

## 2.0 EXECUTIVE SUMMARY

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### 2.1 INTRODUCTION

This chapter provides a summary of the Easterly Wastewater Treatment Plant (EWWTP) Tertiary Treatment Project (Proposed Project), environmental impacts that would result from project implementation, a summary of project alternatives, and the potential areas of controversy. This chapter also includes a table summarizing the impacts of the Proposed Project and mitigation measures that have been identified to reduce potentially significant environmental impacts to less than significant levels.

### 2.2 PROJECT LOCATION

The project site is located within the City limits, in the County of Solano, 4.5 miles east of central Vacaville and immediately southeast of the unincorporated community of Elmira (**Figure 3-1**). The existing EWWTP is situated in the northwestern portion of a 182.62-acre City owned site which is bounded on the north by Alamo creek, on the south by Fry Road, on the west by Vaca Station Road, and on the east by Lewis Road. The study area for this Environmental Impact Report (EIR), shown in **Figure 3-2b**, consists of 113.2 acres and only includes areas of the City's property with the potential to be impacted by the Proposed Project. Approximately 30 acres of the site is currently developed with EWWTP facilities. Regional access to the project site is provided by I-80. Vehicular and pedestrian access points to the project site are provided via three driveways off of Vaca Station Road and a fourth driveway off of Fry Road.

### 2.3 PROJECT UNDER REVIEW

The Proposed Project would construct necessary facility upgrades to the City's existing EWWTP that will be required to comply with Waste Discharge Order No. R5-2008-0055, National Pollutant Discharge Elimination System (NPDES) Permit No. CA007769, and Time Schedule Order No. R5-2008-0056 adopted by the Central Valley Regional Water Quality Control Board (CVRWQCB) on April 25, 2008. Improvements necessary to respond to regulatory and permit requirements, include compliance with numerical ammonia limits, nitrate limits, elimination of blending, and dry weather filtration / Title 22 reclamation. The current need for improvements to the EWWTP is not capacity driven, but rather associated with permit compliance. A detailed description of the Proposed Project is provided in **Section 3.0**, and a site plan showing the existing and proposed facilities and modifications proposed is presented in **Figure 3-4**.

## 2.4 ISSUES TO BE RESOLVED AND AREAS OF CONTROVERSY

### Notice of Preparation and Scoping

In accordance with CEQA *Guidelines* Section 15082, the City (Lead Agency) circulated a Notice of Preparation (NOP) for this EIR on August 21, 2009. Presented in **Appendix A**, the NOP established a 30-day review period that ended on September 24, 2009. The NOP was circulated through the State Clearinghouse, to the public, local, state and federal agencies, and other known interested parties in an effort to disclose that the Proposed Project could have significant effects on the environment and to solicit written comments concerning the Proposed Project. A noticed public scoping meeting was held on September 14, 2009 to allow a public presentation of the project and provide an opportunity for oral comments to be submitted. The scoping meeting was held at the EWWTP to offer a convenient location for the surrounding neighbors. One member of the general public attended the meeting. The City received six comment letters from state and local agencies. These letters are included in **Appendix A**.

### Areas of Controversy

The environmental issues below were identified during the scoping process and are discussed in more detail in **Section 1.0**:

- Air Quality
- Biological Resources
- Cultural Resources
- Hydrology and Water Quality
- Transportation/ Circulation

### Scope of the EIR

In accordance with CEQA *Guidelines* Section 15063, an Initial Study (**Appendix B**) was prepared and used in conjunction with comments received during scoping to focus the EIR on effects determined to be potentially significant. The following environmental resources were determined to have the potential to be significantly affected by the Proposed Project, and have therefore been addressed in detail in this Draft EIR:

- Aesthetics, Light and Glare
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Traffic and Circulation

- Agricultural Resources

The following issues were identified through the Initial Study as being not significant, less than significant, or less than significant with mitigation:

- Public Utilities, Services and Recreation
- Population and Housing

## 2.5 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA *Guidelines* Sections 15126 and 15126.6 require an EIR to consider a reasonable range of alternatives that could feasibly attain the basic objectives of the Proposed Project. This Draft EIR fully evaluates two development alternatives in addition to the No Project Alternative. Descriptions for each of the alternatives are provided below. **Section 6.0** provides additional information and analysis of the project alternatives as well as a discussion of alternatives which were eliminated from consideration, including an alternative location alternative and an alternative method of tertiary treatment alternative.

### Alternative A – No Project

As required by CEQA *Guidelines* Section 15126.6(e), a No Project Alternative has been evaluated. The evaluation of the No Project Alternative allows decision makers to compare the impacts of the Proposed Project against no development of the project. According to the CEQA *Guidelines* Section 15126.6(e) (2), the No Project Alternative shall discuss what would reasonably be expected to occur in the foreseeable future if the project were not approved. Thus, the No Project/No Development Alternative consists of the environmental conditions that currently exist with no future development on the project site. The project site and existing treatment methods at the EWWTP would remain as currently described in the existing setting discussed in **Chapter 4.0**.

