

5 CUMULATIVE IMPACTS

5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

Section 15130 of the State of California Environmental Quality Act (CEQA) Guidelines requires that an environmental impact report (EIR) discuss cumulative impacts of a project and determine whether the project's incremental effect is "cumulatively considerable." "Cumulative impacts" under CEQA Guidelines Section 15355 are referred to as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines Section 15355(b)).

The definition of cumulatively considerable is provided in Section 15065(a)(3):

"Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

According to Section 15130(b) of the State CEQA Guidelines,

[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

For purposes of this Subsequent EIR (SEIR), the project would have a significant cumulative effect if it meets either one of the following criteria:

- ▶ the cumulative effects of related projects (past, current, and probable future projects), including the approved Recology Hay Road (RHR) Landfill project but without this project, are not significant but the project's incremental impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- ▶ the cumulative effects of related projects (past, current, and probable future projects), including the approved RHR Landfill project, without this project are already significant and the project represents a considerable contribution to the already significant effect. The standards used herein to determine "considerable contribution" are that the impact either must be substantial or must exceed an established threshold of significance.

Mitigation measures are to be developed, where feasible, that reduce the project's contribution to cumulative effects to less than considerable.

5.2 RELATED PROJECTS

The analysis of cumulative environmental impacts associated with development of the proposed project addresses the potential incremental impacts of the project in combination with those of other past, present, and probable future projects and land use changes in the project vicinity or of regional significance. The projects listed in Table 5-1 (correlated with their locations in Figure 5-1) are not intended to be an all-inclusive list of projects in the region, but rather an identification of projects constructed, approved, or under review in the vicinity of the RHR Landfill that have some relation to the environmental impacts of construction and operation of the proposed project. The list of projects used in this cumulative analysis is based on information for approved and pending projects obtained from Solano County, District 4 of the California Department of Transportation (Caltrans), City of Dixon, City of Vacaville, and the University of California at Davis (UC Davis).

Table 5-1 List of Projects in the Vicinity of the Proposed RHR Landfill Project

Map Key	Project Name	Developed or Proposed Land Use	Size (Acreage and/or Dwelling Units)	Built/Approved/Proposed
Caltrans, District 4-Solano				
1	SR 12 Rio Vista Bridge Preservation Project	Road ROW	Cleaning, painting, and upgrade of the mechanical and electrical systems at the drawbridge on State Highway 12 over the Sacramento River in Rio Vista	Under Construction through 2020
2	SR 12 / SR 113 intersection safety project	Road ROW	Construction of a single lane roundabout at this intersection	Under review.
3	1-8-/I-680/SR-12 Interchange Project	Road ROW	Realignment of I-680, an improved direct connector route between I-80 and Highway 12, construction of new interchange overcrossings, new entrance/exit ramps, and the extension of some local streets leading to I-80 and Highway 12	Under Construction
Solano County				
4	Hay Road Improvements Project	Road ROW	Construction of 4-foot paved shoulders on Hay Road from Lewis Road to SR-113	Under Review
Solano Transportation Authority				
5	Jepson Parkway Project	Road ROW	Improvements to a series of narrow local roads to provide a north-south travel route as an alternative to I-80, including a continuous four-lane roadway from the State Route 12 / Walters Road intersection in Suisun City to the I-80 / Leisure Town Road interchange in Vacaville	Approved
City of Dixon				
6	Valley Glen Planned Development	Residential Development	Approximately 93 acres of several housing types including apartment units, cluster homes with two or three units per building, medium-density detached single-family homes, and low-density homes	Approved
7	Southwest Dixon Specific Plan	Mixed-Use	269-acres with 61% being zoned for residential use and the remainder for commercial and public facilities	Approved
8	Parklane Subdivision Planned Development	Mixed-Use	94-acre residential community with 40-acres a new high school and infrastructure	Under construction
City of Vacaville				
9	Downtown Specific Plan	R&D/Light industrial	150-225,000-sf R&D/light industrial development	Proposed
10	North Village Specific Plan-PA 19 & 20	Residential	295-unit single-family subdivision on 175.7 acres	Approved
11	Rice-McMurtry Development Area	Residential	221 single-family lots on 150 acres (Cheyenne Planned Development); 21 single-family lots and open space on 22.66 acres (Knoll Creek Planned Development); 29 single-family lots on 12.97 acres (Rogers Ranch Planned Development); and 38 residential lots on 20.93 acres (Reserve at Browns Valley)	Approved

Map Key	Project Name	Developed or Proposed Land Use	Size (Acreage and/or Dwelling Units)	Built/Approved/Proposed
12	Nut Tree Apartments	Residential	12-acre development with 216 apartment units	Under Construction
13	Nut Tree Business Park	Business Park	175,000 sq. ft. of additional office space	Approved
14	The Green Tree	Mixed-Use	Redevelopment of former golf course with commercial, residential, and recreational uses	Under Review
15	The Farm at Alamo Creek	Residential/Neighborhood Commercial/Parks/Public Open Space	210.5-acre site with 746 units, 7.4 acres of neighborhood commercial, and 26.8 acres of recreation (parks, public open space, and trails)	Under Review
16	Brighton Landing Specific Plan	Residential/School/Park	217-acre development with approximately 770 single-family homes, a 50-acre private high school, a public elementary school site, and a park.	Approved
17	Robert's Ranch Specific Plan	Residential/Parks/Public Open Space	248-acre development with 785 single-family units, parks/open space lands, and a school site.	Approved
18	Southtown Planned Development Phase 1A	Residential	141-lot single family subdivision on 33 acres.	Under construction
19	Lower Lagoon Valley	Residential/Mixed-Use/Recreation	868-acre development with 1,025 residential units, 60 acres of business retail and mixed-use Town Center, a fire station, over 450 acres of open space/recreation/mitigation lands, and a golf course	Approved
20	Vanden Meadows – Vanden Estates Villages A & B House Plans	Residential/School/ Park	463 residential units on 97.6 acres (Villages) and 176 units on 75.11 acres (Estates) with a school site and park.	Approved
UC Davis				
21	UC Davis 2018 Long Range Development Plan	Academic buildings and Student housing	2,000,000 sf of new academic/administrative space and ~9,000 new beds for students within existing university property	Approved

Source: Data compiled by Ascent Environmental in 2019 based on data obtained from Caltrans, Solano County; Solano Transportation Authority, City of Dixon, City of Vacaville, University of California at Davis (UC Davis);

