

DRAFT

## **Supplemental Environmental Assessment I**

### **San Joaquin River Basin, Lower San Joaquin River, California Project Tenmile Slough Reach 30L Levee Improvements**



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## ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effects
BO	Biological Opinion
BP	before present
CAA	Clean Air Act
CAR	Coordination Act Report
CARB	California Air Resource Board
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH <sub>4</sub>	methane
City	City of Stockton
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
County	County of San Joaquin
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
Delta	Sacramento-San Joaquin Delta
DWR	California Department of Water Resources
EFH	Essential Fish Habitat
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
EJ	Environmental Justice
EO	Executive Order
EP	Engineer Pamphlet
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ETL	Engineer Technical Letter
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
IIFR/EIS/EIR	Integrated Interim Feasibility Report/Environmental Impact Statement/Environmental Impact Report
GGS	giant garter snake
GHG	Greenhouse gas
HEP	Habitat Evaluation Procedure
I-5	Interstate 5
LERRD	Lands, Easements, Rights-of-Way, Relocations, and Disposal
LESA	Land Evaluation and Site Assessment
LSJR	Lower San Joaquin River



MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFS	Non-Federal Sponsor
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
N <sub>2</sub> O	nitrous oxide
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
O&M	operations and maintenance
PA	Programmatic Agreement
PG&E	Pacific Gas and Electric Company
Phase I ESA	Phase I Environmental Site Assessment
P.L.	Public Law
PM	particulate matter
PM <sub>10</sub>	PM equal to or less than 10 micrometers in diameter
PM <sub>2.5</sub>	PM equal to or less than 2.5 micrometers in diameter
RCEM	Road Construction Emission Model
RD	Reclamation District
Reclamation	U.S. Bureau of Reclamation
SC-GHG	Social cost of greenhouse gases
SEA	Supplemental Environmental Assessment
SEWD	Stockton East Water District
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SJAFCA	San Joaquin Area Flood Control Agency
SJR	San Joaquin River
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO <sub>2</sub>	sulfur dioxide
SPRR	Southern Pacific Railroad Company
SR	State Route
SSFM	Sanitary Sewer Force Main
SWPPP	Stormwater Pollution Prevention Plan
tpy	tons per year
TS30L	Tenmile Slough, Reach 30L
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VELB	Valley Elderberry Longhorn Beetle
VFZ	vegetation free zone
WAPA	Western Area Power Administration

# Chapter 1 INTRODUCTION

## 1.1 Summary

The Lower San Joaquin River (LSJR), California, Project (Project) is a cooperative flood risk management effort by the U.S. Army Corps of Engineers (USACE) with its non-Federal sponsors (NFS) – the San Joaquin Area Flood Control Agency (SJAFC) and the Central Valley Flood Protection Board (CVFPB), represented by California Department of Water Resources (DWR) – to reduce flood risk in the Stockton area. Seven alternatives were evaluated in a Final Integrated Interim Feasibility Report/Environmental Impact Statement/Environmental Impact Report (IIFR/EIS/EIR), finalized January 2018. Alternative 7a was identified as the recommended alternative and includes construction of two closure structures, one on Fourteenmile Slough and one on Smith Canal, as well as levee repairs and new levee construction along 23 miles of the Delta Front, Calaveras River, San Joaquin River, French Camp Slough, Mosher Slough, and Duck Creek. The Chief's Report for the LSJR study was signed on July 31, 2018.

The 2018 LSJR IIFR/EIS/EIR discussed the overall impacts of the proposed levee repairs and closure structures but left specific details to be analyzed during design of each of the reaches. These include Project design elements such as borrow sites, haul routes, staging areas, and the final footprint. Additionally, environmental and cultural resource impacts were largely conducted by desktop analysis, with detailed field surveys to be conducted prior to Project construction. This Supplemental Environmental Assessment (SEA) supplements the 2018 LSJR IIFR/EIS/EIR and analyzes impacts from the proposed design refinements at Tenmile Slough, Reach TS30L (TS30L). This Draft SEA is the first supplemental document for the Project prepared in compliance with the National Environmental Policy Act (NEPA). Subsequent Project reaches will require further environmental review as their designs are refined, which may result in the creation of additional supplemental documentation.

