

Appropriate vegetation management (see Section 3.5.1, Long-term Operations and Maintenance Component), along with encroachment permit requirements set by the CVFPB on vegetation plantings, would also maintain or reduce the potential flood conveyance height values. Therefore, maintenance, operations, and corrective measures would have **no impact** on Yolo Bypass flood conveyance capacity. The additional tidal connection would have a **less-than-significant impact** with excavated materials being placed either at the toe berm or at the stockpile sites, with substantially less materials proposed for reuse than the materials contemplated during the construction phase (i.e., 1.85 mcy of soil for Phase 1, and though not currently planned for, 0.65 mcy of soil for Phase 2). No mitigation would be required.

#### **Impact 4.1-5: Impacts on Local Groundwater**

*Applicable Significance Criteria: 2 and 3*

Only one groundwater well exists on the Project site. This well serves as a domestic water supply for the ranch compound during the summer agricultural season. In addition, agricultural activities on the Project site depend on the ability to effectively manage surface and shallow groundwater levels for forage production and cattle grazing.

The restoration of tidal flows to the Project site may increase local groundwater elevations in areas that are not underlain by a duripan (dense, cemented, nearly impermeable soil layer) or heavy clays. Based on local soils conditions, any increase in local groundwater elevations resulting from implementation of the Project would be minimal, and would not affect post-restoration agricultural activities across the site. The site's lone groundwater well at the Yolo Ranch compound extracts water from an aquifer much deeper than the shallow surface aquifer that would potentially be affected by tidal flooding, so tidally-driven changes to groundwater would not affect this well (see Section 4.2, Water Quality). **No impact** on local groundwater would result and no mitigation would be required. The Project design would be consistent with Yolo County's General Plan policies AG-2.1 and AG-2.2 (refer to **Table 4.1-2**).

Post-construction operations, maintenance, and monitoring would be non-invasive in nature (except for the additional tidal connection, if needed); affect only isolated areas of tidal channels, cattle fencing, and surface waters; and would serve to ensure that irrigation and drainage remain at Project design levels. Furthermore, none of these activities would involve application or removal of waters from the site. Therefore, these activities would have **no impact** on local groundwater and no mitigation would be required.

### **4.1.4 Mitigations**

#### **Mitigation Measure 4.1-1: Impacts on Flood Conveyance**

The following mitigation measure shall be carried out before implementation of the Project relying on either Soils Reuse Options #2 (stockpile) or #3 (combination):

- Finalize the engineering design to comply with applicable flood protection requirements in consultation with the Central Valley Flood Protection Board (CVFPB) and the U.S. Army Corps of Engineers (USACE). The engineering design shall consider a variety

of categories including design flows, channel stability, scour control, protection of flood control structures, etc. The goal shall be to design the Project to meet the maximum flood water surface rise of 0.1 foot (ft) or less.

- Conduct additional modeling to ensure and demonstrate compliance with the applicable requirements and operations of the Yolo Bypass in consultation with CVFPB and USACE, and prior to receiving encroachment permits. Modeling shall take into account levee heights and physical conditions, weir spills, and other dynamic processes that can occur during major floods. Guidance from USACE of not exceeding the base flood elevation by more than 0.1 ft shall apply with Project implementation, as based on the USACE RMA2 model for conveyance studies in the Yolo Bypass.

With adherence to all applicable laws and regulations governing hydrology/flood management (refer to Section 4.1.1, Regulatory Setting) and implementation of the above mitigation measure with applicable BMPs in Chapter 3 and post-construction activities, no unavoidable, significant adverse impacts associated with hydrologic flows would result with Project implementation. In particular, with mitigation, the Soils Reuse Options #2 and #3 would be less than significant.

