PLACEWORKS

Final EIR Addendum
July 13, 2015

City of Vacaville General Plan and Energy and Conservation Action Strategy Final EIR Addendum

VACAVILLE

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PLACEWORKS

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1 INTRODUCTION

This document is an Addendum to the Final EIR that was published on June 12, 2014. It includes changes to the Draft and Final EIR that are being made in response to the comments provided by the firm Shute, Mihaly & Weinberger on behalf of the Solano Orderly Growth Committee in a letter dated March 23, 2015.

2 REPORT SUMMARY

This Addendum presents additional changes to Table 2-1, Summary of Impacts and Mitigation Measures, that were not identified in the June 2014 Final EIR. This chapter includes the entirety of Table 2-1, and includes changes to the Draft EIR version of this table that were identified in the June 2014 Final EIR in addition to the changes that are identified in this Addendum. New text is double-underlined and text removed is shown in ~~strikethrough~~. None of the changes constitute significant changes to the Draft EIR, so the Draft EIR does not need to be recirculated.

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AESTHETICS			
AES-1: The visual character in undeveloped portions of Vacaville would be substantially altered.	S	There are no available mitigation measures, and the impact would be significant and unavoidable.	SU
AGRICULTURE AND FOREST RESOURCES			
AG-1: Although the proposed General Plan includes policies and actions that would reduce and ~~partially~~ offset the conversion of farmland, it designates approximately 2,640 acres of farmlands of concern under CEQA for non-agricultural uses.	S	Because these farmland areas are located near existing urbanized areas, they may not be viable for agricultural operations due to conflicts with nearby urbanized areas. The only way to mitigate this impact would be to prohibit any development on farmland of concern, even within the UGB. The UGB identifies where future urban development is appropriate and was adopted as such by the City Council. CEQA does not require that the project be changed in order to avoid an impact, and no additional mitigation is available, resulting in a *significant and unavoidable* impact.	SU
AG-2: The proposed General Plan designates 206 acres of lands with active Williamson Act contracts for non-agricultural uses.	S	Because these parcels with Williamson Act contracts are located near existing urbanized areas, they may not be viable for agricultural operations due to conflicts with nearby urbanized areas. As discussed under Section D.1.a, Project Impacts, above, no additional mitigation is available, resulting in a *significant and unavoidable* impact.	SU
AG-3: Although the policies and actions in the proposed General Plan would reduce and ~~partially~~ offset regional agricultural impacts, the proposed project would contribute to cumulatively significant agricultural impacts in the region.	S	The amount of growth foreseen in the region and the decisions of surrounding counties regarding conversion of agricultural land are outside the control of Vacaville. Therefore, this impact is *significant and unavoidable.*	SU
AIR QUALITY			
AIR-1: Mobile-source air pollutant emissions associated with the proposed General Plan would exceed the significance criterion of 80 pounds per day of PM_{10}. This would be a significant project-level and cumulative impact.	S	AIR-1a: The City of Vacaville shall revise the Energy and Conservation Action Strategy (ECAS) to expand ECAS measure LU-4 to require that new pedestrian infrastructure incorporate amenities such as street trees to shade sidewalks, lighting, benches, signage, and pedestrian signalization at major transportation points to increase pedestrian convenience, comfort, and safety. AIR-1b: The City of Vacaville shall create a schedule for vehicle purchasing decisions when vehicles turn over to ensure that new passenger vehicles purchased by the City for use in the City fleet are alternative fuel vehicles.	SU

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		AIR-1c: New development in the City of Vacaville shall implement the Tier 1 energy performance standards of the California Green Standards Code (CALGreen), which are currently voluntary. The Tier 1 energy performance standards specify that new residential buildings must have an energy budget no greater than 85 percent the current Building and Energy Efficiency Standards of Title 24 (i.e. 15 percent increase in energy efficiency) and non-residential buildings that include indoor lighting and mechanical systems (e.g. heating, ventilation, and air conditions units) must have an energy budget no greater than 90 percent (i.e. 10 percent increase in energy efficiency). The City may allow energy offsets, such as energy generated onsite through installation solar energy, toward this requirement to exceed Title 24. ~~Motor vehicle emissions are regulated by the California ARB and the federal EPA. Therefore, the proposed General Plan does not have the authority to reduce PM_{10} tailpipe emissions. When considering regional emissions, a change to the General Plan land use map to restrict housing growth would not necessarily lead to a reduction in VMT to a level sufficient to avoid this impact, because people would still travel to and from Vacaville to work or shop and existing land use patterns would not change. In addition, the proposed ECAS includes many measures to reduce VMT in Vacaville, which would contribute to a reduction in PM_{10} emissions. No additional mitigation is available to reduce this impact, resulting in a *significant and unavoidable* impact.~~	
BIOLOGICAL RESOURCES			
Implementation of the Solano HCP and the proposed General Plan policies and actions, in combination with federal and State laws, would reduce potential impacts to a less-than-significant level. However, since the HCP is not currently adopted, in order to ensure that mitigation requirements consistent with the Solano HCP are enforced, Mitigation Measures BIO-1 through BIO-14 are included.	LTS	BIO-1: Preservation and restoration of habitat for species identified in Tables 4.4-2 and 4.4-3 of the Draft EIR shall occur in the same level or higher level conservation area as the direct impact occurs (i.e. impacts to habitat in Medium Value Conservation Areas will be mitigated in Medium to High Value Conservation Areas, but impacts to habitat in Low Value Conservation Areas shall be mitigated in either Low or Medium Value Conservation Areas). Compensation for indirect impacts will be assessed on the location/conservation value of the habitat that is indirectly impacted and not the location of project activity (i.e. if a project activity will indirectly impact a habitat for species in a Medium Value Conservation Area but the project is located in a Low Value Conservation Area, compensatory mitigation shall be based on the type of habitat	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		that is being indirectly impacted (in this case Medium Value Conservation Area) rather than the lower value project area. All mitigation ratios are based on impacts as assessed by acreage. 1. **Medium Value Conservation Areas** (see Subareas 2C, 2D, and 2N in Figure 4.4-3). a. **Wetland Component Direct Impacts:** Preserve vernal pool and swale habitats at a ratio of 2:1, and restore vernal pool and swale habitats at a ratio of 1:1 if restored habitats are in place and functional at the time of impact or at a 2:1 ratio if habitats are restored concurrent with the impact. b. **Wetland Component Indirect Impacts:** Preserve vernal pool and swale habitats at a ratio of 1:1 for avoided wetlands within 250 feet of proposed development. c. **Upland Component Direct Impacts:** In Subarea 2C, preserve upland habitat at a ratio of 3:1. In the remaining subareas, preserve upland habitat at a ratio of 2:1. d. **Upland Component Indirect Impacts:** Preserve avoided upland habitat at a ratio of 1:1 within 250 feet of proposed development. 2. **Low Value Conservation Areas and Seasonal Wetlands in Agricultural Areas Outside of a Medium Value Conservation Area** (see Subarea 3 in Figure 4.4-3). a. **Wetland Component Direct Impacts:** Preserve vernal pool and swale habitats at a ratio of 1:1, and restore vernal pool and swale habitats at a ratio of 1:1 if restored habitats are in place and functional at the time of impact or at a 2:1 ratio if habitats are restored concurrent with the impact. b. **Wetland Component Indirect Impacts:** Preserve vernal pool and swale habitats at a ratio of 1:1 within 100 feet of proposed development. 3. **Mitigation for Temporary Impacts to Seasonal Wetlands and Uplands in all Conservation Areas:** Temporary impacts to seasonal wetlands and uplands in all vernal pool conservation areas shall be subject to the mitigation and monitoring requirements described below. Temporary impacts to wetlands shall be calculated	

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		for the entire wetland in which the impact occurs and not just the portion disturbed by the temporary impact. a. **Temporary and Short-Term Impacts:** All temporary impacts lasting no more than one growing season to seasonal wetlands and uplands in all vernal pool conservation areas shall be mitigated by restoring the existing wetlands and uplands and providing additional preservation of wetlands and uplands at a 1:1 ratio. Impacts lasting no more than two growing seasons shall be mitigated by restoring the existing habitats and providing additional wetland and upland preservation at a 1.5:1 ratio. Impacts lasting longer than two growing seasons shall be mitigated at the standard Conservation Area ratios described above under conditions BIO-1-1 and BIO-1-2. b. **Restoration and Monitoring Plan:** The applicant shall provide a restoration plan consistent with the requirements in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP, including acceptable financial assurances, for review and approval by the City and other applicable regulatory agencies, to ensure successful implementation of the habitat restoration. All temporarily impacted wetlands shall be monitored for a minimum of two wet seasons to document that hydrology has been restored to pre-project conditions. Additional monitoring and remedial measures may be required if hydrology is not reestablished. The mitigation ratios described above are applicable to all seasonal wetlands (i.e. saturated, seasonally flooded, and areas subject to temporary flooding sufficient to create wetlands). Conservation actions for streams and semi-permanently to permanently flooded wetlands in the valley floor grassland and vernal pool natural community are addressed under Mitigation Measures BIO-5, BIO-6, BIO-7, and BIO-9.	
		BIO-2: All impacted seasonal wetlands shall be characterized according to the types below and mitigated by preservation of the same category of wetland according to the ratios in Mitigation Measure BIO-1. Seasonal wetland categories are as follows:	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		♦ **Pools:** Greater than 1 inch of standing water for more than ten continuous days with short (less than three weeks) to long (more than three weeks) durations of standing water, clear to moderate turbidity, and exhibiting significant vegetation cover. ♦ **Playa Pools:** Greater than 1 inch of standing water for more than ten continuous days with long (more than three weeks) to very long durations of standing water, moderate to high turbidity, and exhibiting sparse vegetation cover (typically found in association with Pescadero Series Soils; often referred to as playa-type pools). ♦ **Swales or Mesic Grassland:** Shallow, standing water (generally less than 1 inch) present for fewer than ten continuous days. ♦ **Alkaline Flats and Meadows:** Shallow, standing water (generally less than 1 inch) present for fewer than ten continuous days and exhibiting indicators of high alkalinity (salt deposits on soil surface, presence of salt-tolerant plants). Deviations in the required mitigation acreage by type or category may be permitted by the City and other applicable regulatory agencies. Under Mitigation Measure BIO-1, conservation habitats shall be proportional to impacts to the species and their associations (e.g. impacts to pool-dependent species such as vernal pool fairy shrimp shall not be mitigated by preservation of more abundant swale or mesic grasslands that do not support the species).	
		BIO-3: All direct impacts to extant stands of Contra Costa goldfields shall be mitigated by establishing new, self-reproducing populations of Contra Costa goldfields at a ratio of 4:1 (acres protected to acres impacted). This restoration requirement may be met by establishing new Contra Costa goldfield populations at a single-project mitigation site or by purchasing credits at an approved mitigation bank authorized to sell credits for this species in an amount equal to the 4:1 mitigation ratio. Guidelines for establishing Contra Costa goldfields and the release schedule for mitigation credits at the commercial mitigation banks will be specified in the bank-enabling agreements. Mitigation at single-project mitigation sites would be subject to the same conditions as the commercial mitigation banks. Establishment criteria shall also adhere to all the following conditions: 1. Impacted habitat area for which mitigation is required shall be equal to the entire occupied pool/swale area, and shall not just be limited	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		to the area with Contra Costa goldfield cover in the impacted pool. 2. Contra Costa goldfield populations and other species identified in Tables 4.4-2 and 4.4-3 of the Draft EIR (including vernal pool fairy shrimp, conservancy fairy shrimp, vernal pool tadpole shrimp, and mid-valley fairy shrimp) shall be established in constructed, restored, and enhanced wetlands in the known range of these species in Solano County. 3. Seed used to establish new populations of Contra Costa goldfields may be obtained from any Core Population Area, as defined in the Solano HCP or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Seed collection shall not affect more than 10 percent of an individual preserved population. Seed and top soils shall be salvaged from occupied vernal pools and other wetlands in an impacted area prior to initiation of ground-disturbing activities. 4. Restoration may occur in existing preserved pools currently lacking Contra Costa goldfields or in restored pools and swales in other Core Areas as defined in the Solano HCP or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. New populations must be established in currently unoccupied habitat. 5. Re-established populations will be considered self-reproducing when: a. Plants re-establish annually for a minimum of five years with no human intervention such as supplemental seeding, and habitat areas contain an occupied area and flower/plant density comparable to existing occupied habitat areas in similar pool types and Core Areas. If Contra Costa goldfields cannot be established at the mitigation site within five years according to the conditions above, the preserved wetland restoration acreage shall be increased by 50 percent. The applicant shall provide bonds or other acceptable financial assurances, subject to approval by the City and USFWS, to ensure implementation of such measures.	

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		BIO-4: Mitigation shall be required for any impacts in the known or potential range of the California tiger salamander (see Figure 4.4-4). Mitigation shall include preservation, enhancement, and restoration/establishment of suitable upland habitat, and preservation and construction/creation of new breeding habitat consistent with the mitigation requirements specified in Mitigation Measure BIO-1, subject to the following additional requirements. 1. **Breeding Habitat Mitigation:** Direct and indirect impacts to all suitable California tiger salamander breeding habitat in the known or potential range of the species (Figure 4.4-4) will be mitigated by preserving known breeding habitat at a 3:1 ratio and creating new breeding habitat at a ratio of 2:1 or 0.35 acres, whichever is greater. All preserved and created/established breeding habitat shall be contiguous to at least 350 acres of preserved upland habitat, and created breeding habitat shall be located within 2,100 feet of known breeding habitat. a. All new breeding habitat shall be located within 2,100 feet of a known breeding site and be situated in a contiguous reserve/preserve area of 350 acres or more of suitable habitats. This may include other parcels if the lands are protected by conservation easements and are managed consistent with the Solano HCP Reserve Criteria or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. For some existing preserved areas/mitigation sites, this may require that management agreements and endowments be extended to these sites. b. New breeding habitat can consist of multiple sites within 1,300 feet of each other. All new created breeding habitats shall be 0.2 acres to 0.35 acres in size unless otherwise approved by the City, USFWS, and CDFW. 2. **Upland Habitat Mitigation:** Impacts to uplands and other movement habitats (i.e. seasonal wetland swales and meadows) in the known or potential range of the California tiger salamander (Figure 4.4-4) shall be mitigated at the ratios as described in Mitigation Measure BIO-1 for Subarea 2C (Figure 4.4-3, 2:1 ratio), subject to the following additional conditions:	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		a. All upland mitigation preservation shall be within 2,100 feet of known breeding habitat or within 1,300 feet of constructed breeding habitat if the constructed breeding habitat is within 2,100 feet of known breeding habitat. b. New breeding habitat shall be established at a ratio of 0.001 acres per acre of upland directly and indirectly impacted by a project. c. Preserves established for California tiger salamander mitigation shall include measures for restoration of upland mounds, where applicable, in order to provide increased burrowing habitat for fossorial rodents and California tiger salamanders above the shallow, rainy-season water table.	
		BIO-5: Mitigation for permanent impacts to riparian, stream, and freshwater marsh habitat associated with riverine systems in the EIR Study Area shall be provided through restoration of in-kind habitat. Restoration of riparian habitat or creation of new habitat must occur either on site, at an approved mitigation bank, or at another high-quality site, and must be capable of supporting similar quality and species as the impacted site. All Riparian Restoration Plans shall be reviewed and approved by the City and CDFW. Restoration and enhancement activities shall be directed toward severely degraded stream segments in Priority Drainages and Watersheds (Figure 4.4-5). Basic mitigation requirements are based on impact area, vegetation replacement, and designated conservation values of the riparian, stream, and freshwater marsh habitat as assessed in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. 1. **Vegetation**. All native, woody vegetation greater than 1 inch in diameter shall be replaced by planting native woody vegetation to at the following minimum ratios and performance standards:	LTS

Vegetation Replacement Size (inches)[a]	Native Species (Except Oaks and Elderberry)[b]	Oak Species[c]	Nonnative Species
Priority Drainages			
<12	3:1	5:1	1:1

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures				Significance With Mitigation
		12–24	6:1	7:1	2:1	
		≥24	10:1	12:1	3:1	
		Non-Priority Drainages				
		≤12	3:1	5:1	1:1	
		12–24	4:1	7:1	1.5:1	
		≥24	6:1	12:1	3:1	

Note: *Performance Criteria* – The number of native riparian plants that become established at the end of the five-year monitoring period shall equal a minimum of 80 percent of total required plantings. Established plants may include natural regeneration and volunteer plants.

[a] Trees shall be measured at diameter at breast height (dbh); multiple trunked trees shall be reported as the cumulative total of all trunks. Shrubs shall be measured at the midpoint of the main trunk (the ground and the first major branch).

[b] Elderberry replacement ratios and other associated mitigation requirements are prescribed in Mitigation Measure BIO-9. Tree and shrub replacement requirements under this mitigation measure may be used to fulfill all or contribute to the associated native woody riparian vegetation requirements prescribed under Mitigation Measure BIO-9.