The recommended plan in the 2018 LSJR IIFR/EIS/EIR for TS30L included fix-in-place improvements consisting of a cutoff wall, geometry improvements, all weather maintenance access roads, and erosion protection. The following elements not discussed in the 2018 LSJR IIFR/EIS/EIR, but refined and updated during design, are analyzed in this SEA: the Stockton East Water District (SEWD) borrow site and haul route, two staging areas, an improved road in the waterside easement, and a levee footprint shifted towards the waterside. Furthermore, the 2018 LSJR IIFR/EIS/EIR described a 14-acre mitigation site created by a setback levee at Fourteenmile Slough to receive the elderberry shrubs identified in Alternative 7a. Mitigation for impacted riparian and wetland habitats was to be accomplished through the purchasing of credits. Due to Project sequencing, the Fourteenmile Slough mitigation site has not been constructed yet. Additionally, credits for riparian and wetland habitats are not available for purchase at this time. USACE is considering constructing a new mitigation site to compensate for levee construction impacts to riparian and wetland habitats. These elements will be referred to as the Proposed Action.

## 1.2 Authority

Alternative 7a was authorized for construction in America's Water Infrastructure Act of 2018 (Public Law [P.L.] 115-270), which expedited the completion of the feasibility study and allowed the study to proceed directly to the preconstruction, engineering, and design phase of the Project, as described in Section 1322(b)(2)(F) of the Water Resources Development Act of 2016 (P.L. 114-322).

## 1.3 Project Purpose

The overall purpose of the Lower San Joaquin levee improvements is to decrease flood risk by decreasing the annual chance of flooding in North and Central Stockton. The improvements specific to TS30L address flood risk from the Sacramento - San Joaquin Delta, a large, tidally-influenced region over 1,000 square miles in area, and its tributaries. The Delta is fed by the Sacramento and San Joaquin Rivers, which receive runoff from winter storms and spring snowmelt from California's Central Valley and Sierra Nevada mountains. Reach TS30L is located along the Delta Front, a region that was determined by USACE, SJAFCA, and CVFPB to pose the greatest flood risk.

## 1.4 Need for Action

The 2018 LSJR IIFR/EIS/EIR did not identify specific Project elements, such as the borrow site location and haul routes, staging area locations, the specific levee footprint, and it described a different mitigation strategy. The general levee improvements were described for TS30L, but the final footprint was not yet known. The 2018 LSJR IIFR/EIS/EIR stated that placement of new material for levee slope reshaping was to occur on the landside of the levees. Due to the proximity of residential property lines to the landside toe, placing material and expanding the levee toward the landside is not feasible.

For mitigation, the 2018 LSJR IIFR/EIS/EIR stated that elderberry shrubs would be transplanted to a new mitigation site created by a setback levee at Fourteenmile Slough; however, the setback and mitigation area will not be constructed in time to receive the transplants. Permanent impacts to riparian and wetland habitat were to be compensated for through the purchase of credits at mitigation banks, which were available at the time of the 2018 LSJR IIFR/EIS/EIR. However, by the time of the Project's design, sufficient riparian and wetland mitigation credits were no longer available to compensate for impacts, therefore USACE and its NFS must formulate a new strategy to mitigate for impacts at Reach TS30L.

## 1.5 Proposed Action

The Proposed Action consists of the following elements associated with Reach TS30L that were not analyzed in the 2018 LSJR IIFR/EIS/EIR:

