

**Table ES-1
Summary of the Program and Project Level (Phase 1)
Impacts and Mitigation Measures Proposed Project and Alternatives under Consideration**

Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
3.5 UTILITIES AND SERVICE SYSTEMS—WATER SUPPLY					
Program Level					
3.5-1: Need for Initial Water Supplies for Development Phase 1A. Project implementation would result in a need for an initial water supply to the project site for development Phase 1A until the SCWA facilities (the Vineyard Surface WTP, the FRWP, and the NSAPP) have been constructed and are online.	Direct & LTS, No Indirect	Direct & LTS, No Indirect	Direct & LTS, No Indirect	Direct & LTS, No Indirect	No Direct, No Indirect
PP, HD, IM, NF, NP: No mitigation measures are required.					
3.5-2: Need for Initial Water Supplies for the Remaining Phase 1 Development. Project implementation would result in a need for an initial water supply to the project site for the remaining Phase 1 development until the SCWA facilities (Vineyard Surface WTP, the FRWP, and the NSAPP) have been constructed and are online.	Direct & S, No Indirect	Direct & S, No Indirect	Direct & S, No Indirect	Direct & S, No Indirect	No Direct, No Indirect
PP, HD, IM, NF: Mitigation Measure 3.5-2: Submit Proof of Water Supply Availability					
The following shall be required for all legislative-level development projects, including community plans, general plan amendments, specific plans, rezonings, and other plan-level discretionary entitlements, but excluding tentative subdivisions maps, parcel maps, use permits, and other project-specific discretionary land-use entitlements or approvals:					
<ul style="list-style-type: none"> ► Proposed water supplies and delivery systems shall be identified at the time of development project approval to the satisfaction of the City. The water agency or company proposing to provide service (collectively referred to as “water provider”) to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. The project applicant or water provider shall make a factual showing prior to project approval that the water provider or providers proposing to serve the development project has or have legal entitlements to the identified water supplies or that such entitlements are reasonably foreseeable by the time of subsequent, project-specific discretionary land-use entitlements or approvals. This factual showing shall also demonstrate that the water provider’s identified water supply is reasonably reliable over the long term (at least 20 years) under normal, single-dry and multiple-dry years. 					
The following shall be required for project-specific discretionary land-use entitlements and approvals including, but not limited to, all tentative subdivision maps, parcel maps, or use permits:					

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative. For impacts labeled B, LTS, NI, No Direct, and/or No Indirect, no mitigation measures are required. B = Beneficial, LTS = Less than significant, LTS(m) = Less than significant with mitigation, NI = No Impact, PS = Potentially Significant, S = Significant, SU = Significant and Unavoidable, SU(m) = Significant and Unavoidable with mitigation

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	PP	HD	IM	NF	NP
<ul style="list-style-type: none"> ▶ An assured water supply and delivery system shall be available or reasonably foreseeable at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. ▶ The project applicant, water agency (or agencies), or water company (or companies) providing water service to the project site shall make a factual showing consistent with, or the City shall impose conditions similar to, those required by Government Code section 66473.7 in order to ensure an adequate water supply for development authorized by the project. Prior to recordation of any final subdivision map, or prior to City approval of any similar project-specific discretionary land use approval or entitlement required for nonresidential uses, the project applicant or water provider shall demonstrate the availability of a long-term, reliable water supply for the amount of development that would be authorized by the final subdivision map or project-specific discretionary non-residential approval or entitlement. This assurance of water supply shall identify that the water provider has legal entitlement to the water source and that the water source is reasonably reliable (at least 20 years) under normal, dry and multiple dry years. Such demonstration shall consist of a written certification from the water provider that either existing sources are available or that needed improvements will be in place prior to occupancy. <p>Timing: Before approval of project-specific discretionary land-use entitlements and approvals, including all final small-lot maps; or for nonresidential projects, before issuance of use permits, building permits, or other entitlements.</p> <p>Enforcement: City of Rancho Cordova Planning Department.</p> <p>Implementation of Mitigation Measure 3.5-2 would reduce significant impacts related to the need for initial water supplies to serve the remaining Phase 1 development under the under the Proposed Project, High Density, Impact Minimization, and No Federal Action Alternatives to a less-than-significant level because the City would require written certification verifying the availability of a long-term, reliable water supply for the project or that needed improvements will be in place prior to occupancy.</p> <p>If water supply for remaining Phase 1 development is not available because of unknown or unforeseeable events after approval and construction of the remaining Phase 1 development begins, implementation of Mitigation Measure 3.5-2 would result in the curtailment of development, resulting in a partially built-out project. Impacts associated with the curtailment of development are evaluated below in Impact 3.5-4.</p> <p>NP: No mitigation measures are required.</p>					
<p>3.5-3: Need for Initial Off-Site Water Conveyance Facilities. Because permanent water conveyance facilities would not be available until completion of the NSAPP, initial conveyance facilities would be required to supply and convey water to the project site.</p>					
<p>Air Quality</p>	LTS	LTS	LTS	LTS	No Direct, No Indirect

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.
 For impacts labeled B, LTS, NI, No Direct, and/or No Indirect, no mitigation measures are required. B = Beneficial, LTS = Less than significant, LTS(m) = Less than significant with mitigation, NI = No Impact, PS = Potentially Significant, S = Significant, SU = Significant and Unavoidable, SU(m) = Significant and Unavoidable with mitigation

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	PP	HD	IM	NF	NP
Biological Resources	LTS	LTS	LTS	LTS	No Direct, No Indirect
Cultural Resources	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Drainage, Hydrology, and Water Quality	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Environmental Justice	No Direct / Indirect	No Direct / Indirect	No Direct / Indirect	No Direct / Indirect	No Direct, No Indirect
Geology, Soils, and Mineral Resources	Direct & LTS	Direct & LTS	Direct & LTS	Direct & LTS	No Direct, No Indirect
Hazards and Hazardous Materials	No Direct / Indirect	No Direct / Indirect	No Direct / Indirect	No Direct / Indirect	No Direct, No Indirect
Land Use	Direct & LTS	Direct & LTS	Direct & LTS	Direct & LTS	No Direct, No Indirect
Noise	Direct & LTS	Direct & LTS	Direct & LTS	Direct & LTS	No Direct, No Indirect
Paleontological Resources	Direct & LTS	Direct & LTS	Direct & LTS	Direct & LTS	No Direct, No Indirect
Parks and Recreation	Indirect & LTS	Indirect & LTS	Indirect & LTS	Indirect & LTS	No Direct, No Indirect

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative. For impacts labeled B, LTS, NI, No Direct, and/or No Indirect, no mitigation measures are required. B = Beneficial, LTS = Less than significant, LTS(m) = Less than significant with mitigation, NI = No Impact, PS = Potentially Significant, S = Significant, SU = Significant and Unavoidable, SU(m) = Significant and Unavoidable with mitigation

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
Population, Employment, and Housing	Indirect & LTS	Indirect & LTS	Indirect & LTS	Indirect & LTS	No Direct, No Indirect
Public Services	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Traffic and Transportation	No Direct or Indirect	No Direct or Indirect	No Direct or Indirect	No Direct or Indirect	No Direct, No Indirect
Utilities and Service Systems	Indirect & LTS	Indirect & LTS	Indirect & LTS	Indirect & LTS	No Direct, No Indirect
Visual Resources	Direct & LTS	Direct & LTS	Direct & LTS	Direct & LTS	No Direct, No Indirect

PP, HD, IM, NF: Mitigation Measure 3.5-3: Submit Proof of an Off-Site and On-Site Infrastructure Delivery System or Assure that Adequate Financing is Secured.

The following shall be required for all legislative-level development projects, including community plans, general plan amendments, specific plans, rezonings, and other plan-level discretionary entitlements, but excluding tentative subdivisions maps, parcel maps, use permits, and other project-specific discretionary land-use entitlements or approvals:

- ▶ All required water treatment and delivery infrastructure for the project shall be in place at the time of subsequent, project-specific discretionary land-use entitlements or approvals, or shall be assured prior to occupancy through the use of bonds or other sureties to the City’s satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.

The following shall be required for project-specific discretionary land-use entitlements and approvals including, but not limited to, all tentative subdivision maps, parcel maps, or use permits:

- ▶ Off-site and on-site water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the issuance of building permits or their financing shall be assured to the satisfaction of the City prior to the approval of the Final Map, consistent with the requirements of the Subdivision Map Act, or prior to the issuance of a similar, project-level entitlement for nonresidential land uses.