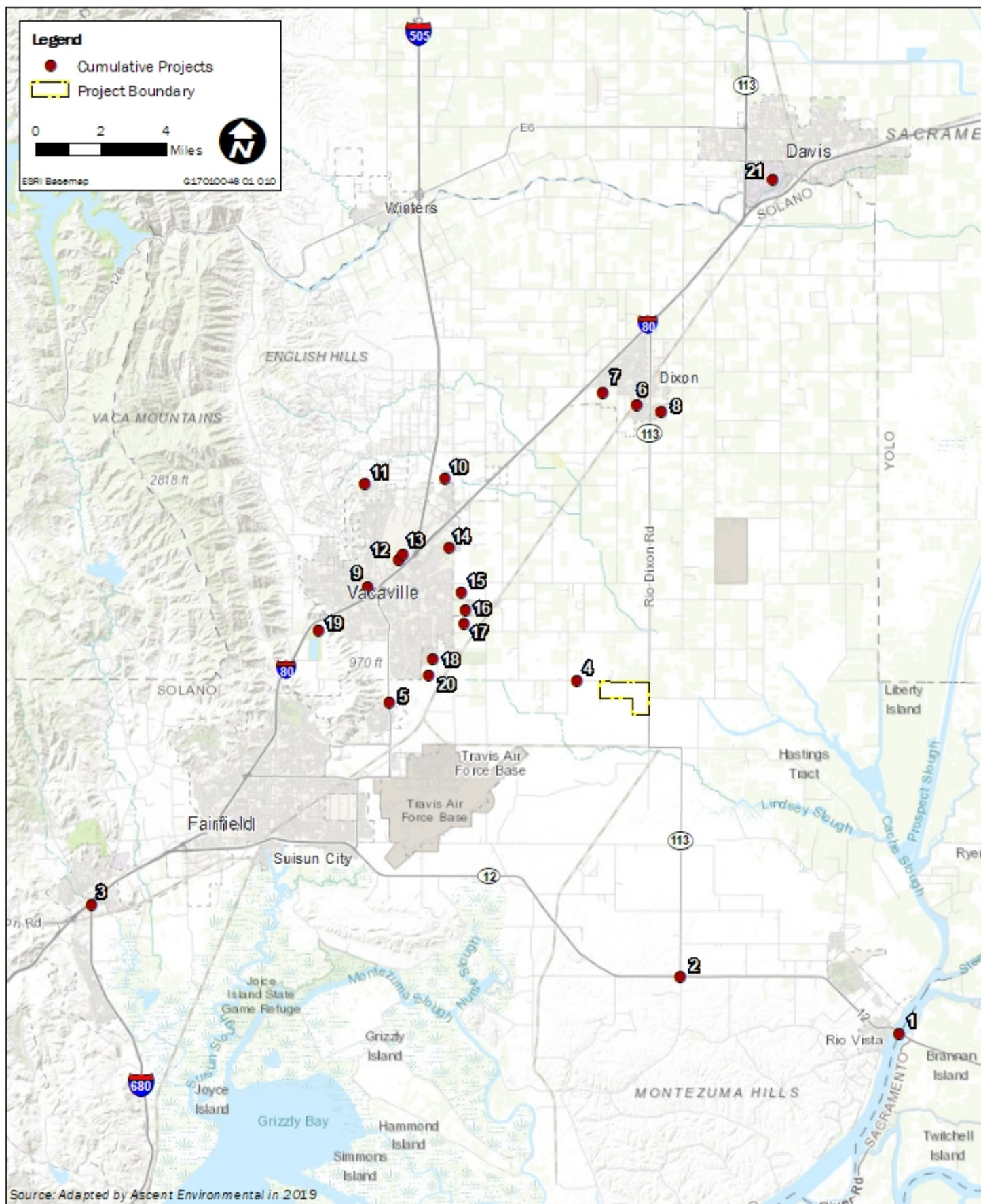


Figure 5-1 Cumulative Projects

5.3 GEOGRAPHIC SCOPE OF THE CUMULATIVE ANALYSIS

The geographic area that could be affected by development of the proposed project varies depending on the type of environmental resource being considered. The general geographic area associated with various environmental effects of construction and operation of the proposed project defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis. Table 5-2 presents the general geographic areas associated with the different resources addressed in this Draft SEIR and evaluated in those sections of this cumulative analysis.

Table 5-2 Geographic Scope of Cumulative Impacts

Resource Issue	Geographic Area
Aesthetics	Local (immediate project vicinity)
Air Quality	Regional (Yolo and Bay Area Air Quality Management District—pollutant emissions that have regional effects) Local (immediate project vicinity—pollutant emissions that are highly localized)
Archaeological, Historic, and Tribal Cultural Resources	Regional
Biological Resources	Regional
Geology, Soils, and Mineral Resources	Local (immediate project vicinity)
Greenhouse Gas Emissions/Climate Change	Global
Hazards and Hazardous Materials	Local (immediate project vicinity)
Hydrology and Water Quality	Local (immediate project vicinity—local watershed)
Noise	Local (immediate project vicinity—effects are highly localized)
Transportation	Regional and local

Source: Data compiled by Ascent Environmental in 2019

5.4 ANALYSIS OF CUMULATIVE IMPACTS

5.4.1 Aesthetics

Development of past, present, and probable future projects continue to alter the visual environment in Solano County and the nearby cities of Dixon and Vacaville. However, in general, the visual resource impacts of the related projects are site-specific and would not combine with other projects because they are not in the same viewshed as the RHR Landfill to create a cumulative impact. Glare from nighttime lighting can be an annoyance to nearby residences and can reduce the quality of nighttime views. Nighttime lighting can also cause skyglow, an overall brightening of the night sky, often in urban areas, which is a cumulative condition. The project would be located within the existing landfill site, which is remote and is primarily surrounded by agricultural lands with the nearest residence being located one mile away. Implementation of Mitigation Measure 4.1-1 would address any addition of windblown litter that could result from increased truck trips and expansion of the landfill. The existing cumulative visual quality of the surrounding viewshed is moderately low and there are few existing sources of nighttime lighting in the project vicinity. The area surrounding the landfill is zoned for agricultural uses with limited development expected to occur in the project vicinity and no projects anticipated, with the exception of proposed improvements to Hay Road, currently proposed for the immediate project vicinity. The proposed project would not result in new sources of fixed lighting and would not involve the construction of additional structures that could substantially alter long-distance views, glare, or night-lighting. Therefore, while the proposed project would result in long-term changes in the immediate viewshed including landfill modules within the Triangle, the proposed project would not result in a substantial contribution to a significant cumulative impact related to long distance views.

With project-specific mitigation, the project would implement litter control measures that would minimize the potential for additional windblown litter resulting from project implementation. The proposed project, in combination with cumulative

development, would not make a considerable contribution to skyglow in the project vicinity because lighting currently exists onsite and, with the exception of occasional portable nighttime lighting use that is consistent with the landfill's light control program, no additional sources of lighting or glare are included as part of the project. While the proposed project would result in changes in the immediate viewshed, there would be no significant contribution to cumulative long distance views. Therefore, the project would not result in a considerable contribution to a significant cumulative visual resources impact, and the impact would be *less than significant*.

5.4.2 Air Quality

SHORT-TERM CONSTRUCTION-RELATED IMPACTS

As noted in Section 4.2, "Air Quality," the Yolo Solano Air Quality Management District (YSAQMD) has established a significance threshold of 80 pounds per day (lb/day) for emissions of respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀) and 10 tons per year (tons/year) for emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_x), which are ozone precursors. YSAQMD acknowledges that the entire Sacramento Valley Air Basin (SVAB) violates state and federal ambient air quality standards for ozone and particulate matter (PM₁₀ and PM_{2.5}) because of the combined levels of emissions generated by sources throughout the SVAB, including but not limited to the projects listed in Table 5-1. YSAQMD considers emissions of ROG and NO_x (both ozone precursors) and PM₁₀ from an individual project that exceed the applicable thresholds to be a substantial contribution to this SVAB-wide (i.e., cumulative) impact (YSAQMD 2007:7). As construction emissions associated with the project would not exceed YSAQMD thresholds, the project would not result in a substantial contribution to a cumulative impact.

*Emissions of ROG, NO_x, and PM₁₀ generated during construction of the project would be less than YSAQMD's applicable mass emission thresholds and, therefore, the contribution by project construction to the nonattainment condition would not be cumulatively considerable. Therefore, the project would result in a **less-than-significant** cumulative short-term construction-related emissions impact.*

LONG-TERM OPERATIONAL IMPACTS

YSAQMD's mass emission thresholds for criteria air pollutants and precursors do not apply to emissions directly generated by stationary sources, including the increase in emissions in landfill gas and emissions generated by the Construction and Demolition Sorting Operation. In its CEQA guidance, YSAQMD states that "stationary sources complying with applicable [YSAQMD] regulations pertaining to Best Available Control Technologies (BACT) and offset requirements usually will not be considered a significant air quality impact. Due to the air basin-wide nature of these impacts, it is inferred that stationary-source emissions meeting all YSAQMD permitting requirements would not be cumulatively considerable.