[c] Because of slow growth rates, oak species require higher replacement ratios. If acorns are used instead of seedlings (at least one year old), planting ratios shall be doubled.

[d] The five-year monitoring period for documenting successful establishment may be extended if the mitigation is not performing adequately. At a minimum, the determination of success monitoring shall require at least two years without significant intervention (e.g. additional plantings or irrigation). Vegetation may need to be planted at higher ratios, depending on site conditions, in order to account for mortality of planted material.

The goal of the riparian vegetation replacement is to contribute to the establishment of a multi-story riparian community with a variety of native riparian species appropriate for the mitigation site. Plantings are not required to directly replace impacts on a species-by-species basis.

2. **Area.** Riparian mitigation planting shall also achieve the following area criteria based on whether the mitigation is achieved through enhancement (e.g. supplemental planting of existing riparian habitats) or through establishment of woody riparian habitats (e.g. existing or created channel lacking native woody riparian vegetation):

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation

	Priority Drainages		Non-Priority Drainages	
	Enhance-ment	Created/ Restored	Enhance-ment	Created/ Restored
Area Ratios	4:1	2:1	3:1	2:1

3. **Hydrological and Biological Connectivity:** Mitigation for permanent impacts to third and higher order streams and second order streams with riparian vegetation shall maintain the hydrologic and biological connectivity between downstream and upstream areas. Facilities such as bridges, culverts, outfalls, and grade control structures shall not create cumulative gaps in the channel or riparian corridor greater than 300 feet. Bypass or rerouted channels shall be constructed where necessary to replace impacted habitats and to limit gaps between existing riparian habitats.

   Note: The intent of requiring mitigation for removal of nonnative trees and shrubs is to protect riparian habitat. It is not intended to require mitigation for the removal of nonnative trees or shrubs as a part of riparian restoration or enhancement projects.

   The above measure applies to waterways subject to State regulation under Section 1602 of the Fish and Game Code and Porter-Cologne Water Quality Act and waters of the United States subject to regulation under the federal Clean Water Act.

BIO 6: Mitigation for direct impacts to pond or freshwater marsh habitat not hydrologically connected to streams shall be provided at a 2:1 ratio. This mitigation may be achieved by creating/restoring on-site open space areas with a minimum 100-foot-wide buffer, establishing an endowment or other suitable funding source for long-term management of the mitigation habitat, or purchasing credits at an approved mitigation bank. — LTS

BIO 7: Mitigation for direct impacts to seasonal wetlands in the Inner Coast Range shall be provided at a 2:1 ratio. — LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		BIO-8: Compensatory mitigation for unavoidable impacts to suitable breeding and non-breeding aquatic habitat (e.g., riparian, stream, pond, and freshwater marsh habitats) outside of the California Red-legged Frog Conservation Area shall be provided through the construction and/or restoration of similar habitats at a prescribed ratio (acres restored to acres impacted) consistent with Mitigation Measure BIO-5, and provide an endowment fund or other approved funding source to implement management plans for preserved lands in perpetuity consistent with the requirements in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP.	LTS
		BIO 9: Where removal of elderberry shrubs or their stems measuring 1 inch in diameter or greater is unavoidable, these impacts shall be mitigated. Removal of elderberry shrubs or stems 1 inch in diameter or greater and associated riparian vegetation shall not create gaps in a riparian corridor greater than 300 feet. Mitigation will include salvaging and replanting affected elderberry shrubs and planting additional elderberry shrubs and associated native riparian plants according to the following criteria: 1. **Transplanting Removed Elderberry Shrubs.** Transplant removed elderberry shrubs to an approved, secure site, such as an approved mitigation bank location in Solano County or non-bank relocation site to be approved by the City and USFWS. All non-bank relocation sites shall meet the minimum reserve standards identified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP (e.g. site shall be protected by a conservation easement or other applicable protection measure, and funding shall be provided for long-term monitoring and maintenance). Transplanting shall occur between June 15 and March 15 (November through February is the optimal period for transplanting). Elderberry may not be transplanted between March 16 and June 14 except where isolated bushes are located more than 0.5 miles from other suitable valley elderberry longhorn beetle habitat and no signs of use (e.g. exit holes) have been identified. 2. **Mitigation for Whole Shrub Removal.** For each removed elderberry bush, plant a minimum of five elderberry seedlings or rooted cuttings and five associated native, woody riparian plants in the miti-	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		gation area, or purchase applicable credits from a mitigation bank approved under the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 (that shall be based on the principles found in the current working draft of the Solano HCP) to sell valley elderberry longhorn beetle credits. 3. **Mitigation for Trimming/Removal of Stems 1 Inch in Diameter or Greater.** For every ten elderberry stem 1 inch in diameter or greater that are trimmed/removed, plant two elderberry seedlings and two associated native, woody riparian plant seedlings. Mitigation plantings shall occur, to the maximum extent practicable, in areas adjacent to the impact area and/or in existing gaps in riparian corridors. Priority areas for riparian revegetation and planting of elderberry include Alamo and Ulatis Creeks. The requirements for associated native, woody riparian plant establishment may be fulfilled in combination with the woody riparian vegetation replacement requirements prescribed under Mitigation Measure BIO-5.	
		BIO-10: Long-term impacts to Swainson's hawk foraging habitat in the irrigated agriculture conservation area (Figure 4.4-6) shall be mitigated through the preservation (conservation easement) and management of foraging habitat at a ratio of 1:1 (mitigation-to-impact). All mitigation areas shall remain in "agricultural production" provided these activities are consistent with the economics of agricultural operations. The following activities[34] shall also be prohibited on the mitigation area in order to promote value for Swainson's hawk foraging: ♦ Permanent plantings of orchards and/or vineyards for the production of fruits, nuts, or berries. ♦ Cultivation of perennial vegetable crops such as artichokes and asparagus, as well as the annual crops cotton and rice. ♦ Commercial feedlots, which are defined as any open or enclosed area where domestic livestock are grouped together for intensive feeding purposes. ♦ Horticultural specialties, including sod, nursery stock, ornamental shrubs, ornamental trees, Christmas trees, and flowers. ♦ Commercial greenhouses or plant nurseries. ♦ Commercial aquaculture of aquatic plants and animals and their by-products. ♦ Commercial wind energy development.	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		Mitigation shall be provided in the Irrigated Agriculture Potential Reserve Area (as depicted in the Swainson's Hawk Potential Reserve Areas figure in the Solano HCP) or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP.	
		BIO-11: Long-term impacts to Swainson's hawk foraging habitat in the valley floor grassland conservation area (Figure 4.4-6) shall be mitigated through the preservation and management of foraging habitat at a ratio of 1:1 (mitigation-to-impact) and subject to species management requirements specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Mitigation shall be provided in the Irrigated Agriculture or Valley Floor Grassland Potential Reserve Areas (see the Vernal Pool Potential Preserve and Reserve Areas figure in the Solano HCP) or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Preservation of valley floor grassland habitat may be satisfied through Mitigation Measure BIO-1 if the minimum 1:1 ratio for foraging habitat is achieved.	LTS
		BIO-12: Long-term impacts to grassland and oak savanna habitat in the Inner Coast Range conservation area (Figure 4.4-6) shall be mitigated through the preservation and management of foraging habitat at a ratio of 1:1 (mitigation-to-impact) and subject to species management requirements specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Mitigation shall be provided in the Irrigated Agriculture, Valley Floor Grassland, or Inner Coast Range Potential Reserve Areas (see the Vernal Pool Potential Preserve and Reserve Areas figure in the Solano HCP) or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. *Exceptions:* Impacts that are likely to have minimal effects on the extent and quality of Swainson's hawk foraging habitat are exempt from Swainson's hawk foraging habitat mitigation requirements. Such activities	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		include: projects affecting less than one year of forage production, activities related to establishment of natural habitats (e.g. aquatic, riparian, and grassland habitats), construction of infill developments that are less than 5 acres in size and surrounded by urban development, and other minor public and private facilities accessed via existing roads or that impact less than 0.5 acres of potential Swainson's hawk foraging habitat (e.g. pump stations, antennae sites, new irrigation canals, buried pipelines, or utilities).	
		BIO-13: Mitigation for the permanent (i.e. more than one season) disturbance, destruction, or conversion of burrowing owl habitat for urban development or other permanent facilities shall be provided at a 1:1 ratio. Project sites that have been occupied during the nesting season at any time during the past three years or found to be nesting at the time of pre-construction surveys will be considered occupied by owls and require additional nesting habitat mitigation (described in the Solano HCP) or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP). All burrowing owl habitat affected either directly, indirectly, or cumulatively by the project will be subject to the compensation requirement. Mitigation lands used to satisfy mitigation measures for other natural communities and/or species identified in Tables 4.4-2 and 4.4-3 of the Draft EIR (i.e. valley floor grassland and vernal pool natural community [excluding the wetland restoration/construction component], coastal marsh natural community, Swainson's hawk, California red-legged frog, and callippe silverspot butterfly) can be used to satisfy burrowing owl conservation if the reserve area meets the basic burrowing owl reserve management standards and criteria specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. *Exemptions:* Infill projects less than 5 acres in size and surrounded by urban development would have minimal effects on the extent and quality of burrowing owl habitat and are exempt from burrowing owl foraging habitat mitigation requirements unless a known or active nest is present. Additionally, project proponents are obligated to avoid destruction of active burrowing owl nests and take of burrowing owls in compliance with the federal Migratory Bird Treaty Act (MBTA) and California Fish	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		and Game Code Section 3503.5 and to meet the requirements specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP.	
		BIO-14: If construction of pump stations, antennae sites, new irrigation canals, buried pipelines, or utilities (but excluding restoration and reserve management activities) will result in temporary impacts to occupied burrowing owl habitat (e.g. closure, collapse due to ground disturbance, or disturbance in the construction zone), shall be mitigated according to the following criteria at all times of the year: 1. **Temporary Impacts Less Than or Equal to 1 Acre in Size:** Install five burrows within 330 feet of the edge of the construction area if suitable contiguous habitat remains and no more than one pair of owls without eggs or young in the nest is displaced. This condition may be waived if an approved biologist, the City, and CDFW determine that the contiguous area already contains suitable donor burrows. Maintain vegetation height at 6 inches or less around the mitigation burrows to encourage use by owls. a. A monitoring program will be implemented to track and document the use of nearby natural or artificial burrows by evicted owls. Monitoring will be funded by the applicant conducting the project. Monitoring results will be reported to the City and CDFW at the end of the project. b. Artificial burrows will be maintained by the applicant who owns the project that results in burrow or habitat destruction. Artificial burrows shall be maintained for a minimum of two years following completion of the project that resulted in the temporary impact. The construction site will be monitored annually to ensure that natural burrows have been re-established on the construction site. 1) If burrows have not been re-established on the construction site within two years but owls are using other ground squirrel burrows on or adjacent to the site, then the artificial burrows will not require maintenance beyond the two-year period and no additional mitigation will be required. 2) If the burrows have not been re-established in the construc-	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		tion area and owls are not using other natural burrows on or adjacent to the construction site within two years, then the impact will be considered permanent and mitigation will be required according to Mitigation Measure BIO-13. c. The disturbed area shall also be monitored the following breeding season to determine if the owls return to the area to nest. If the owls do not return or relocate to a nearby site, impacts will be required to provide additional mitigation per the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. d. If the above measures cannot be implemented because adequate habitat is not present in surrounding, contiguous lands, impacts shall be mitigated per the requirements of the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. 2. **Temporary Impacts Greater Than 1 Acre in Size:** Install ten burrows/acre within 330 feet of the construction area if at least 7 acres of contiguous habitat remains and no more than one pair of owls without eggs or young in the nest is displaced. Also maintain vegetation height at 6 inches or less around the mitigation burrows to encourage use by owls. This condition may be waived if an approved biologist, the City, and CDFW determine that the contiguous area already contains suitable donor burrows. A monitoring program will be implemented to track and document the use of nearby natural or artificial burrows by evicted owls. Monitoring will be funded by the applicant conducting the project. Monitoring results will be reported to the City and CDFW at the end of the project. a. Artificial burrows will be maintained by the applicant that owns the project that results in burrow or habitat destruction. Artificial burrows shall be maintained for a minimum of two years following completion of the project that resulted in the temporary impact. The construction site will be monitored annually to ensure that natural burrows have been re-established on the construction site.	

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		1) If burrows have not been re-established on the construction site but owls are using other ground squirrel burrows on or adjacent to the site, then the artificial burrows will not require maintenance beyond the two-year period and no additional mitigation will be required. 2) If the burrows have not been re-established in the construction area and owls are not using other natural burrows on or adjacent to the construction site within two years, then the impact will be considered permanent and mitigation will be required according to Mitigation Measure BIO-13. b. Temporary impacts that cannot be mitigated with mitigation burrows due to the lack of suitable burrowing owl habitat on a project site or contiguous ownership parcels shall be mitigated by preserving burrowing owl habitat off site at a ratio of 1:1. Sites subject to temporary impacts that are occupied by more than one pair of owls likewise will be mitigated at a 1:1 ratio. All habitat areas disturbed, destroyed, or converted to non-habitat uses directly, indirectly, or cumulatively will be subject to the mitigation requirement. Compliance with this mitigation measure does not allow for the destruction or disturbance of an active nest site.	
BIO-1: The proposed General Plan, in combination with the Northeast Fairfield Specific Plan, could preclude retention of an important wildlife corridor.	S	~~BIO-1:~~ The area designated as Public/Institutional by the proposed General Plan in this wildlife corridor is owned by the Solano Irrigation District (SID), a public entity. While there are no formal plans in place, due to the nature of this agency, future land use would likely include facilities that support SID's water service. Because SID would not be able to use this land for other purposes that would be compatible with a wildlife corridor, no mitigation is available, and the impact is *significant and unavoidable*.	SU
CULTURAL RESOURCES			
Since there are no significant impacts related to cultural resources as a result of the proposed General Plan and ECAS, no mitigation measures are required.			
GEOLOGY, SOILS, AND MINERAL RESOURCES			

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Since there are no significant impacts related to geology and soils as a result of the proposed General Plan and ECAS, no mitigation measures are required.			
GREENHOUSE GAS EMISSIONS			
GHG-1: The proposed General Plan and ECAS would conflict with Executive Order B-30-15 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and Executive Order S-03-05's goal to reduce GHG emissions by 80 percent below 1990 levels by 2050.	S	GHG-1a: The City of Vacaville shall prepare an update to the Energy and Conservation Action Strategy (ECAS) within 18 months after the California Air Resources Board (CARB) adopts the second Update to the Scoping Plan for the greenhouse gas (GHG) reduction targets which correspond to the interim goal identified in Executive Order B-30-15 for year 2030, or no later than December 1, 2020, whichever is earlier. The ECAS shall include the following: ♦ Emission Inventories: The City shall update the community GHG emissions inventories and forecasts that correspond to the goals of Executive Order B-30-15 for GHG sectors that the City has direct or indirect jurisdictional control over. The inventory and forecast shall be updated using methods approved by, or consistent with guidance, from CARB. ♦ Emission Targets: The City shall identify a GHG emissions reduction target for year 2030 that is consistent with the GHG reduction goals identified in Executive Order S-03-05. The ECAS shall be updated to include specific measures to achieve the 2030 GHG emissions reduction target. The ECAS shall quantify the approximate GHG reductions of each quantifiable measure or set of measures. Measures listed below, along with others, shall be considered during the update to the ECAS for the City's 2030 target: ♦ The City shall identify a plan to expand electric and low-emission vehicle charging stations in the city. ♦ The City shall encourage new development to meet a voluntary 20 percent trip reduction goal. ♦ The City shall work with the waste management agencies to expand the recycling program for businesses and residents to offer food waste collection services. ♦ The City's existing land use database shall be expanded to include an inventory of infill sites to promote infill development. ♦ The City shall explore additional streamlining incentive programs for infill development and sustainable building practices. ♦ The City shall establish energy efficiency standards for new City	SU

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		buildings similar to, or comparable to, Leadership in Energy and Environmental Design (LEED) Silver standards. GHG-1b: The City of Vacaville shall revise the Energy and Conservation Action Strategy (ECAS) to expand ECAS Measure RE-4 to require the City to explore creation of a community choice aggregation program with the County of Solano. ~~The majority of the reductions needed to reach the 2050 target will likely come from State measures (e.g. additional vehicle emissions standards), but the City does not have authority over such measures. The State has not identified plans to reduce emissions beyond 2020. In addition, as part of the ECAS process, the City considered a wide range of GHG emission reduction measures, and all feasible measures are included in the proposed ECAS. No additional mitigation is available, and the impact is considered *significant and unavoidable*.~~	
HAZARDS AND HAZARDOUS MATERIALS			
Since there are no significant impacts related to hazards and hazardous materials as a result of the proposed General Plan and ECAS, no mitigation measures are required.			
HYDROLOGY AND WATER QUALITY			
HYDRO-1: Although the proposed General Plan's policies and actions reduce risks associated with dam or levee failure, they do not eliminate risks to people and property.	S	As discussed above, it is not within Vacaville's power to require or complete maintenance and improvements to dams or levees around Vacaville that are owned and maintained by other agencies. Therefore, this impact is considered *significant and unavoidable*.	SU
HYDRO-2: The proposed General Plan would contribute to development in dam and levee inundation areas, resulting in a significant cumulative impact.	S	It is not within Vacaville's power to require or complete maintenance and improvements to dams or levees around the city owned and maintained by other agencies. Therefore, the impact is considered *significant and unavoidable*.	SU
LAND USE AND PLANNING			
Since there are no significant impacts related to land use as a result of the proposed General Plan and ECAS, no mitigation measures are required.			