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<p>► Off-site and on-site water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.</p> <p>Timing: Before the approval of project-specific, discretionary land-use entitlements and approvals, including all final small-lot maps, or for nonresidential projects, before the issuance of use permits, building permits, or other entitlements.</p> <p>Enforcement: City of Rancho Cordova Planning Department.</p> <p>Implementation of Mitigation Measure 3.5-3 would reduce direct, potentially significant impacts under the Proposed Project, High Density, Impact Minimization, and No Federal Action Alternatives related to off-site water conveyance facilities to a less-than-significant level, because off-site water conveyance facilities sufficient to convey water supplies to subdivisions or nonresidential uses would be in place before recordation of any final small-lot subdivision map, or before the City approves any similar project-specific, discretionary approval or entitlement required for nonresidential uses. Implementation of Mitigation Measures 3.4-3, 3.6-1, and 3.9-3 from the 2006 DEIR/DEIS would reduce indirect significant impacts under the Proposed Project, High Density, Impact Minimization, and No Federal Action Alternatives related to off-site water conveyance facilities to a less-than-significant level, because adverse impacts on cultural resources would be avoided, appropriate BMPs would be implemented to control erosion, and a traffic plan would be developed and implemented during construction activities.</p> <p>NP: No mitigation measures are required.</p>					
<p>3.5-4: Temporary Curtailment of Project Development. Implementation of Mitigation Measure 3.5-2 (for initial supplies) would result in the temporary curtailment of development during the period of time when the project would be dependent on the initial water supplies, resulting in a partially built-out project.</p>					
Land Use	Direct & S	Direct & S	Direct & S	Direct & S	No Direct, No Indirect
Population, Employment, and Housing	Direct & LTS	Direct & LTS	Direct & LTS	Direct & LTS	No Direct, No Indirect
Environmental Justice	Direct & LTS	Direct & LTS	Direct & LTS	Direct & LTS	No Direct, No Indirect

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
Drainage, Hydrology, and Water Quality	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Utilities and Service Systems	Indirect & S	Indirect & S	Indirect & S	Indirect & S	No Direct, No Indirect
Public Services	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Geology, Soils, and Mineral Resources	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Paleontological Resources	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Cultural Resources	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Biological Resources	Indirect & S	Indirect & S	Indirect & S	Indirect & S	No Direct, No Indirect
Visual Resources	Direct & S	Direct & S	Direct & S	Direct & S	No Direct, No Indirect
Parks and Recreation	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
Hazards and Hazardous Materials	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
Traffic and Transportation	Direct & S	Direct & S	Direct & S	Direct & S	No Direct, No Indirect
Air Quality	Direct & S	Direct & S	Direct & S	Direct & S	No Direct, No Indirect
Noise	Direct & PS	Direct & PS	Direct & PS	Direct & PS	No Direct, No Indirect
<p>PP, HD, IM, NF: Mitigation Measure: Implement the same mitigation measures called for in the 2006 DEIR/DEIS and in this Recirculated DEIR/Supplemental DEIS, as specifically set forth in Table ES-1.</p> <p>Implementation of the same mitigation measures called for in the 2006 DEIR/DEIS would reduce potentially significant and significant impacts related to curtailment of development for the same reasons elaborated in each section of Chapter 3, “Affected Environment, Environmental Consequences, and Mitigation Measures” of the 2006 DEIR/DEIS.</p> <p>NP: No mitigation measures are required.</p>					
3.5-5: Increased Demand for Permanent Water Supplies. Project implementation would increase demand on the existing water supply.	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect
<p>PP, HD, IM, NF, NP: No mitigation measures are required.</p>					
3.5-6: Need for Water Conveyance Facilities to Deliver Long-Term Water Supplies. Project implementation would require construction of on-site water conveyance facilities to deliver water from SCWA’s off-site conveyance facilities to the project site. The permanent long-term water supplies cannot be delivered to the project site until off-site water conveyance facilities identified in the Zone 40 WSMP (i.e., the Vineyard Surface WTP, the FRWP, and the NSAPP) have been constructed and are online.	Direct & PS	Direct & PS	Direct & PS	Indirect and Direct SU	No Direct, No Indirect
<p>PP, HD, IM: Mitigation Measure: Implement Mitigation Measure 3.5-3.</p>					

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
<p>Implementation of Mitigation Measure 3.5-3 would reduce direct, potentially significant impacts under the Proposed Project, High Density, and Impact Minimization Alternatives related to on-site and off-site water conveyance facilities to a less-than-significant level, because water conveyance facilities sufficient to convey water supplies to subdivisions or nonresidential uses would be in place before recordation of any final small-lot subdivision map, or before City approval of any similar project-specific, discretionary approval or entitlement required for nonresidential uses. If on-site or off-site water conveyance facilities are delayed or not constructed, implementation of Mitigation Measure 3.5-3 would cause project development to be permanently curtailed because existing water supplies may not be available to meet the demands of the project. Impacts associated with permanent curtailment of development are discussed in Impact 3.5-7.</p> <p>Regarding expansion of Zone 40 water supply facilities and infrastructure, implementation of mitigation measures to reduce impacts is the responsibility of Zone 40. Such measures would be implemented in accordance with the certified Zone 40 EIR prepared by SCWA. Impacts on seven issue areas would remain significant and unavoidable after implementation of mitigation.</p> <p>Similarly, implementation of mitigation measures to reduce impacts related to the expansion of the FRWP water supply facilities and infrastructure is the responsibility of SCWA and EBMUD. Such measures would be implemented in accordance with the certified FRWP EIR/EIS prepared by FRWA. Impacts on six issue areas would remain significant and unavoidable after implementation of mitigation.</p> <p>NF: Mitigation Measure: Implement Mitigation Measure 3.5-3.</p> <p>Implementation of Mitigation Measure 3.5-3 would reduce direct potentially significant impacts under the No Federal Action Alternative related to off-site water conveyance facilities because the construction and financing of water conveyance facilities sufficient to convey water supplies to subdivisions or nonresidential uses would be reasonably foreseeable before recordation of any final small-lot subdivision map, or before City approval of any similar project-specific, discretionary approval or entitlement required for nonresidential uses. However, impacts would not be reduced to a less-than-significant level.</p> <p>Implementation of Mitigation Measure 3.5-3 under the No Federal Action Alternative would result in indirect off-site impacts related to water supply to surrounding development in Rancho Cordova, as follows:</p> <ul style="list-style-type: none"> ▶ Construction of new off-site alternative alignments of water conveyance facilities would be necessary to serve surrounding development. These alternative alignments would require separate CEQA review; therefore, the full extent of impacts cannot be determined. However, it is assumed that implementation of alternative pipeline alignments would result in significant impacts on biological resources, as well as significant construction-related impacts (i.e., construction-related traffic, air-quality emissions, water quality, and noise impacts). ▶ If new water conveyance facilities with alternative alignments could not be constructed off-site, temporary or permanent curtailment of planned development in the surrounding area could result from a lack of necessary water conveyance facilities. Curtailing planned off-site development could result in its own set of potentially significant impacts, including a lack of funding that might be necessary to implement infrastructure (e.g., roads, sewer, and water) required on a regional or local level. 					