**Impact 4.2-5: Effect on Domestic Supply Well Onsite***Applicable Significance Criteria: 1 and 4*

A single domestic water supply well is situated within the ranch compound (northwest portion of the Project site) (see **Figure 2-8**). At a depth of 144 ft below ground surface, the well is screened between 104 and 144 ft deep. This well supplies water to the ranch compound during the agricultural management season. As described in Impact 4.1-4 in the Section 4.1, Hydrology, the proposed Project would only have a very limited impact on groundwater levels in the local vicinity of the restoration footprint, due to the site soil conditions. The domestic supply well on the Project site draws from an aquifer much deeper (i.e., beyond 104 ft) than the shallow surface aquifer that would potentially be affected by the restored tidal marsh. Therefore, the proposed Project (i.e., grading activities within the top 10 ft of the soil profile) would not affect groundwater quality or violate a water quality standard or otherwise substantially degrade water quality. The selected soils reuse option would also not adversely affect water quality in the onsite well, because that option would be comprised of the same soil quality as currently above the well and would not result in any input of contaminants during the dry season into the groundwater or well. Therefore, the proposed Project would result in **no impact** to the supply well's groundwater quality. No mitigation would be required.

Construction activities, as well as long-term maintenance, experiments, monitoring, and possible construction of an additional tidal connection and tidal channel segment, would have **no impact** on the local aquifer from which the well draws, as all excavation and earthmoving activities would occur within the top 10 ft of the soil profile, approximately 95 ft above the well screen. Therefore, the proposed Project would result in **no impact** to the local aquifer supplying the onsite well to the ranch complex, and no mitigation would be required.

**4.2.4 Mitigations**

Because none of the water quality impacts listed in Section 4.2.3 would be significant or potentially significant, no mitigation measures would be required with Project implementation.

of riparian trees and shrubs in areas slated for tidal connections would likewise have a similar, minimal reduction in small mammal and ground-nesting bird prey populations.

Hence, similar to the foraging area impact on Swainson's hawk, the loss of foraging habitat for other special-status foraging raptors would be **significant**, if not mitigated. Implementation of Mitigation Measure 4.3-7 would reduce this impact to **less than significant**. As detailed in Section 4.3.4, this mitigation measure includes a variety of options to substantially avoid this significant impact by enhancement of habitat onsite, payment of a mitigation fee for a Swainson's hawk mitigation bank (that would be of benefit to other sensitive raptors), purchase of conservation easements, and/or participation in the Yolo County NCCP/HCP if adopted prior to the Project's start of construction. This mitigation measure is consistent with Yolo County's General Plan policies CO-2, CO-2.1, CO-2.2, and CO-2.4 (refer to **Table 4.3-5**).

For other special-status birds, such as mountain plover, black tern, western yellow-billed cuckoo, bank swallow, and yellow-headed blackbird, there is either a low or low-to-moderate probability of them occurring onsite because of limited, suitable habitat. Other special-status bird species have been observed onsite and include redhead, loggerhead shrike, grasshopper sparrow, and tricolored blackbird. These species of special concern, along with the bank swallow (California listed), do not occupy the site, or do so in a limited manner. Given the availability of nearby agricultural lands and that the restored areas would result in a mosaic of habitats that would be beneficial to these bird species, the temporary and permanent impacts on foraging for these species, if found onsite, would be **less than significant**. No mitigation would be required.

#### **4.3.4 Mitigations**

##### **Mitigation Measure 4.3-1: Effects from Ground-disturbing Activities to Wetland Communities**

The following mitigation measure shall be implemented before and during the implementation of the Project where ground-disturbing activities may occur in sensitive wetland communities:

- Locate construction staging areas outside of sensitive wetland habitats, by having their perimeters be as small as possible, and/or within the excavation/trenching limits. All staging areas shall be clearly flagged to define the limits of the work area. No construction access, parking, or storage of equipment or materials shall be permitted outside of the established limits. This shall be achieved by limiting machinery and vehicle access to temporary tracks or pads, as necessary and direct removal of soils to temporary stockpiles, located away from sensitive areas, for transportation to the selected soils reuse site. These areas shall be identified on work plans, specifications, and other applicable engineering/contractor documents.
- Define clearly on maps the boundaries of sensitive habitats not within the restoration footprint (ground-disturbing areas of the Project site), and demarcated as avoidance areas.
- Limit construction and post-construction actions involving ground-disturbing activities to the dry weather season (generally between April and November, but varies each year), thereby reducing the potential for export of contaminants and/or sediments.