- A borrow site located nine miles east of TS30L, owned by SEWD

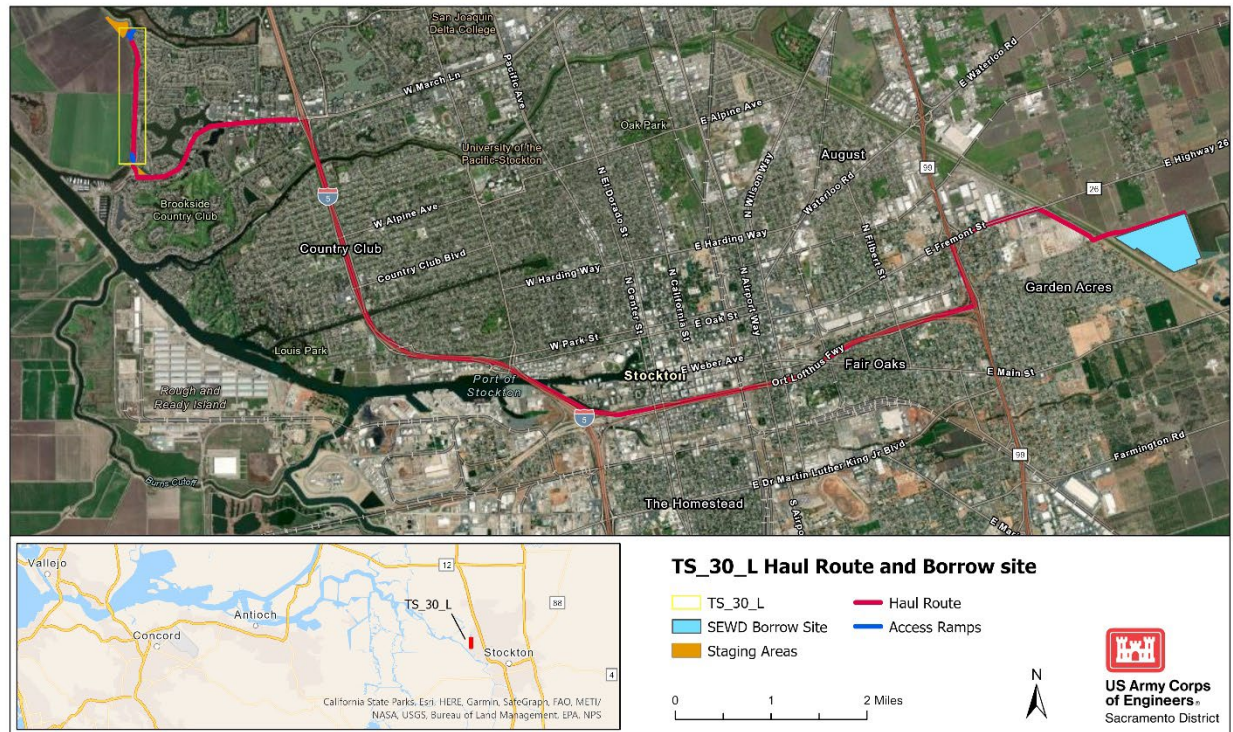
- Proposed haul route to transport materials from the borrow site to the construction site
- Two construction staging areas
- Improved all-weather access road within the 15-foot waterside easement
- Updated levee footprint resulting from the placement of material associated with the slope reshaping on the waterside slope instead of the landside, shifting the levee centerline towards the waterside
- Alternatives to Fourteenmile Slough Valley Elderberry Longhorn Beetle (VELB) mitigation site
- Sites being considered for mitigation construction for TS30L habitat impacts

## 1.6 Proposed Action Area

The Proposed Action is located in the City of Stockton in San Joaquin County, California (Figure 1). Reach TS30L is located on the west side of Stockton between Fourteenmile Slough and the San Joaquin River in an area referred to as the Delta Front. Reach TS30L is a dryland levee with a north-south orientation and is 5900 feet in length. The Brookside neighborhood is immediately to the east of TS30L (landside), and rice fields lie to the west (waterside). Farther west, beyond the rice fields, lies the San Joaquin Delta. An irrigation ditch parallels the levee along the entire length. The southern staging area is 1.7 acres in area and is located on March Lane, just to the east of TS30L. This staging area is owned by the City of Stockton and is considered part of the existing road right-of-way. The northern staging area is 9.8 acres and will be located on the adjacent rice field west of TS30L. The 110-acre SEWD borrow site is located among agricultural fields nine miles to the east of TS30L, requiring a haul route which crosses the city in an east to west direction. Potential mitigation sites are situated adjacent to the levee or at offsite locations within 3 miles.

## 1.7 Prior NEPA Documents

This SEA describes the first reach of the Lower San Joaquin River Project. The 2018 LSJR IIFR/EIS/EIR analyzed this reach using a conservative approach using typical cross sections and footprints for levee reaches, with the understanding that further design refinements would be completed during the reach design with the development of supplemental NEPA/CEQA documentation as needed.



**Figure 1. Location of Reach TS30L, staging areas, and haul route to and from SEWD borrow site.**

## 1.8 Purpose of this SEA and Decision Needed

Under NEPA guidelines, a SEA is prepared to evaluate potential impacts of Project changes made after a Record of Decision. This SEA describes the refinements developed since the 2018 LSJR IIFR/EIS/EIR pertaining to the design and mitigation for the Reach TS30L levee improvements. The environmental effects of the Proposed Action and No Action Alternative are analyzed and disclosed for public review. Measures to lessen and mitigate for adverse environmental effects of the Proposed Action have been identified in order to ensure environmental effects are less than significant. This draft SEA will be released for a 45-day public review period from May 31 to July 17, 2023 to align with the California Environmental Quality Act (CEQA) addendum review period. All public comments received and responses to the comments will be included in Appendix A, Public Comments and Responses.