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
NOISE			
NOI-1: Increased traffic from projected development allowed by the proposed General Plan would result in a significant increase in traffic noise levels of more than 5 dBA compared to existing conditions along the following roadway segments: ♦ Vaca Valley Parkway from the Interstate 505 northbound ramps to Leisure Town Road ♦ Leisure Town Road from Alamo Drive to Vanden Road ♦ Ulatis Drive from Nut Tree Road to Leisure Town Road	S	NOI-1: The project applicant shall ensure that the following roadway segments shall be re-surfaced with a quiet pavement, such as Rubberized Hot Mix Asphalt – Open Graded (RHMA-O): ♦ Vaca Valley Parkway from the Interstate 505 northbound ramps to Leisure Town Road ♦ Leisure Town Road from Alamo Drive to Vanden Road ♦ Ulatis Drive from Nut Tree Road to Leisure Town Road	LTS
POPULATION AND HOUSING			
POP-1: The proposed General Plan would induce substantial population growth within the EIR Study Area.	S	In order to reduce the anticipated population growth by 2035 to an "insubstantial" level that would not exceed ABAG's current projections, the City would have to limit housing development opportunities to less than half of what this EIR projects. This could drive up home prices in Vacaville, reducing housing options for Vacaville residents and changing the character of the city. In addition, much of the 2035 projection accounts for development that has already been approved by the City, including projects like the North Village Specific Plan and Lagoon Valley Specific Plan. In total, these approved projects account for approximately 4,900 new units in Vacaville, which alone would exceed ABAG's projections. Since the City cannot take back development permits that have already been approved, it would be infeasible to reduce the development capacity in the city to ABAG's projections. Furthermore, the City projected development needs in 2035 based on a careful review of past development trends, as explained in Chapter 3, Project Description of the Draft EIR. The proposed General Plan land use map represents a land use plan that the City believes is most appropriate to accommodate growth projected for 2035 and beyond. It is not feasible to mitigate population growth to a level that is less than "substantial," this impact is considered *significant and unavoidable.*	SU
POP-2: The proposed General Plan would induce substantial population growth within Vacaville and the region.	S	It is not feasible to mitigate population growth to a level that is less than "substantial," and this impact is considered *significant and unavoidable.*	SU
PUBLIC SERVICES AND RECREATION			
Since there are no significant impacts related to public services and recreation as a result of the proposed General Plan, no mitigation measures are required.			

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRAFFIC AND TRANSPORTATION			
TRAF-1: The Alamo Drive at the Marshall Road intersection (4) would degrade to LOS D during both peak hours.	**S**	TRAF-1: The City of Vacaville shall implement the following measures: ♦ Southbound approach: Convert the southbound through-right shared lane in order to a through lane and add a southbound right-turn lane to provide an exclusive right-turn lane, a through lane, a left-turn lane. ♦ Westbound approach: Add a left-turn lane on the westbound to provide dual left-turn lanes, two through lanes and a through-right shared lane.	~~SU~~LTS
TRAF-2: The Alamo Drive at Merchant Street intersection (5) would degrade to LOS D in the PM peak hour.	S	TRAF-2: The City of Vacaville shall implement the following measure: ♦ Westbound approach: Convert the westbound outer through lane to a through-right shared lane to provide a through lane, a through-right shared lane, a right-turn lane, and two left-turn lanes.	LTS
TRAF-3: The Allison Road at Nut Tree Parkway intersection (10) would degrade to LOS F during the PM peak hour.	S	TRAF-3: The City of Vacaville shall implement the following measure: ♦ Northbound approach: Convert the northbound through-right shared lane to a through lane and add a right-turn lane to provide three through lanes and a right-turn lane. ♦ Southbound approach: Convert the southbound left-through lane to an exclusive left-turn lane to provide two left-turn lanes and two through lanes. ♦ Modify the traffic signal phasing to provide a protected left-turn phase on the southbound approach.	SU
TRAF-4: The Leisure Town Road at Alamo Drive intersection (32) would degrade to LOS E during the PM peak hour.	S	TRAF-4: The City of Vacaville shall implement the following measure: ♦ Eastbound approach: Add an eastbound left-turn lane to provide dual left-turn lanes, a through lane, and a right-turn lane.	SU
TRAF-5: The Leisure Town Road at Elmira Road intersection (33) would degrade to LOS F in during both peak hours.	S	TRAF-5: The City of Vacaville shall implement the following measures: ♦ Northbound approach: Add one left-turn lane and one right-turn lane, and convert the through-right shared lane to a through lane to provide two left-turn lanes, two through lanes, and a right-turn lane. ♦ Southbound approach: Add one left-turn lane and one right-turn lane, and convert the through-right lane shared to a through lane to provide two left-turn lanes, two through lanes, and a right-turn lane. ♦ Eastbound approach: Add a left-turn lane and one through lane, and convert the through-left shared lane to a through lane to provide one left turn lane, two through lanes, and a right-turn lane. ♦ Westbound approach: Add a right-turn lane and convert the through-right shared lane to a through lane to provide one left-turn	SU

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		lane, two through lanes, and a right-turn lane.	
TRAF-6: The Leisure Town Road at Interstate 80 Eastbound Ramps (35) would degrade to LOS D during both peak hours. This location is a freeway ramp intersection and is under Caltrans jurisdiction.	S	TRAF-6: The City of Vacaville, in coordination with Caltrans, shall implement the following measure: ♦ Eastbound approach: Add a right-turn lane to the eastbound off-ramp approach to provide a left-turn lane, a left-through shared lane, and a right-turn lane.	SU
TRAF-7: The Leisure Town Road at Orange Drive intersection (39) would degrade to LOS D during both peak hours.	S	TRAF-7: The City of Vacaville shall implement the following measures: ♦ Southbound approach: Add a southbound left-turn lane to provide two left-turn lanes, two through lanes, and a right-turn lane; and prohibit the southbound U-turn movement. ♦ Westbound approach: Modify the traffic signal to provide overlap right-turn phasing for the westbound right-turn movement.	LTS
TRAF-8: The Monte Vista Avenue at Allison Drive intersection (57) would degrade to LOS F during the PM peak hour.	S	TRAF-8: The City of Vacaville shall implement the following measures: ♦ Northbound approach: Convert a northbound through lane to a right-turn lane to provide two left-turn lanes, one through lane, and two right-turn lanes; and modify the traffic signal phasing to provide overlap northbound right-turn movement. ♦ Westbound approach: Prohibit westbound U-turn movements; convert a westbound through lane to a left-turn lane to provide two left-turn lanes, one shared through-right turn lane.	LTS
TRAF-9: The Nut Tree Road at Elmira Road intersection (67) would degrade to below LOS mid-D during both peak hours.	S	TRAF-9: The City of Vacaville shall implement the following measure: ♦ Southbound approach: Convert a southbound through lane to a left-turn lane to provide two left-turn lanes, one through lane, and one through-right shared lane.	LTS
TRAF-10: The Orange Drive at Nut Tree Road intersection (76) would degrade to LOS F in the PM peak hour.	S	TRAF-10: The City of Vacaville shall implement the following measures: ♦ Northbound approach: Add a northbound right-turn lane and convert the through-right shared lane to a through lane to provide one left-turn lane, two through lanes, and a right-turn lane; provide lagging left-turn signal phasing. ♦ Southbound approach: Add a southbound right-turn lane and convert the through-right shared lane to a through lane to provide two left-turn lanes, two through lanes, and a right-turn lane; provide lagging left-turn signal phasing. ♦ Westbound approach: Convert a westbound through lane to a left-turn lane to provide three left-turn lanes, two through lanes, and one right-turn lane.	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRAF-11: The Peabody Road at Cliffside Drive intersection (80) would degrade to LOS E during the PM peak hour.	S	TRAF-11: The City of Vacaville shall implement the following measure: ♦ Eastbound approach: Add an eastbound left-turn lane to provide two-left turn lanes, a through-left shared lane, and a right-turn lane, and modify the lane alignment of the east-west movements.	SU
TRAF-12: The Peabody Road at CSF intersection (81) would degrade to LOS F in the AM peak hour.	S	TRAF-12: The City of Vacaville shall implement the following measures: ♦ Southbound approach: Add a southbound right-turn lane and convert the through-right shared lane to a through lane to provide a left-turn lane, a through-left shared lane, and a right-turn lane. ♦ South leg: Add a corresponding receiving lane on the south leg of the intersection.	LTS
TRAF-13: The Peabody Road at Elmira Road intersection (82) would degrade to LOS E during the PM peak hour.	S	TRAF-13: The City of Vacaville shall implement the following measures: ♦ Eastbound approach: Add an eastbound left-turn lane to provide two left-turn lanes, two through lanes, and one right-turn lane; modify the traffic signal to provide overlap eastbound right-turn phasing. ♦ Northbound approach: Prohibit northbound U-turn movement. ♦ Westbound approach: Convert a through lane to a left-turn lane to provide two left-turn lanes, one through lane, and a through-right shared lane.	SU
TRAF-14: The Peabody Road at Foxboro Parkway intersection (83) would degrade to below LOS mid-D during the PM peak hour.	S	TRAF-14: The City of Vacaville shall implement the following measure: ♦ Northbound approach: Convert the northbound through-right shared lane to a through lane and add a right-turn lane to provide two through lanes and a right-turn lane.	LTS
TRAF-15: The Peabody Road at Hume Way intersection (84) would degrade to LOS D during the PM peak hour.	S	TRAF-15: The City of Vacaville shall implement the following measures: ♦ Eastbound approach: Convert the westbound through lane to a left-through shared lane to provide a left-turn lane, a left-through shared lane, and a right-turn lane; and modify the traffic signal to provide overlap right-turn phasing. ♦ Northbound approach: Prohibit northbound U-turn movement.	LTS
TRAF-16: The Vaca Valley Road at Crescent Drive intersection (92) would degrade to LOS F during the AM peak hour and LOS E during the PM peak hour.	S	TRAF-16: The City of Vacaville shall implement the following measure: ♦ Southbound approach: Convert the through-right shared lane to a left-through-right shared lane to provide a left-turn lane and a left-through-right shared lane; modify the traffic signal to provide split phase operation on the north-south approaches.	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRAF-17: The Vaca Valley Road at East Akerly Drive intersection (93) would degrade to LOS F during both peak hours.	S	TRAF-17: The City of Vacaville shall implement the following measures: ♦ Northbound approach: Convert the northbound through lane to a through-right shared lane to provide a left-turn lane, a through-right shared lane, and a right-turn lane; modify the traffic signal to provide split phase operations on the north-south approaches. ♦ Westbound approach: Convert the westbound through lane to a left-turn lane to provide two left-turn lanes and a through-right shared lane.	LTS
TRAF-18: The Vaca Valley Road at New Horizons Way intersection (98) would degrade to LOS F during the PM peak hour.	S	TRAF-18: The City of Vacaville shall implement the following measures: ♦ Eastbound approach: Add an eastbound left-turn lane to provide two-left turn lanes, a through lane, and a through-right shared lane. ♦ Northbound approach: Convert the northbound through lane to a left-turn lane to provide two left-turn lanes and a through-right shared lane.	LTS
TRAF-19: The Leisure Town Road at Midway Road intersection (38) would degrade to LOS E during the PM peak hour.	S	TRAF-19: The City of Vacaville shall implement the following measure: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	LTS
TRAF-20: The unsignalized Monte Vista Avenue at Airport Road intersection (56) would degrade to LOS F in the PM peak hour.	S	TRAF-20: The City of Vacaville shall implement the following measure: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met in the PM peak hour.	LTS
TRAF-21: The unsignalized Cherry Glen Road at Interstate 80 Eastbound Ramp intersection (19) would degrade to LOS F in the PM peak hour. This location is a freeway ramp intersection and is under Caltrans jurisdiction.	S	TRAF-21: The City of Vacaville, in coordination with Caltrans, shall implement the following measure: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	SU
TRAF-22: The unsignalized Cherry Glen Road at Interstate 80 Westbound Ramp intersection (20) would degrade to LOS E in the AM peak hour and LOS F in the PM peak hour. This location is a freeway ramp intersection and is under Caltrans jurisdiction.	S	♦ TRAF-22: The City of Vacaville, in coordination with Caltrans, shall implement the following measure: ♦ Install stop signs on the northbound and southbound approaches to provide all-way stop control at the intersection.	SU
TRAF-23: The unsignalized Leisure Town Road at Gilley Way intersection (34) would degrade to LOS F on the worst minor street approach during both peak hours, while the overall intersection would deteriorate to LOS F in the PM peak hour.	S	TRAF-23: The City of Vacaville shall implement the following measure: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	SU
TRAF-24: The Leisure Town Road at Marshall Road intersection (37) would degrade to LOS F during both peak hours.	S	TRAF-24: The City of Vacaville shall implement the following measure: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	LTS

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TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRAF-25: The unsignalized Leisure Town Road at North-South Arterial intersection (43) would degrade to LOS E with an average delay of 49 seconds on the worst minor street approach during the PM peak hour, while the overall intersection would operate at LOS A.	S	TRAF-25: The City of Vacaville shall implement the following measure: ♦ Provide a storage pocket on the south leg to allow a two-stage, eastbound, left-turning movement.	LTS
TRAF-26: The unsignalized Midway Road at I-505 Northbound Ramp intersection (52) would degrade to LOS F on the worst minor street approach during both peak hours, while the overall intersection would operate at LOS A in the AM peak hour and LOS F in the PM peak hour. This location is a freeway ramp intersection and is under Caltrans jurisdiction.	S	TRAF-26: The City of Vacaville, in coordination with Caltrans, shall implement the following measures: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met. ♦ Eastbound approach: Convert the eastbound through-left shared lane to a through lane, and add a left-turn lane to provide a left-turn lane and a through lane.	SU
TRAF-27: The unsignalized Midway Road at I-505 Southbound Ramp intersection (53) would degrade to LOS F during both peak hours. This location is a freeway ramp intersection and is under Caltrans jurisdiction.	S	TRAF-27: The City of Vacaville, in coordination with Caltrans, shall implement the following measure: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	SU
TRAF-28: The unsignalized Nut Tree Road at Burton Drive intersection (66) would degrade to LOS F during the PM peak hour.	S	TRAF-28: The City of Vacaville shall implement the following measure: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	LTS
TRAF-29: The unsignalized Vaca Valley Road at Allison Drive intersection (90) would degrade to LOS F on the worst minor street approach during the AM peak hour.	S	TRAF-29: The City of Vacaville shall implement the following measure: ♦ Install stop signs on the eastbound and westbound approaches to provide all-way stop control at the intersection.	LTS
TRAF-30: The Monte Vista Avenue at Depot Road intersection (61) would degrade to LOS E during the PM peak hour. This intersection is located within the Downtown Urban High Density Residential Overlay District.	S	TRAF-30: The City of Vacaville shall implement the following measures: ♦ Northbound approach: Modify the traffic signal to allow an overlapping right-turn movement. ♦ Westbound approach: Prohibit westbound U-turn movements.	LTS
TRAF-31: The Interstate 80 Eastbound Ramps at North Texas Street intersection (29) in Fairfield would degrade to LOS F during both peak hours. This location is a freeway ramp intersection and is under Caltrans jurisdiction.	S	TRAF-31: The City of Vacaville, in coordination with Caltrans and the City of Fairfield, shall implement the following measures: ♦ Eastbound approach: Convert the eastbound through-left shared lane to a left-through-right shared lane and add a right lane to provide one left-through-right shared lane, two exclusive right lanes. ♦ Southbound approach: Add one southbound through lane to provide one left-turn lane and two through lanes.	SU