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
<p>Identification of alternative water supply pipeline alignments would fall under the jurisdiction of the County and SWCA; therefore, neither the City nor the project applicant(s) could guarantee approval of these alternative pipeline alignments. Additionally, it is possible that these alternative alignments would be inconsistent with SWCA’s WSMP and would be subject to separate CEQA compliance. For these reasons, this impact would remain significant and unavoidable. If the County, SWCA, and other potentially affected agencies cooperate in allowing the improvements to move forward, the impact would be classified as significant in the short term but eventually could be reduced to a less-than-significant level in the long term, depending on the outcome of the separate CEQA evaluation (if needed).</p> <p>Regarding expansion of Zone 40 water supply facilities and infrastructure, implementation of mitigation measures to reduce impacts is the responsibility of Zone 40. Such measures would be implemented in accordance with the certified Zone 40 EIR prepared by SCWA. Impacts on seven issue areas would remain significant and unavoidable after implementation of mitigation.</p> <p>Similarly, implementation of mitigation measures to reduce impacts related to the expansion of the FRWP’s water-supply facilities and infrastructure is the responsibility of SCWA. Such measures would be implemented in accordance with the certified FRWP EIR/EIS prepared by SCWA. Impacts on six issue areas would remain significant and unavoidable after implementation of mitigation.</p> <p>If on-site or off-site water conveyance facilities are delayed or not constructed, implementation of Mitigation Measure 3.5-3 would cause project development to be curtailed. Impacts associated with the curtailment of development are discussed in Impact 3.5-7.</p> <p>NP: No mitigation measures are required</p>					
<p>3.5-7: Permanent Curtailment of Project Development. Water supplies would be available to meet the project’s long-term water demands once the long-term water supply conveyance facilities identified in the Zone 40 WSMP (i.e., Vineyard Surface WTP, FRWP, and NSAPP) have been constructed and are online. While there is a reasonable likelihood that SCWA has water to supply the project in the long term, there is uncertainty regarding whether the infrastructure necessary to deliver the long-term water supplies needed to serve the project would successfully be implemented, and a permanent curtailment in project development could occur.</p> <p>PP, HD, IM, NF, NP: No mitigation measures are required.</p>	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
3.5-8: Use of Nonpotable-Water Supplies and Infrastructure. Project implementation could result in the use of nonpotable-water supplies and infrastructure to provide landscaping and open space irrigation. Initially, the demands for nonpotable water would be met by the project’s potable-water supplies. In the long term, it is assumed that future supplies of nonpotable water would be provided by SRCSD or by GET-Remediated Water facilities, when a sufficient supply of nonpotable water is available to meet project demands. PP, HD, IM, NF, NP: No mitigation measures are required.	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect
3.5-9: Effects of Global Climate Change on Surface-Water and Groundwater Supplies. Project implementation would increase demand for water. Supplies of surface water and groundwater in California could be affected by global climate change. PP, HD, IM, NF, NP: No mitigation measures are required.	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect
Project Level (Phase 1)					
3.5-10: Need for Initial Water Supplies for Development Phase 1A. Project implementation would result in a need for an initial water supply to the project site for development Phase 1A until the SCWA facilities (i.e., the Vineyard Surface WTP, the FRWP, and the NSAPP) have been constructed and are online. PP, HD, IM, NF, NP: No mitigation measures are required.	Direct & LTS, No Indirect	Direct & LTS, No Indirect	Direct & LTS, No Indirect	Direct & LTS, No Indirect	No Direct, No Indirect
3.5-11: Need for Initial Water Supplies for the Remaining Phase 1 Development. Project implementation would result in a need for an initial water supply to the project site for the remaining Phase 1 development until the SCWA facilities (i.e., the Vineyard Surface WTP, the FRWP, and the NSAPP) have been constructed and are online. PP, HD, IM, NF: Implement Mitigation Measure 3.5-2: Submit Proof of Water Supply Availability	Direct & S, No Indirect	Direct & S, No Indirect	Direct & S, No Indirect	Direct & S, No Indirect	No Direct, No Indirect

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NP: No mitigation measures are required.					
3.5-12: Need for Initial Off-Site Water Conveyance Facilities. Implementation of development Phase 1 would result in increased demand for water conveyance facilities. Because permanent water conveyance facilities would not be available until completion of the NSAPP, initial conveyance facilities would be required to supply and convey water to the project site.	Refer to Impact 3.5-3 for further discussion of this impact.				
PP, HD, IM, NF, NP: No mitigation measures are required.					
3.5-13: Temporary Curtailment of Project Development. Implementation of Mitigation Measure 3.5-2 (for initial supplies) would result in the temporary curtailment of development during the period of time when the project would be dependent on the initial water supplies, resulting in a partially built-out project.	Refer to Impact 3.5-4 for further discussion of this impact.				
PP, HD, IM, NF, NP: No mitigation measures are required.					
3.5-14: Increased Demand for Permanent Water Supplies. Implementation of development Phase 1 would increase demand on the existing water supply.	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect
PP, HD, IM, NF, NP: No mitigation measures are required.					
3.5-15: Need for Water Conveyance Facilities to Deliver Long-Term Water Supplies. Project implementation would require construction of on-site water conveyance facilities to deliver water from SCWA’s off-site conveyance facilities to the project site. The permanent long-term water supplies cannot be delivered to the project site until off-site water conveyance facilities identified in the Zone 40 WSMP (i.e., the Vineyard Surface WTP, the FRWP, and the NSAPP) have been constructed and are online.	Direct & PS	Direct & PS	Direct & PS	Indirect and Direct SU	No Direct, No Indirect

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	PP	HD	IM	NF	NP
Impact 3.5-16: Permanent Curtailment of Project Development. Water supplies would be available to meet the project’s long-term water demands once the long-term water supply conveyance facilities identified in the Zone 40 WSMP (i.e., Vineyard Surface WTP, FRWP, and NSAPP) have been constructed and are online. While there is a reasonable likelihood that SCWA has water to supply the project in the long term, there is uncertainty regarding whether the infrastructure necessary to deliver the long-term water supplies needed to serve the project would successfully implemented, and a permanent curtailment in project development could occur.	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect
Impact 3.5-17: Use of Nonpotable-Water Supplies and Infrastructure. Project implementation could result in the use of nonpotable-water supplies and infrastructure to provide landscaping and open space irrigation. Initially, the demands for nonpotable water would be met by the project’s potable-water supplies. In the long term, it is assumed that future supplies of nonpotable water would be provided by SRCSD or by GET-Remediated Water facilities, when a sufficient supply of nonpotable water is available to meet project demands.	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect
Impact 3.5-18: Effects of Global Climate Change on Surface-Water and Groundwater Supplies. Implementation of development Phase 1 would increase demand for water supply. Supplies of surface water and groundwater in California could be affected by global climate change.	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	Direct & LTS. No Indirect	No Direct, No Indirect

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
3.10 BIOLOGICAL RESOURCE					
Program Level					
<p>3.10-1: Loss and Degradation of Jurisdictional Wetlands and Other Waters of the United States, and Waters of the State. Implementation of the project would result in the placement of fill material into jurisdictional waters of the United States, including wetlands subject to USACE jurisdiction under the federal Clean Water Act, and the substantial loss and degradation of nonjurisdictional wetland habitats protected under state and local regulations. Wetlands and other waters of the United States that would be affected by project implementation include vernal pools, seasonal wetland swales, ponds, and seasonal drainages.</p>	Direct & Indirect S	Direct & Indirect S	Direct LTS & Indirect S.	Indirect S & SU	No Direct, No Indirect
<p>PP, HD, IM: Mitigation Measure 3.10-1a: Secure Clean Water Act Section 404 Permit and Implement All Permit Conditions, and Ensure No Net Loss of Wetlands, Other Waters of the United States, and Associated Functions and Values.</p> <p>Before the approval of grading and improvement plans and before any groundbreaking activity associated with each distinct project phase, the project applicant(s) for each project phase requiring the fill of wetlands or other waters of the United States or waters of the state shall obtain all necessary permits under Sections 401 and 404 of the CWA or the State’s Porter-Cologne Act for the respective phase. The project applicant(s) shall commit to replace, restore, or enhance on a “no net loss” basis (in accordance with USACE, the Central Valley RWQCB, and the Natural Resources Element of the City General Plan) the acreage of all wetlands and other waters of the United States subject to USACE jurisdiction and waters of the state subject to RWQCB jurisdiction and the City General Plan that would be removed, lost, and/or degraded with implementation of project plans for that phase. Wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to USACE, the Central Valley RWQCB, and the City, as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes.</p> <p>To accomplish this mitigation, the project applicant(s) shall take the following steps:</p> <ul style="list-style-type: none"> ▶ The project applicant(s) shall conduct an assessment of representative portions of the proposed wetland preserves within the Rio del Oro property and any other proposed preserve areas using the California Rapid Assessment Method (CRAM) for Wetlands. Data shall be used to evaluate current conditions and serve as a baseline for future monitoring. The following requirements apply to the assessment of the proposed wetland preserves: <ul style="list-style-type: none"> • The field assessment shall be conducted during the flowering period for plant species associated with vernal pools, typically March through June. • The investigation shall define and evaluate assessment areas. Such areas shall be analyzed using 17 different metrics organized into four main attributes 					