As discussed under Impact 4.2-2, most of the increase in project-related vehicle travel would occur in the San Francisco Bay Area Air Basin (SFBAAB) and in the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD has established a significance threshold of 54 pounds per day (lb/day) for emissions of ROG and NO_x, which are ozone precursors, and for PM_{2.5}; and 82 lb/day for PM₁₀; and 10 tons/year for emissions of ROG, NO_x, and PM_{2.5}; and 15 tons/year for PM₁₀. BAAQMD acknowledges that the entire BAAB violates state and federal ambient air quality standards for ozone and particulate matter (PM₁₀ and PM_{2.5}) because of the combined levels of emissions generated by sources throughout the SFBAB, including but not limited to the projects listed in Table 5-1. BAAQMD considers emissions of ROG and NO_x (both ozone precursors) and PM₁₀ from an individual project that exceed the applicable thresholds to be a substantial contribution to this SVAB-wide (i.e., cumulative) impact (BAAQMD 2017:2-3).

Operational emissions of ROG, PM₁₀, and PM_{2.5} would be less than BAAQMD's applicable mass emission thresholds; however, operational NO_x emissions before 2023 would exceed applicable BAAQMD thresholds. Implementation of

Mitigation Measure 4.2-2, which includes multiple ways to reduce NO_x emissions, would reduce NO_x emissions to below BAAQMD thresholds.

The BAAQMD is designated as nonattainment with respect to the ambient air quality standards for ozone, PM₁₀, and PM_{2.5}. This is a result of past cumulative development in the basin, as well as transport of pollutants from other basins. New development, including operation of the project would be required to comply with BAAQMD measures that would reduce operational emissions of criteria pollutants and precursors. As described above, the cumulative contribution of the project to regional ROG, NO_x, and PM₁₀ emissions (see Section 4.2, "Air Quality"), would not be considerable because emissions from the project would be below BAAQMD's applicable thresholds, with mitigation, and these thresholds are targeted toward cumulative emissions impacts.

Residential receptors located along local haul routes could be exposed to relatively high concentrations of diesel PM used by heavy diesel trucks traveling to and from the landfill—this is addressed in Impact 4.2-3. This impact is associated with adding TAC-emitting truck travel near existing residents and is site specific. Impacts associated with this TACs on the site would not combine with other developments to create more substantial cumulative TAC impacts; therefore, this impact would not be considered cumulatively considerable.

Emissions from stationary sources for related projects would be regulated through YSAQMD's permitting process. YSAQMD's thresholds of significance are set at a level that avoids a potential conflict with air quality attainment plans, which are required to reach attainment of federal and state air quality standards. Consequently, the long-term operation of the project would not result in a substantial contribution to a cumulative increase in regional emissions (the projected emissions inventory for the SVAB) that would conflict with the emissions budget used by YSAQMD for regional air quality planning (i.e., YSAQMD's air quality attainment plans).

As discussed in Impact 4.2-4, the addition of baled recyclables and increase in municipal solid waste processed and landfilled at the project site as expansion occurs is not expected to result in additional sources or objectionable odors nor increased intensity of odors. Additionally, the area of landfill expansion is further away from the nearest offsite sensitive receptors than the portions of the landfill that are currently being filled. Any odors associated with proposed storage of baled recyclables would be addressed with implementation of the nuisance and odor control measures described in the RHR Recyclable Material Bale Management Operations Plan that was approved by the County in April 2018 (see Appendix B of this SEIR). These measures are also described in Chapter 3, Project Description, of this Draft SEIR.

*With project-specific mitigation, the project would generate emissions that are less than YSAQMD and BAAQMD thresholds for emissions from an individual project, which were established to reach attainment with air quality standards in the SVAB and SFBAAB, respectively. The project's long-term operational emissions would not considerably contribute emissions which would exceed applicable air quality standards. Therefore, operational emissions generated by the project would result in a **less-than-significant** cumulative air quality impact.*

5.4.3 Archaeological, Historic, and Tribal Cultural Resources

The cumulative context for the archaeological resources and tribal cultural resources (TCRs) analysis considers a broad regional system of which the resources are a part. The cumulative context for archaeological resources and TCRs for this project includes Solano County and the Patwin territory as described in Section 4.3, "Archaeological, Historical, and Tribal Cultural Resources" of this SEIR.

Because all significant cultural resources are unique and nonrenewable members of finite classes, meaning there are a limited number of significant cultural resources, all adverse effects erode a dwindling resource base. The loss of any one archaeological site could affect the scientific value of others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains in the region. As a result, a meaningful approach to preserving and managing cultural resources must focus on the likely distribution of cultural resources, rather than on a single project or parcel boundary.

Implementation of the project, in combination with other past, present, and probable future development within the Patwin territory and Solano County, would involve ground-disturbing activities that could further result in discovery of or damage to previously undiscovered archaeological and TCRs as defined in State CEQA Guidelines Section 15064.5 and PRC Section 21074, respectively, within the cumulative context. Proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing our understanding of cultures and past environmental conditions by recording data about sites discovered and preserving artifacts found. Federal, state, and local laws are also in place that protect these resources in most instances. Even so, it is not always feasible to protect these resources, particularly when preservation in place would make projects infeasible, and for this reason the cumulative effects of past, present, and probable future projects could result in a potentially significant cumulative impact on cultural resources. However, compliance with existing federal and State regulations, as well as implementation of Mitigation Measure 4.3-1 and 4.3-2, would ensure that the project's contribution would not be cumulatively considerable by requiring construction work to cease with subsequent evaluation and treatment in the event of an accidental find of a potential resource.

*Compliance with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code (PRC) Sections 5097, 21080.3.2, and 21084.3 (a), as well as implementation of Mitigation Measures 4.3-1 and 4.3-2, would ensure that treatment and disposition of unique archaeological resources are handled by a professional archaeologist, qualified under the Secretary of the Interior's Professional Qualification Standards, and TCRs, including human remains, occurs in a manner consistent with the California Native American Heritage Commission guidance. As a result, the project's contribution to cumulative impacts would not be cumulatively considerable. Therefore, cumulative impacts related to archaeological and tribal cultural resources are considered **less than significant**.*

5.4.4 Biological Resources

Past development in the region, ranging from conversion of natural land to agricultural production to more recent expansion of urban development, has resulted in a substantial loss of native habitat to other uses. This land conversion has benefited a few species, such as those adapted to agricultural uses, but the overall effect on native plants, animals, and habitat has been decidedly negative. Therefore, the cumulative condition for special-status species and sensitive habitats is already adverse.

As described in Section 4.4, "Biological Resources," project implementation could result in potentially significant impacts on special-status plants (discussed under Impact 4.4-1); and several special-status wildlife species (Impact 4.4-2), wetland or vernal pool habitat (Impact 4.4-3), and high-priority habitat areas identified in the Solano County General Plan (Impact 4.4-5). However, these potential impacts would be mitigated to a less-than-significant level with implementation of the mitigation measures described in Section 4.4, "Biological Resources." Similarly, impacts to sensitive habitats (i.e., vernal pools, aquatic habitat) resulting from project implementation would be reduced through required identification, avoidance, and/or permitting requirements by regulatory agencies with jurisdiction. Therefore, the project's incremental contribution to the cumulative impact on special-status species and habitats in the region is considered less than significant.