### Alternative B – North Plant Equalization Alternative

Alternative B would result in the conversion of the North Plant's primary clarifiers, aeration basins, and secondary clarifiers into wet weather flow equalization facilities, which would store either raw influent or primary effluent when the capacity of the South Plant's secondary treatment facilities is reached during high inflow events. As with the Proposed Project, this alternative would replace the North Plant's treatment capacity with expansions to the South Plant. Additional flow equalization would be required under this alternative because the expansion of the South Plant's preliminary and primary treatment facilities would not be as extensive as the Proposed Project. The proximity of the proposed North Plant equalization basin to the unincorporated community of Elmira would cause increased odor impacts on area residents when it is used to store raw influent. This alternative was considered within the City Tertiary Project Draft Facilities Plan (2009), where it was found to be among the most expensive alternatives.

## Alternative C – Reduced Footprint Alternative

Alternative C involves the continued use of the North Plant for primary and secondary treatment; all other components of Alternative C not related to primary and secondary treatment would be those of the Proposed Project. Under this alternative, the North Plant would be rehabilitated to meet the regulations set in the 2008 NPDES permit. Components of the North Plant that are deemed unnecessary, such as the vortex grit tank, will be demolished. Only the aeration basins and secondary clarifiers would be modified within the South Plant. Of the seven alternatives analyzed within the Tertiary Project Draft Facilities Plan (2009), Alternative C (identified as Alternative 2A within the Facilities Plan) would result in the fewest modifications to the South Plant, and therefore has the smallest footprint.

## 2.6 SUMMARY TABLE

**Table 2-1** presents a summary of project impacts and proposed mitigation measures that would further avoid or minimize potential impacts. In the table, the level of significance of each environmental impact is indicated both before and after the application of the recommended mitigation measure(s). For detailed discussions of all project impacts and mitigation measures, the reader is referred to environmental analysis sections in **Section 4.0**.

Acronyms used within **Table 2-1** to describe levels of significance are explained below:

- NA – Not applicable
- BI – Beneficial impact
- NI – No impact
- LTS – Less than significant
- PS – Potentially significant
- SU – Significant and unavoidable

TABLE 2-1. SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact   | Level of Significance Before Mitigation | Mitigation Measure   | Level of Significance After Mitigation |
|--|---|--|--|
| <b>4.1 Aesthetics</b>  |   |  |  |
| <b>4.1-1:</b> The Proposed Project could substantially degrade the existing visual character or quality of the site and its surroundings.  | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.1-2:</b> The proposed construction of EWWTP facilities at the project site could create a new source of substantial light or glare which could adversely affect day or nighttime views.                                     | PS                                      | <b>4.1-2:</b> Design plans that configure exterior EWWTP light fixtures to emphasize lower intensity light. Lighting shall be directed downward in order to minimize glare on adjacent uses and minimize impacts to night sky views.   | LTS                                    |
| <b>4.1-3:</b> The Proposed Project in combination with cumulative development surrounding the project site, could impact visual resources and create new sources of light and glare.   | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.2 Air Quality</b>   |   |  |  |
| <b>4.2-1:</b> Construction of the Proposed Project would generate emissions of NOx, ROG and PM <sub>10</sub> .   | LTS                                     | No mitigation is required,   | NA                                     |
| <b>4.2-2:</b> Construction of the Proposed Project would have the potential to generate objectionable odors.   | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.2-3:</b> Operation of the Proposed Project would generate emissions of ROG, NOx, and PM <sub>10</sub> .   | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.2-4:</b> Operation of the Proposed Project would have the potential to generate objectionable odors.  | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.2-5:</b> Operation of the Proposed Project under cumulative conditions could create objectionable odors.  | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.2-6:</b> Operation of the Proposed Project has the potential to contribute cumulatively considerable emissions of greenhouse gases.   | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.3 Biology</b>   |   |  |  |
| <b>4.3-1:</b> Grading and construction activities associated with the Proposed Project, including the installation of the landscape buffer, would result in removal of nonnative grassland, which provides potential habitat for | PS                                      | <b>4.3-1a.</b> Focused botanical surveys shall be conducted during the blooming periods for hispid bird's-beak (June through September), <del>adobe lily (February through April)</del> , and robust monardella (June through July) prior to commencement of construction activities | LTS                                    |