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Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRAF-32: The Interstate 80 Westbound Ramps at North Texas Street intersection (30) in Fairfield would degrade to LOS F in the AM peak hour. This location is a freeway ramp intersection and is under Caltrans jurisdiction.	S	TRAF-32: The City of Vacaville, in coordination with Caltrans and the City of Fairfield, shall implement the following measure: ♦ Northbound approach: Restripe the northbound approach lanes on North Texas Street to provide two right-turn lanes, a through lane, and one left-turn lane.	SU
TRAF-33: The Peabody Road at Air Base Parkway intersection (78) in Fairfield would degrade to LOS E in the AM peak hour and LOS F in the PM peak hour.	S	TRAF- 33: The City of Vacaville, in coordination with the City of Fairfield, shall implement the following measures: ♦ Eastbound approach: Add an eastbound left-turn lane to provide three left-turn lanes and two through lanes. ♦ Westbound approach: Add a westbound right-turn lane to provide two right-turn lanes and two through lanes; modify traffic signal to allow right-turn overlap phasing. ♦ Southbound approach: Prohibit southbound U-turn movement.	SU
TRAF-34: The Peabody Road at Jepson Parkway intersection (85) in Fairfield would degrade to LOS F during both peak hours.	S	TRAF-34: The City of Vacaville, in coordination with the City of Fairfield, shall implement the following measures: ♦ Northbound approach: Add one northbound left-turn lane, one through lane, and one right-turn lane to provide two left-turn lanes, three through lanes, and two right-turn lanes. ♦ Southbound approach: Add two southbound through lanes and one right-turn lane to provide one left-turn lane, three through lanes and two right-turn lanes. ♦ Eastbound approach: Add one eastbound left-turn lane, one through lane, and one right-turn lane, and convert the through-right shared lane to an exclusive right-turn lane to provide two left-turn lanes, three through lanes, and two right-turn lanes. ♦ Westbound approach: Add one westbound left-turn lane and one through lane to provide two left-turn lanes, two through lanes, and one through-right shared lane.	SU
TRAF-35: The eastbound segment of Interstate 80 west of Lagoon Valley Road would degrade to LOS F during the PM peak hour.	S	TRAF-35: Implementation of the policies and implementing actions in the proposed General Plan would potentially improve the freeway operation and reduce the project impact. However, the effectiveness of the policies and actions could not be clearly demonstrated to fully mitigate the project impact and improve the freeway operations to LOS E or better. Therefore, the project impact is *significant and unavoidable*.	SU

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRAF-36: The eastbound segment of Interstate 80 east of Leisure Town Road would degrade to LOS F during the PM peak hour.	S	TRAF-36: Implementation of the policies and implementing actions in the proposed General Plan would potentially improve the freeway operation and reduce the project impact. However, the effectiveness of the policies and actions could not be clearly demonstrated to fully mitigate the project impact and improve the freeway operations to LOS E or better. Therefore, the project impact is *significant and unavoidable*.	SU
TRAF-37: The project would result in deterioration of level of service at a number of intersections below acceptable standards that may not be able to be mitigated when the improvements are needed.	S	TRAF-37: Intersection level of service impacts would be addressed by Mitigation Measures TRAF-1 through TRAF-34. No additional mitigation measures are available to address this impact. Therefore, the project impact is *significant and unavoidable*.	SU
TRAF-38: The proposed General Plan would allow for development to occur in areas not currently served by public transit at equal service levels to the rest of the Local Tax Base Area. This would be in conflict with the accessibility and geographic coverage goals of the Vacaville City Coach Short Range Transit Plan.	S	TRAF-38: Implementation of the policies and implementing actions in the proposed General Plan, in particular Policies TR-P7.3 and TR-P7.4 and Action TR-A7.3, would establish policies and procedures to evaluate transit demand generated by new development and means to provide for transit demand beyond what can be expected from other established funding sources. New or extended transit service must comply with the established 20 percent farebox recovery mandate.	LTS
UTILITIES AND SERVICE SYSTEMS			
Since there are no significant impacts related to utilities and service systems as a result of the proposed General Plan and ECAS, no mitigation measures are required.			

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

3 REVISIONS TO THE DRAFT EIR

This chapter presents specific changes to the text of the Draft EIR that are being made in response to the comments provided by the firm Shute, Mihaly & Weinberger on behalf of the Solano Orderly Growth Committee in a letter dated March 23, 2015. This Addendum includes changes to the text of the Draft EIR, which are in addition to those that were identified in the June 2014 Final EIR. In each case, the revised page and location on the page is set forth, followed by the textual, tabular, or graphical revision. New text is double-underlined and text removed is shown in ~~strikethrough~~. None of the changes constitute significant changes to the Draft EIR, so the Draft EIR does not need to be recirculated.

All changes to Chapter 2 of the Draft EIR, including changes to the Summary of Impacts and Mitigation Measures, are included in Chapter 2 of this Final EIR Addendum.

The text on page 3-32 is amended as follows:

- 1 million square feet of new commercial space (~~77~~79 acres)
- 1.1 million square feet of new office space (~~84~~81 acres)
- 2.1 million square feet of new industrial space (118~~115~~ acres)

The text on page 3-34 is amended as follows:

The horizon-year projection is used as a basis for the environmental assessment, but it does not restrict or specify the actual physical location of future development that will be permitted under the proposed General Plan, except to the extent that it is referenced under General Plan Policies LU-P3.1, 17.8, and 18.8.

The text on page 4.2-14 is amended as follows:

- Conflict with zoning for agricultural use, or an existing Williamson Act contract.

The text on page 4.2-18 is amended as follows:

b. Conflict with zoning for agricultural use, or an existing Williamson Act contract.

i. Agricultural Zoning

Within the current city limits, the existing Vacaville Land Use and Development Code zones some areas for agricultural use that would be changed to a non-agricultural designation; in total, 638 acres would be changed from an agricultural zone to a non-agricultural designation. As discussed in Chapter 4.10, Land Use and Planning, of this Draft EIR, the proposed General Plan would be the primary planning document for the City of Vacaville. Once adopted, it would su-

persede the existing General Plan. Therefore, upon adoption and implementation of the proposed General Plan, other City documents will need to be updated to ensure consistency. The City's Land Use and Development Code would be updated, as necessary, to conform to the proposed General Plan, including updating the zoning map to conform to the updated General Plan land use map.

Similarly, the existing Solano County zoning maps designate the majority of the land surrounding the current Vacaville city limits for agricultural use, whereas the proposed Vacaville General Plan designates those lands that are within the UGB for non-agricultural use. As discussed in Chapter 4.10, Land Use and Planning, of this Draft EIR, because land outside the city limits is currently subject to County land use regulations, and would only become under City land use jurisdiction upon annexation, only one set of land use policies apply at a given time, and there cannot be a conflict between the City General Plan and County zoning maps.

Through the General Plan Update process, the City, with guidance from an extensive public outreach process, concluded that urban and suburban land uses are appropriate within the city boundary. Because the General Plan is a long-range planning document, it must look beyond the current city limits in establishing future land use policy. Therefore, it designates land outside the current city limits but within the UGB (i.e. the City's anticipated future boundary) for urban and suburban uses.

As discussed in Section D.1.a, the City maintains its UGB as a strategy to protect agricultural lands from conversion to non-agricultural use. The UGB constrains urban development within its boundary, and maintains the land outside the UGB for agriculture, park, open space, public facility, and utility uses. In addition to protecting lands outside the UGB from direct conversion to urban uses, this strategy protects these lands from indirect conversion, which could occur if incompatible uses were developed alongside the agricultural uses.

In addition, as described in Section D.1.a, proposed General Plan policies and actions describe the City's intent to concentrate growth within the city, Sphere of Influence, and UGB as a means to protect agricultural lands outside of the UGB from conversion to non-agricultural use. Section D.1.e also describes proposed policies and actions that would minimize potential conflicts between agricultural and urban uses. Finally, the proposed General Plan includes Policy LU-P2.4, which requires development on any farmlands of concern to purchase conservation easements to permanently protect agricultural land of equal or greater quality at a ratio of 1 acre of conserved agricultural land per 1 acre of developed agricultural land. Implementation of this mitigation strategy would ensure that the loss of agricultural lands within the EIR Study Area is offset by the preservation of other agricultural lands of equal or greater quality.

The UGB was adopted by the City Council in 2008 as a result of a voter signature gathering process. It clearly establishes the voters' and City's intent that "urban development will be focused within the Urban Growth Boundary" (see existing Vacaville General Plan Policy 2.10-G1). The UGB indicates that the existing zoning for agricultural use within the UGB that would be changed to a non-agricultural use under the proposed General Plan is considered by the City and the voters of Vacaville as an interim use prior to the urbanization envisioned by the UGB. Because of this existing land use policy that clearly plans for this area to be urbanized, the redesignation of land within the UGB that is currently zoned for agricultural use is not considered to be a conflict, and the impact is *less than significant.*

ii. Williamson Act Contracts

Approximately 199 acres of prime farmland and 1,079 acres of non-prime farmland have active Williamson Act contracts in the EIR Study Area. These areas are shown in Figure 4.2-2. Some of these areas are designated for agricultural use under the proposed General Plan, which would avoid a conflict with Williamson Act contracts on these sites.

The text on page 4.3-8 is amended as follows:

Relevant YSAQMD rules include but are not limited to the following. Any development allowed under the Project would be required to be consistent with these rules.

The text on page 4.3-9 is amended as follows:

- **Rule 2-40, Wood Burning Appliances, Rule 2.37 Natural Gas-Fired Water Heaters and Small Boilers, and Rule 2.44 Central Furnaces**: To manage the emissions of particulate matter, carbon monoxide, and other air contaminants from wood burning appliances and heaters.

The table on page 4.3-20 (Table 4.3-24) is amended as shown on the following page.

TABLE 4.3-4 **REGIONAL EMISSIONS FROM THE PROPOSED GENERAL PLAN IN 2035**

	ROG (Tons/Year)	NO_x (Tons/Year)	PM_{10} (Pounds/Day)
Existing ~~General Plan~~Conditions (2008 ~~Conditions~~)	483	2,057	540
Proposed General Plan (2035 Conditions)	238	809	700
Existing General Plan (2035 Conditions)[a]	238	805.8	680
Net New Emissions	**-245**	**-1,248**	**160**
YSAQMD Significance Threshold	**10.0**	**10.0**	**80.0**
Exceed?	No	No	Yes

[a] Existing General Plan 2035 emissions are presented for informational purposes only. The impact analysis in this section is based on a comparison between existing conditions and conditions under the proposed General Plan.
Source: LSA Associates, Inc., 2012.

Table 4.3-4 identifies the ~~daily~~ emissions associated with the project for ROG and NO_x (the two precursors of ozone), and PM_{10}. YSAQMD has established thresholds of significance for ROG and NO_x of 10 tons per year and for PM_{10} of 80 pounds per day. ….

The text on page 4.3-21 is amended as follows:

Impact AIR-1: Mobile-source air pollutant emissions associated with the proposed General Plan would exceed the significance criterion of 80 pounds per day of PM_{10}. This would be a significant project-level and cumulative impact.

> Mitigation Measure AIR-1a: The City of Vacaville shall revise the Energy and Conservation Action Strategy (ECAS) to expand ECAS measure LU-4 to require that new pedestrian infrastructure incorporate amenities such as street trees to shade sidewalks, lighting, benches, signage, and pedestrian signalization at major transportation points to increase pedestrian convenience, comfort, and safety.
>
> Mitigation Measure AIR-1b: The City of Vacaville shall create a schedule for vehicle purchasing decisions when vehicles turn over to ensure that new passenger vehicles purchased by the City for use in the City fleet are alternative fuel vehicles.
>
> Mitigation Measure AIR-1c: New development in the City of Vacaville shall implement the Tier 1 energy performance standards of the California Green Standards Code (CALGreen), which are currently voluntary. The Tier 1 energy performance standards specify that new residential buildings must have an energy budget no greater than 85

percent the current Building and Energy Efficiency Standards of Title 24 (i.e. 15 percent increase in energy efficiency) and non-residential buildings that include indoor lighting and mechanical systems (e.g. heating, ventilation, and air conditions units) must have an energy budget no greater than 90 percent (i.e. 10 percent increase in energy efficiency). The City may allow energy offsets, such as energy generated onsite through installation solar energy, toward this requirement to exceed Title 24.

Significance After Mitigation: Significant and Unavoidable

Motor vehicle emissions are regulated by the California ARB and the federal EPA. Therefore, the proposed General Plan does not have the authority to reduce PM_{10} tailpipe emissions. When considering regional emissions, a change to the General Plan land use map to restrict housing growth would not necessarily lead to a reduction in VMT to a level sufficient to avoid this impact; people would still travel to and from Vacaville to work or shop, therefore the existing land use patterns would not change. In addition, the proposed ECAS includes many measures to reduce VMT in Vacaville, which would contribute to a reduction in PM_{10} emissions. ~~No additional mitigation is available to reduce this impact, resulting in a~~ Despite incorporation of additional mitigation, this is a *significant and unavoidable* impact.

The text on page 4.7-2 is amended as follows:

a. Assembly Bill 32~~,~~ ~~and~~ Executive Order S-03-05, and Executive Order B-30-15

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Assembly Bill (AB) 32, the Global Warming Solutions Act, ~~and~~ Executive Order S-03-05, and Executive Order B-30-15.

AB 32 was passed by the California State legislature on August 31, 2006, to place the State on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05, signed June 1, 2005. Executive Order S-03-05 sets the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050.

On April 30, 2015 Governor Jerry Brown signed Executive Order B-30-15, which established the following GHG reduction target for the State:

- 40 percent below 1990 levels by 2030

The text on page 4.7-6 is amended as follows:

CARB ~~is in the process of completing~~completed a five-year update to the 2008 Scoping Plan, as required by AB 32. ~~A discussion draft of the 2013 Scoping Plan was released on October 1, 2013.~~ The ~~2013~~2014 First Update to the Scoping Plan ~~update~~ defines CARB's climate change priorities for the next five years and lays the groundwork to reach post-2020 goal set forth in Executive Order S-3-05. The update also includes the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants, and highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan.

As identified in the ~~2013~~ Scoping Plan update, California is on track to meeting the goals of AB 32. The State's long-term GHG goals are addressed within a post-2020 element that provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the State to adopt a mid-term target. According to the ~~2013~~ Scoping Plan update, reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy.

The new Executive Order B-30-15 requires CARB to prepare another update to the Scoping Plan to address the 2030 target for the State.

The text on page 4.7-22 is amended as follows:

Vacaville falls within the jurisdiction of YSAQMD, which is in the process of developing significance thresholds for GHGs. In the interim, the YSAQMD will consult with project applicants and lead agencies to identify thresholds of significance for GHG that have been adopted by other agencies and may be appropriate for use by the project. ~~The EIR consultant consulted with YSAQMD regarding the proposed General Plan and ECAS, and the YSAQMD has determined that BAAQMD thresholds are appropriate for this project.[24] The BAAQMD thresholds of May 2011 are currently suspended due to legal action pending CEQA review. It is a matter for each jurisdiction to decide if it would like to adopt them voluntarily. The City of Vacaville has decided to use the standards believing them to be based on sound and substantial scientific evidence.~~

On December 30, 2009, the California Natural Resources Agency adopted CEQA Guidelines Amendments related to climate change. These amendments became effective on March 18, 2010. Consistent with the amended guidelines, climate change impacts associated with the project would be considered significant if the project would:

~~[24] Jones, Matt, Yolo-Solano Air Quality Management District. Personal communication with Aaron Engstrom, The Planning Center | DC&E, February 3, 2012.~~

- ♦ Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- ♦ Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

~~For the first impact above, BAAQMD sets the plan-level standards of significance by which the proposed project is to be evaluated. As such, the impact of the proposed project is deemed less than significant if it:~~

- ~~♦ Complies with a qualified GHG emissions reduction strategy, or~~
- ~~♦ Results in emissions less than 6.6 MTCO2e per service population, per year, where service population is the total number of employees and residents within the city.~~

~~However, the second metric, 6.6 MTCO2e per service population per year, is not applicable to cities outside of the Bay Area because it is based on the Bay Area's GHG emissions inventory that achieves the 2020 targets. To use this metric for Vacaville, an inventory for the Yolo-Solano portion of the Sacramento Valley Air Basin would be needed, and an efficiency metric developed based on that data.~~

~~Therefore, to evaluate the first threshold identified in the CEQA Guidelines, this EIR considers the whether the project complies with a qualified GHG emissions reduction strategy.~~

1. Vacaville GHG Reduction Target

The GHG reduction target identified in the ECAS is based on the GHG reduction goals of AB 32. The Scoping Plan represents the State's strategy for achieving the GHG emissions reduction target identified in AB 32, which is to reduce GHG emissions to 1990 levels by the year 2020. In order to identify the appropriate level of GHG emissions reductions needed statewide over the 12 years from 2008 to 2020, the 2008 Scoping Plan used statewide GHG emissions inventory data that had been collected through the year 2004, and that projected future emissions based on prior inventory data. In order to achieve the targeted 1990 levels of GHG emissions (427 million $MTCO_2e$), the State would need to reduce GHG emissions as follows:

- ♦ Reduce 2005-2008 GHG emissions (498 million $MTCO_2e$) by 71 million MTCO2e, an approximately 15-percent reduction.
- ♦ Reduce 2020 BAU GHG emissions (596 million $MTCO_2e$) by 169 million MTCO2e, an approximately 30-percent reduction.