The District Engineer, Commander of the Sacramento District, must decide whether the Proposed Action qualifies for a Finding of No Significant Impact (FONSI) under NEPA guidelines, or whether a Supplemental EIS must be prepared.

## Chapter 2 ALTERNATIVES

### 2.1 No Action Alternative

The No Action Alternative assumes the Reach TS30L levee improvements are constructed as described in Alternative 7a in the 2018 LSJR IIFR/EIS/EIR. The general levee improvements at TS30L included in Alternative 7a and analyzed in the 2018 IIFR/EIS/EIR were cutoff wall construction, geometry improvements (slope reshaping), and installation of waterside erosion protection. The improvements included construction of 20-foot-wide access roads on the levee crest and along the landside easement. The geometry improvements would entail clearing and grubbing the waterside levee crest edge and landside slope, then adding material to the landside levee slope to meet USACE levee design criteria for side slopes and crown width. Erosion protection (riprap) would be placed on the waterside slope at a thickness of two feet. The 15-foot waterside easement would be reseeded with native grasses and forbs to comply with USACE guidelines for levee vegetation unless a design deviation was granted to allow woody vegetation. To accommodate levee improvements, all vegetation within the grading limits would be removed.

Consistent with the original designs, a soil bentonite slurry seepage cutoff wall would be installed to an average depth of 21 feet below current ground surface. To construct the cutoff wall, the levee would be degraded by one-third to one-half of its current height. Then, a 12-foot-wide trench would be excavated in the levee centerline and filled with slurry. The trench would remain filled with slurry until the full depth of 21 feet below ground surface is reached. Subsequently, the soil bentonite mix would be used to backfill the trench and displace the slurry. After the soil-bentonite has cured, the levee would be reconstructed.

Borrow sites, haul routes, and staging areas were not known at the time the 2018 LSJR IIFR/EIS/EIR was published, and thus were not described in that document. Mitigation for elderberry shrubs was to occur by creating a levee setback at Fourteenmile Slough, the levee reach immediately to the north of TS30L. This 14-acre mitigation site was to receive transplanted elderberry shrubs and plantings of other riparian vegetation. Mitigation for impacts to wetland and riparian habitats were to be accomplished by purchasing mitigation bank credits.

### 2.2 Proposed Action

The Proposed Action consists of the following elements not previously analyzed due to new information developed during design: the borrow site and haul routes, two staging areas, refinements to the levee design, and mitigation sites for environmental impacts.

#### 2.2.1 Staging Areas, Stockton East Water District Borrow Site, and Haul Routes

The staging areas, SEWD borrow site, and haul routes are depicted in Figure 1. The borrow site is located 11 miles east of TS30L on 110 acres of agricultural land; fill

material will be hauled by truck from this location in order to construct the levee improvements. The haul route from this property will utilize SEWD-owned roads, then cross over the Stockton Diverting Canal before using public streets to cross the city. The route will then follow Cardinal Avenue to State Route (SR) 26, then SR 99, SR 4, Interstate 5 (I-5), and the West March Lane exit. March Lane leads directly to the southern end of Reach TS30L. The borrow site will be used by the SEWD as a groundwater recharge basin after construction is completed.

The term “staging area” refers to areas used during construction for purposes such as storing equipment and supplies, stockpiling and processing of materials, parking, and construction offices. Their use is temporary and will be restored upon completion of construction. The southern staging area is a 1.7-acre corner lot located adjacent to March Lane and Brookside Road. The northern staging area is 9.8 acres and is located in a rice field at the northern end of Reach TS30L. The northern staging area will be allowed to dry and then leveled to facilitate equipment access. Temporary piping will be installed to convey water from an irrigation ditch along the perimeter to the surrounding rice fields. The existing 30-inch sanitary sewer force main would be protected and an adequate safety buffer would be maintained at all times. Both staging areas will require the construction of temporary access ramps. After construction is complete, the staging areas will be returned to preexisting conditions in which the landowner may continue its use for agriculture.

Riprap will be sourced from one or more commercial sources from the greater Stockton area or the Sierra foothills. All trips will utilize March Lane to access Reach TS30L.

## 2.2.2 Refinements to the Levee Design

The proposed improvements for TS30L (Figure 2) described under Alternative 7a in the 2018 LSJR IIFR/EIS/EIR include a cutoff wall, geometry improvements, and erosion protection. Geometry improvements involve clearing and grubbing the waterside levee crest edge and landside slope, then adding material to the landside to meet USACE levee design criteria for side slopes and crown width. Levees would have two access roads located along the levee crown and within the landside levee toe access easement. Erosion protection (riprap) would be placed on the waterside slope at a thickness of two feet.