*The proposed project could disturb areas that include special-status plant species, vernal pools, and habitat for special-status species, which are considered significant impacts without mitigation. However, with implementation of Mitigation Measures 4.4-1a through 4.4-1c, 4.4-2a through 4.4-2g, and 4.4-3, as described in Section 4.4, "Biological Resources" of this SEIR, the project's contribution to these impacts would be reduced to a less-than-significant level. Therefore, while the overall cumulative condition is adverse, the project's contribution to cumulative biological resource impacts would not be considerable, and the project would have a **less-than-significant** cumulative impact on biological resources.*

5.4.5 Energy

The project would not increase the demand for electricity and natural gas supplies; therefore, this cumulative analysis is limited to an evaluation of potential impacts related to fuel consumption. The cumulative context for such energy usage is Solano County. While the project would increase fuel consumption as a result of increased solid waste

generation, primarily within the Bay Area, it would not result in the wasteful or inefficient usage of such fuel supplies. As note under Impact 4.5-1 of this Draft SEIR, the projected increase in solid waste haul vehicles to and from the RHR Landfill as a result of the project would be primarily transfer trucks, which involve a consolidation of wastes such that they are disposed of in a more efficient manner, including the use of one vehicle versus 2 or more to transport waste to a landfill. Therefore, the proposed project would not result in a considerable contribution to a significant cumulative impact related to fuel consumption.

*The project's contribution to cumulative energy demand impacts would not be cumulatively considerable. Therefore, no mitigation measures are necessary to reduce the project's contribution to cumulative impacts to energy. The project would have a **less-than-significant** cumulative impact on energy.*

5.4.6 Geology, Soils, Minerals, and Paleontological Resources

A review of the Solano County General Plan (2008a: RS-33) and applicable SMARA mineral land classification reports (Stinson, Manson, and Plappert 1983 Plate 3.2, Dupras 1988) indicate that there are no known mineral resources zones associated with the RHR Property. Therefore, this cumulative analysis is limited to an evaluation of potential impacts related to geology, soils, and paleontological resources.

While the landfill is located in the general proximity of several active and potentially active faults, the project site is not located within an Alquist-Priolo Special Studies Zone. All project features would be designed, engineered, and constructed in conformance with applicable codes and standard engineering practices to minimize potential damage from seismic hazards and expansive soils. Because applicable codes and standards would continue to be followed and the project site is not subject to substantial risk of surface fault rupture or expansive soils, the project, in combination with past, present, and probable future projects, would not be considered cumulatively considerable with respect to seismic hazards.

Although the project site is located in an area where natural topography is generally flat, slope stability of engineered landfill slopes must be evaluated for compliance with Title 27 of the of the California Code of Regulations (CCR). Topography within the landfill has been substantially altered and is dominated by the landfill mounds within the central and eastern portion of the site. Although the original site ground surface ranged from approximately 18 to 30 feet above mean sea level (Golder 2018), very little of the original topography within the landfill boundary remains, other than small drainage swales and small mounds and slight depressions. The topography of the Triangle area is generally flat and has not been altered. Effects on the landfill's topography are associated with above-ground activities at the landfill, such as excavation and filling. The native materials underlying the RHR Property consist of silty clay and clayey sand that typically are not susceptible to landsliding, lateral spreading, subsidence, liquefaction, or collapse (Douglas Environmental 2012: 2-29). The existing and proposed uses at the landfill would continue to meet the requirements of Title 27 of the CCR which requires that Class III municipal solid waste landfills be evaluated for slope stability. Because these requirements would be met, activities associated with the proposed project would not combine in such a way that would result in a cumulatively significant impact related to soils and slope stability.

With respect to paleontological resources, all unique paleontological resources are unique and nonrenewable members of finite classes, meaning there are a limited number of unique paleontological resources. As a result, all adverse effects to such resources erode a dwindling resource base. A meaningful approach to preserving and managing unique paleontological resources must focus on the likely distribution of unique paleontological resources, rather than on a single project or parcel boundary. Implementation of the project, in combination with other past, present, and probable future development within Solano County, would involve ground-disturbing activities on land underlain by geologic units known to be highly sensitive for paleontological resources that could further result in discovery of or damage to previously undiscovered paleontological resources within the cumulative context. Proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing our understanding of unique paleontological resources by recording data about sites discovered and preserving fossil remains found. It is not always feasible to protect these resources, particularly when preservation in place would make projects infeasible, and for this reason the cumulative effects of past, present, and

probable future projects could result in a potentially significant cumulative impact on unique paleontological resources.

*Because of the site-specific nature of geology, soils, and paleontological impacts and necessary compliance with uniform site development standards, construction standards, and County standards, as well as implementation of Mitigation Measure 4.6-1, the proposed project would not result in a considerable contribution to any cumulative impact related to geology, soils, and paleontological resources; the cumulative impact of the project would be **less than significant**.*

5.4.7 Greenhouse Gas Emissions

The discussion of GHG emissions associated with the project is described under Impact 4.7-1 in Section 4.7, “Greenhouse Gas Emissions and Climate Change” of this SEIR, is inherently a cumulative impact analysis. GHG emissions from one project cannot, on their own, result in changes in climatic conditions; therefore, the emissions from one project must be considered in the context of their contribution to cumulative global emissions. As noted in Impact 4.7-1 of Section 4.7, “Greenhouse Gas Emissions and Climate Change,” the project’s impact would be less than significant, and thereby the project would not represent a considerable contribution to a cumulative impact.

*The analysis under Impact 4.7-1 concludes that the level of GHG emissions associated with implementation of the project would not be substantial or conflict with the state’s ability to meet its statewide GHG targets and, therefore, would not be cumulatively considerable. The impact would be **less than significant**.*

5.4.8 Hazards and Hazardous Materials

Hazardous materials impacts are site-specific rather than regional in nature. Any hazardous materials uncovered during construction activities would be managed consistent with applicable federal, state, and local laws to limit exposure and clean up the contamination. In addition, the use, storage, transport, and disposal of hazardous materials would be managed in accordance with applicable federal and state requirements to limit risk of exposure. Project construction and operation in combination with other projects would not create a significant hazard to people or the environment through the accidental release of hazardous materials or exposure to landfill gas because of the site-specific nature of the potential impacts, and existing laws and regulations that minimize the risk of exposure. The temporary storage of baled recyclables has the potential to attract more vectors and/or result in a fire hazard; however, the RHR Recyclable Material Bale Management Operations Plan that was approved by the County in April 2018 requires implementation of vector prevention and fire hazard control measures. These measures are described in Chapter 3, Project Description, of this Draft SEIR and the RHR Recyclable Material Bale Management Operations Plan (see Appendix B of this SEIR). With respect to aircraft safety hazards, no new sources of fixed lighting are proposed as part of the project and the landfill’s existing bird control programs and lighting standards would continue and be extended within the landfill as part of the project. In addition, the project would not result in an increase in the potential for wildland fire hazards because existing fire suppression and prevention measures would continue to be implemented and the landfill would remain under the responsibility of the Dixon Fire District. Through continuation of existing landfill practices and regulatory compliance as part of the project, the contribution of the project to cumulative impacts would be less than considerable.

*Through continued implementation of practices and procedures at the existing landfill, the proposed project would not result in a considerable contribution to a cumulative impact related to hazards or hazardous materials. Cumulative impacts related to hazards and hazardous materials would be **less than significant**.*

5.4.9 Hydrology and Water Quality

Cumulative hydrology and water quality impacts are generally limited to the immediate project area and the local watershed. As discussed in Section 4.9, “Hydrology and Water Quality,” the new disposal expansion area would be constructed with a composite liner system that includes a leachate collection and removal system that efficiently collects and removes leachate from the landfill. The RHR Landfill currently operates under WDR Order No. R5-2016-

0056 that requires that the landfill comply with requirements of a SWPPP for the site. Additionally, the project applicant would prepare a SWPPP for general construction impacts to water quality before project implementation.