| Environmental Impact   | Level of Significance Before Mitigation | Mitigation Measure  | Level of Significance After Mitigation |
|--|---|---|--|
| hispid bird's-beak, <del>adobe lily</del> , and robust monardella.   |   | <p>within the nonnative grassland. A letter report shall be submitted to the City within 30 days following the preconstruction survey to document the results. Should no species be observed, then no additional mitigation is required.</p> <p><b>4.3-1b.</b> Should hispid bird's-beak, <del>adobe lily</del>, and/or robust monardella be observed during the focused botanical survey, the biologist shall contact the City within one day following the preconstruction survey to report the findings. A <del>50</del><sup>10</sup>-foot buffer shall be established around the species using construction flagging prior to commencement of construction activities.</p> <p><b>4.3-1c.</b> Should avoidance of the special-status plant be infeasible, then the CDFG shall be notified at least ten days prior to commencement of ground-breaking activities to provide the CDFG the opportunity to transplant the species from the project site. An additional letter report shall be submitted to the City within 30 days to document the results.</p> <p><b>4.3-1d.</b> <u>Should the CDFG not intend to transplant the species offsite within ten days prior to commencement of ground-breaking activities, the City shall salvage and relocate plants within the same type of habitat onsite and develop a mitigation and monitoring plan. The City shall monitor the species for five years and submit an annual monitoring report to the CDFG.</u></p> |  |
| <b>4.3-2:</b> Discharge of treated water from the project site into Old Alamo Creek would result in impacts to water quality for fish and other wildlife species.                      | BI                                      | No mitigation is required.  | NA                                     |
| <b>4.3-3:</b> Construction activities associated with the lining of the Basins 2 and 3 would result in the temporary disturbance of potential aquatic habitat for western pond turtle. | PS                                      | <p><b>4.3-3a:</b> A preconstruction survey shall be conducted by a qualified biologist prior to commencement of construction activities within Basins 2 and 3.</p> <p><b>4.3-3b:</b> A qualified biologist shall conduct a safety awareness training for crew members prior to commencement of construction activities Basins 2 and 3.</p> <p><b>4.3-3c:</b> A qualified biologist shall monitor construction activities that occur within Basins 2 and 3. Should a WPT be found, construction shall halt until the biologist translocates the turtle or</p>  | LTS                                    |

| Environmental Impact   | Level of Significance Before Mitigation | Mitigation Measure  | Level of Significance After Mitigation |
|--|---|---|--|
| <p><b>4.3-4:</b> Construction activities associated with the lining of Basins 2 and 3 would result in the temporary disturbance of potential aquatic habitat for giant garter snake.</p> | PS                                      | <p>until the turtle leaves the construction site.</p> <p><b>4.3-3d:</b> A letter report shall be submitted to the City within 30 days following the preconstruction survey and monitoring activities to document the results.</p> <p><b>4.3-4a:</b> Construction personnel shall receive USFWS-approved worker environmental awareness training prior to commencing work with Basins 2 and 3. This training instructs workers to recognize GGS and their habitat(s).</p> <p><b>4.3-4b:</b> Twenty-four hours prior to construction activities within Basins 2 and 3, the project site will be surveyed for GGS. Survey of the project site will be repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until GGS leaves the construction site on its own. Any sightings and any incidental take will be immediately reported to the USFWS <u>and the CDFG</u>.</p> <p><b>4.3-4c:</b> A letter report shall be submitted to the City within 30 days following the preconstruction survey to document the results.</p> | LTS                                    |
| <p><b>4.3-5:</b> Grading and construction activities associated with the Proposed Project would result in the removal of potential nesting habitat for burrowing owls.</p>               | PS                                      | <p><b>Mitigation Option 1 – Draft Solano HCP IS Adopted Prior to Project Approval</b></p> <p><b>4.3-5a:</b> The City shall submit a pre-application package to the SCWA to determine conservation measure requirements for burrowing owl in accordance with Section 10 of the Draft Solano HCP. The preapplication package includes, but is not limited to, the preparation of a biological resources assessment that documents biological communities, dates and results of surveys conducted, known occurrences of all species covered within the Draft Solano HCP within one mile of the project site, burrowing owl habitat covered by the Draft Solano HCP that occurs within the project, and a justification of impacts. The SCWA will determine the appropriate avoidance, minimization, and compensation measures for the Proposed Project.</p>  | LTS                                    |