During TS30L design, the levee was redesigned to achieve a waterside slope of 2.5H:1V and a landside slope of 3H:1V, reshaped from the current 3H:1V and 2H:1V, respectively. The reshaped levee would have a wider profile, with the levee centerline shifted 20 feet towards the waterside. The landside levee toe will be shifted 10 feet towards waterside to accommodate the 15-foot landside access road. The 2018 LSJR IIFR/EIS/EIR had previously described changes in levee slope and width as primarily occurring on the landside; in the current design, material will be added to the waterside in order to avoid impacting the residential neighborhood to the east.

Following levee reconstruction, rockslope protection consisting of a 2-foot-thick layer of 12-inch diameter riprap would be added to the waterside along its length from the crown to the patrol road. Riprap will be sourced from one or more commercial sources from the greater Stockton area or the Sierra foothills. The landside slope would be armored with 3 inches of 3/4-inch aggregate from the crown to the patrol road.

The levee crown would be armored with 6-inch-thick aggregate base covered with triple-pass chip seal to form the levee road. The existing waterside agricultural ditch would be replaced upon completion of construction waterward of the new patrol road. The waterside patrol road would be slightly elevated above ground surface upon completion of the improvements to prevent flooding from the agricultural ditch. The waterside patrol road and land side patrol road and access ramps will be surfaced with 4" of aggregate base.

Piezometers would be installed along the new waterside toe, just inland of the patrol road, to a depth of approximately 6 to 10 feet below ground surface spaced every 500 feet to monitor soil pore pressure and compaction. The top of the piezometers would be at grade level. The piezometer network would remain in perpetuity.

Construction of the levee improvements would likely be phased as follows: mobilization, vegetation removal, earthwork to degrade the levee and move the levee centerline westward, installation of cutoff wall, levee reconstruction and compaction, placement of erosion protection, installation of maintenance roads, installation of piezometers, demobilization, and site clean-up.

USACE policy requires that new projects comply with Engineer Pamphlet (EP) 1110-2-18, which requires that levees be clear of woody vegetation that might impair levee integrity or maintenance access. This vegetation free zone (VFZ) extends 15 feet from the water side and 10 feet from the land side toes of the levee and includes the levee slopes and crown. Note that the 2018 LSJR IIFR/EIS/EIR discusses compliance with Engineer Technical Letter (ETL) 1110-2-583, which expired in 2019 and was superseded by EP 1110-2-18. Conversion from ETL 1110-2-583 to EP 1110-2-18 consisted of formatting changes only; no policy or substantive changes were incorporated in EP-1110-2-18.





**Figure 2. Reach TS30L proposed footprint, including staging area locations, construction work area, new levee toe location and levee patrol roads.**

The 2018 LSJR IIFR/EIS/EIR stated that all levees will be evaluated during the planning and design phase for suitability for a design deviation to allow 25% of woody vegetation on the 15-foot waterside easement and lower half of the waterside slope. If a design deviation is not granted, the VFZ would be seeded with a mixture of native grasses and forbs. A design deviation was not sought for TS30L because nearly all waterside vegetation will be removed from the levee slopes in order to accommodate the widening of the levee and the placement of riprap.

### 2.2.3 Mitigation for Environmental Impacts

Estimated permanent habitat impacts from the TS30L levee improvements include approximately 11.4 acres of riparian, 0.6 acres of wetland and giant garter snake (GGS) habitat, and ten elderberry shrubs, the host plant for the federally-threatened Valley Elderberry Longhorn Beetle (VELB). The riparian habitat consists of forest cover and Shaded Riverine Aquatic cover while the wetland patches are semi-perennial waters of an agricultural drainage ditch used by the adjacent rice field. Mitigation bank credit purchases were the proposed mitigation strategy for riparian, wetland, and GGS habitats in the 2018 LSJR IIFR/EIS/EIR, and elderberry shrubs were to be transplanted to a 14-acre mitigation area created by a levee setback at Fourteenmile Slough, located just to the northwest of Reach TS30L. However, riparian and wetland mitigation bank credits are not available, and the Fourteenmile Slough mitigation area will not be created prior to the TS30L construction. Per the 2016 Biological Opinion (BO) for the Lower San Joaquin River Feasibility Study, an up-front mitigation credit purchase for GGS has been completed prior to construction.