- Require contractors to sign documentation stating that they have read, agree to, and understand the required avoidance measures.
- Require construction crew members to participate in training sessions, which clearly identify and describe sensitive communities and other biological resources.
- Utilize the services of a qualified biologist onsite to observe ground-disturbing activities when such activities occur within or adjacent to sensitive habitats, and/or to monitor sensitive special-status species' locations.

Upon completion of ground-disturbing activities in areas containing sensitive habitats, the Project description identifies post-construction monitoring that will be carried out to ensure successful revegetation of native species, along with implementation of corrective measures, as needed, including control of invasive plant species (see Section 3.5: Long-term Operations and Maintenance Component, Project Outcome Verification Monitoring Component, and Regional Science Support Component).

Implementation of Mitigation Measure 4.3-1, above, would reduce the effects from ground-disturbing activities to wetland communities to **less than significant**.

#### **Mitigation Measure 4.3-2: Loss or Disturbance of Habitat for Special-status Plants**

Prior to initiation of ground-disturbing activities, a qualified botanist shall conduct appropriately timed, focused botanical surveys of the Project site targeting known and potentially occurring special-status plant species, including Mason's lilaeopsis, Suisun Marsh aster, and Delta tule pea.

Dependent on the Project's final design and conditions onsite, the following mitigation measure shall be undertaken to avoid, minimize, or reduce loss or disturbance to identified special-status plants:

- Adjust design to avoid or minimize impacts to special-status plants to the extent feasible.
- Enumerate, photograph, and flag conspicuously or mark with temporary drift fencing or other physical barriers the areas supporting individual plants or populations of special-status plants that have the potential to be impacted, prior to construction.
- Limit work areas including access and staging areas to the minimum area practical.
- Notify the California Department of Fish and Wildlife (CDFW) at least ten days in advance of any ground-disturbing activity that could impact special-status plants to allow CDFW the opportunity to salvage affected individual plants for transplanting to a suitable location outside of the disturbed area.
- Require construction workers to inspect their clothing, including shoes, all vehicles, and equipment for invasive plant seeds or plant material, prior to entering and leaving the Project area. Appropriate cleaning measures shall be taken to prevent the spread of invasive species into restored areas.

Implementation of Mitigation Measure 4.3-2, above, would reduce the loss or disturbance of habitat for special-status plant species to **less than significant**.

### **Mitigation Measure 4.3-3: Loss of Vernal Pools and Habitat for Invertebrates**

The following mitigation measure shall be undertaken to avoid disturbance to vernal pools and special-status invertebrates:

- Establish and flag conspicuously a buffer area of at least a minimum of 250 feet horizontally from the edge of hydrophytic vegetation associated with the vernal pools. No construction vehicles, equipment, or personnel shall be permitted to enter this buffer zone for the duration of the Project.
- Identify the vernal pools as Environmentally Restricted Areas on all applicable engineering and construction drawings, designs, and specification/work plan documents.
- Control nearby grading or contouring in a manner that does not prevent hydrologic inputs to the vernal pools that are similar to what currently happens.

Implementation of Mitigation Measure 4.3-3, above, would reduce the loss of vernal pools and habitat for invertebrates for special-status plant species to **less than significant**.