The RHR Landfill is hydrologically isolated such that all stormwater is retained onsite. The landfill includes a groundwater monitoring system that meets the requirements of Title 27. Monitoring Plans are prepared for each disposal module and submitted to the Regional Board for review and approval before operation of a disposal module. The monitoring plans are prepared in compliance with Title 27 and propose groundwater monitoring wells at the points of compliance that allow for the detection of a release from the landfill units. Prior to operation of a new disposal module within the Triangle area, a Monitoring Plan would be required to be approved by the Regional Board. Thus, the expansion area would include an extensive monitoring network that would identify potential groundwater contamination issues before leaving the site. If any potential groundwater contamination issues are discovered, monitoring and corrective action would be implemented to avoid effects on nearby groundwater resources.

While expansion into the Triangle area would require continued dewatering activities at the borrow pit, it is expected that some disposal modules would close before new ones are opened such that the average daily demand for groundwater from the borrow pit would generally be consistent with existing operations. Thus, the proposed expansion would not be cumulatively considerable.

*Because of the hydrologically-isolated nature of the existing landfill and the control and monitoring systems that would be expanded as part of the proposed project, construction and operation of the proposed project would not represent a substantial contribution to off-site hydrology and water quality conditions and would not be cumulatively considerable such that a new significant cumulative impact would occur. This would be a **less-than-significant** cumulative impact.*

5.4.10 Noise

Cumulative impacts from construction-generated noise could result if other future planned construction activities were to take place in close proximity to the project approximately at the same time and cumulatively combine with construction noise from the project. The area surrounding the landfill is zoned for agricultural uses with limited development expected to occur in the project vicinity and no projects, with the exception of proposed improvements to Hay Road, currently proposed within a mile of the project site. The Hay Road Improvements project is currently under review by the County. Cumulative impacts from construction-generated noise could result if Hay Road improvements are completed at the same time as the landfill project. If construction of the above-mentioned project were to occur simultaneously with construction of the project, it would be the predominant noise source experienced by the nearest sensitive receptor. However, the nearest sensitive receptor is a residence located approximately 1 mile from the project site; therefore, the contribution of project-related construction noise would not be considerable.

Cumulative noise levels could be affected by additional buildout of surrounding land uses from trip-generating projects (see Table 5-1 above), resulting in increases in vehicular traffic and subsequent traffic noise levels along affected roadways. Table 5-3 presents modeled traffic noise levels along affected roadways under cumulative conditions and cumulative-plus-project conditions.

Table 5-3 Summary of Modeled Traffic Noise Levels under Cumulative-No-Project and Cumulative-Plus-Project Conditions

Roadway Segment	L _{dn} (dB) at 100 feet from Roadway Centerline	
	Cumulative-No-Project Conditions	Cumulative-Plus-Project Conditions
Hay Road between Lewis Road and Project Site Entrance ¹	59.9	60.3
SR 113 between SR 12 and Hay Road	63.9	64.1
SR 113 between Midway Road and Hay Road	61.8	62.2
Midway Road between Porter Road and SR 113	61.9	61.9

Notes: SR = State Route; dB = A-weighted decibels; L_{dn} = day-night average noise level

¹ Traffic noise levels along the segment of Hay Road between Lewis Road and the project site entrance were estimated at a distance of 70 feet from the roadway centerline because this is the distance to the nearest noise-sensitive receptor.

Source: Modeled by Ascent Environmental 2019

As shown in Table 5-3, traffic noise levels along affected roadways under cumulative and cumulative-plus-project conditions would remain below the County's most stringent transportation noise standard of 65 L_{eq} dB. As a result, traffic noise generated from project operations would not contribute to a significant cumulative noise impact.

Because long-term operation of equipment is expected to be similar to operation of equipment under existing conditions, the proposed project would not result in additional noise sources from stationary equipment. Related projects would not cumulatively combine with stationary ambient noise levels at the landfill because noise is typically site specific and dissipates with distance from the source. The future planned projects would not be located close enough to the project site for stationary noise to combine with existing noise levels. Therefore, the project in combination with other projects would not result in a considerable contribution to a significant cumulative noise impact.

*Because the incremental contributions of the proposed project during construction and operation is expected to be similar to the existing noise environment and distance to receptors from landfill-related noise sources, the project would not have a cumulatively considerable contribution to any cumulative impact related to noise; therefore, the cumulative impact would be **less than significant***

5.4.11 Transportation

The potential cumulative transportation impacts of the project were evaluated within the context of future traffic conditions anticipated to occur in this area of Solano County. The most recent Napa-Solano regional travel demand model was used to estimate cumulative traffic conditions in 2030 in the project vicinity. Cumulative volumes along the roadway links were developed using the difference method (i.e., using the project model growth between existing conditions and cumulative conditions and adding this to existing traffic counts.)

CUMULATIVE NO PROJECT INTERSECTION OPERATIONS

Table 5-4 displays the AM, PM, and Saturday peak hour LOS at each study intersection under Cumulative No Project conditions (Figure 5-2).

Table 5-4 Cumulative No Project Peak Hour Levels of Service at Intersections

Location	Control	Cumulative No Project AM Peak Hour		Cumulative No Project PM Peak Hour		Cumulative No Project Saturday Peak Hour		Peak Hour Warrant Met?
		LOS	Average Delay (secs)	LOS	Average Delay (secs)	LOS	Average Delay (secs)	
I-80 Westbound Ramps / Oday Rd Southbound Left Westbound	Westbound Stop	A B	7.9 11.2	A B	7.6 10.1	--- ---	--- ---	No
Midway Road / Oday Rd Southbound Eastbound Left	Southbound Stop	B A	13.3 8.1	B A	11.2 7.9	--- ---	--- ---	No
I-80 Eastbound Ramps / Midway Rd Northbound Eastbound Left	Northbound Stop	C A	16.4 8.6	C A	16.0 8.5	--- ---	--- ---	No
Midway Rd / Porter Rd Westbound	Westbound Stop	A	9.2	A	9.1	---	---	No

Location	Control	Cumulative No Project AM Peak Hour		Cumulative No Project PM Peak Hour		Cumulative No Project Saturday Peak Hour		Peak Hour Warrant Met?
		LOS	Average Delay (secs)	LOS	Average Delay (secs)	LOS	Average Delay (secs)	
SR 113 / Midway Rd	Westbound							Yes ¹
Northbound Left	Stop/ Eastbound	A	8.0	A	8.1	A	7.7	
Southbound Left	Stop	A	7.8	A	7.9	A	7.6	
Eastbound		E	38.5	C	23.6	B	13.2	
Westbound		C	16.1	E	46.0	B	11.1	
SR 113 / Hay Rd	Eastbound Stop							Yes ²
Northbound Left		A	8.0	A	8.4	A	7.6	
Eastbound		B	14.1	C	21.2	B	10.7	
SR 113 / SR 12	Roundabout	C	20.8	F	124.4	B	10.4	N/A
Hay Rd / Project Entrance	Northbound							No
Northbound	Stop	A	9.6	A	9.5	A	9.2	
Westbound Left		A	7.4	A	7.5	A	7.4	