As part of the ongoing process of meeting the 1990 statewide GHG emissions target required by AB 32, CARB released an annual update to the statewide GHG emissions inventory. This up-

date provides actual GHG emissions data for this time period, whereas the previous statewide inventory relied on projections for years after 2004. This updated and comprehensive annual statewide emissions inventory offers a better understanding of historical GHG emission trends, which, in turn, helps track progress towards meeting the State's target. As a result, CARB revised the statewide BAU emissions forecast for 2020. The revised 2020 forecast identified the state would be at 545 million $MTCO_2e$ in 2020, about 10 percent lower than the 596 million $MTCO_2e$ projected in 2008. Therefore, to achieve the AB 32 target of 427 million $MTCO_2e$ by 2020 (i.e. 1990 emissions levels by 2020), the State would only need to reduce emissions by 118 million $MTCO_2e$ compared to BAU conditions, a reduction of 21.7 percent from BAU in 2020.[25] Table 4.7-11 illustrates the GHG emissions inventories and reductions identified by the State.

TABLE 4.7-11 **STATEWIDE GHG EMISSIONS INVENTORY HISTORY**

GHG Emissions Inventory Years	Projected 2020 BAU GHG Emissions (Million $MTCO_2e$/ Year)[a]	Reduction Needed to meet 1990 Levels	
		Million $MTCO_2e$/ Year	Percentage
1990 to 2004 (2008 Scoping Plan)	596	169	28.5
2000 to 2010 (2013 Updated Inventory)	545	118	21.7

BAU = business as usual, $MTCO_2e$ = metric tons of carbon dioxide equivalent.
[a] The 2020 BAUGHG emissions forecasts in this column are based on the actual inventory data collected for each of the GHG emissions inventory years indicated below (1990-2004 and 2000-2010).
Source: Association of Environmental Professionals, 2012, *Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets (Draft)*, available at: http://www.califaep.org/docs/AEP_Next_Steps_White_Paper.pdf.

Based on the updated statewide GHG emissions inventory and forecast data discussed above, the ECAS and this EIR use the following local target, which applies the same statewide ratio of reductions needed to Vacaville's local emissions:

- **Reduce GHG emissions by 21.7 percent below Vacaville's 2020 BAU forecast.**

However, because the proposed Project goes beyond year 2020, GHG emissions for the General Plan are compared to the long-term GHG reduction goals interpolated from Executive Order B-30-15 (40 percent below 1990 levels by 2030) and Executive Order S 03 05 (80 percent below 1990 levels by 2050) for the General Plan 2035 planning horizon:

- **Reduce GHG emissions by 50 percent below Vacaville's AB 32 target by 2035.**

[25] Association of Environmental Professionals, 2012, *Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets (Draft)*, available at: http://www.califaep.org/docs/AEP_Next_Steps_White_Paper.pdf.

If the Project is not on a trajectory that is consistent with the near-term target of AB 32 and the long-term goals of Executive Order B-30-15 and Executive Order S-03-05, GHG emissions would be considered potentially significant in the absence of mitigation measures.

The text on page 4.7-23 is amended as follows:

The proposed ECAS is the City's GHG emissions reduction strategy. BAAQMD guidelines state that in order for a GHG emissions reduction strategy to be considered qualified, it must include the following elements consistent with Section 15183.5 of the CEQA Guidelines:

- A GHG emissions inventory and a BAU projection.
- A GHG emissions reduction target consistent with AB 32.
- A review of relevant local and State policies.
- Quantitative emissions projections demonstrating target achievement.
- Strategies for implementation and monitoring.
- Environmental review.

BAAQMD ~~also stipulates~~ is the only air district in the State that has released guidance on GHG reduction plans. BAAQMD's 2011 Plan Level Guidance document states that qualified GHG emissions reduction strategies ~~must~~ should include the following~~be characterized by:~~:

- A complete and comprehensive inventory of GHG emissions.
- Transparent calculations and assumptions.
- GHG reductions measures which are mostly mandatory.
- A "margin of safety" to ensure emission reduction goals are met.
- Measures that address both new and existing development.
- Clearly-defined implementation and monitoring strategies.

Finally, ~~a~~ the ~~qualified~~ GHG emissions reduction strategy ~~must~~ addresses the residential, commercial, industrial, transportation and land use, waste, agriculture (if pertinent), and water and wastewater treatment sectors for which the City has direct and indirect control over. ~~Qualified GHG~~ Eemissions reduction strategies ~~must~~ were evaluated for the specific current emissions for each of these sectors, as well as projected emissions under both a BAU scenario and under the proposed strategy. ~~Qualified~~ The GHG emissions reduction strategies ~~must~~ reasonably demonstrates that the proposed strategy would lead to decreases in GHG emissions consistent with the goals and targets of ~~State laws, such as~~ AB 32.

The proposed ECAS meets these criteria for a qualified GHG emissions reduction strategy under CEQA Guidelines Section 15183.5~~. It includes the required elements~~, as outlined below:

The text on page 4.7-25 is amended as follows:

In addition, the proposed ECAS contains ~~the~~ additional characteristics based on BAAQMD's recommendations ~~of a qualified GHG emissions reduction strategy~~:

The text on page 4.7-26 is amended as follows:

Vacaville's 2020 BAU emissions are projected to be 1,202,710 $MTCO_2e$. To achieve the local target of a 21.7-percent reduction, forecasted 2020 GHG emissions in Vacaville must be reduced by 260,988 $MTCO_2e$. This reduction would result in 941,722 $MTCO_2e$ in total emissions in 2020 for Vacaville. As identified in Table 4.7-12, GHG emissions in the City of Vacaville in 2020 would achieve the GHG reduction target as a result of regulations adopted to reduce GHG emissions and turnover of California's on-road vehicle fleets. In addition, the ECAS would result in 63,472 $MTCO_2e$ of additional GHG reductions.

In addition, to achieving the GHG reduction target, Table 4.7-12 also shows that in 2020 GHG emissions would be less than current GHG emissions in the city. As identified by the California Natural Resources Agency's "Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to Senate Bill 97" (2009), the CEQA Guidelines do not establish a zero emissions threshold of significance because there is no one molecule rule in CEQA. Therefore, emissions generated by additional growth in the City through 2020 would be offset by a reduction in existing emissions from implementation of federal and State regulations.

Because the proposed ECAS is a qualified GHG emissions reduction strategy, and because the proposed General Plan is consistent with the proposed ECAS, the impact would be *less than significant*.

TABLE 4.7-12 **2020 COMMUNITYWIDE GREENHOUSE GAS EMISSIONS FORECAST**

	2008 GHG Emissions ($MTCO_2e$/ Year)	2020 BAU GHG Emissions ($MTCO_2e$/ Year)	2020 Adjusted GHG Emissions ($MTCO_2e$/ Year)	Increase from 2008
Transportation[a]	598,040	808,140	639,790	41,750
Residential[b]	153,210	172,440	131,940	-21,270
Non-Residential[b]	156,390	174,510	126,870	-29,520
Water/Wastewater[c]	10,680	12,780	8,690	-1,990
Solid Waste Disposal[d]	19,030	21,780	21,370	2,340

	2008 GHG Emissions ($MTCO_2e$/ Year)	2020 BAU GHG Emissions ($MTCO_2e$/ Year)	2020 Adjusted GHG Emissions ($MTCO_2e$/ Year)	Increase from 2008
Other Off-Road Emissions[e]	11,990	13,470	12,120	130
Total	**949,340**	**1,202710**	**940,780**	**-8,560**
Additional Local Reductions	—	—	**-63,472**	—
Total with Local Reductions	—	—	**877,308**	—
2020 Target	—	—	**941,722**	—
Meets or Exceeds Target?	—	—	**Yes**	—

Note: Emissions are rounded to the nearest tens place.
[a] EMFAC2011 based on VMT provided by Kittelson & Associates, as modeled by LSA Associates.
[b] Natural gas and purchased energy provided by PG&E.
[c] Local Government Operations Protocol (LGOP) Version 1.1 based on water/wastewater use in the city. Includes wastewater treated at the City's wastewater treatment plant but generated by land uses outside the city.
[d] US EPA Warm Model based on waste disposal obtained from CalRecycle.
[c] Estimate of stationary equipment use for landscaping, light commercial and industrial, and construction equipment obtained from the Solano Transportation Authority (STA) as part of the 2005 inventory for the City of Vacaville prepared by AECOM in May 2011.
Source: The Planning Center | DC&E, 2012; LSA Associates, 2012; and STA, 2011.

The text on page 4.7-27 is amended as follows:

Without consideration of any federal, State, or local measures to reduce GHG emissions, GHG emissions in Vacaville in 2035 under the proposed General Plan are projected to be 1,519,040 MTCO2e. Known State and federal measures are projected to reduce 2035 emissions to 1,131,010 MTCO2e. Therefore, post-2020 GHG emissions would outpace the GHG emissions reductions achieved by State and federal programs. While the proposed ECAS measures would further reduce the 2035 emissions, it is likely that additional measures would be needed to place the City on track to meeting Executive Order B-30-15 and Executive Order S-03-05's 2050 goals. Table 4.7-13 identifies the GHG emissions needed to achieve a post-2020 interim target that corresponds to the planning horizon analyzed. The City would require assistance from additional federal and State programs and regulations to achieve the long-term GHG emissions goal. ~~In addition,~~ State action beyond 2020 is uncertain, as there are no adopted State plans to achieve reductions beyond 2020. Therefore, the proposed General Plan and ECAS would conflict with the goals of Executive Order B-30-15 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and Executive Order S-03-05 to reduce GHG emissions by 80 percent below 1990 levels by 2050, and the impact would be *significant*.

TABLE 4.7-13 **2035 COMMUNITYWIDE GREENHOUSE GAS EMISSIONS FORECAST**

	2008 GHG Emissions ($MTCO_2e$/ Year)	2035 BAU GHG Emissions ($MTCO_2e$/ Year)	2035 Adjusted GHG Emissions ($MTCO_2e$/ Year)	Increase from 2008
Transportation[a]	598,040	1,70,390	794,760	196,720
Residential[b]	153,210	196,470	147,360	-5,850
Non-Residential[b]	156,390	197,160	140,050	-16,340
Water/Wastewater[c]	10,680	15,410	10,760	80
Solid Waste Disposal[d]	19,030	24,300	24,300	5,270
Other Off-Road Emissions[e]	11,990	15,310	13,780	1,790
Total	**949,340**	**1,519,040**	**1,131,010**	**181,670**
Additional Local Reductions	—	—	**-72,262**	—
Total with Local Reductions	—	—	**1,058,748**	—
Trajectory to EO B-30-15 and EO S-03-05 Goals[f]	—	—	**470,861**	—
Meets or Exceeds Target?	—	—	**No**	—

Note: Emissions are rounded to the nearest tens place.
[a] EMFAC2011 based on VMT provided by Kittelson & Associates, as modeled by LSA Associates.
[b] Natural gas and purchased energy provided by PG&E.
[c] Local Government Operations Protocol (LGOP) Version 1.1 based on water/wastewater use in the city. Includes wastewater treated at the City's wastewater treatment plant but generated by land uses outside the city.
[d] US EPA Warm Model based on waste disposal obtained from CalRecycle.
[e] Estimate of stationary equipment use for landscaping, light commercial and industrial, and construction equipment obtained from the Solano Transportation Authority (STA) as part of the 2005 inventory for the City of Vacaville prepared by AECOM in May 2011.
[f] Executive Order (EO) B-30-05 identifies an interim GHG reduction goal of 40 percent below 1990 levels by 2050 and Executive Order (EO) S-03-05 identifies a long-term GHG reduction goal of 80 percent below 1990 levels by 2050. If the City were to aim to achieve a long-term goal that coincides with Executive Order B-30-15 and Executive Order S-03-05, then GHG emissions in 2030 would need to be 40 percent below the AB 32 target emissions or 565,033 $MTCO_2e$ and in 2050 would need to be 80 percent below the AB 32 target emissions or 188,344 $MTCO_2e$. Based on a straight line projection between the 2030 target and the 2050 target to arrive at a 2035 target, GHG emissions would need to be 47,861 $MTCO_2e$ in 2035 or a 50 percent reduction from 2020 to maintain a trajectory that achieves the long-term goal.
Source: The Planning Center | DC&E, 2012; LSA Associates, 2012; and STA, 2011.

Impact GHG-1: The proposed General Plan and ECAS would conflict with Executive Order B-30-15 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and Executive Order S-03-05's goal to reduce GHG emissions by 80 percent below 1990 levels by 2050.

Mitigation Measure GHG-1a: The City of Vacaville shall prepare an update to the Energy and Conservation Action Strategy (ECAS) within 18 months after the California Air Resources Board (CARB) adopts the second Update to the Scoping Plan for the greenhouse gas (GHG) reduction targets which correspond to the interim goal identified in Executive Order B-30-15 for year 2030, or no later than December 1, 2020, whichever is earlier.

The ECAS shall include the following:

- Emission Inventories: The City shall update the community GHG emissions inventories and forecasts that correspond to the goals of Executive Order B-30-15 for GHG sectors that the City has direct or indirect jurisdictional control over. The inventory and forecast shall be updated using methods approved by, or consistent with guidance, from CARB.
- Emission Targets: The City shall identify a GHG emissions reduction target for year 2030 that is consistent with the GHG reduction goals identified in Executive Order S-03-05.

The ECAS shall be updated to include specific measures to achieve the 2030 GHG emissions reduction target. The ECAS shall quantify the approximate GHG reductions of each quantifiable measure or set of measures. Measures listed below, along with others, shall be considered during the update to the ECAS for the City's 2030 target:

- The City shall identify a plan to expand electric and low-emission vehicle charging stations in the city.
- The City shall encourage new development to meet a voluntary 20 percent trip reduction goal.
- The City shall work with the waste management agencies to expand the recycling program for businesses and residents to offer food waste collection services.
- The City's existing land use database shall be expanded to include an inventory of infill sites to promote infill development.
- The City shall explore additional streamlining incentive programs for infill development and sustainable building practices.
- The City shall establish energy efficiency standards for new City buildings similar to, or comparable to, Leadership in Energy and Environmental Design (LEED) Silver standards.

Mitigation Measure GHG-1b: The City of Vacaville shall revise the Energy and Conservation Action Strategy (ECAS) to expand ECAS Measure RE-4 to require the City to explore creation of a community choice aggregation program with the County of Solano.

Significance After Mitigation: Significant and Unavoidable

The majority of the reductions needed to reach the 2050 target will likely come from State measures (e.g. additional vehicle emissions standards), but the City does not have authority over such measures. The State has not identified plans to reduce emissions beyond 2020. In addition, as part of the ECAS process, the City considered a wide range of GHG emission reduction measures~~, and all feasible measures are included in the proposed ECAS~~. ~~No additional mitigation is available~~Despite inclusion of the mitigation measures, additional statewide reductions are needed to achieve the long-term GHG reduction goals identified in Executive Order B-30-15 and Executive Order S-03-05, and the impact is considered *significant and unavoidable*.

The text on page 5-10 and 5-11 is amended as follows:

g. Greenhouse Gas Emissions

As demonstrated below, the No Project Alternative would result in substantially greater impacts in comparison to the proposed project. The proposed project would result in a significant and unavoidable GHG impact because the General Plan and ECAS would not ensure that the City will be on track to reach the goals of Executive Order B-30-15 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and Executive Order S-03-05 to reduce GHG emissions by 80 percent below 1990 levels by 2050. As described in Chapter 4.7, Greenhouse Gas Emissions, transportation emissions from VMT are the largest contributor to Vacaville's emissions. Under horizon-year conditions, the same level of development would occur as under the proposed project, and therefore VMT levels and GHG emissions would be similar.

However, the No Project Alternative would not include proposed ECAS measures to reduce GHG emissions, which would make the No Project Alternative inconsistent with the 2020 GHG emission reduction target established by AB 32, as well as Executive Order B-30-15 and Executive Order S-03-05, creating a new significant impact. Therefore, this alternative would result in a *substantially greater impact* in comparison to the proposed project.

The text on page 5-21 is amended as follows:

g. Greenhouse Gas Emissions

As demonstrated below, the Focused Growth Alternative would result in similar GHG emissions impacts as the proposed project.

Under horizon-year conditions, less development would occur under the Focused Growth Alternative than under the proposed General Plan. The proposed project would result in a significant and unavoidable impact because the General Plan and ECAS would not ensure that the City will be on track to reach the goals of Executive Order B-30-15 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and Executive Order S-03-05 to reduce GHG emissions by 80 percent below 1990 levels by 2050. As described in Chapter 4.7, Greenhouse Gas Emissions, VMT is the largest contributor to Vacaville's emissions. Because the Focused Growth Alternative would involve less development than the proposed project, VMT and GHG emissions would be slightly reduced. However, this reduction in VMT would likely not be substantial enough to reduce GHG emissions consistent with the 2030 goal of Executive Order B-30-15 or the 2050 goal of Executive Order S-03-05. There is no statewide GHG reduction strategy to achieve the post-2020 GHG reduction goal of Executive Order S-03-05 or Executive Order B-30-15 (signed in April 2015). The City would require assistance from additional federal and State programs and regulations to achieve a post-2020 GHG emissions goal. Therefore, like the proposed Project, this alternative would not achieve that 2035 goal that is consistent with Executive Order B-30-15 and Executive Order S-03-05. Therefore, overall this alternative would be *similar* to the proposed project.