### **Mitigation Measure 4.3-4: Impacts on Giant Garter Snake or Giant Garter Snake Habitat**

The mitigation measure for the giant garter snake (GGS) shall include the following:

- Require construction personnel to receive U.S. Fish and Wildlife Service (USFWS)-approved worker environmental awareness training to recognize the GGS and its habitat.
- Confine clearing of vegetation to only those areas necessary to facilitate construction activities and no greater. Areas designated as GGS and/or other sensitive-species habitat within or adjacent to the Project site shall be flagged as Environmentally Sensitive Areas and shall be avoided by all construction personnel.
- Survey the site at least 24 hours prior to the initiation of ground-disturbing activities in suitable GGS habitat. This survey shall be conducted by a USFWS-approved biologist in suitable GGS habitat. Surveys shall be repeated if a lapse in construction activity of two weeks or greater occurs. If a GGS is encountered during ground-disturbing activities, activities at that specific location shall cease until appropriate corrective measures, in concurrence with USFWS coordination, have been completed or it has been determined that the GGS will not be harmed. Sightings shall be reported to USFWS.
- Implement construction activity within GGS habitat between May 1 and October 1. This is the active period for GGS and direct mortality is lessened, because GGS are expected to actively move and avoid danger. Consultation with the USFWS is required for construction activities scheduled to occur in potential GGS habitat between October 2 and April 30.
- Ensure that any dewatered GGS habitat shall remain dry for at least 15 consecutive days after April 15, and prior to excavating or filling of the dewatered GGS habitat.

- Require when working near flooded canals during the summer months, vehicle speeds shall not exceed 15 miles per hour (MPH) in areas where the line-of-site is obstructed and 25 MPH in other areas to avoid hitting the GGS and other special-status wildlife.
- Remove temporary fill and construction debris after construction completion, and, wherever feasible, restore disturbed areas to pre-project conditions.

As required through the federal and state permitting processes, further minimization and avoidance measures shall be developed in coordination with USFWS through §7 of the federal ESA consultation and with CDFW through CESA for this Project.

Implementation of Mitigation Measure 4.3-4, above, would reduce the impact on GGS and its habitat to **less than significant**.

#### **Mitigation Measure 4.3-5: Impacts on Western Pond Turtle or Western Pond Turtle Habitat**

The mitigation measure for the western pond turtle shall be as follows:

- Survey areas prior to implementing restoration activities and/or dewatering scheduled in or adjacent to suitable aquatic habitat for the western pond turtle by a qualified biologist.
- Remove western pond turtles found by a qualified biologist to a safe location outside of the work area in a manner consistent with applicable CDFW regulations.
- Conduct periodic monitoring by a qualified biologist of suitable aquatic habitat for the western pond turtle until ground-disturbing/dewatering activities have ceased in those areas.

Implementation of Mitigation Measure 4.3-5, above, would reduce the impact on the western pond turtle and its habitat to **less than significant**.

#### **Mitigation Measure 4.3-6: Impacts to Nesting Habitat/Nesting Special-status and Migratory Birds**

To ensure compliance with MBTA (16 USC §§ 703-711) and CFG Code (§§ 3503, 3511, and 3513), the following mitigation measure shall be implemented, as applicable, to special-status birds and migratory birds:

- Remove or trim a minimal number of trees that would satisfy the Project design and allow for minimal access by construction equipment within the construction footprint in advance of nesting season, i.e., August 16 to February 14. Should nesting by sensitive bird species occur prior to February 15, proceed with the remaining steps in this mitigation measure.
- Conduct preconstruction nesting bird surveys during the bird breeding season (February 15 to August 15) within the construction footprint including a 300-foot buffer, by a qualified biologist, within two weeks prior to equipment or material staging, pruning/grubbing or surface-disturbing activities, including soils grading or excavation. If no active nests are found, no further mitigation shall be required.