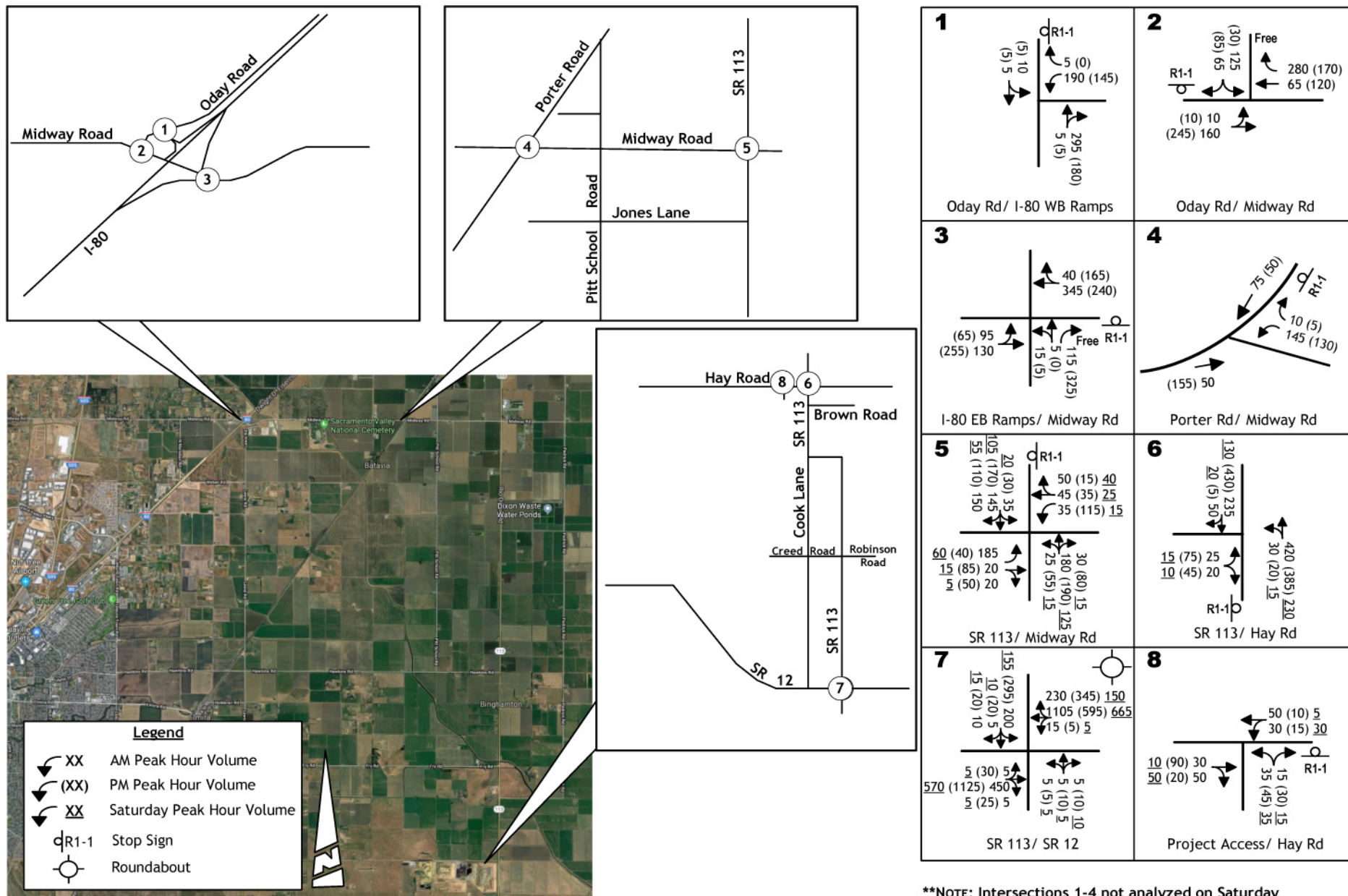
Notes: LOS = level of service, SR = State Route, N/A = not applicable

¹ meets peak hour traffic signal warrant (AM and PM)

² meets peak hour traffic signal warrant (PM)

Source: KDA 2018

As shown in Table 5-4, two intersections would operate at unacceptable LOS under Cumulative No Project conditions (Figure 5-2). The SR 113 / Midway Road intersection is projected to operate at LOS E and meet the peak hour signal warrant in the AM peak hour and PM peak hour under Cumulative No Project conditions. Additionally, the SR 12 / SR 113 intersection is projected to operate at a LOS F during the PM peak hour under Cumulative No Project conditions. The SR 113 / Hay Road intersection is projected to meet the peak hour signal warrant in the PM peak hour; however, the intersection would operate at LOS C or better.



Source: Image prepared and provided by KD Anderson & Associates, Inc, in 2018

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Figure 5-2 2030 Traffic Volumes and Lane Configurations

CUMULATIVE NO PROJECT ROADWAY SEGMENT OPERATIONS

Table 5-5 displays the AM and PM peak hour LOS along each study roadway segment under Cumulative No Project conditions.

Table 5-5 Cumulative No Project Roadway Segment Levels of Service

Roadway	Location	Facility Classification	ATS/PTSF/LOS	ATS/PTSF/LOS
			2030 AM	2030 PM
Midway Rd	I-80 to Porter Rd Eastbound Westbound	Class I Highway	45.5 / 45.3 / C 45.4 / 62.2 / C	42.6 / 72.3 / D 43.0 / 59.2 / D
	Porter Rd to SR 113 Eastbound Westbound	Class I Highway	46.5 / 44.5 / C 46.7 / 42.3 / C	47.3 / 36.1 / C 47.3 / 39.8 / C
SR 113	Midway Rd to Fry Rd Northbound Southbound	Class I Highway	44.3 / 41.4 / D 43.7 / 53.6 / D	43.5 / 52.8 / D 43.5 / 53.1 / D
	Fry Rd to Hay Rd Northbound Southbound	Class I Highway	42.9 / 59.6 / D 43.1 / 46.6 / D	41.7 / 63.1 / D 41.8 / 60.4 / D
	Hay Rd to SR 12 Northbound Southbound	Class I Highway	43.1 / 63.0 / D 43.4 / 44.2 / D	41.9 / 59.6 / D 41.8 / 65.7 / D
Hay Rd	SR 113 to Daily Rd Eastbound Westbound	Class I Highway	49.2 / 16.6 / C 49.2 / 29.3 / C	49.0 / 36.7 / C 48.6 / 7.9 / C

Notes: ATS = average travel speed, PTSF = percent time spent following, LOS = Level of service, SR = State Route