| Environmental Impact | Level of Significance Before Mitigation | Mitigation Measure   | Level of Significance After Mitigation |
|----------------------|---|--|--|
|                      |   | <p><b>Mitigation Option 2 - Draft Solano HCP Not Adopted Prior to Project Approval</b></p> <p><b>4.3-5b: <u>June 2010 Survey for Nesting Burrowing Owls.</u></b><br/> <u>A qualified biologist shall conduct an additional nesting season survey for burrowing owl in the vicinity of the project site. (This survey may be conducted in conjunction with bloom period surveys for special status plant species in June 2010.) In accordance with the CDFG burrowing owl survey protocol, the survey area will extend 500-feet from construction areas (CDFG, 1995) where legally permitted. The biologist will use binoculars to visually determine whether burrowing owls occur beyond the construction areas if access is denied on adjacent properties. A letter report documenting survey methods and findings shall be submitted to the City and the CDFG in accordance with Staff Report on Burrowing Owl Mitigation (CDFG, 1995) within 30 days following the survey. In the event that burrowing owl nests are detected on the project site during the June 2010 survey, the City may conduct an additional survey during the non-breeding wintering season (September through January 31) and collapse unoccupied burrows or otherwise obstruct their entrances to prevent owls from entering and nesting.</u></p> <p><b>4.3-5c: <u>Preconstruction Measures</u></b></p> <p>1. A qualified biologist shall conduct a preconstruction survey within 30 days prior to construction activities occurring within potential <del>nesting or wintering</del> habitat for burrowing owl, including the nonnative grassland areas that occur within the project site. In accordance with the CDFG burrowing owl survey protocol, the survey area will extend 500-feet from construction areas (CDFG, 1995) where legally permitted. The biologist will use binoculars to visually determine whether burrowing owls occur beyond the construction areas if access is denied on adjacent properties. If no burrowing owls or their sign are detected in the vicinity of the project site during the preconstruction survey, a letter report documenting survey methods and findings shall be submitted to the City and the CDFG in accordance with Staff Report on Burrowing Owl Mitigation (CDFG, 1995) within 30 days following the survey, and no further mitigation is required.</p> <p><b>4.3-5c: <u>If unoccupied burrows are detected during the non-</u></b></p> |  |

| Environmental Impact | Level of Significance Before Mitigation | Mitigation Measure   | Level of Significance After Mitigation |
|----------------------|---|--|--|
|                      |   | <p><del>breeding season (September through January 31), the City shall be contacted within one day following the preconstruction survey to report the findings. The City shall collapse the unoccupied burrows, or otherwise obstruct their entrances to prevent owls from entering and nesting in the burrows.</del></p> <p><b>4.3-5d:</b></p> <p>2. If occupied burrowing owl burrows are detected <u>during the pre-construction survey</u>, impacts on burrows shall be avoided by providing a buffer of 160 feet during the non-breeding season (September 1 through January 31) or 250 feet during the breeding season (February 1 through August 31). The size of the buffer area may be adjusted if a qualified biologist or the CDFG determine the burrowing owl would not likely be affected by the Proposed Project. Project activities shall not commence within the buffer area until a qualified biologist confirms that the burrow is no longer occupied. If the burrow is occupied by a nesting pair, a minimum of 7.5 acres of foraging habitat contiguous to the burrow shall be maintained until the breeding season is finished.</p> <p><b>4.3-5e:</b></p> <p>3. If impacts to occupied burrows are unavoidable, onsite passive relocation techniques approved by the CDFG shall be used to encourage burrowing owls to move to alternative burrows outside of the project site. No occupied burrows shall be disturbed during the nesting season unless a qualified biologist verifies through non-invasive methods that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Mitigation for foraging habitat for relocated <u>burrowing owl</u> pairs shall follow the guidelines provided in <i>the California Burrowing Owl Survey Protocol and Mitigation Guidelines</i> (California Burrowing Owl Consortium, 1993):</p> <ul style="list-style-type: none"> <li>• <u>Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 (9.75) acres per pair or single bird.</u></li> <li>• <u>Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 (13.0) acres per pair or single bird.</u></li> <li>• <u>Replacement of occupied habitat with suitable unoccupied habitat: 3 times 6.5 (19.5) acres per pair or single bird.</u></li> </ul> |  |

| Environmental Impact   | Level of Significance Before Mitigation | Mitigation Measure   | Level of Significance After Mitigation |
|--|---|--|--|
| <p><b>4.3-6:</b> Construction activities have the potential to result in the disturbance of nesting habitat for Swainson's hawk.</p> | PS                                      | <p><b>4.3-6a:</b> Prior to any construction activities that occur between March 1 and September 15, a qualified biologist shall conduct surveys for nesting Swainson's hawk in the project site and within 0.25 miles of construction activities where legally permitted. The biologist will use binoculars visually determine whether Swainson's hawk nests occur beyond the 0.25-mile survey area if access is denied on adjacent properties. If no active Swainson's hawk nests are identified on or within 0.25 miles of construction activities, a letter report summarizing the survey results shall be submitted to the City within 30 days following the survey, and no further mitigation for nesting habitat is required.</p> <p><b>4.3-6b:</b> If active Swainson's hawk nests are found within 0.25 miles of construction activities, the biologist shall contact the City within one day following the preconstruction survey to report the findings.</p> <p><del>A qualified biologist shall monitor all activities that occur within the buffer zone established through consultation with the CDFG. Construction activities include heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of a nest site between March 1 and September 15, or until August 15 if a Management Authorization or Biological Opinion is obtained from the CDFG for the project. Should an active nest be present within 0.25 miles of construction areas, then the CDFG shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest. The monitoring program would require that a qualified biologist shall monitor all activities that occur within the established buffer zone to ensure that disruption of the nest or forced fledging does not occur. Should the biologist determine that the construction activities are disturbing the nest, then the biologist shall halt construction activities until the CDFG is consulted. The construction activities shall not commence until the CDFG determines that construction activities would not result in abandonment of the nest site. If the CDFG determines that</del></p> | LTS                                    |