The text on page 5-30 is amended as follows:

g. Greenhouse Gas Emissions

As demonstrated below, the Town Grid Alternative would result in similar GHG emissions impacts as the proposed project.

The proposed project would result in a significant and unavoidable impact because the General Plan and ECAS would not ensure that the City will be on track to reach the goals of Executive Order B-30-15 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and Executive Order S-03-05 to reduce GHG emissions by 80 percent below 1990 levels by 2050. As described in Chapter 4.7, Greenhouse Gas Emissions, VMT is the largest contributor to Vacaville's emissions. Although the Town Grid Alternative is anticipated to generate the same amount of development in 2035 as the proposed project, the mix of uses in the growth areas would increase the likelihood that new residents in these areas could work and shop in the eastern portion of the city, rather than traveling further to other areas of the city, which could reduce VMT and GHG emissions. However, this reduction in VMT would likely not be substantial enough to reduce GHG emissions consistent with the 2030 goal of Executive Order B-30-15 or the 2050 goal of Executive Order S-03-05. There is no statewide GHG reduction strategy to achieve the post-2020 GHG reduction goal of Executive Order S-03-05 or Executive Order B-30-15 (signed in April 2015). The City would require assistance from additional federal and State programs and regulations to achieve a post-2020 GHG emissions goal. Therefore, like the proposed Project, this alternative would not achieve that 2035 goal that is consistent with Executive

Order B-30-15 and Executive Order S-03-05. Therefore, overall this alternative would be *similar* to the proposed project.

6 MITIGATION MONITORING AND REPORTING PROGRAM

This chapter presents an updated Mitigation Monitoring and Reporting Program (MMRP) for the Vacaville General Plan and Energy Conservation Action Strategy (ECAS). This updated version includes the additional mitigation measures that are identified in Chapter 3, Revisions to the Draft EIR, of this Final EIR Addendum, as well as the original mitigation measures from the June 2014 Final EIR.

As reported in the June 2014 Final EIR, the purpose of the MMRP is to ensure the implementation of mitigation measures identified as part of the environmental review for the project. The MMRP includes the following information:

- A list of mitigation measures;
- The party responsible for implementing the mitigation measures;
- The timing for implementation of the mitigation measure;
- The agency responsible for monitoring the implementation; and
- The monitoring action and frequency.

The City of Vacaville must adopt this MMRP, or an equally effective program, if it approves the General Plan and ECAS with the mitigation measures that were adopted or made conditions of project approval.

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
AIR QUALITY					
NOI-1: The project applicant shall ensure that the following roadway segments shall be re-surfaced with a quiet pavement, such as Rubberized Hot Mix Asphalt – Open Graded (RHMA-O): ♦ Vaca Valley Parkway from the Interstate 505 northbound ramps to Leisure Town Road ♦ Leisure Town Road from Alamo Drive to Vanden Road ♦ Ulatis Drive from Nut Tree Road to Leisure Town Road	Project applicants with projects affected by identified roadways	Prior to issuance of building permits	City of Vacaville Community Development and Public Works Departments	Project approvals will be conditioned to provide quiet pavement; construction plan review and approval and site inspections shall validate that quiet pavement is specified and provided.	Three times per development project (Conditions, Construction Plans, Inspection)

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
AIR-1a: The City of Vacaville shall revise the Energy and Conservation Action Strategy (ECAS) to expand ECAS measure LU-4 to require that new pedestrian infrastructure incorporate amenities such as street trees to shade sidewalks, lighting, benches, signage, and pedestrian signalization at major transportation points to increase pedestrian convenience, comfort, and safety.	City of Vacaville Community Development Department	Prior to ECAS adoption	City of Vacaville Community Development Department	Ensure revision to ECAS	Once prior to adoption
AIR-1b: The City of Vacaville shall create a schedule for vehicle purchasing decisions when vehicles turn over to ensure that new passenger vehicles purchased by the City for use in the City fleet are alternative fuel vehicles.	City of Vacaville Public Works Department	Within six months of General Plan adoption	City of Vacaville Public Works Department	Ensure schedule is created and implemented	Once to create schedule and as vehicles turn over
AIR-1c: New development in the City of Vacaville shall implement the Tier 1 energy performance standards of the California Green Standards Code (CALGreen), which are currently voluntary. The Tier 1 energy performance standards specify that new residential buildings must have an energy budget no greater than 85 percent the current Building and Energy Efficiency Standards of Title 24 (i.e. 15 percent increase in energy efficiency) and non-residential buildings that include indoor lighting and mechanical systems (e.g. heating, ventilation, and air conditions units) must have an energy budget no greater than 90 percent (i.e. 10 percent increase in energy efficiency). The City may allow energy offsets, such as energy generated onsite through installation solar energy, toward this requirement to exceed Title 24.	Project applicants	Prior to issuance of building permits	City of Vacaville Community Development Department	Plan review and approval	Once per development project
BIOLOGICAL RESOURCES					
BIO-1: Preservation and restoration of habitat for species identified in Tables 4.4-2 and 4.4-3 of the Draft EIR shall occur in the same level or higher level conservation area as the direct impact occurs (i.e. impacts to habitat in Medium Value Conser-	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and	Plan review and approval	Once per development project prior to construction;

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
vation Areas will be mitigated in Medium to High Value Conservation Areas, but impacts to habitat in Low Value Conservation Areas shall be mitigated in either Low or Medium Value Conservation Areas). Compensation for indirect impacts will be assessed on the location/conservation value of the habitat that is indirectly impacted and not the location of project activity (i.e. if a project activity will indirectly impact a habitat for species in a Medium Value Conservation Area but the project is located in a Low Value Conservation Area, compensatory mitigation shall be based on the type of habitat that is being indirectly impacted (in this case Medium Value Conservation Area) rather than the lower value project area. All mitigation ratios are based on impacts as assessed by acreage. 1. **Medium Value Conservation Areas** (see Subareas 2C, 2D, and 2N in Figure 4.4-3) a. **Wetland Component Direct Impacts:** Preserve vernal pool and swale habitats at a ratio of 2:1, and restore vernal pool and swale habitats at a ratio of 1:1 if restored habitats are in place and functional at the time of impact or at a 2:1 ratio if habitats are restored concurrent with the impact. b. **Wetland Component Indirect Impacts:** Preserve vernal pool and swale habitats at a ratio of 1:1 for avoided wetlands within 250 feet of proposed development. c. **Upland Component Direct Impacts:** In Subarea 2C, preserve upland habitat at a ratio of 3:1. In the remaining subareas, preserve upland habitat at a ratio of 2:1. d. **Upland Component Indirect Impacts:** Preserve avoided upland habitat at a ratio of 1:1 within 250 feet of proposed development. 2. **Low Value Conservation Areas and Seasonal Wetlands in Agricultural Areas Outside of a Medium Value Conservation Area** (See Subarea 3 in Figure 4.4-3)			Solano County Water Agency		annually for two wet seasons after completion of project. Additional monitoring and remedial measures may be required if hydrology is not reestablished

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
a. **Wetland Component Direct Impacts:** Preserve vernal pool and swale habitats at a ratio of 1:1, and restore vernal pool and swale habitats at a ratio of 1:1 if restored habitats are in place and functional at the time of impact or at a 2:1 ratio if habitats are restored concurrent with the impact.					
b. **Wetland Component Indirect Impacts:** Preserve vernal pool and swale habitats at a ratio of 1:1 within 100 feet of proposed development.					
3. **Mitigation for Temporary Impacts to Seasonal Wetlands and Uplands in all Conservation Areas:** Temporary impacts to seasonal wetlands and uplands in all vernal pool conservation areas shall be subject to the mitigation and monitoring requirements described below. Temporary impacts to wetlands shall be calculated for the entire wetland in which the impact occurs and not just the portion disturbed by the temporary impact.					
a. **Temporary and Short-Term Impacts:** All temporary impacts lasting no more than one growing season to seasonal wetlands and uplands in all vernal pool conservation areas shall be mitigated by restoring the existing wetlands and uplands and providing additional preservation of wetlands and uplands at a 1:1 ratio. Impacts lasting no more than two growing seasons shall be mitigated by restoring the existing habitats and providing additional wetland and upland preservation at a 1.5:1 ratio. Impacts lasting longer than two growing seasons shall be mitigated at the standard Conservation Area ratios described above under conditions BIO-1-1 and BIO-1-2.					
b. **Restoration and Monitoring Plan:** The applicant shall provide a restoration plan consistent with the requirements in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano					

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
HCP, including acceptable financial assurances, for review and approval by the City and other applicable regulatory agencies, to ensure successful implementation of the habitat restoration. All temporarily impacted wetlands shall be monitored for a minimum of two wet seasons to document that hydrology has been restored to pre-project conditions. Additional monitoring and remedial measures may be required if hydrology is not reestablished. The mitigation ratios described above are applicable to all seasonal wetlands (i.e. saturated, seasonally flooded, and areas subject to temporary flooding sufficient to create wetlands). Conservation actions for streams and semi-permanently to permanently flooded wetlands in the valley floor grassland and vernal pool natural community are addressed under Mitigation Measures BIO-5, BIO-6, BIO-7, and BIO-9.					
BIO-2: All impacted seasonal wetlands shall be characterized according to the types below and mitigated by preservation of the same category of wetland according to the ratios in Mitigation Measure BIO-1. Seasonal wetland categories are as follows: ♦ **Pools:** Greater than 1 inch of standing water for more than ten continuous days with short (less than three weeks) to long (more than three weeks) durations of standing water, clear to moderate turbidity, and exhibiting significant vegetation cover. ♦ **Playa Pools:** Greater than 1 inch of standing water for more than ten continuous days with long (more than three weeks) to very long durations of standing water, moderate to high turbidity, and exhibiting sparse vegetation cover (typically found in association with Pescadero Series Soils; often referred to as playa-type pools). ♦ **Swales or Mesic Grassland:** Shallow, standing water (generally less than 1 inch) present for fewer than ten continuous days.	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval	Once per development project

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
♦ **Alkaline Flats and Meadows:** Shallow, standing water (generally less than 1 inch) present for fewer than ten continuous days and exhibiting indicators of high alkalinity (salt deposits on soil surface, presence of salt-tolerant plants). Deviations in the required mitigation acreage by type or category may be permitted by the City and other applicable regulatory agencies. Under Mitigation Measure BIO-1, conservation habitats shall be proportional to impacts to the species and their associations (e.g. impacts to pool-dependent species such as vernal pool fairy shrimp shall not be mitigated by preservation of more abundant swale or mesic grasslands that do not support the species).					
BIO-3: All direct impacts to extant stands of Contra Costa goldfields shall be mitigated by establishing new, self-reproducing populations of Contra Costa goldfields at a ratio of 4:1 (acres protected to acres impacted). This restoration requirement may be met by establishing new Contra Costa goldfield populations at a single-project mitigation site or by purchasing credits at an approved mitigation bank authorized to sell credits for this species in an amount equal to the 4:1 mitigation ratio. Guidelines for establishing Contra Costa goldfields and the release schedule for mitigation credits at the commercial mitigation banks will be specified in the bank-enabling agreements. Mitigation at single-project mitigation sites would be subject to the same conditions as the commercial mitigation banks. Establishment criteria shall also adhere to all the following conditions: 1. Impacted habitat area for which mitigation is required shall be equal to the entire occupied pool/swale area, and shall not just be limited to the area with Contra Costa goldfield cover in the impacted pool. 2. Contra Costa goldfield populations and other species identified in Tables 4.4-2 and 4.4-3 of the Draft EIR (including vernal pool fairy shrimp, conservancy fairy shrimp, vernal pool tadpole shrimp, and mid-valley fairy shrimp) shall be established in constructed, restored, and enhanced wetlands in the known range of these species in Solano Coun-	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval	Once per development project prior to start of construction; annual monitoring of mitigation site for five years after planting of new population

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
ty. 3. Seed used to establish new populations of Contra Costa goldfields may be obtained from any Core Population Area, as defined in the Solano HCP or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Seed collection shall not affect more than 10 percent of an individual preserved population. Seed and top soils shall be salvaged from occupied vernal pools and other wetlands in an impacted area prior to initiation of ground-disturbing activities. 4. Restoration may occur in existing preserved pools currently lacking Contra Costa goldfields or in restored pools and swales in other Core Areas as defined in the Solano HCP or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. New populations must be established in currently unoccupied habitat. 5. Re-established populations will be considered self-reproducing when: a. Plants re-establish annually for a minimum of five years with no human intervention such as supplemental seeding, and habitat areas contain an occupied area and flower/plant density comparable to existing occupied habitat areas in similar pool types and Core Areas. If Contra Costa goldfields cannot be established at the mitigation site within five years according to the conditions above, the preserved wetland restoration acreage shall be increased by 50 percent. The applicant shall provide bonds or other acceptable financial assurances, subject to approval by the City and USFWS to ensure implementation of such measures.					
BIO-4: Mitigation shall be required for any impacts in the known or potential range of the California tiger salamander (see	Project applicants	Prior to issuance of grading, construction,	City of Vacaville Community	Plan review and approval	Once per development

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
Figure 4.4-4). Mitigation shall include preservation, enhancement, and restoration/establishment of suitable upland habitat, and preservation and construction/creation of new breeding habitat consistent with the mitigation requirements specified in Mitigation Measure BIO-1, subject to the following additional requirements. 1. **Breeding Habitat Mitigation:** Direct and indirect impacts to all suitable California tiger salamander breeding habitat in the known or potential range of the species (Figure 4.4-4) will be mitigated by preserving known breeding habitat at a 3:1 ratio and creating new breeding habitat at a ratio of 2:1 or 0.35 acres, whichever is greater. All preserved and created/established breeding habitat shall be contiguous to at least 350 acres of preserved upland habitat, and created breeding habitat shall be located within 2,100 feet of known breeding habitat. a. All new breeding habitat shall be located within 2,100 feet of a known breeding site and be situated in a contiguous reserve/preserve area of 350 acres or more of suitable habitats. This may include other parcels if the lands are protected by conservation easements and are managed consistent with the Solano HCP Reserve Criteria or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. For some existing preserved areas/mitigation sites, this may require that management agreements and endowments be extended to these sites. b. New breeding habitat can consist of multiple sites within 1,300 feet of each other. All new created breeding habitats shall be 0.2 acres to 0.35 acres in size unless otherwise approved by the City, USFWS, and CDFW. 2. **Upland Habitat Mitigation:** Impacts to uplands and other movement habitats (i.e. seasonal wetland swales and		or building permits	Development Department and Solano County Water Agency		project

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
meadows) in the known or potential range of the California tiger salamander (Figure 4.4-4) shall be mitigated at the ratios as described in Mitigation Measure BIO-1 for Subarea 2C (Figure 4.4-3, 2:1 ratio), subject to the following additional conditions: a. All upland mitigation preservation shall be within 2,100 feet of known breeding habitat or within 1,300 feet of constructed breeding habitat if the constructed breeding habitat is within 2,100 feet of known breeding habitat. b. New breeding habitat shall be established at a ratio of 0.001 acres per acre of upland directly and indirectly impacted by a project. c. Preserves established for California tiger salamander mitigation shall include measures for restoration of upland mounds, where applicable, in order to provide increased burrowing habitat for fossorial rodents and California tiger salamanders above the shallow, rainy-season water table.					
BIO-5: Mitigation for permanent impacts to riparian, streams and their tributaries, and freshwater marsh habitat associated with riverine systems in the EIR Study Area shall be provided through restoration of in-kind habitat. Restoration of riparian habitat or creation of new habitat must occur either on site, at an approved mitigation bank, or at another high-quality site, and must be capable of supporting similar quality and species as the impacted site. All Riparian Restoration Plans shall be reviewed and approved by the City and CDFW. Restoration and enhancement activities shall be directed toward severely degraded stream segments in Priority Drainages and Watersheds (Figure 4.4-5). Basic mitigation requirements are based on impact area, vegetation replacement, and designated conservation values of the riparian, stream, and freshwater marsh habitat as assessed in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP.	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval	Once per development project prior to start of construction; monitoring of mitigation site for five years after planting of new population. Additionally, the five-year monitoring period for documenting successful establishment may be extended

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
1. **Vegetation**. All native, woody vegetation greater than 1 inch in diameter shall be replaced by planting native woody vegetation to at the following minimum ratios and performance standards:					if the mitigation is not performing adequately. At a minimum, the determination of success monitoring shall require at least two years without significant intervention (e.g. additional plantings or irrigation).

Vegetation Replacement Size (inches)[a]	Native Species (Except Oaks and Elderberry)[b]	Oak Species[c]	Nonnative Species
Priority Drainages			
<12	3:1	5:1	1:1
12–24	6:1	7:1	2:1
>24	10:1	12:1	3:1
Non-Priority Drainages			
<12	3:1	5:1	1:1
12–24	4:1	7:1	1.5:1
>24	6:1	12:1	3:1

Note: *Performance Criteria* – The number of native riparian plants that become established at the end of the five-year monitoring period shall equal a minimum of 80 percent of total required plantings. Established plants may include natural regeneration and volunteer plants.