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<p>developed for vernal pool systems (California Rapid Assessment Method for Wetlands Depressional Field Book, Version 5.0, September 2007). Those attributes are: buffer and landscape context, hydrology, physical structure, and biotic structure.</p> <ul style="list-style-type: none"> • CRAM scores shall be calculated for each assessment area by adding up the component metrics of each attribute and converting the sum into a percentage of the maximum score possible for that attribute. • The CRAM analysis shall also include a discussion of potential stressors associated with human activities within or surrounding the wetlands assessed, which may provide qualitative information regarding the CRAM scores. <p>The data collected during the initial assessment shall serve as the baseline (preproject condition), to which data collected during future monitoring efforts shall be compared.</p> <ul style="list-style-type: none"> ▶ As part of the Section 404 permitting process, a draft wetland MMP has been developed for the project (Appendix D) by ECORP Consulting on behalf of the project applicant(s). Before any ground-disturbing activities that would adversely affect wetlands and before engaging in mitigation activities associated with each phase of development, the project applicant(s) shall submit the draft wetland MMP to USACE, the Central Valley RWQCB, and the City for review and approval of those portions of the plan over which they have jurisdiction. Once the MMP is approved and implemented, mitigation monitoring will continue for a minimum of 5 years from completion of mitigation, or human intervention (including recontouring and grading), or until the performance standards identified in the approved MMP have been met, whichever is longer. <p>The plan shall be prepared to the satisfaction of the City, in accordance with the City’s Grading and Erosion Control Ordinance, as well as to the satisfaction of those agencies with jurisdiction over all or portions of the plan.</p> <ul style="list-style-type: none"> ▶ In conjunction with preparation and implementation of an approved wetland MMP, the project applicant(s) shall prepare and submit plans for the creation of jurisdictional waters of the United States, including wetlands, at an adequate mitigation ratio to offset the aquatic functions and values that would be lost at the project site, account for the temporal loss of habitat, and contain an adequate margin of safety to reflect anticipated success. The MMPs must demonstrate how the aquatic functions and values that would be lost through project implementation will be replaced. The habitat MMP for jurisdictional wetland features will need to be consistent with USACE’s December 30, 2004, Habitat Mitigation and Monitoring Proposal Guidelines. The wetland MMP shall also mitigate impacts on vernal pool and seasonal wetland habitat, and shall describe specific method(s) to be implemented to avoid and/or mitigate any off-site project-related impacts. The wetland creation section of the habitat MMP shall include the following: <ul style="list-style-type: none"> • target areas for creation; • a complete biological assessment of the existing resources in the target areas, including a CRAM analysis conducted during the wet season to establish baseline conditions; • specific creation and restoration plans for each target area; 					

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<ul style="list-style-type: none"> • performance standards for success that will illustrate that the compensation ratios are met; and • a monitoring plan, including schedule and annual report. As requested by EPA, the monitoring plan shall incorporate CRAM analysis and the following elements: <ul style="list-style-type: none"> – intensive monitoring of hydrology early on (this can be phased out as created wetlands are achieving target standards); – CRAM analysis conducted annually for 5 years after any construction adjacent to assessment areas to determine whether these areas are retaining functions and values; – analysis of CRAM data, including assessment of potential stressors, to determine whether any remedial activities may be necessary; – corrective measures if performance standards are not met; – monitoring of vegetation communities and targeted special-status species as success criteria for hydrologic function have become established and the creation site “matures” over time; – reference locations for comparison to compensatory vernal pools to document success; – adaptive management measures to be applied if performance standards are not being met; – responsible parties for monitoring and preparing reports; and – responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions. • An operations and management plan for the Preserve shall be prepared and submitted to USACE and USFWS for review and approval. The plan shall include detailed information on the habitats present within the target area, the long-term management and monitoring of these habitats, legal protection for the target area (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment). <p>► For each phase of development, including off-site project-related impacts, the project applicant(s) shall secure the permits and regulatory approvals described below and shall implement all permit conditions. For each respective phase, all permits, regulatory approvals, and permit conditions for effects on wetland habitats shall be secured before implementation of any grading activities within 250 feet of waters of the United States or wetland habitats, including waters of the state, that potentially support federally listed species. The setback may be reduced to a distance approved by the City and USFWS if a wetland avoidance plan is developed and implemented by a qualified biologist. The wetland avoidance plan must be approved by USFWS and the City and shall demonstrate that all direct and indirect impacts on wetlands will be avoided. Project phases in upland areas with no wetlands or waters of the United States within 250 feet, and no overland hydrologic flow patterns, the disturbance of which may affect such waters, may begin construction before these particular permits are obtained. Buffers around wetlands that do not support federally listed species shall be a minimum of 50 feet from the edge of these features in accordance with conditions of the National Pollutant Discharge Elimination System (NPDES) permit and associated best management practices (BMPs). See Section 3.4,</p>					

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<p>“Drainage, Hydrology, and Water Quality,” of the 2006 DEIR/DEIS for a further discussion of the NPDES.</p> <ul style="list-style-type: none"> • Authorization to place dredged or fill material into waters of the United States shall be secured from USACE through the CWA Section 404 permitting process before any fill is placed in jurisdictional wetlands or other waters of the United States. USACE has determined that the project will require an individual permit. In its final stage and once approved by USACE, the proposed MMP for the project is expected to detail proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of aquatic functions and values in the project vicinity. Approval and implementation of the wetland MMP shall fully mitigate all impacts on jurisdictional waters of the United States, including jurisdictional wetlands. In addition to USACE approval, approval by the City and the Central Valley RWQCB, as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes, will also be required. To satisfy the requirements of the City and the Central Valley RWQCB, mitigation of impacts on nonjurisdictional wetlands beyond the jurisdiction of USACE shall be included in the same MMP. All mitigation requirements determined through this process shall be implemented before grading plans are approved. Wetland mitigation must be approved before any impacts on wetlands commence. • Water quality certification pursuant to Section 401 of the CWA will be required before issuance of a Section 404 permit. Before construction in any areas containing wetland features, the project applicant(s) shall obtain water quality certification for the applicable phase of the project. Any measures required as part of the issuance of water quality certification shall be implemented. <p>If Section 401 and 404 permit requirements ensure no net loss of all wetland features, including vernal pools, and these requirements are addressed before any ground-disturbing activities, no additional mitigation will be required by the City. Written approval from the City indicating that these requirements fulfill all no-net-loss obligations must be obtained before the approval of grading or improvement plans or any ground-disturbing activities in any project phase containing wetland features.</p> <p>Timing: Before the approval of grading or improvement plans or any ground-disturbing activities for any project development phase containing wetland features. The MMP must be approved before any impact on wetlands can occur. Mitigation shall be implemented on an ongoing basis throughout and after construction, as required.</p> <p>Enforcement: U.S. Army Corps of Engineers, Sacramento District; Central Valley Regional Water Quality Control Board; and City of Rancho Cordova Planning Department, as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes and in compliance with the City’s Grading and Erosion Control Ordinance.</p> <p>NF: The project applicant(s) for all project phases shall commit to replace, restore, or enhance on a “no net loss” basis (in accordance with the Central Valley RWQCB and the Natural Resources Element of the City General Plan) the acreage of all waters of the state. Waters of the state include all nonjurisdictional wetlands that would be removed, lost, and/or degraded with implementation of project plans for that phase that require permitting from the resource agencies. Wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to the Central Valley RWQCB and the City.</p>					

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	PP	HD	IM	NF	NP
NP: No mitigation measures are required.					
<p>PP, HD, IM, NF: Mitigation Measure 3.10-1b: Include in Drainage Plans All Wetlands that Remain On-Site.</p> <p>A model-based watershed analysis was conducted by ECORP Consulting (Appendix D) to determine hydrologic effects on wetlands within the 507-acre preserve. The long-term viability of the preserve was analyzed using all of the following factors:</p> <ul style="list-style-type: none"> ▶ the size of the preserve, ▶ the amount of watershed area required to support the wetlands within the preserve, ▶ the potential impacts from the construction of Rancho Cordova Parkway and Americanos Boulevard, ▶ the construction of the mitigation wetlands within the preserve, and ▶ the watershed area needed to support the hydrologic function of each mitigation wetland. <p>The proposed construction design includes measures to reduce interference with the hydrology that sustains vernal pools on-site, including the use of con-span bridge systems (Exhibits 2-7 and 2-8 in the 2006 DEIR/DEIS) as natural substrate span crossings over Morrison Creek. Rancho Cordova Parkway and Americanos Boulevard would cross Morrison Creek with a clear span of the delineated wetlands within the channel bank, so no construction would occur within the channel and no fill or modification of the channel would be required.</p> <p>GIS analysis of a LiDAR-derived topographic model (Appendix D) and wetland delineation data were used to determine the watershed-to-wetland ratio (WWR) for the wetlands within the preserve. It was found that the proposed configuration of the preserve conserves almost 100% of the original watershed area and would not negatively affect the hydrologic function of the vernal pools. GIS analysis calculated the mean watershed ratio of existing vernal pools in the preserve at 7.14:1. This WWR would be maintained for all existing vernal pools, except that the WWR of one small pool (0.053 acre) would be reduced to 6.62:1. The adverse effect on this vernal pool should not be considered significant because pools of this size class require a WWR of only 3.26:1 to maintain functionality.</p> <p>To minimize indirect effects on water quality and wetland hydrology, the project applicant(s) of each project phase shall include drainage plans in their improvement plans and shall submit the drainage plans to the City Public Works Department for review and approval. Before approval of these improvement plans, the project applicant(s) for all project phases shall commit to implement all measures in their drainage plans to avoid and minimize erosion and runoff into Morrison Creek and all wetlands that would remain on-site. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants. For runoff during construction, see Section 3.4, “Drainage, Hydrology, and Water Quality,” of the 2006 DEIR/DEIS for a further discussion of the NPDES (Stormwater Pollution Prevention Plan).</p> <p>The project shall result in no net change to peak flows into Morrison Creek and associated tributaries. The project applicant(s) shall establish a baseline of conditions for drainage on-site. The baseline-flow conditions shall be established for 2-, 5-, 10-, and 20-year storm events. These baseline conditions shall be used to develop monitoring standards for the stormwater system on the project site. The baseline conditions, monitoring standards, and a monitoring program shall be submitted to USACE and the City for their approval. The engineered channel and detention basins shall be designed and constructed to ensure that the</p>					