| Environmental Impact   | Level of Significance Before Mitigation | Mitigation Measure  | Level of Significance After Mitigation |
|--|---|---|--|
|  |   | <p><u>take may occur, the applicant would be required to obtain a CESA take permit.</u> Should the biologist determine that the nest has not been disturbed during construction activities within the buffer zone, then a letter report summarizing the survey results shall be submitted to the City <u>and the CDFG</u> and no further mitigation for nesting habitat is required.</p> <p><b>4.3-6c:</b> If the biologist determines that the nest site is abandoned and the nestlings are still alive, the City shall fund the recovery of hacking of the nestlings. A letter report summarizing the survey results shall be submitted to the City and the CDFG within 30 days to report the findings.</p>   |  |
| <p><b>4.3-7:</b> Construction activities for the Proposed Project would result in the potential removal of Swainson's hawk foraging habitat.</p> | PS                                      | <p><b><u>Mitigation Option 1 – Draft Solano HCP IS Adopted Prior to Project Approval</u></b></p> <p><b>4.3-7:</b> In the event the Draft Solano HCP is adopted prior to approval of the Proposed Project, the City shall comply with the conservation measures identified therein. This will require that City shall submit a pre-application package to the SCWA to determine conservation measure requirements for Swainson's hawk in accordance with Section 10 of the Draft Solano HCP. The pre-application package would include, but is not limited to, the preparation of a biological resources assessment that documents biological communities, dates and results of surveys conducted, known occurrences of all species covered within the Draft Solano HCP within one mile of the project site, Swainson's hawk habitat covered by the Draft Solano HCP that occurs within the project, and a justification of impacts. The SCWA will determine the appropriate avoidance, minimization, and compensation measures for the Proposed Project.</p> <p><b><u>Mitigation Option 2 – Draft Solano HCP is NOT Adopted Prior to Project Approval</u></b></p> <p><b><u>Mitigation Measure 4.3-7b.</u></b> The City shall purchase credits to <u>off-set the loss of 2.86 acres of agricultural land considered suitable Swainson's Hawk foraging habitat at a one-to-one ratio at an approved CDFG mitigation bank.</u></p> | LTS                                    |

| Environmental Impact  | Level of Significance Before Mitigation | Mitigation Measure   | Level of Significance After Mitigation |
|---|---|--|--|
| <p><b>4.3-8:</b> Grading and construction activities have the potential to result in the disturbance of nesting habitat for migratory birds and other birds of prey, including the short-eared owl and northern harrier, and disturbance of roosting habitat for the Western red bat.</p> | PS                                      | <p><b>4.3-8a:</b> A pre-construction survey shall be conducted by a qualified biologist for Western red bat roosting sites within the project site no more than 30 days prior to commencement of construction activities. If construction begins during the nesting season for birds of prey and migratory birds (between February 1 and October 1), a preconstruction bird survey for nesting sites shall be conducted concurrently with the western bat survey. The qualified biologist shall document and submit the results of the preconstruction survey in a letter to the CDFG and the City within 30 days following the survey. The letter shall include: a description of the methodology including dates of field visits, the names of survey personnel, and a list of references cited and persons contacted; and a map showing the location(s) of any bird nests or roost sites observed on the project site. If no active nests or roosts are identified during the preconstruction survey, then no further mitigation is required.</p> <p><b>4.3-8b:</b> If any active nests are identified during the preconstruction survey within the project site, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist will delimit the buffer zone with construction tape or pin flags within 250 feet of the active nest and maintain the buffer zone until the end of the breeding season or until the young have fledged. Guidance from the CDFG will be requested if establishing a 250-foot buffer zone is impractical. Guidance from the CDFG will be requested if the nestlings within the active nest appear disturbed.</p> <p><b>4.3-8c:</b> If any Western red bats are found to occur within any of the infrastructure slated to be demolished, then demolition of the infrastructure shall not commence until the biologist can assure that the bats have vacated the structure.</p> <p><b>4.3-8d:</b> If unavoidable impacts to bat roosting sites are identified, these impacts will be mitigated through the installation of roosting boxes on the project site. Five roosting boxes shall be created for every roosting structure destroyed. The results shall be documented in a letter report and submitted to the CDFG and the City within 30 days following the completion of the mitigation.</p> | LTS                                    |