- Establish a buffer area if active nests (i.e., nests in the egg laying, incubating, nestling or fledgling stages) are found within 300 feet of the Project footprint for raptors (birds of prey), within a 0.5-mile radius for Swainson's hawk, or 100 feet of the construction footprint for all other bird species. Non-disturbance buffers shall be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. The size of the buffers may be adjusted provided a qualified biologist, in consultation with CDFW and USFWS, monitors the behavior of the nesting birds and determines that impacts of Project-related activities are not affecting the birds' reproductive or rearing efforts.
- Ensure that if rescheduling of work is infeasible and non-disturbance buffers cannot be maintained, a qualified biologist shall be onsite to monitor active nests for signs of disturbance for the duration of the construction activity. If it is determined that Project-related activities are resulting in nest disturbance, then work in those sensitive areas shall cease immediately and CDFW and USFWS shall be contacted for further guidance.
- Repeat nest surveys by a qualified biologist, if post-construction activities continue beyond one year.

Implementation of Mitigation Measure 4.3-6, above, would reduce the impact to nesting habitats and nesting activities by special-status birds and migratory birds to **less than significant**.

#### **Mitigation Measure 4.3-7: Loss of Foraging Habitat for Swainson's Hawk**

The mitigation measure for Swainson's hawk shall be as follows:

- Ensure that suitable Swainson's hawk foraging habitat is preserved or enhanced at a ratio of 0.5:1 for up to 52.5 acres, based on final engineering designs, presence of Swainson's hawk, and consultation with CDFW. Preservation/enhancement may occur through one or more actions:
  - Preservation and enhancement of habitat onsite with equal or greater quality than existing foraging habitat.
  - Payment of a mitigation fee to a CDFW-approved mitigation bank for the preservation of Swainson's hawk foraging habitat.
  - Purchase of conservation easements or fee title to suitable Swainson's hawk foraging habitat to protect the habitat from urban development.
  - Participation in the Yolo County NCCP/HCP should it be adopted prior to the Project's start of construction.
  - Other measures, as needed, through consultation with CDFW.

Implementation of Mitigation Measure 4.3-7, above, would reduce the impact to foraging by Swainson's hawk and other raptors to **less than significant**.



Depending on final design and construction efforts, credit for creating foraging habitat for the Swainson's hawk shall also be pursued as credit under the near term actions of the forthcoming Bay Delta Conservation Plan.

With adherence to all applicable laws and regulations governing biological resources (refer to Section 4.3.1, Regulatory Setting) and implementation of the above mitigation measures with applicable BMPs and post-construction activities (e.g., corrective actions, monitoring, etc.), no unavoidable, significant adverse impacts for biological resources assessed in Section 4.3.3, Impacts, would result with Project implementation.

#### 4.4.4 Mitigations

##### **Mitigation Measure 4.4-1: Temporary Impacts from Filling of the West Yolo Bypass Levee Borrow Ditch**

The following mitigation measure shall be implemented during construction:

- Conduct biological monitoring during the filling of the west Yolo Bypass levee borrow ditch if either Soils Reuse Option #1 or #3 is selected.
- Develop and implement a protocol between the biological monitor and the project engineer to redirect the filling activity if special-status fishes (e.g., adult salmonids) are observed in the immediate vicinity of the fill area, until the fishes leave the site.

Implementation of Mitigation Measure 4.4-1, above, would reduce the effects from filling the ditch to **less than significant**.

##### **Mitigation Measure 4.4-2: Temporary Impacts from Irrigation and Drainage Improvements**

The following mitigation measure shall be implemented prior to the onset of excavation on the marsh plain and irrigation ditches:

- Conduct biological surveys to determine if there are any fishes present.
- Recover fishes, if present, using appropriate techniques such as beach seining; retain the captured fishes in cooled, aerated containers; and release fishes the same day as captured into the waters of Stair Step or Toe Drain.

Implementation of Mitigation Measure 4.4-2, above, would reduce the effects from excavating marsh plains and irrigation ditches to **less than significant**.

No unavoidable, significant adverse impacts would result from the Project with respect to aquatic biological resources, because SFCWA will adhere to all applicable laws and regulations (refer to Section 4.4.1, Regulatory Setting) and will implement the above mitigation measures with applicable BMPs and post-construction activities (e.g., corrective actions and monitoring).