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<p>performance standards, which are described in Section 3.4, “Drainage, Hydrology, and Water Quality,” of the 2006 DEIR/DEIS are met. The discharge site into Morrison Creek and associated tributaries shall be monitored to ensure that preproject conditions are being met. Stormwater runoff from Rancho Cordova Parkway would be discharged out of the wetland preserve to the north and south, and runoff from the central portion of the road would drain into a water quality treatment swale before being discharged into the wetland preserve (Exhibit 3.10-4). Runoff from Americanos Boulevard would be directed into a water quality treatment basin before being discharged into Morrison Creek (Exhibit 3.10-5). The water quality swale and treatment basins would be designed according to the Stormwater and Water Quality Design Manual for the Sacramento and South Placer Regions (Sacramento Stormwater Quality Partnership 2007) and shall meet the performance standards described in Section 3.4, “Drainage, Hydrology, and Water Quality,” of the 2006 DEIR/DEIS. Corrective measures shall be implemented as necessary. The mitigation measures will be satisfied when the monitoring standards are met for 5 consecutive years without undertaking corrective measures to meet the performance standard.</p> <p>Timing: Before approval of improvement and drainage plans, and on an ongoing basis throughout and after project construction, as required for all project phases.</p> <p>Enforcement: U.S. Army Corps of Engineers, Sacramento District; and City of Rancho Cordova Public Works and Planning Departments.</p> <p>NP: No mitigation measures are required.</p>					
<p>3.10-2: Loss and Degradation of Sensitive Natural Communities. Implementation of the project would result in the substantial loss and degradation of riparian habitat and other natural communities considered sensitive by state and local resource agencies and requiring consideration under CEQA. Sensitive natural communities that would be affected by implementation of the Proposed Project Alternative or the High Density Alternative include willow scrub, mixed riparian scrub, elderberry savanna, willow woodland, cottonwood woodland, and cottonwood–willow riparian forest.</p> <p>PP, HD, IM: Mitigation Measure 3.10-2a: Secure and Implement Section 1602 Streambed Alteration Agreement.</p> <p>A Section 1602 streambed alteration agreement from DFG will be required for construction affecting the bed and bank of Morrison Creek. As a condition of issuance of the streambed alteration agreement, the project applicant(s) for all project phases shall prepare a habitat MMP. The draft wetland MMP shall address impacts on the stream channel of Morrison Creek and shall include mitigation of impacts on riparian habitats to the satisfaction of DFG, subject to limitations on its authority set forth in Fish and Game Code Section 1600 et seq. The MMP shall include performance standards and success criteria to ensure that mitigation habitat would be successfully maintained.</p> <p>Any conditions of issuance of the streambed alteration agreement shall be implemented as part of project construction activities that adversely affect the bed and bank and current and historic riparian habitat associated with Morrison Creek that is within the area subject to DFG jurisdiction. The agreement shall be executed</p>	Direct & Indirect LTS	Direct & Indirect LTS	Direct & Indirect LTS	Direct & Indirect LTS	No Direct, No Indirect

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<p>by the project applicant(s) and DFG before the approval of any grading or improvement plans or any construction activities in any project phase that could potentially affect the bed and bank of Morrison Creek and its associated current and historic riparian habitat.</p> <p>Timing: Before the approval of grading or improvement plans or any construction activities (including clearing and grubbing) that affect the bed and bank or current and historic riparian habitat associated with Morrison Creek.</p> <p>Enforcement: California Department of Fish and Game.</p> <p>NF: No mitigation measures are required because the No Federal Action Alternative would not result in alteration to the bed or bank of Morrison Creek. Therefore, a streambed alteration agreement from DFG would not be needed as it would under the action alternatives.</p> <p>NP: No mitigation measures are required.</p>					
<p>PP, HD, IM: Mitigation Measure 3.10-2b: Preserve, Restore, or Create Riparian Habitat at Satisfactory Ratio to Fulfill Local Planning Framework Requirements.</p> <p>Goal NR.1, Policy NR 1.9 of the City General Plan calls for the protection and preservation of the diverse wildlife and plant habitats in Rancho Cordova and incorporation of “large interconnected wooded open space corridors in new development areas to provide movement corridors, and nesting sites for migratory songbirds and raptors.” Portions of the on-site riparian habitat such as the 57 acres of cottonwood willow riparian woodland and 4 acres of willow scrub have been determined to provide important habitat for wildlife, both at present and in the long term, because of existing conditions that support the perpetuation of these habitats. To implement Goal NR.1, a habitat MMP shall be developed and implemented to replace the 57 acres of cottonwood willow riparian woodland and 4 acres of willow scrub at no-net-loss acreage to preserve the overall habitat functions and values. Elements of the habitat MMP may include habitat preservation on-site, enhancement of on-site riparian habitat types, or enhancement or protection of habitat off-site. The specific ratios of habitat lost to habitat created shall be determined by the City in consultation with DFG as a trustee agency protecting the wildlife resources of the state. The ratios shall be consistent with the City’s policy and shall be adequate to protect and preserve the diverse resources in the City.</p> <p>Any conditions of issuance of the riparian MMP shall be implemented as part of project construction activities that adversely affect riparian habitat. The riparian habitat MMP shall be developed by the project applicant(s) and submitted to the City before the approval of any grading or improvement plans or any construction activities in any project phase that could potentially affect the cottonwood willow riparian woodland and willow scrub on-site. The cottonwood–willow riparian forest habitat and willow woodland shall be either preserved or replaced on- or off-site on a no-net-loss basis because it provides functioning riparian habitat that is self-sustaining at the present time. If preservation of this on-site habitat type is chosen, the hydrology that supports this habitat must also be preserved to ensure the long-term viability of this habitat type.</p> <p>The remainder of the riparian habitat on the project site consists mostly of old senescent trees and shrubs and does not appear to be regenerating. It is likely that portions of these communities would not persist at the site under the current environmental conditions even without project implementation. Because of the poor quality of the majority of the riparian habitat on the project site, the project mitigation for this riparian habitat shall be limited to the replacement and/or restoration</p>					

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<p>of its current function and value (which consists of nesting and foraging habitat for raptors and other birds, as well as foraging habitat and shelter for numerous common wildlife species) as determined acceptable to the City in consultation with DFG as a trustee agency.</p> <p>Timing: Before the approval of grading or improvement plans or any construction activities and before removal of any riparian vegetation as required for any project phase.</p> <p>Enforcement: City of Rancho Cordova Planning Department in consultation with California Department of Fish and Game.</p> <p>NF: No mitigation measures are required because the No Federal Action Alternative would not result in adverse effects on riparian habitat in addition to those habitats protected and addressed under City policy.</p> <p>NP: No mitigation measures are required.</p>					
<p>3.10-3: Loss of Oak Woodland and Individual Oak Trees. Project implementation would result in the loss of 3 acres of oak woodland habitat and would include the removal of 47 individual native oak trees with a diameter at breast height (dbh) of 6 inches or greater.</p> <p>PP, HD, IM, NF: Mitigation Measure 3.10-3: Perform Tree Survey and Avoid or Replace Native Oak Trees and Other Native Trees Scattered Throughout the Project Site.</p> <p>Before the approval of any development in areas identified to contain trees, the City shall require that a determinate survey of tree species and size be performed. If any native oaks or other native trees of 6 inches or greater dbh, multitrunk native oaks or native trees of 10 inches or greater dbh, or nonnative trees of 18 inches or greater dbh that have been determined by a qualified professional to be in good health are found to exist in the development area, such trees shall be avoided if feasible. If such trees cannot feasibly be avoided, the project applicant(s) for all project phases containing trees shall implement one of the following measures:</p> <ul style="list-style-type: none"> ▶ All such trees that will be removed or otherwise damaged by project implementation shall be replaced at an inch-for-inch ratio. A replacement tree planting plan shall be prepared by a qualified professional or licensed landscape architect and shall be submitted to the City for approval before removal of trees; OR ▶ The project applicant(s) shall submit a mitigation plan that provides for complete mitigation of the removal of such trees in coordination with the City by a method comparable to an inch-by-inch replacement. The mitigation plan shall be subject to City approval. ▶ The tree planting or mitigation plan shall include monitoring requirements and success criteria, as determined by a qualified professional, to ensure that replacement trees survive to maturity and can be reasonably expected to persist for the normal life span of the particular species being monitored. Monitoring of replacement trees shall continue for a period of five years following planting and trees that do not survive or meet the success criteria shall be replaced. 	Direct & S. No indirect	Direct & S. No indirect	Direct & S. No indirect	Direct & S. No indirect	No Direct, No Indirect