| Environmental Impact   | Level of Significance Before Mitigation | Mitigation Measure  | Level of Significance After Mitigation |
|--|---|---|--|
| <b>4.3-9:</b> The Proposed Project could impact federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. | LTS                                     | No mitigation is required.  | NA                                     |
| <b>4.3-10:</b> The Proposed Project could interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.                      | NI                                      | No mitigation is required.  | NA                                     |
| <b>4.3-11:</b> The Proposed Project could conflict with local policies or ordinances protecting biological resources, or conflict with the provisions of the Draft Solano HCP should it be adopted prior to the approval of the Proposed Project.                            | NI                                      | No mitigation is required.  | NA                                     |
| <b>4.3-12:</b> Development of the Proposed Project would contribute to the cumulative loss of special-status wildlife species or their habitat in the region.  | PS                                      | <b>4.3-12:</b> Implement <b>Mitigation Measures 4.3-1</b> and <b>Mitigation Measures 4.3-3</b> through <b>4.3-8</b> .   | LTS                                    |
| <b>4.4 Cultural Resources</b>  |   |   |  |
| <b>4.4-1:</b> Ground-disturbing work associated with construction of the Proposed Project has the potential to affect previously undocumented archaeological resources and human remains.  | PS                                      | <b>4.4-1a:</b> Applicant shall require that, in the event of any inadvertent discovery of archaeological resources, all such finds shall be subject to PRC 21083.2 and CEQA <i>Guidelines</i> 15064.5. Procedures for inadvertent discovery include the following: <ul style="list-style-type: none"> <li>▪ All work within 50 feet of the find shall be halted until a professional archaeologist, or paleontologist if the find is of a paleontological nature, can evaluate the significance of the find in accordance with NRHP and CRHR criteria.</li> <li>▪ If any find is determined to be significant by the archaeologist, or paleontologist as appropriate, then representatives of the City shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action. If necessary, the Applicant shall provide a Treatment Plan, prepared by an</li> </ul> | LTS                                    |

| Environmental Impact  | Level of Significance Before Mitigation | Mitigation Measure   | Level of Significance After Mitigation |
|---|---|--|--|
|   |   | <p>archeologist (or paleontologist), outlining recovery of the resource, analysis, and reporting of the find. The Treatment Plan shall be submitted to the City for review and approval prior to resuming construction.</p> <ul style="list-style-type: none"> <li>▪ All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.</li> </ul> <p><b>4.4-1b:</b> If human remains are encountered during construction activities, work shall halt immediately in the vicinity and the Solano County Coroner should be notified in accordance with California Health and Safety Code Section 7050.5. If human remains are of Native American origin, the Coroner must, in accordance with PRC Section 5097, notify NAHC within 24 hours of this identification.</p> |  |
| <b>4.4-2:</b> Ground-disturbing construction activities may result in cumulatively considerable adverse impacts to previously unidentified subsurface archeological resources or human remains. | PS                                      | <b>4.4-2:</b> Implement mitigation measures <b>4.4-1a</b> and <b>4.4-1b</b> .  | LTS                                    |
| <b>4.5 Geology and Soils</b>  |   |  |  |
| <b>4.5-1:</b> Earth-moving activities associated with construction of the Proposed Project have the potential to result in accelerated runoff, erosion and sedimentation.                       | PS                                      | <b>4.5-1:</b> Implement <b>Mitigation Measure 4.7-1a</b> (Hydrology and Water Quality) to identify and implement erosion control BMPs within the SWPPP prepared for construction activities. Implementation of these BMPs would ensure that temporary and short-term construction-related erosion impacts under the Proposed Project would be reduced to a less-than-significant level.  | LTS                                    |
| <b>4.5-2:</b> The Proposed Project has the potential to result in structural damage and injury from seismic activity and related geologic hazards.  | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.5-3:</b> The Proposed Project has the potential for structural damage and injury from construction on  | PS                                      | <b>4.5-3:</b> Prior to final design and construction, the City shall conduct a soil/geotechnical engineering study in the previously   | LTS                                    |