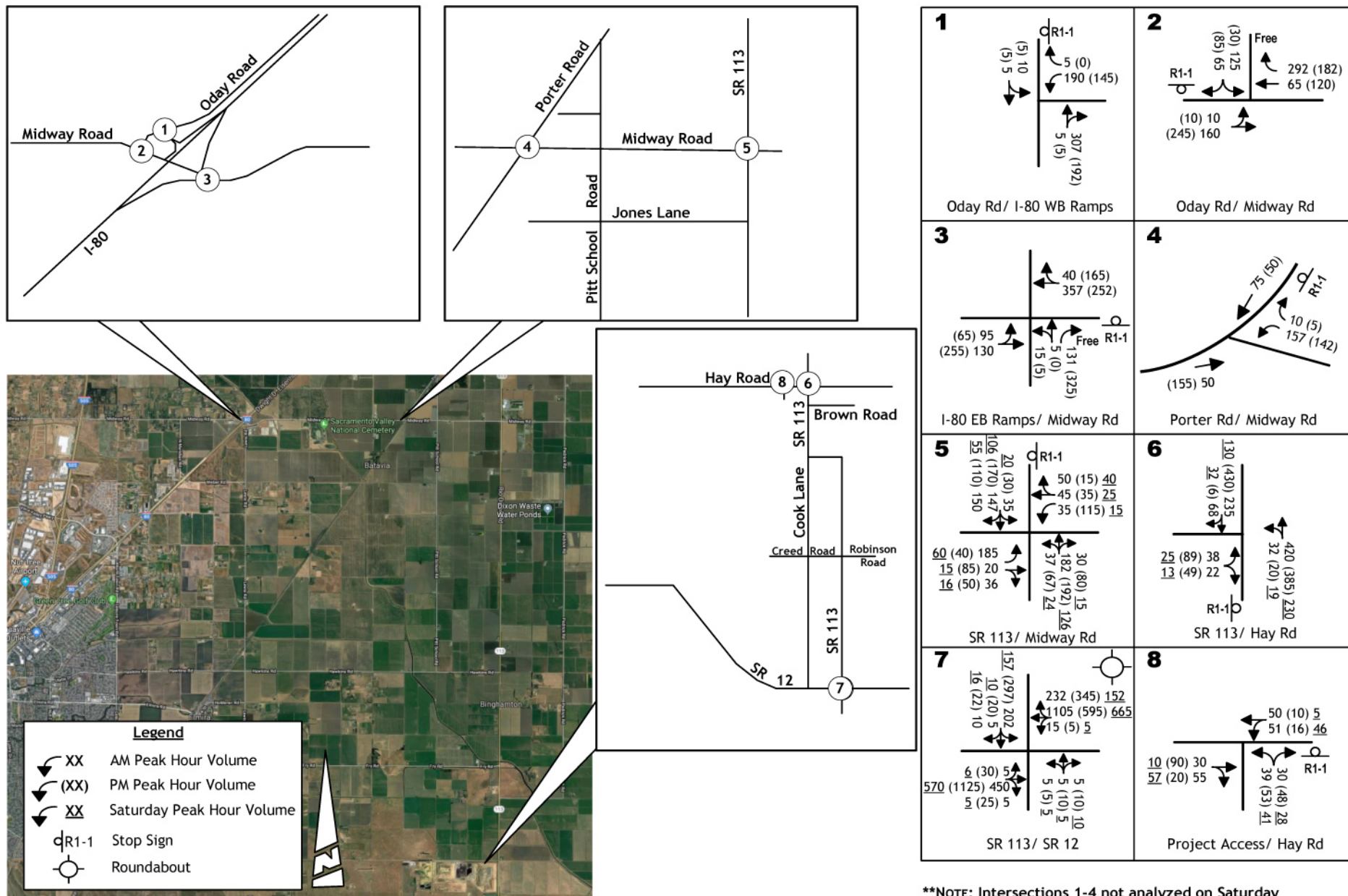
Source: KDA 2018

As shown in Table 5-5, all roadway segments except for the Midway Road segment between I-80 and Porter Road are projected to operate at acceptable levels (i.e., LOS C or better for Solano County roadway segments, LOS D or better for Caltrans roadway segments) under Cumulative No Project conditions. The LOS along Midway Road between I-80 and Porter Road is projected to operate at unacceptable levels (i.e., LOS D) in the PM peak hour in both eastbound and westbound directions under Cumulative No Project conditions.

CUMULATIVE PLUS PROJECT INTERSECTION OPERATIONS

Cumulative Plus Project traffic volumes account for the addition of project-generated vehicle trips to the Cumulative No Project scenario traffic volumes. Figure 5-3 displays the resulting AM, PM, and Saturday peak hour intersection traffic volumes under Cumulative Plus Project conditions.

Table 5-6 displays the AM, PM, and Saturday peak period LOS at each study intersection under Cumulative No Project and Cumulative Plus Project conditions, and the increase in delay at the study intersections as a result of project implementation. Refer to Appendix G of this Draft SEIR for detailed modeling and technical calculations.



Source: Image prepared and provided by KD Anderson & Associates, Inc, in 2018

****NOTE: Intersections 1-4 not analyzed on Saturday**

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Figure 5-3 Cumulative Plus Project Traffic Volumes and Lane Configurations

Table 5-6 Cumulative Plus Project Peak Hour Levels of Service at Intersections

Location	Control	AM Peak Hour				Change in Delay (secs)	PM Peak Hour				Change in Delay	Saturday Peak Hour				Change in Delay	Peak Hour Warrant Met?
		Cumulative No Project		Cumulative Plus Project			Cumulative No Project		Cumulative Plus Project			Cumulative No Project		Cumulative Plus Project			
		LOS	Average Delay (secs)	LOS	Average Delay (secs)		LOS	Average Delay (secs)	LOS	Average Delay (secs)		LOS	Average Delay (secs)	LOS	Average Delay (secs)		
I-80 Westbound Ramps / Oday Rd	Westbound Stop	A	7.9	A	8.0	0.1	A	7.6	A	7.7	0.1	---	---	---	---	N/A	No
Southbound Left Westbound		B	11.2	B	11.3	0.1	B	10.1	B	10.2	0.1	---	---	---	---		
Midway Road / Oday Rd	Southbound Stop	B	13.3	B	13.4	0.1	B	11.2	B	11.3	0.1	---	---	---	---	N/A	No
Southbound Eastbound Left		A	8.1	A	8.1	0.0	A	7.9	A	7.9	0.0	---	---	---	---		
I-80 Eastbound Ramps / Midway Rd	Northbound Stop	C	16.4	C	16.6	0.2	C	16.0	C	16.2	0.2	---	---	---	---	N/A	No
Northbound Eastbound Left		A	8.6	A	8.6	0.0	A	8.5	A	8.6	0.1	---	---	---	---		
Midway Rd / Porter Rd	Westbound Stop	A	9.2	A	9.3	0.1	A	9.1	A	9.2	0.1	---	---	---	---	N/A	No
SR 113 / Midway Rd	Westbound Stop/ Eastbound Stop	A	8.0	A	8.1	0.1	A	8.1	A	8.1	0.0	A	7.7	A	7.7	0.0	Yes1
Northbound Left		A	7.8	A	7.8	0.0	A	7.9	A	7.9	0.0	A	7.6	A	7.6	0.0	
Southbound Left		E	38.5	E	45.7	7.2	C	23.6	D	25.3	1.7	B	13.2	B	13.3	0.1	
Eastbound Westbound		C	16.1	C	17.0	0.9	E	46.0	F	53.6	7.6	B	11.1	B	11.3	0.2	
SR 113 / Hay Rd	Eastbound Stop	A	8.0	A	8.0	0.0	A	8.4	A	8.4	0.0	A	7.6	A	7.6	0.0	Yes2
Northbound Left Eastbound		B	14.1	C	15.4	1.3	C	21.2	C	23.1	1.9	B	10.7	B	11.1	0.4	
SR 113 / SR 12	Roundabout	C	20.8	C	21.0	0.2	F	124.4	F	125.3	0.9	B	10.4	B	10.5	0.1	N/A
Hay Rd / Project Entrance	Northbound Stop	A	9.6	A	9.8	0.2	A	9.5	A	9.7	0.2	A	9.2	A	9.4	0.2	No
Northbound Westbound Left		A	7.4	A	7.5	0.1	A	7.5	A	7.5	0.0	A	7.4	A	7.4	0.0	

Notes: LOS = level of service; SR = State Route; N/A = not applicable

¹ meets peak hour traffic signal warrant (AM and PM)² meets peak hour traffic signal warrant (PM)

Source: KDA 2018

As shown in Table 5-6, the two intersections that would operate at unacceptable levels under Cumulative No Project conditions will continue to operate at unacceptable levels under Cumulative Plus Project conditions, and delay would increase at these intersections with the addition of project-generated trips. The SR 113 / Midway Road intersection would operate at the unacceptable levels of LOS E in the AM peak hour and LOS F in the PM peak hour under Cumulative Plus Project conditions and would experience project-generated increases in delay of 7.2 seconds and 7.6 seconds during the AM and PM peak hours, respectively. Additionally, this intersection would meet the peak hour signal warrant in the AM and PM peak hour. The SR 12/ SR 113 intersection is projected to continue to operate at LOS F in the PM peak hour under Cumulative Plus Project conditions, and project-generated traffic is anticipated to result in an increase in delay at this intersection of 0.9 seconds. The SR 113 / Hay Road intersection would also meet the peak hour signal warrant in the PM peak hour; however, the intersection operates at an acceptable level (i.e., LOS C or better).