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<p>Loss of trees mitigated through implementation of mitigation measures associated with riparian habitat impacts shall not be subject to this mitigation measure. If the City adopts a tree preservation ordinance at any time in the future, any future development activities shall be subject to that ordinance instead.</p> <p>Timing: Before the approval of any development in any project phase that contains areas that have been identified to contain trees.</p> <p>Enforcement: City of Rancho Cordova Planning Department.</p> <p>NP: No mitigation measures are required.</p>					
<p>3.10-4: Loss and Degradation of Habitat for Special-Status Wildlife. Implementation of the project would result in the loss and degradation of habitat for a number of special-status wildlife species, including vernal pool invertebrates, VELB, western spadefoot toad, Swainson’s hawk, and other raptors.</p>	Direct & Indirect S	Direct & Indirect S	Direct & Indirect S	Indirect S	No Direct, No Indirect
<p>PP, HD, IM: Mitigation Measure 3.10-4a: Secure Take Authorization for Federally Listed Vernal Pool Invertebrates and Implement Permit Conditions.</p> <p>No project construction shall proceed in areas supporting potential habitat for federally listed vernal pool invertebrates, or within adequate buffer areas (250 feet or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS), until a BO has been issued by USFWS and the project applicant(s) have abided by conditions in the BO (including conservation and minimization measures) intended to be completed before on-site construction. Conservation and minimization measures shall include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction, a detailed monitoring plan, and reporting requirements.</p> <p>A revised draft wetland MMP was developed by ECORP Consulting in September 2007 and is the applicant’s proposed plan for addressing project impacts on habitats that potentially support federally listed vernal pool invertebrates. The draft MMP, included in Appendix D to this document, is subject to review and approval by the appropriate regulatory agencies. Project implementation would result in the fill of 33.9 acres of habitat that could potentially support federally listed vernal pool invertebrates. This habitat consists of 17.5 acres of vernal pools, 4.2 acres of seasonal wetland swale, and 12.2 acres of seasonal wetlands. Indirect impacts on an additional 2.2 acres of vernal pools would also result from project implementation.</p> <p>Proposed mitigation in the draft MMP includes a combination of on-site preservation and compensatory mitigation (i.e., creation of vernal pools), as well as off-site mitigation through purchase of a 160-acre property, known as the Cook Property, and credit purchase in the Clay Station Mitigation Bank. The Cook Property mitigation proposal would preserve 21.7 acres of existing wetland habitat, including 2.7 acres of vernal pools, 2.6 acres of seasonal wetland swale, and 9.9 acres of seasonal wetland within the Mather Core Recovery Area that could potentially support federally listed branchiopods. Surveys in the vicinity of the Cook Property have identified vernal pool fairy shrimp and vernal pool tadpole shrimp, and the property is contiguous with other conservation properties that support vernal pool habitat. The Clay Station Mitigation Bank would provide compensatory mitigation in the form of 13 acres of created vernal pool habitat that has been monitored for approximately 10 years and currently supports both vernal pool fairy shrimp and vernal pool tadpole shrimp. Proposed on-site mitigation consists of</p>					

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Summary of the Program and Project Level (Phase 1)
Impacts and Mitigation Measures Proposed Project and Alternatives under Consideration**

Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
<p>designation of a 507-acre wetland preserve in the southern portion of the project site. A total of 20.4 acres of existing vernal pools would be retained in the proposed preserve and an additional 17.9 acres would be restored and created in the preserve under the proposed MMP. The proposed preserve also contains 2.5 acres of seasonal wetland swale, 3.3 acres of seasonal wetland, 0.6 acre of pond, and 1.9 acres of ephemeral drainage. All of these features, as well as that portion of Morrison Creek that is within the 507-acre wetland preserve, would be preserved. In addition, the proposed draft MMP proposes creation of 20.8 acres of seasonal wetlands within the drainage parkways that would be developed for the project.</p> <p>In summary, the project would directly or indirectly affect 36.1 acres of potential vernal pool branchiopod habitat; the proposed MMP would preserve 41.4 acres of potential habitat and would create 51.6 acres of potential habitat. This would result in a preservation ratio of 1.15:1 and a compensatory mitigation ratio of 1.43:1, which would result in no net loss of vernal pool or seasonal wetland habitat that could potentially support federally listed vernal pool invertebrates. The details of the MMP are still being developed and reviewed by USACE, and the September 2007 draft is not the final, approved version.</p> <p>The project applicant(s) shall complete and implement a habitat MMP that will result in no net loss of acreage, function, and value of affected vernal pool habitat. The final habitat MMP shall be consistent with guidance provided in Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California (USFWS 1996) and the SSCHCP (if adopted) or shall provide an alternative approach that is acceptable to the City, USACE, and USFWS and accomplishes no net loss of habitat.</p> <p>The project applicant(s) for all project phases shall ensure that there is sufficient upland habitat within the target areas for creation and restoration of vernal pools and vernal pool complexes to provide ecosystem health. A watershed analysis of the hydrologic function of the wetland preserve was conducted by ECORP Consulting on behalf of the project applicant(s) (Appendix D). GIS analysis of a hydrologic model created from LiDAR-derived topography and wetland delineation data was used to determine the minimum watershed area required to support hydrologic function of the wetlands within the preserve. It was found that the proposed configuration of the preserve would conserve almost 100% of the original watershed area and would not negatively affect the hydrologic function of existing vernal pools. The land used to satisfy this mitigation measure shall be protected through a conservation easement acceptable to USACE, the City, and USFWS.</p> <p>The project applicant(s) for all project phases shall identify the extent of indirectly affected vernal pool and seasonal wetland habitat, either by identifying all such habitat within 250 feet of project construction activities or by providing an alternative technical evaluation. If a lesser distance is pursued, this distance shall be approved by USFWS. The project applicant(s) shall preserve acreage of vernal pool habitat for each wetted acre of any indirectly affected vernal pool habitat at a ratio approved by USFWS at the conclusion of the Section 7 consultation. This mitigation shall occur before the approval of any grading or improvement plans for any project phase that would allow work within 250 feet of such habitat, and before any ground-disturbing activity within 250 feet of the habitat. The project applicant(s) will not be required to complete this mitigation measure for direct or indirect impacts that have already been mitigated to the satisfaction of USFWS through another BO or mitigation plan.</p> <p>A standard set of BMPs shall be applied to construction occurring in areas within 250 feet of off-site vernal pool habitat, or within any lesser distance deemed adequate by a qualified biologist (with approval from USFWS) to constitute a sufficient buffer from such habitat. Refer to Section 3.4, "Drainage, Hydrology, and</p>					