| Environmental Impact  | Level of Significance Before Mitigation | Mitigation Measure   | Level of Significance After Mitigation |
|---|---|--|--|
| expansive soils.  |   | unconstructed portion of the project site to determine the extent of high shrink-swell soils. Recommendations from this study shall be incorporated into the final design and construction methods for the project according to accepted engineering practices.  |  |
| <b>4.5-4:</b> Development of the Proposed Project in combination with future projects in the City of Vacaville could result in cumulative effects associated with geology and soils.  | PS                                      | <b>4.5-4:</b> Implement <b>Mitigation Measures 4.5-1</b> and <b>4.5-3</b> .  | LTS                                    |
| <b>4.6 Hazardous Materials</b>  |   |  |  |
| <b>4.6-1:</b> Construction of the Proposed Project would include the storage and handling of hazardous materials, which could result in a public health or safety hazard from the accidental release of hazardous materials into the environment. | LTS                                     | <b>4.6-1:</b> The City of Vacaville shall ensure through the enforcement of contractual obligations that all contractors transport, store, and handle construction-required hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the City of Vacaville Fire Department and the Solano County Fire Protection District. Recommendations may include, but are not limited to, transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using approved protocols. | LTS                                    |
| <b>4.6-2:</b> Construction activities conducted during the dry season in and around dry grasses pose a fire hazard. This would be a potentially significant impact.   | PS                                      | <b>4.6-2a:</b> During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a fire break.<br><br><b>4.6-2b:</b> Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.                          | LTS                                    |
| <b>4.6-3:</b> Operation of the Proposed Project would involve the use and bulk storage of hazardous materials.  | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.6-4:</b> Operation of the Proposed Project would require hazardous materials deliveries, similar in schedule to the existing EWWTP.  | LTS                                     | No mitigation is required.   | NA                                     |

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| 4.6-5: The Project site is located within boundaries of the Travis LUCP. Operation of the Proposed Project could result in a safety hazard to people residing or working in the project area. | LTS                                     | No mitigation is required.   | NA                                     |
| 4.6-6: The Proposed Project in combination with future growth and development in the project vicinity could result in cumulative effects associated with hazards and hazardous materials.     | PS                                      | 4.6-6: Implement <b>Mitigation Measures 4.6-1</b> and <b>4.6-2</b> .   | LTS                                    |
| <b>4.7 Hydrology and Water Quality</b>  |   |  |  |
| 4.7-1: Construction activities may substantially degrade surface water and/or groundwater quality.  | PS                                      | <p>4.7-1a: The City shall comply with the SWRCB NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit). The SWRCB requires that all construction sites have adequate control measures to reduce the discharge of sediment and other pollutants to streams to ensure compliance with Section 303 of the Clean Water Act. To comply with the NPDES permit, the applicant will file a Notice of Intent with the SWRCB and prepare a SWPPP prior to construction, which includes a detailed, site-specific listing of the potential sources of stormwater pollution; pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills) to include a description of the type and location of erosion and sediment control BMPs to be implemented at the project site, and a BMP monitoring and maintenance schedule to determine the amount of pollutants leaving the Proposed Project site. A copy of the SWPPP must be current and remain on the project site. Control measures are required prior to and throughout the rainy season. Water quality BMPs identified in the SWPPP could include but are not limited to the following:</p> <ul style="list-style-type: none"> <li>▪ Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.</li> <li>▪ Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.</li> </ul> | NA                                     |

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|                      |   | <ul style="list-style-type: none"> <li>▪ A spill prevention and countermeasure plan shall be developed which would identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used onsite. The plan would also require the proper storage, handling, use, and disposal of petroleum products.</li> <li>▪ Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction.</li> <li>▪ Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage outlets. Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion.</li> <li>▪ Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Store, cover, and isolate construction materials, including topsoil and chemicals, to prevent runoff losses and contamination of groundwater.</li> <li>▪ Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events.</li> <li>▪ Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff.</li> <li>▪ Disturbed areas shall be revegetated after completion of construction activities.</li> </ul> |  |

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|   |   | <ul style="list-style-type: none"> <li>▪ All necessary permits and approvals shall be obtained.</li> <li>▪ Provide sanitary facilities for construction workers.</li> </ul> |  |
|   |   | <p><b>4.7-1b:</b> The City shall incorporate the grading standards outlined within Chapter 14.19.244 of the Land Use and Development Code into project construction.</p>    |  |
| <p><b>4.7-2:</b> Implementation of the Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.</p>   | BI                                      | No mitigation is required.  | NA                                     |
| <p><b>4.7-3:</b> Implementation of the Proposed Project would not result in run-off quantities that could result in substantial erosion or siltation on-site or off-site, result in flooding on-site or off-site, or exceed the capacity of stormwater drainage systems.</p>  | LTS                                     | No mitigation is required.  | NA                                     |
| <p><b>4.7-4:</b> Development of the Proposed Project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, place within a 100-year flood hazard area structures that would impede or redirect flood flows; or expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam or inundation by seiche, tsunami, or mudflow.</p> | NI                                      | No mitigation is required.  | NA                                     |
| <p><b>4.7-5:</b> Implementation of the Proposed Project would not degrade groundwater quality nor substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.</p>  | LTS                                     | No mitigation is required.  | NA                                     |
| <p><b>4.7-6:</b> The Proposed Project in combination with future growth and development within the City and project vicinity could result in cumulative impacts to hydrology and water quality.</p>   | LTS                                     | No mitigation is required.  | NA                                     |