Therefore, because the project would result in increases in delay at intersections which are projected to operate at unacceptable levels under Cumulative No Project conditions (i.e., SR 113 / Midway Road and SR 12/ SR 113), the project would be considered cumulatively considerable with respect to a significant cumulative impact.

Mitigation Measure 5-1a: SR 113 and Midway Road Intersection Improvements

This intersection is under the jurisdiction of Caltrans, and Caltrans has identified a conceptual project to widen shoulders, construct a median and install a traffic signal at the SR 113 / Midway Road intersection to enhance safety. Within six months of project approval by the County, the project applicant and Solano County shall coordinate with Caltrans and identify the appropriate fair share contribution that the project applicant shall pay toward the construction of the improvements detailed above.

Mitigation Measure 5-1b: SR 12 and SR 113 Intersection Improvements

Installation of a second eastbound lane through the roundabout will improve the LOS to an acceptable level in the PM peak hour. Within six months of project approval by the County, the project applicant and Solano County shall coordinate with Caltrans and identify the appropriate fair share contribution that the project applicant shall pay toward the construction of a second eastbound lane through the roundabout.

Significance after mitigation

Implementation of Mitigation Measure 5-1a and Mitigation Measure 5-1b would improve operating conditions at both intersections such that they would operate at acceptable levels during the AM and PM peak periods. Refer to Appendix G of this Draft SEIR for detailed modeling and technical calculations. However, the intersection improvement projects detailed in Mitigation Measure 5-1a and Mitigation Measure 5-1b are not included in any planning or programming documents; and are not currently funded. Additionally, because the final approval of the proposed intersection improvements is outside the jurisdiction and control of the applicant and Solano County, it cannot be assured that these mitigation measures would be implemented before project-related trips occurring at this intersection. Therefore, the project would have a considerable contribution to cumulative intersection impacts. Impacts would be **significant and unavoidable**.

CUMULATIVE PLUS PROJECT ROADWAY SEGMENT OPERATIONS

Table 5-7 displays the results of the AM and PM peak hour roadway segment operations analysis under Cumulative No Project and Cumulative Plus Project conditions for each of the six study roadway segments, as well as the project-generated changes in ATS and PTSF. Refer to Appendix G of this Draft SEIR for detailed modeling and technical calculations.

Table 5-7 Cumulative Plus Project Roadway Segment Levels of Service

Roadway	Location	Facility Classification	AM Peak Hour		Change (ATS/PTSF)	PM Peak Hour		Change (ATS/PTSF)
			Cumulative No Project (ATS/PTSF/LOS)	Cumulative Plus Project (ATS/PTSF/LOS)		Cumulative No Project (ATS/PTSF/LOS)	Cumulative Plus Project (ATS/PTSF/LOS)	
Midway Rd	I-80 to Porter Rd Eastbound	Class I Highway	45.5/45.3/C	45.3/47.4/C	-0.2/2.1	42.6/72.3/D	42.6/72.9/D	/0.6
	Westbound		45.4/62.2/C	45.1/61.4/C	-0.3/-0.8	43.0/59.2/D	42.9/60.2/D	-0.1/1.0
	Porter Rd to SR 113 Eastbound	Class I Highway	46.5/44.5/C	46.5/44.5/C	/0.0	47.3/36.1/C	47.2/35.1/C	-0.1/-1.0
	Westbound		46.7/42.3/C	46.5/44.0/C	-0.2/1.7	47.3/39.8/C	47.2/41.1/C	-0.1/1.3
SR 113	Midway Rd to Fry Rd Northbound	Class I Highway	44.3/41.4/D	44.0/42.8/D	-0.3/1.4	43.5/52.8/D	43.4/54.1/D	-0.1/1.3
	Southbound		43.7/53.6/D	42.9/47.7/D	-0.8/-5.9	43.5/53.1/D	43.4/53.6/D	-0.1/0.5
	Fry Rd to Hay Rd Northbound	Class I Highway	42.9/59.6/D	42.6/61.1/D	-0.3/1.5	41.7/63.1/D	41.6/63.7/D	-0.1/0.6
	Southbound		43.1/46.6/D	42.8/49.2/D	-0.3/2.6	41.8/60.4/D	41.7/60.7/D	-0.1/0.3
	Hay Rd to SR 12 Northbound	Class I Highway	43.1/63.0/D	43.0/63.0/D	-0.1/0.0	41.9/59.6/D	41.9/60.5/D	/0.9
	Southbound		43.4/44.2/D	43.3/44.4/D	-0.1/0.2	41.8/65.7/D	41.7/66.0/D	-0.1/0.3
Hay Rd	SR 113 to Daily Rd Eastbound	Class I Highway	49.2/16.6/C	48.7/19.0/C	-0.5/2.4	49.0/36.7/C	48.9/38.7/C	-0.1/2.0
	Westbound		49.2/29.3/C	48.9/31.6/C	-0.3/2.3	48.6/7.9/C	48.3/7.6/C	-0.3/-0.3

Notes: ATS = average travel speed, PTSF = percent time spent following, LOS = Level of service, SR = State Route

Source: KDA 2018

As shown in Table 5-7, all roadway segments except the Midway Road segment between I-80 and Porter Road are projected to operate at acceptable levels (i.e., LOS C or better for Solano County roadway segments, LOS D or better for Caltrans roadway segments). The roadway segment of Midway Road between I-80 would operate at unacceptable levels under Cumulative No Project conditions (i.e., LOS D) in the PM peak hour and would continue to operate at the same unacceptable LOS during the PM peak hour under Cumulative Plus Project conditions. Additionally, the addition of project-generated traffic would result in a decrease in ATS in the westbound direction of 0.1 seconds, and an increase in PTSF in the eastbound and westbound directions of 0.6 seconds and 1.0 seconds, respectively.

Therefore, because the project will result in a decrease in ATS and increases in PTSF along a roadway segment which is projected to operate at unacceptable levels under Cumulative No Project conditions (i.e., Midway Road between I-80 and Porter Road), the project would be considered cumulatively considerable with respect to a significant cumulative impact.

Mitigation Measure 5-2: Midway Road (I-80 Eastbound Ramps to Porter Road) Roadway Segment Improvements

A 0.30-mile-long passing lane in both eastbound and westbound directions would be needed to improve the roadway segment LOS to an acceptable level. The project applicant shall coordinate with Solano County and identify the appropriate fair share contribution that the project applicant shall pay toward the construction of the eastbound and westbound passing lanes along Midway Road between the I-80 eastbound ramps and Porter Road.

Significance after mitigation

Implementation of Mitigation Measure 5-2 would result in the roadway segment of Midway Road between the I-80 eastbound ramps and Porter Road operating at acceptable levels under Cumulative Plus Project conditions. Refer to Appendix G of this Draft SEIR for detailed modeling and technical calculations. However, this project is not programmed or funded; and thus, it cannot be assured that the roadway segment improvements detailed in **Mitigation Measure 5-2** would be implemented. Therefore, the project would be cumulatively considerable with respect to cumulative roadway segment impacts. Impacts would be **significant and unavoidable**.