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<p>Water Quality,” of the 2006 DEIR/DEIS for the details of BMPs to be implemented.</p> <p>Timing: Before the approval of any grading or improvement plans, before any ground-disturbing activities within 250 feet of said habitat, and on an ongoing basis throughout construction as applicable for all project phases as required by the mitigation plan, BO, and/or BMPs.</p> <p>Enforcement: U.S. Army Corps of Engineers, Sacramento District; U.S. Fish and Wildlife Service; and City of Rancho Cordova Planning Department.</p> <p>NF: The project applicant(s) for all project phases shall obtain an incidental take permit under Section 10(a) of ESA. No project construction shall proceed in areas supporting potential habitat for federally listed vernal pool invertebrates, or within adequate buffer areas (250 feet or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS), until a BO has been issued by USFWS and the project applicant(s) have abided by conditions in the BO (including all conservation and minimization measures). Conservation and minimization measures are likely to include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction.</p> <p>Under the No Federal Action Alternative, interagency consultation under Section 7 of ESA would not occur; therefore, the project applicant(s) would be required to develop a habitat conservation plan to mitigate impacts on federally listed vernal pool invertebrates, or participate in the SSCHCP, if available. The project applicant(s) shall complete and implement, or participate in, a habitat conservation plan that shall compensate for the loss of acreage, function, and value of affected vernal pool habitat. The habitat conservation plan shall be consistent with the goals of the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2005) and must be approved by USFWS.</p> <p>The project applicant(s) for all project phases shall ensure that there is sufficient upland habitat within the target areas for creation and restoration of vernal pools and vernal pool complexes to provide ecosystem health. The land used to satisfy this mitigation measure shall be protected through a fee title or conservation easement acceptable to the City and USFWS.</p> <p>The project applicant(s) for all project phases shall identify the extent of indirectly affected vernal pool and seasonal wetland habitat, either by identifying all such habitat within 250 feet of project construction activities or by providing an alternative technical evaluation in support of a lesser indirect impact distance. If a lesser distance is pursued, this distance shall be approved by USFWS. The project applicant(s) shall preserve 2 wetted acres of vernal pool habitat for each wetted acre of any indirectly affected vernal pool habitat. This mitigation shall occur before the approval of any grading or improvement plans for any project phase that would allow work within 250 feet of such habitat, and before any ground-disturbing activity within 250 feet of the habitat. The project applicant(s) will not be required to complete this mitigation measure for direct or indirect impacts that have already been mitigated to the satisfaction of USFWS through another BO or mitigation plan.</p> <p>A standard set of BMPs shall be applied to construction occurring in areas within 250 feet of off-site vernal pool habitat, or within any lesser distance deemed adequate by a qualified biologist (with approval from USFWS) to constitute a sufficient buffer from such habitat. Refer to Section 3.4, “Drainage, Hydrology, and Water Quality,” of the 2006 DEIR/DEIS for the details of BMPs to be implemented.</p>					

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
<p>Timing: Before the approval of any grading or improvement plans, before any ground-disturbing activities within 250 feet of said habitat, and on an ongoing basis throughout construction as applicable for all project phases as required by the habitat conservation plan, BO, and/or BMPs.</p> <p>Enforcement: U.S. Fish and Wildlife Service and City of Rancho Cordova Planning Department.</p> <p>NP: No mitigation measures are required.</p>					
<p>PP, HD, IM: Mitigation Measure: Implement Mitigation Measures 3.10-1a and 3.10-1b.</p> <p>Mitigation Measures 3.10-1a and 3.10-1b are discussed above under Impact 3.10-1.</p> <p>NF, NP: No mitigation measures are required.</p>					
<p>PP, HD, IM: Mitigation Measure 3.10-4b: Obtain Incidental Take Permit for Impacts on Valley Elderberry Longhorn Beetle.</p> <p>No project construction shall proceed in areas containing VELB habitat (i.e., elderberry shrubs) until a BO has been issued by USFWS, and the project applicant(s) for all project phases have abided by all pertinent conditions in the BO relating to the proposed construction, including conservation and minimization measures, intended to be completed before on-site construction. Conservation and minimization measures are likely to include preparation of supporting documentation that describes methods for relocation of existing shrubs and maintaining existing shrubs and other vegetation in the preserve.</p> <p>Relocation of existing elderberry shrubs and planting of new elderberry seedlings shall be implemented on a no-net-loss basis. Detailed information on monitoring success of relocated and planted shrubs and measures to compensate (should success criteria not be met) would also likely be required in the BO. Ratios for mitigation of VELB habitat will ultimately be determined through the ESA Section 7 consultation process with USFWS, but shall be a minimum of “no net loss.” Although Section 7 consultation for the project is ongoing, a draft VELB mitigation plan has been developed by ECORP Consulting (Appendix E). Because the proposed MMP is in draft form and a final BO has not been issued by USFWS, the proposed MMP may be modified in the future. Details from this draft plan are provided under the impact discussion above. The plan includes creation of two on-site preserve areas, transplanting of all existing shrubs to the on-site preserve areas, planting of 2,997 elderberry seedlings in the proposed preserve areas and drainage parkways, and purchase of 154.2 credits in a USFWS-approved mitigation bank. Implementation of this plan would satisfy mitigation requirements for the removal of elderberry savanna, a sensitive habitat as identified by DFG, as well as single elderberry shrubs. A copy of the USFWS-approved mitigation plan shall be submitted to the City before the approval of any grading or improvement plans or any ground-disturbing activities within 100 feet of VELB habitat for all project phases.</p> <p>Should delisting of VELB occur, a mitigation plan that would compensate for the removal of elderberry savanna, a sensitive habitat as identified by DFG, would still be required. The mitigation plan shall be submitted to and approved by DFG and the City before the approval of any grading or improvement plans or any ground-disturbing activities that would affect elderberry savanna for all project phases.</p>					

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
<p>Timing: Before the approval of any grading or improvement plans or any ground-disturbing activity within 100 feet of VELB habitat as applicable for all project phases, and on an ongoing basis as required by the mitigation plan and/or BO.</p> <p>Enforcement: U.S. Army Corps of Engineers, Sacramento District; U.S. Fish and Wildlife Service; California Department of Fish and Game (if VELB delisted); and City of Rancho Cordova Planning Department.</p> <p>NF: As long as VELB remains a species protected under ESA, the project applicant(s) shall obtain an incidental take permit under Section 10(a) of ESA for VELB. No project construction shall proceed in areas containing VELB habitat (i.e., elderberry shrubs) until a BO has been issued by USFWS, and the project applicant(s) for all project phases have abided by all pertinent conditions in the BO relating to the proposed construction, including all conservation and minimization measures. Conservation and minimization measures are likely to include preparation of supporting documentation that describes methods for relocation of existing shrubs and maintaining existing shrubs and other vegetation in the preserve.</p> <p>Under the No Federal Action Alternative, interagency consultation under Section 7 of ESA would not occur; therefore, the project applicant(s) would be required to develop a habitat conservation plan to mitigate impacts on VELB, or participate in the SSCHCP, if available. If participation in the SSCHCP is not available or not chosen, the project applicant(s) shall complete and implement, or participate in, a habitat conservation plan that will compensate for the loss of VELB habitat. Relocation of existing elderberry shrubs and planting of new elderberry seedlings shall be implemented on a no-net-loss basis. Detailed information on monitoring success of relocated and planted shrubs and measures to compensate (should success criteria not be met) would also likely be required in the BO. Ratios for mitigation of VELB habitat will ultimately be determined through the ESA Section 10(a) consultation process with USFWS, but shall be a minimum of “no net loss.” Based on the current (dated) knowledge of the number of shrubs on-site and the latest VELB preservation guidelines, it is expected that approximately 3,088 seedlings would need to be planted over an area of approximately 25 acres to fulfill VELB mitigation requirements and no net loss of habitat.</p> <p>Should delisting of VELB occur, a mitigation plan that would compensate for the removal of elderberry savanna, a sensitive habitat as identified by DFG, would still be required. The mitigation plan shall be submitted to and approved by DFG and the City before the approval of any grading or improvement plans or any ground-disturbing activities that would affect elderberry savanna for all project phases.</p> <p>Timing: Before the approval of any grading or improvement plans or any ground-disturbing activity within 100 feet of VELB habitat as applicable for all project phases, and on an ongoing basis as required by the habitat conservation plan and/or BO.</p> <p>Enforcement: California Department of Fish and Game (if VELB delisted), U.S. Fish and Wildlife Service, and City of Rancho Cordova Planning Department.</p> <p>NP: No mitigation measures are required.</p>					

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
<p>PP, HD, IM, NF: Mitigation Measure 3.10-4c: Conduct Preconstruction Surveys for Nesting Raptors and, if Found, Establish Appropriate Buffers.</p> <p>To mitigate impacts on Swainson’s hawk and other raptors (including burrowing owl) for all project phases, the project applicant(s) shall retain a qualified biologist to conduct preconstruction surveys and to identify active nests on and within 0.5 mile of the project site and active burrows on the project site. The surveys shall be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction for all project phases. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in the Central Valley (Swainson’s Hawk Technical Advisory Committee 2000) shall be followed. If no nests are found, no further mitigation is required.</p> <p>If active nests are found, impacts on nesting Swainson’s hawks and other raptors shall be avoided by establishment of appropriate buffers around the nests. No project activity shall commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. DFG guidelines recommend implementation of 0.25- or 0.5-mile buffers, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with DFG, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.</p> <p>If active burrows are found, a mitigation plan shall be submitted to the City for review and approval before any ground-disturbing activities. The City shall consult with DFG. The mitigation plan may consist of installation of one-way doors on all burrows to allow owls to exit, but not reenter, and construction of artificial burrows within the project vicinity, as needed. If active burrows contain eggs and/or young, no construction shall occur within 50 feet of the burrow until young have fledged. Once it is confirmed that there are no owls inside burrows, these burrows may be collapsed.</p> <p>Timing: Before the approval of grading and improvement plans, before any ground-disturbing activities, and during project construction as applicable for all project phases.</p> <p>Enforcement: City of Rancho Cordova Planning Department.</p> <p>NP: No mitigation measures are required.</p>					
<p>PP, HD, IM, NF: Mitigation Measure 3.10-4d: Prepare and Implement a Swainson’s Hawk Mitigation Plan.</p> <p>The project applicant(s) for all project phases shall implement one of the following measures:</p> <ul style="list-style-type: none"> ▶ Before the approval of grading and improvement plans or before any ground-disturbing activities, whichever occurs first, the project applicant(s) shall preserve, to the satisfaction of the City, suitable Swainson’s hawk foraging habitat to ensure 1:1 mitigation of habitat value for Swainson’s hawk foraging habitat lost as a result of the project, as determined by the City after consultation with DFG and a qualified biologist. 					