[a] Trees shall be measured at diameter at breast height (dbh); multiple trunked trees shall be reported as the cumulative total of all trunks. Shrubs shall be measured at the midpoint of the main trunk (the ground and the first major branch).

[b] Elderberry replacement ratios and other associated mitigation requirements are prescribed in Mitigation Measure BIO-9. Tree and shrub replacement requirements under this mitigation measure may be used to fulfill all or contribute to the associated native woody riparian vegetation requirements prescribed under Mitigation Measure BIO-9.

[c] Because of slow growth rates, oak species require higher replacement ratios. If acorns are used instead of seedlings (at least one year old), planting ratios shall be doubled.

[d] The five-year monitoring period for documenting successful establishment may be extended if the mitigation is not performing adequately. At a minimum, the determination of success monitoring shall require at least two years without significant intervention (e.g. additional plantings or irrigation). Vegetation may need to be planted at higher ratios, depending on site conditions, in order to account for mortality of planted material.

The goal of the riparian vegetation replacement is to contribute to the establishment of a multi-story riparian com-

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency

munity with a variety of native riparian species appropriate for the mitigation site. Plantings are not required to directly replace impacts on a species-by-species basis.

2. **Area.** Riparian mitigation planting shall also achieve the following area criteria based on whether the mitigation is achieved through enhancement (e.g. supplemental planting of existing riparian habitats) or through establishment of woody riparian habitats (e.g. existing or created channel lacking native woody riparian vegetation):

	Priority Drainages		Non-Priority Drainages	
	Enhance-ment	Created/ Restored	Enhance-ment	Created/ Restored
Area Ratios	4:1	2:1	3:1	2:1

3. **Hydrological and Biological Connectivity:** Mitigation for permanent impacts to third and higher order streams and second order streams with riparian vegetation shall maintain the hydrologic and biological connectivity between downstream and upstream areas. Facilities such as bridges, culverts, outfalls, and grade control structures shall not create cumulative gaps in the channel or riparian corridor greater than 300 feet. Bypass or rerouted channels shall be constructed where necessary to replace impacted habitats and to limit gaps between existing riparian habitats.

   Note: The intent of requiring mitigation for removal of nonnative trees and shrubs is to protect riparian habitat. It is not intended to require mitigation for the removal of nonnative trees or shrubs as a part of riparian restoration or enhancement projects.

   The above measure applies to waterways subject to State regulation under Section 1602 of the Fish and Game Code and Porter-Cologne Water Quality Act and waters of the United States subject to regulation under the federal Clean

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
Water Act.					
BIO 6: Mitigation for direct impacts to pond or freshwater marsh habitat not hydrologically connected to streams shall be provided at a 2:1 ratio. This mitigation may be achieved by creating/restoring on-site open space areas with a minimum 100-foot-wide buffer, establishing an endowment or other suitable funding source for long-term management of the mitigation habitat, or purchasing credits at an approved mitigation bank.	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval	Once per development project
BIO 7: Mitigation for direct impacts to seasonal wetlands in the Inner Coast Range shall be provided at a 2:1 ratio.	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval	Once per development project
BIO-8: Compensatory mitigation for unavoidable impacts to suitable breeding and non-breeding aquatic habitat (e.g., riparian, stream, pond, and freshwater marsh habitats) outside of the California Red-Legged Frog Conservation Area shall be provided through the construction and/or restoration of similar habitats at a prescribed ratio (acres restored to acres impacted) consistent with Mitigation Measure BIO-5, and provide an endowment fund or other approved funding source to implement management plans for preserved lands in perpetuity consistent with the requirements in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP.	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval	Once per development project
BIO 9: Where removal of elderberry shrubs or their stems measuring 1 inch in diameter or greater is unavoidable, these impacts shall be mitigated. Removal of elderberry shrubs or stems 1 inch in diameter or greater and associated riparian vegetation shall not create gaps in a riparian corridor greater than 300 feet. Mitigation will include salvaging and replanting affected elderberry shrubs and planting additional elderberry shrubs and associated native riparian plants according to the following criteria:	Project applicants	Prior to issuance of grading, construction, or building permits. Transplanting shall occur between June 15 and March 15.	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval	Once per development project

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
1. **Transplanting Removed Elderberry Shrubs.** Transplant removed elderberry shrubs to an approved, secure site, such as an approved mitigation bank location in Solano County or non-bank relocation site to be approved by the City and USFWS. All non-bank relocation sites shall meet the minimum reserve standards identified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1. that shall be based on the principles found in the current working draft of the Solano HCP (e.g. site shall be protected by a conservation easement or other applicable protection measure, and funding shall be provided for long-term monitoring and maintenance). Transplanting shall occur between June 15 and March 15 (November through February is the optimal period for transplanting). Elderberry may not be transplanted between March 16 and June 14 except where isolated bushes are located more than 0.5 miles from other suitable valley elderberry longhorn beetle habitat and no signs of use (e.g. exit holes) have been identified.					
2. **Mitigation for Whole Shrub Removal.** For each removed elderberry bush, plant a minimum of five elderberry seedlings or rooted cuttings and five associated native, woody riparian plants in the mitigation area, or purchase applicable credits from a mitigation bank approved under the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 (that shall be based on the principles found in the current working draft of the Solano HCP) to sell valley elderberry longhorn beetle credits.					
3. **Mitigation for Trimming/Removal of Stems 1 Inch in Diameter or Greater.** For every ten elderberry stem 1 inch in diameter or greater that are trimmed/removed, plant two elderberry seedlings and two associated native, woody riparian plant seedlings.					
Mitigation plantings shall occur, to the maximum extent practicable, in areas adjacent to the impact area and/or in existing gaps					

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
in riparian corridors. Priority areas for riparian revegetation and planting of elderberry include Alamo and Ulatis Creeks. The requirements for associated native, woody riparian plant establishment may be fulfilled in combination with the woody riparian vegetation replacement requirements prescribed under Mitigation Measure BIO-5.					
BIO-10: Long-term impacts to Swainson's hawk foraging habitat in the irrigated agriculture conservation area (Figure 4.4-6) shall be mitigated through the preservation (conservation easement) and management of foraging habitat at a ratio of 1:1 (mitigation-to-impact). All mitigation areas shall remain in "agricultural production" provided these activities are consistent with the economics of agricultural operations. The following activities shall also be prohibited on the mitigation area in order to promote value for Swainson's hawk foraging: ♦ Permanent plantings of orchards and/or vineyards for the production of fruits, nuts, or berries. ♦ Cultivation of perennial vegetable crops such as artichokes and asparagus, as well as the annual crops cotton and rice. ♦ Commercial feedlots, which are defined as any open or enclosed area where domestic livestock are grouped together for intensive feeding purposes. ♦ Horticultural specialties, including sod, nursery stock, ornamental shrubs, ornamental trees, Christmas trees, and flowers. ♦ Commercial greenhouses or plant nurseries. ♦ Commercial aquaculture of aquatic plants and animals and their byproducts. ♦ Commercial wind energy development. Mitigation shall be provided in the Irrigated Agriculture Potential Reserve Area (as depicted in the Swainson's Hawk Potential Reserve Areas figure in the Solano HCP) or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP.	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department	Plan review and approval	Once per development project

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
BIO-11: Long-term impacts to Swainson's hawk foraging habitat in the valley floor grassland conservation area (Figure 4.4-6) shall be mitigated through the preservation and management of foraging habitat at a ratio of 1:1 (mitigation-to-impact) and subject to species management requirements specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Mitigation shall be provided in the Irrigated Agriculture or Valley Floor Grassland Potential Reserve Areas (see the Vernal Pool Potential Preserve and Reserve Areas figure in the Solano HCP) or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Preservation of valley floor grassland habitat may be satisfied through Mitigation Measure BIO-1 if the minimum 1:1 ratio for foraging habitat is achieved.	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department	Plan review and approval	Once per development project
BIO-12: Long-term impacts to grassland and oak savanna habitat in the Inner Coast Range conservation area (Figure 4.4-6) shall be mitigated through the preservation and management of foraging habitat at a ratio of 1:1 (mitigation-to-impact) and subject to species management requirements specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. Mitigation shall be provided in the Irrigated Agriculture, Valley Floor Grassland, or Inner Coast Range Potential Reserve Areas (see the Vernal Pool Potential Preserve and Reserve Areas figure in the Solano HCP) or in areas identified in standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. *Exceptions:* Impacts that are likely to have minimal effects on the extent and quality of Swainson's hawk foraging habitat are exempt from Swainson's hawk foraging habitat mitigation requirements. Such activities include: projects affecting less than one year of forage production, activities related to establishment	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department	Plan review and approval	Once per development project

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
of natural habitats (e.g. aquatic, riparian, and grassland habitats), construction of infill developments that are less than 5 acres in size and surrounded by urban development and other minor public and private facilities accessed via existing roads or that impact less than 0.5 acres of potential Swainson's hawk foraging habitat (e.g. pump stations, antennae sites, new irrigation canals, buried pipelines, or utilities).					
BIO-13: Mitigation for the permanent (i.e. more than one season) disturbance, destruction, or conversion of burrowing owl habitat[36] for urban development or other permanent facilities shall be provided at a 1:1 ratio. Project sites that have been occupied during the nesting season at any time during the past three years or found to be nesting at the time of pre-construction surveys will be considered occupied by owls and require additional nesting habitat mitigation (described in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP). All burrowing owl habitat affected either directly, indirectly, or cumulatively by the project will be subject to the compensation requirement. Mitigation lands used to satisfy mitigation measures for other natural communities and/or species identified in Tables 4.4-2 and 4.4-3 of the Draft EIR (i.e. valley floor grassland and vernal pool natural community [excluding the wetland restoration/construction component], coastal marsh natural community, Swainson's hawk, California red-legged frog, and callippe silverspot butterfly) can be used to satisfy burrowing owl conservation if the reserve area meets the basic burrowing owl reserve management standards and criteria specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. *Exemptions:* Infill projects less than 5 acres in size and surrounded by urban development would have minimal effects on the extent and quality of burrowing owl habitat and are exempt	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department	Plan review and approval	Once per development project

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
from burrowing owl foraging habitat mitigation requirements unless a known or active nest is present. Additionally, project proponents are obligated to avoid destruction of active burrowing owl nests and take of burrowing owls in compliance with the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3503.5 and to meet the requirements specified in the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP.					
BIO-14: If construction of pump stations, antennae sites, new irrigation canals, buried pipelines, or utilities (but excluding restoration and reserve management activities) will result in temporary impacts to occupied burrowing owl habitat (e.g. closure, collapse due to ground disturbance, or disturbance in the construction zone), impacts shall be mitigated according to the following criteria at all times of the year: 1. **Temporary Impacts Less Than or Equal to 1 Acre in Size:** Install five burrows within 330 feet of the edge of the construction area if suitable contiguous habitat remains and no more than one pair of owls without eggs or young in the nest is displaced. This condition may be waived if an approved biologist, the City, and CDFW determine that the contiguous area already contains suitable donor burrows. Maintain vegetation height at 6 inches or less around the mitigation burrows to encourage use by owls. a. A monitoring program will be implemented to track and document the use of nearby natural or artificial burrows by evicted owls. Monitoring will be funded by the applicant conducting the project. Monitoring results will be reported to the City and CDFW at the end of the project. b. Artificial burrows will be maintained by the applicant who owns the project that results in burrow or habitat destruction. Artificial burrows shall be maintained for a minimum of two years following completion of the project that resulted in the temporary impact. The construc-	Project applicants	Prior to issuance of grading, construction, or building permits	City of Vacaville Community Development Department and Solano County Water Agency	Plan review and approval; site inspections	Once before construction begins, annually during construction, and two years following completion of construction. Disturbed areas shall also be monitored the following breeding season to determine if the owls return to the area to nest.

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
tion site will be monitored annually to ensure that natural burrows have been re-established on the construction site. 1) If burrows have not been re-established on the construction site within two years but owls are using other ground squirrel burrows on or adjacent to the site, then the artificial burrows will not require maintenance beyond the two-year period and no additional mitigation will be required. 2) If the burrows have not been re-established in the construction area and owls are not using other natural burrows on or adjacent to the construction site within two years, then the impact will be considered permanent and mitigation will be required according to Mitigation Measure BIO-13. c. The disturbed area shall also be monitored the following breeding season to determine if the owls return to the area to nest. If the owls do not return or relocate to a nearby site, the impacts will be required to provide additional mitigation per the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. d. If the above measures cannot be implemented because adequate habitat is not present in surrounding, contiguous lands, impacts shall be mitigated per the requirements of the Solano HCP or standardized policies developed by the City per proposed General Plan Action COS-A1.1 that shall be based on the principles found in the current working draft of the Solano HCP. 2. **Temporary Impacts Greater Than 1 Acre in Size:** Install ten burrows/acre within 330 feet of the construction area if at least 7 acres of contiguous habitat remains and no more than one pair of owls without eggs or young in the nest is displaced. Also maintain vegetation height at 6 inches or less around the mitigation burrows to encourage use by owls.					

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
This condition may be waived if an approved biologist, the City, and CDFW determine that the contiguous area already contains suitable donor burrows. A monitoring program will be implemented to track and document the use of nearby natural or artificial burrows by evicted owls. Monitoring will be funded by the applicant conducting the project. Monitoring results will be reported to the City and CDFW at the end of the project. a. Artificial burrows will be maintained by the applicant that owns the project that results in burrow or habitat destruction. Artificial burrows shall be maintained for a minimum of two years following completion of the project that resulted in the temporary impact. The construction site will be monitored annually to ensure that natural burrows have been re-established on the construction site. 1) If burrows have not been re-established on the construction site but owls are using other ground squirrel burrows on or adjacent to the site, then the artificial burrows will not require maintenance beyond the two-year period and no additional mitigation will be required. 2) If the burrows have not been re-established in the construction area and owls are not using other natural burrows on or adjacent to the construction site within two years, then the impact will be considered permanent and mitigation will be required according to Mitigation Measure BIO-13. b. Temporary impacts that cannot be mitigated with mitigation burrows due to the lack of suitable burrowing owl habitat on a project site or contiguous ownership parcels shall be mitigated by preserving burrowing owl habitat off site at a ratio of 1:1. Sites subject to temporary impacts that are occupied by more than one pair of owls likewise will be mitigated at a 1:1 ratio. All habitat areas disturbed, destroyed, or converted to non-habitat uses directly, indirectly, or cumulatively will be subject to the mitigation re-					

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
quirement. Compliance with this Mitigation Measure does not allow for the destruction or disturbance of an active nest site.					
GREENHOUSE GAS EMISSIONS					
GHG-1a: The City of Vacaville shall prepare an update to the Energy and Conservation Action Strategy (ECAS) within 18 months after the California Air Resources Board (CARB) adopts the second Update to the Scoping Plan for the greenhouse gas (GHG) reduction targets which correspond to the interim goal identified in Executive Order B-30-15 for year 2030, or no later than December 1, 2020, whichever is earlier. The ECAS shall include the following: ♦ Emission Inventories: The City shall update the community GHG emissions inventories and forecasts that correspond to the goals of Executive Order B-30-15 for GHG sectors that the City has direct or indirect jurisdictional control over. The inventory and forecast shall be updated using methods approved by, or consistent with guidance, from CARB. ♦ Emission Targets: The City shall identify a GHG emissions reduction target for year 2030 that is consistent with the GHG reduction goals identified in Executive Order S-03-05. The ECAS shall be updated to include specific measures to achieve the 2030 GHG emissions reduction target. The ECAS shall quantify the approximate GHG reductions of each quantifiable measure or set of measures. Measures listed below, along with others, shall be considered during the update to the ECAS for the City's 2030 target: ♦ The City shall identify a plan to expand electric and low-emission vehicle charging stations in the city. ♦ The City shall encourage new development to meet a voluntary 20 percent trip reduction goal. ♦ The City shall work with the waste management agencies to expand the recycling program for businesses and residents to offer food waste collection services.	City of Vacaville Community Development Department	Within 18 months after CARB adopts the second Update to the Scoping Plan for the GHG reduction targets which correspond to the interim goal identified in Executive Order B-30-15 for year 2030, or no later than December 1, 2020, whichever is earlier	City of Vacaville Community Development Department	Ensure ECAS is updated and meets the requirements of this measure	Once