Therefore, the Project would generally be consistent with Yolo County's existing zoning, general policies, and land use designations, along with the existing DPC LURMP policies. **No impact** by the Project, during both construction and post-construction phases, would result in conjunction with these land use planning requirements. Accordingly, no mitigation would be required.

#### **4.5.4 Mitigations**

Because none of the three agricultural resources impacts listed in Section 4.5.3 would be significant or potentially significant, no mitigation measures would be required with Project implementation.

demand and therefore energy use; a decline in coal-fired electricity generation; and, reduced gasoline demand.” The Project’s construction would follow with this recent trend of lower GHG emissions by being inherently energy efficient (see Section 4.9). Hence, the proposed Project would comply with Item C analysis.

For the last GHG analysis (Item D), the Project would not be in conflict with any of the identified local or regional air quality plans for reducing GHG emissions (refer to **Tables 4.6-6 through 4.6-9**). Indeed, the Project would result in a long-term net **benefit** by potentially sequestering approximately 13, 800 MTCO<sub>2</sub>e annually.

Due to the temporary nature and relatively minor amount of GHG emissions from construction activities and the long-term net benefit of the Project, the Project would improve net GHG emissions and therefore impacts associated with global warming would be **less than significant**. Also, the proposed Project would not be conflict with the AB 32 Scoping Plan nor adopted local or regional plans for reducing GHG emissions. No mitigation would be required.

## **4.6.4 Mitigations**

### **Mitigation 4.6-1: Release of Short-term, Temporary Construction Emissions**

This mitigation measure shall be implemented to minimize emissions of NO<sub>x</sub> and PM<sub>10</sub>:

- Limit construction on those days where Yolo County is predicted to exceed the “Spare the Air” Air Quality Index (AQI) for ozone >127 by the Sacramento Metropolitan Air Quality Management District (summer downwind area). Examples of limiting construction could range from stopping work that day to reducing construction to a half day or relying on electrical equipment solely. Once the AQI level of unhealthy is reached, i.e., 151 to 200 or beyond, all construction work shall cease for that day.
- Require haul trucks and off-road diesel equipment operators to shut down their engines instead of idling for more than five minutes, unless such idling is necessary for proper operation of the equipment. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Require contractors’ construction equipment to be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked and determined to be running in proper condition prior to operations.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- Cover or maintain at least two feet of freeboard space on haul trucks transporting soil, sand, or loose materials onsite. Any haul trucks that would be traveling along freeways or major roadways shall be covered.
- All active construction sites shall be watered at least twice daily. Frequency shall be based on the type of operation, soil, wind exposure, and the ability to eliminate visible fugitive dust.

- Between the time of completing construction and prior to the onset of winter rains, encourage the property owner and/or property manager to reinstate typical agricultural irrigation practices as a means to wet soils so they do not generate dust, as feasible.
- Cover or water inactive storage piles.
- If Soils Reuse Option #1 or #3 is selected, then re-establish vegetation on the toe berm and buffer areas, i.e., use native grassland species seed mix on the toe berm and apply native wetland-upland transition mix in the buffer areas.
- Develop an emissions reduction plan that demonstrates that off-road equipment of more than 50 horsepower to be used during construction of all project- and program-level elements shall achieve a project-wide fleet-average 20 percent NO<sub>x</sub> reduction and 45 percent PM reduction compared to the most recent California Air Resources Board fleet average. Acceptable options for reducing emissions shall include using late model engines, low-emissions diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or add-on devices such as particulate filters, with specifics dependent on contractor's ability to secure such equipment in a timely fashion.

During the preparation of the Draft EIR, the option of extending the construction phase to two years was considered but rejected as an air quality mitigation/option to minimize NO<sub>x</sub> (refer to Section 5.7.4, Construction Schedule Extension Option, for a more detailed discussion).