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	PP	HD	IM	NF	NP
<p>The 1:1 habitat value shall be based on Swainson’s hawk nesting distribution and an assessment of habitat quality, availability, and use within the City’s planning area. If specific data for Rancho Cordova’s Swainson’s hawk habitat are not available at the time that this mitigation measure is being implemented, the mitigation ratio shall be consistent with the 1994 DFG Swainson’s Hawk Guidelines included in the Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks (<i>Buteo swainsoni</i>) in the Central Valley of California. Such mitigation shall be accomplished through either the transfer of fee title or perpetual conservation easement. The mitigation land shall be located within the known foraging area and within Sacramento County. The City, after consultation with DFG, will determine the appropriateness of the mitigation land.</p> <p>Before approval of such proposed mitigation, the City shall consult with DFG regarding the appropriateness of the mitigation. If mitigation is accomplished through conservation easement, then such an easement shall ensure the continued management of the land to maintain Swainson’s hawk foraging values, including but not limited to ongoing agricultural uses and the maintenance of all existing water rights associated with the land. The conservation easement shall be recordable and shall prohibit any activity that substantially impairs or diminishes the land’s capacity as suitable Swainson’s hawk habitat.</p> <p>The project applicant(s) shall transfer said Swainson’s hawk mitigation land, through either conservation easement or fee title, to a third-party, nonprofit conservation organization (Conservation Operator), with the City and DFG named as third-party beneficiaries. The Conservation Operator shall be a qualified conservation easement land manager that manages land as its primary function. Additionally, the Conservation Operator shall be a tax-exempt nonprofit conservation organization that meets the criteria of Civil Code Section 815.3(a) and shall be selected or approved by the City, after consultation with DFG. The City, after consultation with DFG and the Conservation Operator, shall approve the content and form of the conservation easement. The City, DFG, and the Conservation Operator shall each have the power to enforce the terms of the conservation easement. The Conservation Operator shall monitor the easement in perpetuity to assure compliance with the terms of the easement.</p> <p>The project applicant(s), after consultation with the City, DFG, and the Conservation Operator, shall establish an endowment or some other financial mechanism that is sufficient to fund in perpetuity the operation, maintenance, management, and enforcement of the conservation easement. If an endowment is used, either the endowment funds shall be submitted to the City to be distributed to an appropriate third-party nonprofit conservation agency, or they shall be submitted directly to the third-party nonprofit conservation agency in exchange for an agreement to manage and maintain the lands in perpetuity. The Conservation Operator shall not sell, lease, or transfer any interest of any conservation easement or mitigation land it acquires without prior written approval of the City and DFG.</p> <p>If the Conservation Operator ceases to exist, the duty to hold, administer, manage, maintain, and enforce the interest shall be transferred to another entity acceptable to the City and DFG. The City Planning Department shall ensure that mitigation habitat is properly established and is functioning as habitat by conducting regular monitoring of the mitigation site(s) for the first 10 years after establishment of the easement. OR</p> <ul style="list-style-type: none"> ▶ The project applicant(s) may participate in a future City Swainson’s Hawk Foraging Habitat Ordinance (once adopted) as an alternative to the measure above. OR ▶ The project applicant(s) may participate in a future habitat conservation plan (once adopted) as an alternative to the above measures. 					

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Impact Mitigation	Alternatives				
	PP	HD	IM	NF	NP
<p>Timing: Before the approval of grading, improvement, or construction plans and before any ground-disturbing activity in any project development phase that would affect Swainson’s hawk foraging habitat.</p> <p>Enforcement: City of Rancho Cordova Planning Department.</p> <p>NP: No mitigation measures are required.</p>					
<p>PP, HD, IM, NF: Mitigation Measure: Implement Mitigation Measures 3.10-1a, 3.10-1b, and 3.10-4a to Reduce Impacts on Western Spadefoot Toad. Measures 3.10-1a and 3.10-1b are discussed above under Impact 3.10-1. Mitigation Measure 3.10-4a was discussed previously under this impact (Impact 3.10-4). These measures would ensure no net loss of western spadefoot habitat.</p> <p>Timing: Before the approval of grading, improvement, or construction plans and before any ground-disturbing activity in any project development phase that contains vernal pools or other seasonal wetland habitats.</p> <p>Enforcement: City of Rancho Cordova Planning Department.</p> <p>NP: No mitigation measures are required.</p>					
<p>3.10-5: Loss and Degradation of Special-Status Plants and Habitat for Potential Special-Status Plants. Implementation of the project would result in direct and/or indirect impacts on three populations of Greene’s legenera and in the removal of vernal pool grassland, seasonal wetland, and riparian habitat on the project site that have the potential to support special-status plant species.</p> <p>PP, HD, IM: Mitigation Measure 3.10-5: Incorporate Measures to Protect Greene’s Legenera in the Mitigation Monitoring Plan.</p> <p>Direct impacts on the population of Greene’s legenera located within the wetland preserve shall be avoided to the maximum extent feasible.</p> <p>An MMP for Greene’s legenera is being developed on behalf of the project applicant(s) by ECORP Consulting. Before the approval of grading plans or any ground-breaking activity within 250 feet of any Greene’s legenera population, the mitigation plan shall be submitted to the City for review and approval. The plan shall be submitted concurrently to DFG and USFWS for review and comment, and the City may consult with these entities before approval of the plan. The plan is required to maintain viable plant populations on-site and shall include avoidance measures for the existing population to be retained and mitigation measures for the populations to be directly affected. Possible avoidance measures include fencing of the population before construction and exclusion of project activities from the fenced-off areas, and construction monitoring by a qualified botanist to keep construction crews away from the population. Indirect impacts (i.e., changes in hydrology) shall be minimized by placing culverts to the vernal pool where this population occurs, if necessary. Possible mitigation for the two populations of</p>	Direct S	Direct S	Direct PS	LTS	No Direct, No Indirect

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	PP	HD	IM	NF	NP
<p>Greene’s legenera that would be removed during construction of the drainage parkway includes the collection of seeds from the existing populations and inoculation of the collected seeds into existing or compensatory vernal pools within the wetland preserve.</p> <p>The mitigation plan proposes that the best option for the successful germination of seeds would be to inoculate existing pools that are similar in size and depth and hydration period, and with similar associated species as the pools that currently support Greene’s legenera. Mitigation for the populations of legenera proposed to be directly affected shall commence before the approval of any plans for, or any ground-breaking activities near, the locations of such legenera populations. Monitoring of the existing population of Greene’s legenera and the seeded populations shall be conducted in conjunction with monitoring of vernal pools for a minimum period of 5 years, as specified in Mitigation Measure 3.10-1.</p> <p>Timing: Before the approval of grading or improvement plans or any ground-breaking activity within 250 feet of any Greene’s legenera population, including grubbing and clearing, for any project development phase. Ongoing monitoring shall occur for a minimum of 5 years following the completion of all construction activities.</p> <p>Enforcement: City of Rancho Cordova Planning Department.</p> <p>NF, NP: No mitigation measures are required.</p>					
<p>3.10-6: Cumulative Biological Resources Impacts. Implementation of the project together with past, present, and reasonably foreseeable future projects would result in a cumulatively significant loss of biological resources in the region. The project’s incremental contribution to this significant cumulative impact is cumulatively considerable.</p>	SU	SU	SU	SU	No Direct, No Indirect

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