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| <b>4.8 Land Use</b>  |   |  |  |
| <b>4.8-1:</b> The Proposed Project would not result in a substantial inconsistency with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.8-2:</b> The Proposed Project would not contribute to adverse cumulative impacts associated with land use.  | LTS                                     | No mitigation is required.   | NA                                     |
| <b>4.9 Noise</b>   |   |  |  |
| <b>4.9-1:</b> Construction activities could intermittently and temporarily generate noise levels significantly greater than existing ambient levels in the Proposed Project vicinity.  | PS                                      | <p><b>4.9-1a:</b> Construction activities should be limited to the hours of 7 a.m. to 7 p.m. seven days a week.</p> <p><b>4.9-1b:</b> Stationary equipment and staging areas shall be located as far as practical from noise-sensitive receptors.</p> <p><b>4.9-1c:</b> All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' recommendations.</p> <p><b>4.9-1d:</b> To the extent feasible existing barrier features (structures) shall be used to block sound transmission between noise sources and noise sensitive land uses.</p> <p><b>4.9-1e:</b> The general contractors for all construction and demolition activities shall provide a contact number for citizen complaints and a methodology for dealing with such complaints such as designating a noise disturbance coordinator. This noise disturbance coordinator shall receive all public complaints about construction-related noise and vibration, shall be responsible for determining the cause of the complaint, and shall implement any feasible measures to be taken to alleviate the problem. All complaints and resolution of complaints shall be reported to the City weekly.</p> | LTS                                    |
| <b>4.9-2:</b> Increased traffic associated with construction of the Proposed Project could intermittently and temporarily increase the ambient noise level in the project area.  | LTS                                     | No mitigation is required.   | NA                                     |

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| <b>4.9-3:</b> Construction activities could expose sensitive receptors to excessive ground-borne vibration.  | NI                                      | No mitigation is required.  | NA                                     |
| <b>4.9-4:</b> Operational activities could permanently generate noise levels above existing ambient levels in the Proposed Project vicinity.   | BI                                      | No mitigation is required.  | NA                                     |
| <b>4.9-5:</b> Cumulative construction activities could temporarily generate noise levels above existing ambient levels in the Proposed Project vicinity.   | LTS                                     | No mitigation is required.  | NA                                     |
| <b>4.9-6:</b> Operation of the Proposed Project could generate noise levels above existing ambient levels in the Proposed Project vicinity under cumulative conditions.  | BI                                      | No mitigation is required.  | NA                                     |
| <b>4.10 Transportation and Circulation</b>   |   |   |  |
| <b>4.10-1:</b> Construction of the Proposed Project could cause an increase in traffic in relation to the existing traffic load and capacity of the street system.   | LTS                                     | No mitigation is required.  | NA                                     |
| <b>4.10-2:</b> The temporary increase in large vehicle traffic related to construction of the Proposed Project could result in deterioration of roadways, and subsequently potential traffic hazards.  | PS                                      | <b>4.10-2:</b> Construction traffic shall comply with the CVC sections related to vehicle weight and width. Any extra legal loads needed for specialized deliveries shall be subject to special permit requirements from Solano County. | LTS                                    |
| <b>4.10-3:</b> Construction traffic generated by the Proposed Project has the potential to result in inadequate emergency access.  | LTS                                     | No mitigation is required.  | NA                                     |
| <b>4.10-4:</b> Traffic generated by operation of the Proposed Project has the potential to increase traffic on City of Vacaville and Solano County roadways beyond an acceptable capacity.   | LTS                                     | No mitigation is required.  | NA                                     |
| <b>4.10-5:</b> Traffic generated by construction of the Proposed Project in combination with cumulative development and construction in the project area has the potential to increase traffic on affected roadways beyond an acceptable capacity. | LTS                                     | No mitigation is required.  | NA                                     |

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| <b>4.11 Agriculture</b>   |   |                            |  |
| <b>4.11-1:</b> The Proposed Project would result in the conversion of Prime Farmland to non-agricultural.   | SU                                      | No mitigation available.   | SU                                     |
| <b>4.11-2:</b> The Proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.   | LTS                                     | No mitigation is required. | NA                                     |
| <b>4.11-3:</b> The Proposed Project would contribute to adverse cumulative impacts associated with conversion of agricultural land uses.  | SU                                      | No mitigation available.   | SU                                     |
| NOTE: BI – Beneficial impact<br>LTS – Less than significant<br>NA – Not applicable<br>NI – No impact<br>SU – Significant and unavoidable<br>PS – Potentially significant<br>Source: AES, 2010 |   |                            |  |