With implementation of Mitigation Measure 4.6-1, construction NO<sub>x</sub> and PM<sub>10</sub> emissions would be **less than significant**. Hence, no unavoidable, significant adverse impacts associated with air quality and GHG would occur with Project implementation.

Therefore, during the post-construction phase, the Project's impact to historic resources would be **less than significant**. No mitigation would be required.

### **Impact 4.7-3: Impacts to Unknown Human Burial Resources**

*Applicable Significance Criteria: 3*

No cemeteries, ancient burial grounds, or other sites containing human remains, are known onsite. However, the potential exists for unknown human burial resources to be unearthed during Project construction. The northern parts of the site near the former Mound Ranch would have the highest likelihood of containing such resources. No excavation is proposed for that area. The southern portions of the site have low potential for containing such resources.

Earthwork, such as excavating, trenching, dredging, potholing, and digging, may infrequently occur during operations and maintenance activities, corrective actions, and long-term monitoring during the life of the proposed Project. Such earthwork may occur in areas that have not been previously disturbed by agricultural operations and flood control maintenance practices; thereby increasing the risk of disturbing soils that may contain human burial resources.

Overall, lack of surface evidence does not preclude the existence of possible buried human remains. Since ground-disturbing activities may result in the discovery and inadvertent damage to these important resources and the possibility cannot be completely eliminated, a **potentially significant impact**, if not mitigated, could result during the construction and post-construction phases. Implementation of Mitigation 4.7-1 (refer to Section 4.7.4, Mitigations) would reduce this potential impact to **less than significant**. This measure is consistent with the Yolo County's General Plan policies and actions (see **Table 4.7-1**), and involves working with the coroner's office and MLD, as applicable.

## **4.7.4 Mitigations**

### **Mitigation Measure 4.7-1: Loss of, or Damage to, Unknown Archaeological Resources**

The following mitigation measure shall be implemented before and during the implementation of the Project where ground-disturbing activities may occur:

- Conduct an environmental awareness training concerning cultural resources management, utilizing the services of a qualified archaeologist for contractors and their staff prior to the start of construction.
- Cease ground-disturbing work in the vicinity of the area should buried archaeological resources be uncovered during construction, operation, and/or routine maintenance, until a qualified archaeologist can visit the site of discovery and assess the significance of the resource. After the assessment is completed, the archaeologist shall submit a report describing the significance of the discovery and its origin with cultural resources management recommendations if the archaeological resources are significant.

- Comply with Public Resources Code § 21083.2, as applicable, should buried archaeological resources be found. Avoidance or preservation in an undisturbed state is the preferable course of action. Preservation methods may include:
  - Planning construction to avoid archaeological sites.
  - Deeding sites into permanent conservation easements.
  - Capping or covering sites with a layer of soil before building on the sites.
  - Planning parks, greenspace, or other open space to incorporate archaeological sites.

Actual preservation measures may vary, depending upon the specific situation and may include excavation, preservation, and curation at a designated repository. This mitigation would reduce the impact to unknown buried archaeological resources to **less than significant**.

#### **Mitigation Measure 4.7-2: Impacts to Unknown Human Burial Resources**

The following mitigation measure shall be implemented before and during the implementation of the Project where ground-disturbing activities may occur:

- Notify the Yolo County coroner, Yolo County Department of Public Works, and designated Most Likely Descendant (as identified by the Native American Heritage Commission) in the event of discovering human remains during construction, operation, and/or routine maintenance of the Project. The notification protocol and process shall proceed in accordance with the *State CEQA Guidelines*, California Code of Regulations (CCR) § 15064.5(e); Public Resources Code § 5097.98; and Health and Safety Code § 7050.5, as applicable.

This mitigation would reduce the impact to unknown human burial resources to **less than significant**.

With the implementation of Mitigation Measures 4.7-1 and 4.7-2, there would be no unavoidable, significant adverse impacts associated with cultural resources.