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
♦ The City's existing land use database shall be expanded to include an inventory of infill sites to promote infill development. ♦ The City shall explore additional streamlining incentive programs for infill development and sustainable building practices. ♦ The City shall establish energy efficiency standards for new City buildings similar to, or comparable to, Leadership in Energy and Environmental Design (LEED) Silver standards.					
GHG-1b: The City of Vacaville shall revise the Energy and Conservation Action Strategy (ECAS) to expand ECAS Measure RE-4 to require the City to explore creation of a community choice aggregation program with the County of Solano.	City of Vacaville Community Development Department	Prior to ECAS adoption	City of Vacaville Community Development Department	Ensure revision to ECAS	Once prior to adoption
NOISE					
NOI-1: The project applicant shall ensure that the following roadway segments shall be re-surfaced with a quiet pavement, such as Rubberized Hot Mix Asphalt – Open Graded (RHMA-O): ♦ Vaca Valley Parkway from the Interstate 505 northbound ramps to Leisure Town Road ♦ Leisure Town Road from Alamo Drive to Vanden Road ♦ Ulatis Drive from Nut Tree Road to Leisure Town Road	Project applicants with projects affected by identified roadways	Prior to issuance of building permits	City of Vacaville Community Development and Public Works Departments	Project approvals will be conditioned to provide quiet pavement; construction plan review and approval and site inspections shall validate that quiet pavement is specified and provided.	Three times per development project (Conditions, Construction Plans, Inspection)
TRAFFIC AND TRANSPORTATION					
TRAF-1: The City of Vacaville shall implement the following measures [for the Alamo Drive at Marshall Road intersection]: ♦ Southbound approach: Convert the southbound through-right shared lane in order to a through lane and add a southbound right-turn lane to provide an exclusive right-turn lane, a through lane, a left-turn lane. ♦ Westbound approach: Add a left-turn lane on the westbound to provide dual left-turn lanes, two through lanes and a through-right shared lane.	City of Vacaville Public Works Department through implementation of the transportation portion of the Development Impact Fee (DIF) and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-2: The City of Vacaville shall implement the following measure [for the Alamo Drive at Merchant Street intersection]:	City of Vacaville Public Works Department through	When LOS falls below mid-D	City of Vacaville Public Works	Verification that improvement is	Ongoing

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
♦ Westbound approach: Convert the westbound outer through lane to a through-right shared lane to provide a through lane, a through-right shared lane, a right-turn lane, and two left-turn lanes.	implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval		Department	constructed	
TRAF-3: The City of Vacaville shall implement the following measure [for the Allison Drive at Nut Tree Parkway intersection]: ♦ Northbound approach: Convert the northbound through-right shared lane to a through lane and add a right-turn lane to provide three through lanes and a right-turn lane. ♦ Southbound approach: Convert the southbound left-through lane to an exclusive left-turn lane to provide two left-turn lanes and two through lanes. ♦ Modify the traffic signal phasing to provide a protected left-turn phase on the southbound approach.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-4: The City of Vacaville shall implement the following measure [for the Leisure Town Road at Alamo Drive intersection]: ♦ Eastbound approach: Add an eastbound left-turn lane to provide dual left-turn lanes, a through lane, and a right-turn lane.	City of Vacaville Public Works Department as plans and construction of Jepson Parkway improvements are considered, as part of the transportation portion of DIF updates, or as project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing; as part of planned improvements for Jepson Parkway or as part of the transportation portion of DIF updates
TRAF-5: The City of Vacaville shall implement the following measures [for the Leisure Town Road at Elmira Road intersection]: ♦ Northbound approach: Add one left-turn lane and one right-turn lane, and convert the through-right shared lane to a through lane to provide two left-turn lanes, two through lanes, and a right-turn lane. ♦ Southbound approach: Add one left-turn lane and one right-turn lane, and convert the through-right lane shared to a through lane to provide two left-turn lanes, two through lanes, and a right-turn lane. ♦ Eastbound approach: Add a left-turn lane and one through	City of Vacaville Public Works Department as plans and construction of Jepson Parkway improvements are considered, as part of the transportation portion of DIF updates, or as project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing; as part of planned improvements for Jepson Parkway or as part of the transportation portion of DIF updates

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
lane, and convert the through-left shared lane to a through lane to provide one left turn lane, two through lanes, and a right-turn lane. ♦ Westbound approach: Add a right-turn lane and convert the through-right shared lane to a through lane to provide one left-turn lane, two through lanes, and a right-turn lane.					
TRAF-6: The City of Vacaville, in coordination with Caltrans, shall implement the following measure [for the Leisure Town Road at Interstate 80 Eastbound Ramps]: ♦ Eastbound approach: Add a right-turn lane to the eastbound off-ramp approach to provide a left-turn lane, a left-through shared lane, and a right-turn lane.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval; with Caltrans	When LOS falls below mid-D	City of Vacaville as project(s) impact intersection; Caltrans as cumulative impacts warrant	Verification that improvement is constructed	Ongoing
TRAF-7: The City of Vacaville shall implement the following measures [for the Leisure Town Road at Orange Drive intersection]: ♦ Southbound approach: Add a southbound left-turn lane to provide two left-turn lanes, two through lanes, and a right-turn lane; and prohibit the southbound U-turn movement. ♦ Westbound approach: Modify the traffic signal to provide overlap right-turn phasing for the westbound right-turn movement.	City of Vacaville Public Works Department as plans and construction of Jepson Parkway improvements are considered, as part of the transportation portion of DIF updates, or as project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing; as part of planned improvements for Jepson Parkway or as part of the transportation portion of DIF updates
TRAF-8: The City of Vacaville shall implement the following measures [for the Monte Vista Avenue at Allison Drive intersection]: ♦ Northbound approach: Convert a northbound through lane to a right-turn lane to provide two left-turn lanes, one through lane, and two right-turn lanes; and modify the traffic signal phasing to provide overlap northbound right-turn movement. ♦ Westbound approach: Prohibit westbound U-turn movements; convert a westbound through lane to a left-turn lane to provide two left-turn lanes, one shared through-right turn lane.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-9: The City of Vacaville shall implement the following measure [for the Nut Tree Road at Elmira Road intersection]:	City of Vacaville Public Works Department through implementation of the	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
♦ Southbound approach: Convert a southbound through lane to a left-turn lane to provide two left-turn lanes, one through lane, and one through-right shared lane.	transportation portion of the DIF and, as appropriate, project-specific conditions of approval				
TRAF-10: The City of Vacaville shall implement the following measures [for the Orange Drive at Nut Tree Road intersection]: ♦ Northbound approach: Add a northbound right-turn lane and convert the through-right shared lane to a through lane to provide one left-turn lane, two through lanes, and a right-turn lane; provide lagging left-turn signal phasing. ♦ Southbound approach: Add a southbound right-turn lane and convert the through-right shared lane to a through lane to provide two left-turn lanes, two through lanes, and a right-turn lane; provide lagging left-turn signal phasing. ♦ Westbound approach: Convert a westbound through lane to a left-turn lane to provide three left-turn lanes, two through lanes, and one right-turn lane.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-11: The City of Vacaville shall implement the following measure [for the Peabody Road at Cliffside Drive intersection]: ♦ Eastbound approach: Add an eastbound left-turn lane to provide two-left turn lanes, a through-left shared lane, and a right-turn lane, and modify the lane alignment of the east-west movements.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-12: The City of Vacaville shall implement the following measures [for the Peabody Road at CSF intersection]: ♦ Southbound approach: Add a southbound right-turn lane and convert the through-right shared lane to a through lane to provide a left-turn lane, a through-left shared lane, and a right-turn lane. ♦ South leg: Add a corresponding receiving lane on the south leg of the intersection.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-13: The City of Vacaville shall implement the following measures [at the Peabody Road at Elmira Road intersection]: ♦ Eastbound approach: Add an eastbound left-turn lane to provide two left-turn lanes, two through lanes, and one right-	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate,	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
turn lane; modify the traffic signal to provide overlap eastbound right-turn phasing. ♦ Northbound approach: Prohibit northbound U-turn movement. ♦ Westbound approach: Convert a through lane to a left-turn lane to provide two left-turn lanes, one through lane, and a through-right shared lane.	project-specific conditions of approval				
TRAF-14: The City of Vacaville shall implement the following measure [for the Peabody Road at Foxboro Parkway intersection]: ♦ Northbound approach: Convert the northbound through-right shared lane to a through lane and add a right-turn lane to provide two through lanes and a right-turn lane.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-15: The City of Vacaville shall implement the following measures [for the Peabody Road at Hume Way intersection]: ♦ Eastbound approach: Convert the westbound through lane to a left-through shared lane to provide a left-turn lane, a left-through shared lane, and a right-turn lane; and modify the traffic signal to provide overlap right-turn phasing. ♦ Northbound approach: Prohibit northbound U-turn movement.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-16: The City of Vacaville shall implement the following measure [for the Vaca Valley Road at Crescent Drive intersection]: ♦ Southbound approach: Convert the through-right shared lane to a left-through-right shared lane to provide a left-turn lane and a left-through-right shared lane; modify the traffic signal to provide split phase operation on the north-south approaches.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-17: The City of Vacaville shall implement the following measures [for the Vaca Valley Road at East Akerly Drive intersection]: ♦ Northbound approach: Convert the northbound through lane to a through-right shared lane to provide a left-turn lane, a through-right shared lane, and a right-turn lane; modify the	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
traffic signal to provide split phase operations on the north-south approaches. ♦ Westbound approach: Convert the westbound through lane to a left-turn lane to provide two left-turn lanes and a through-right shared lane.					
TRAF-18: The City of Vacaville shall implement the following measures [for the Vaca Valley Road at New Horizons Way intersection]: ♦ Eastbound approach: Add an eastbound left-turn lane to provide two-left turn lanes, a through lane, and a through-right shared lane. ♦ Northbound approach: Convert the northbound through lane to a left-turn lane to provide two left-turn lanes and a through-right shared lane.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-19: The City of Vacaville shall implement the following measure [for the Leisure Town Road at Midway Road intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-20: The City of Vacaville shall implement the following measure [for the Monte Vista Avenue at Airport Road intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met in the PM peak hour.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below mid-D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-21: The City of Vacaville, in coordination with Caltrans, shall implement the following measure [for the Cherry Glen Road at Interstate 80 Eastbound Ramp intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval; with Caltrans	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville as project(s) impact intersection; Caltrans as cumulative impacts warrant	Verification that improvement is constructed	Ongoing
TRAF-22: The City of Vacaville, in coordination with Caltrans,	City of Vacaville Public Works Department through	When LOS falls below mid-E or the worst	City of Vacaville as project(s) impact	Verification that improvement is	Ongoing

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
shall implement the following measure [for the Cherry Glen Road at Interstate 80 Westbound Ramps]: ♦ Install stop signs on the northbound and southbound approaches to provide all-way stop control at the intersection.	implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval; with Caltrans	approach falls below E	intersection; Caltrans as cumulative impacts warrant	constructed	
TRAF-23: The City of Vacaville shall implement the following measure [for the Leisure Town Road at Gilley Way intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	City of Vacaville Public Works Department as plans and construction of Jepson Parkway improvements are considered, as part of the transportation portion of DIF updates, or as project-specific conditions of approval	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing; as part of planned improvements for Jepson Parkway or as part of the transportation portion of DIF updates
TRAF-24: The City of Vacaville shall implement the following measure [for the Leisure Town Road at Marshall Road intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	City of Vacaville Public Works Department as plans and construction of Jepson Parkway improvements are considered, as part of the transportation portion of DIF updates, or as project-specific conditions of approval	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing; as part of planned improvements for Jepson Parkway or as part of the transportation portion of DIF updates
TRAF-25: The City of Vacaville shall implement the following measure [for the Leisure Town Road at North-South Arterial intersection]: ♦ Provide a storage pocket on the south leg to allow a two-stage, eastbound, left-turning movement.	City of Vacaville Public Works Department as plans and construction of Jepson Parkway improvements are considered, as part of the transportation portion of DIF updates, or as project-specific conditions of approval	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing; as part of planned improvements for Jepson Parkway or as part of the transportation portion of DIF updates
TRAF-26: The City of Vacaville, in coordination with Caltrans, shall implement the following measures [for the Midway Road at Interstate 505 Northbound Ramp intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate,	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville as project(s) impact intersection; Caltrans as cumulative impacts warrant	Verification that improvement is constructed	Ongoing

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
♦ Eastbound approach: Convert the eastbound through-left shared lane to a through lane, and add a left-turn lane to provide a left-turn lane and a through lane.	project-specific conditions of approval; with Caltrans				
TRAF-27: The City of Vacaville, in coordination with Caltrans, shall implement the following measure [for the Midway Road at Interstate 505 Southbound Ramp intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval; with Caltrans	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville as project(s) impact intersection; Caltrans as cumulative impacts warrant	Verification that improvement is constructed	Ongoing
TRAF-28: The City of Vacaville shall implement the following measure [for the Nut Tree Road at Burton Drive intersection]: ♦ Install a traffic signal at the intersection as the peak hour traffic signal warrant would be met.	City of Vacaville Public Works Department as signal prioritization is updated citywide and as part of project-specific traffic studies for projects impacting this intersection	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing as signal prioritization and as part of project impact assessments
TRAF-29: The City of Vacaville shall implement the following measure [for the Vaca Valley Road at Allison Drive intersection]: ♦ Install stop signs on the eastbound and westbound approaches to provide all-way stop control at the intersection.	City of Vacaville Public Works Department to monitor traffic operations for all-way stop warrants and install stop signs as warrants are met	When LOS falls below mid-E or the worst approach falls below E	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing monitoring of traffic operations as volumes by City staff and traffic studies for projects impacting this intersection
TRAF-30: The City of Vacaville shall implement the following measures [for the Monte Vista Avenue at Depot Road intersection]: ♦ Northbound approach: Modify the traffic signal to allow an overlapping right-turn movement. ♦ Westbound approach: Prohibit westbound U-turn movements.	City of Vacaville Public Works Department through implementation of the transportation portion of the DIF and, as appropriate, project-specific conditions of approval	When LOS falls below D	City of Vacaville Public Works Department	Verification that improvement is constructed	Ongoing
TRAF-31: The City of Vacaville, in coordination with Caltrans and the City of Fairfield, shall implement the following measures [for the Interstate 80 Eastbound Ramps at North	City of Vacaville Public Works Department as projects are determined to impact this intersection and	When LOS falls below D	City of Fairfield and Caltrans	Verification that improvement is constructed	As accomplished by the City of Fairfield and as conditioned for

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
Texas Street intersection]: ♦ Eastbound approach: Convert the eastbound through-left shared lane to a left-through-right shared lane and add a right lane to provide one left-through-right shared lane, two exclusive right lanes. ♦ Southbound approach: Add one southbound through lane to provide one left-turn lane and two through lanes.	in support of Fairfield addressing cumulative impacts; with Caltrans and the City of Fairfield				projects impacting this intersection
TRAF-32: The City of Vacaville, in coordination with Caltrans and the City of Fairfield, shall implement the following measure [for the Interstate 80 Westbound Ramps at North Texas Street intersection]: ♦ Northbound approach: Restripe the northbound approach lanes on North Texas Street to provide two right-turn lanes, a through lane, and one left-turn lane.	City of Vacaville Public Works Department as projects are determined to impact this intersection and in support of Fairfield addressing cumulative impacts; with Caltrans and the City of Fairfield	When LOS falls below D	City of Fairfield and Caltrans	Verification that improvement is constructed	As accomplished by the City of Fairfield and as conditioned for projects impacting this intersection
TRAF- 33: The City of Vacaville, in coordination with the City of Fairfield, shall implement the following measures [for the Peabody Road at Air Base Parkway intersection]: ♦ Eastbound approach: Add an eastbound left-turn lane to provide three left-turn lanes and two through lanes. ♦ Westbound approach: Add a westbound right-turn lane to provide two right-turn lanes and two through lanes; modify traffic signal to allow right-turn overlap phasing. ♦ Southbound approach: Prohibit southbound U-turn movement.	City of Vacaville Public Works Department as projects are determined to impact this intersection and in support of Fairfield addressing cumulative impacts; with the City of Fairfield	When LOS falls below D	City of Fairfield	Verification that improvement is constructed	As accomplished by the City of Fairfield and as conditioned for projects impacting this intersection
TRAF-34: The City of Vacaville, in coordination with the City of Fairfield, shall implement the following measures [for the Peabody Road at Jepson Parkway intersection]: ♦ Northbound approach: Add one northbound left-turn lane, one through lane, and one right-turn lane to provide two left-turn lanes, three through lanes, and two right-turn lanes. ♦ Southbound approach: Add two southbound through lanes and one right-turn lane to provide one left-turn lane, three through lanes and two right-turn lanes. ♦ Eastbound approach: Add one eastbound left-turn lane, one through lane, and one right-turn lane, and convert the	City of Vacaville Public Works Department as projects are determined to impact this intersection, in support of Fairfield addressing cumulative impacts and regional efforts to support Jepson Parkway improvements; with the City of Fairfield	When LOS falls below D	City of Fairfield	Verification that improvement is constructed	As accomplished by the City of Fairfield and as conditioned for projects impacting this intersection

TABLE 6-1 **MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
through-right shared lane to an exclusive right-turn lane to provide two left-turn lanes, three through lanes, and two right-turn lanes. ♦ Westbound approach: Add one westbound left-turn lane and one through lane to provide two left-turn lanes, two through lanes, and one through-right shared lane.					