMPs that would be implemented during site grading and construction are included in the Water Quality Section of this EIR/EA. Implementation of mitigation measure **MM 2.2.3-2** would reduce the potential for erosion and sedimentation impacts resulting from the implementation of the project.

CEQA FINDING

Erosion and sedimentation from projects over time is a **potentially significant impact**. Implementation of mitigation measure **MM 2.2.3-2** would reduce the potential for erosion and sedimentation impacts resulting from the implementation of the project to a **less than significant impact**.

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Noise

Operation activities associated with the proposed project, in combination with other transportation and development projects, would increase noise levels in nearby areas.

The proposed Sheldon Road/SR 99 Interchange Improvement project, along with all known future projects, such as the Grant Line Interchange Improvement project, the Calvine Road Widening Project, the Laguna Ridge Specific Plan, South Point, Lent Ranch Marketplace, and East Franklin, would change the intensity of land uses in the City's Planning Area. These new projects, along with regional traffic, would increase the traffic generation in the project area; however, the traffic-generated noise would increase through the Sheldon Road/SR 99 Interchange with or without the proposed project in existing and future conditions.

Impact 3.0-3 Traffic associated with the proposed project would contribute marginal noise level increases along all modeled road segments. Cumulatively, noise level increases associated with the project would be perceptible. The increased noise levels would be a potentially cumulative impact.

MITIGATION MEASURES

No feasible or reasonable mitigation measures have been identified to reduce noise impacts from this project. Therefore, the proposed project would contribute to cumulative noise increases in the area.

CEQA FINDING

No feasible or reasonable mitigation measures have been identified that would effectively reduce the projected noise impacts of the proposed project therefore this is a **significant and unavoidable impact**.

Vernal Pools

Impact 3.0-4 The vernal pool habitat that would be lost due to project development would not substantially contribute to the cumulative loss of vernal pool habitat in the region. The vernal pools are isolated from similar habitat by several kilometers, and if preserved in their current condition, would not contribute to region wide vernal pool conservation efforts. Typically, conservation efforts target larger intact and contiguous landscapes where existing resources can be preserved, restored, and/or created. Nevertheless the project would cause a loss of vernal pool habitat.

MITIGATION MEASURES

Implementation of mitigation measure **MM 2.3.1-1** would reduce the project's cumulative impacts to vernal pools by offering compensatory mitigation.

CEQA FINDING

The loss of vernal pool habitat is a **potentially significant impact** that would be mitigated through the implementation of mitigation measure 2.3.1-1 to reduce the potential for harm to a **less than significant impact**.

Special Status Species

Special Status Plants - Boggs Lake Hedge-Hyssop

Impact 3.0-5 Because the species was not identified in the project area during focused biological surveys, no cumulative effects to regional populations of Boggs Lake hedge-hyssop are anticipated as a result of the implementation of any of the proposed project alternatives. Though the species was not observed within the study area, the vernal pools within the study area constitute potential, though marginal, habitat for this species. This species is dependent on the hydrology and soils associated with the vernal pools; therefore any impacts to the vernal pools would affect this species.

MITIGATION MEASURES

Compensatory mitigation recommended for impacts to wetlands and vernal pools, **MM 2.3.1-1** and **MM 2.3.2-1**, would preserve and create potential habitat for this species within the region.

Special Status Plants - Sacramento Orcutt Grass

Impact 3.0-6 Because the species was not identified in the project area during focused botanical surveys, no cumulative effects to regional populations are anticipated as a result of the implementation of any of the proposed project alternatives. However, though the species was not observed within the study area, the vernal pools within the study area constitute potential, though marginal, habitat for this species. This species is dependent on the hydrology and soils associated with the vernal pools; therefore any impacts to the vernal pools would affect this species.

MITIGATION MEASURES

Compensatory mitigation recommended for impacts to wetlands and vernal pools, **MM 2.3.1-1** and **MM 2.3.2-1**, would preserve and create potential habitat for this species within the region.

Special Status Plants - Slender Orcutt Grass

Impact 3.0-7 Because the species was not identified in the project area during focused botanical surveys, no cumulative effects to regional populations are anticipated as a result of the implementation of any of the proposed project alternatives. However, though the species was not observed within the study area, the vernal pools within the study area constitute potential,

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though marginal, habitat for this species. This species is dependent on the hydrology and soils associated with the vernal pools; therefore any impacts to the vernal pools would affect this species.

MITIGATION MEASURES

Compensatory mitigation recommended for impacts to wetlands and vernal pools, **MM 2.3.1-1** and **MM 2.3.2-1**, would preserve and create potential habitat for this species within the region.

Special Status Animal Species - Vernal Pool Fairy Shrimp

Impact 3.0-8 The vernal pool habitat that would be lost due to project development would not adversely contribute to the cumulative loss of vernal pool habitat in the region. The vernal pools are isolated from similar habitat by several kilometers and if preserved in their current condition would not contribute to region wide vernal pool conservation efforts. Typically, conservation efforts target larger intact and contiguous landscapes where existing resources can be preserved, restored, and/or created.

MITIGATION MEASURES

Compensatory mitigation recommended for impacts to wetlands and vernal pools, **MM 2.3.1-1** and **MM 2.3.2-1**, would preserve and create potential habitat for this species within the region.

Special Status Animal Species - Vernal Pool Tadpole Shrimp

Impact 3.0-9 The vernal pool habitat that would be lost due to project development would not adversely contribute to the cumulative loss of vernal pool habitat in the region. The vernal pools are isolated from similar habitat by several kilometers and if preserved in their current condition would not contribute to region wide vernal pool conservation efforts. Typically, conservation efforts target larger intact and contiguous landscapes where existing resources can be preserved, restored, and/or created.

MITIGATION MEASURES

Compensatory mitigation recommended for impacts to wetlands and vernal pools, **MM 2.3.1-1** and **MM 2.3.2-1**, would preserve and create potential habitat for this species within the region.

Special Status Animal Species - Swainson's Hawk

Impact 3.0-10 The area of southern Sacramento County has grown significantly within the recent past, often resulting in the loss of agricultural lands that have been historically utilized as foraging habitat by Swainson's hawks. This development has also resulted in encroachment upon sites that have historically been used as nesting habitat. Though the project area is fragmented and is partially surrounded by urban development, it is in close

enough proximity to an active nest and has likely been historically utilized for foraging that the loss of this habitat could contribute to the cumulative effects to this species in Sacramento County.

MITIGATION MEASURES

The mitigation measures outlined above in **MM 2.3.5-7a** and **MM 2.3.5-7b** would serve to adequately reduce the project's cumulative impacts to the Swainson's hawk.

CEQA FINDING

The possible impacts to special status species are considered to be **potentially significant impacts**. Implementation of the associated mitigation measures will reduce the potential for harm to these species a **less than significant impact**.