No urban or residential areas occur in the vicinity of the Project; however, scattered, nearby ranch residences would be subject to mosquitoes produced both on and off of the Project site. This impact would not likely to change noticeably compared with existing conditions at those ranches. Based on this analysis, this environmental health effect would be **less than significant**.

Because none of the vector control impacts listed in Section 4.8.3, Impact 4.8-3, would be significant or potentially significant, no mitigation measures would be required. Additionally, the overall effect of mosquito control would be **beneficial** with Project implementation.

## 4.8.4 Mitigations

### Mitigation Measure 4.8-1: Effects of Soils and Materials Contamination

Based on final design and environmental/physical conditions onsite, one or more of the following elements of this mitigation measure shall be undertaken if evidence indicates that soil sites and/or materials are contaminated per applicable hazardous waste laws and regulations:

- Develop and implement a monitoring and treatment/disposal plan in accordance with all applicable hazardous waste laws and regulations.
- Examine soil below any pole-mounted transformers on the portion of the Project site to be graded. If there is evidence (such as discoloration of the soil) that PCBs have leaked from the transformers, then Pacific Gas & Electric (PG&E) shall be contacted. It is the responsibility of PG&E to perform a soils investigation and cleanup if any of the pole-mounted transformers are determined to have leaked PCBs.
- Test or assume that the wood demolished and removed from the existing irrigation system contains potentially hazardous waste (e.g., lead paint, creosote, arsenic, etc.) and then have it treated, recycled, or disposed of in accordance with applicable regulations concerning hazardous waste.

Implementation of Mitigation Measure 4.8-1, above, would reduce these potential effects of soils and materials contamination to **less than significant**.

### Mitigation Measure 4.8-2: Hazards with Natural Gas Wells and Related Pipelines

- Develop and implement actions in coordination and concurrence with the Yolo County Fire and Emergency Services Department and California Division of Oil, Gas, and Geothermal Resources to comply with applicable requirements of the Well Review Program (DOGGR 2007) and other applicable public safety requirements. Such measures include contacting the California Underground Service Alert in a timely manner prior to excavation, inspecting site to look for physical evidence of underground facilities, marking off excavated areas, having an emergency plan in place, etc.

Implementation of Mitigation Measure 4.8-2, above, would reduce this potential impact to **less than significant**.

As identified under site preparation (see Section 3.4.2), Project implementation would involve the management of hazardous materials by: identifying and remediating suspected soils and



materials contamination, preventing potential site contamination runoff (refer to Section 4.2, Water Quality), and preventing or remediating existing/abandoned utilities' potential contamination and hazards. Additionally, with adherence to all applicable laws and regulations governing hazardous materials (refer to Section 4.8.1, Regulatory Setting) and implementation of the above mitigation measures, no unavoidable, significant adverse impacts associated with hazards and hazardous materials would result with Project implementation.

4. **Control speed.** Controlling speed and avoiding sudden acceleration to promote fuel efficiency and to reduce the wear and tear on a variety of components including the engine, clutch, valves, and tires.

Based on the above analysis, consumption and potential inefficiencies of using diesel and gasoline during the Project's construction would be **less than significant**. With respect to new or modified fuel facilities, **no impact** would result with Project implementation.

Long-term operations of the Project would include minor maintenance activities, potential corrective actions, and monitoring. A limited degree of operations and maintenance activities (e.g., levee improvement) would involve some labor as well as energy usage by equipment and vehicles, but this would represent a minor long-term use of energy. Transportation vehicles would also be used to bring monitors and scientists to and from the site periodically. Overall, these long-term operational activities would not involve inefficient, wasteful, or unnecessary consumption of energy. The amount of long-term energy requirements associated with the Project for these post-construction activities would result in **no impact** on existing energy resources available to the local area or to Yolo County.

#### **4.9.4 Mitigations**

Because none of the energy impacts listed in Section 4.9.3 would be significant or potentially significant, no mitigation measures would be required with Project implementation.