To provide compensatory mitigation for the riparian and wetland acreages, USACE proposes to construct one or more mitigation sites (Figure 3) to reestablish the habitat values to be impacted by Reach TS30L construction as part of the Proposed Action. The ten elderberry shrubs currently growing along the levee would be transplanted to an approved mitigation bank, and VELB credits would be purchased to cover impacts to that species.

A Habitat Evaluation Procedure (HEP) evaluation is being conducted at Reach TS30L by the U.S. Fish and Wildlife Service (USFWS) in order to inform the mitigation acreage needed. Properties being considered for mitigation would require USFWS approval and would be restored with USFWS input. Generally, properties adjacent to the impacted areas require less acreage to compensate for Project impacts. After construction, the mitigation site would become new riparian and wetland habitat, planted with native riparian trees, shrubs, and wetland vegetation. Elderberry plantings would be included in this mitigation site to minimize the number of VELB credits required. The created habitat would be protected in perpetuity.

The properties being considered are located on farmland within 3 miles of TS30L (Figure 3). The following mitigation options are being considered:

Mitigation Option 1 – On-Site: This option would create a mitigation site immediately adjacent to Reach TS30L and would require purchasing in fee approximately 25 acres

of privately-owned rice field. The exact acreage would be informed through input from the USFWS. On-site mitigation would likely require the lowest acreage because it is preferable to replace lost habitat in the same location. The mitigation site, depicted in Figure 3, would consist of a linear corridor immediately to the west of the levee toe and, after levee construction is completed, would overlay the northern staging area. An irrigation ditch and farm road, which lie between the levee and the rice fields, would be relocated outside the mitigation area. This measure would require maintaining a 30-foot sanitary sewer force main easement which bisects the corridor, upon which access for large vehicles must be maintained and no woody or wetland vegetation could be established. City of Stockton plans on installing a second future sanitary sewer force main that will run parallel to the existing sewer force main. They may also install a third main in the future, which would require additional land acquisition and easement area.

Mitigation Option 2 – Off-Site: Under Option 2, a mitigation site would be within 3 miles of Reach TS30L, requiring either the purchase in fee of private farmland or other open private land, or by obtaining a conservation easement on public land, or both. Offsite locations would require higher acreages in order to compensate for the distance from the impacted habitat. The following sites are currently under consideration:

Parcel A, San Joaquin River (SJR) East Site: This privately-owned 50-acre parcel is the closest to TS30L, at approximately 0.7 miles away. It surrounds the Pace Preserve, a 40-acre mitigation site managed by the Center for Natural Lands Management. It is currently planted with young olive trees and high voltage power lines run across the eastern portion of the site. The area beneath the power lines contains Western Area Power Administration (WAPA) and Pacific Gas and Electric (PG&E) easements, which would not be allowed to contain tree plantings. A levee separates the southwest edge of this parcel from the San Joaquin River. Habitat restoration would entail removing the olive trees, establishing wetland habitat (18 acres) within the easement area, and riparian (20 acres) habitat in the non-easement areas. The site could also provide GGS and VELB habitat.

Parcel B, SJR West Site: This privately-owned 257-acre parcel is located 1.7 miles from TS30L at the confluence of the San Joaquin River and White Slough but is separated from those waterbodies by a levee. Portions of the site are used as hay fields and the portions closest to the levee are fallow. Numerous irrigation ditches run through the site. Only 50 acres of the parcel would be acquired for mitigation. Habitat restoration plans include 2 acres of wetland habitat and 42 acres of riparian habitat. The site could also provide GGS and VELB habitat.

Parcel C, Fourteenmile Slough Pump Station: This 114-acre parcel is owned by the City of Stockton and is located adjacent to a wastewater pump station at the confluence of 14 Mile Slough and White Slough. A Phase 1 Environmental Site Assessment (Phase 1 ESA) was conducted in October 2022. The parcel was formerly used as sewage disposal ponds in the 1960s but is now covered in grass and shrub vegetation. Due to its former use, there is potential for contamination at this site. A Phase 2 Environmental Site Assessment will be

performed and is scheduled for June 2023. The assessment would reveal the extent of contamination, if any. High voltage power lines run across the western portion of the parcel, with the associated WAPA and PG&E easements. Seventy-five acres would be acquired for mitigation, either purchased in fee or held by the City of Stockton under a conservation easement and protected in perpetuity. Habitat restoration plans include establishing 7 acres of wetland habitat within the powerline easements and 63 acres of riparian habitat on the remaining area. The site could also provide GGS and VELB habitat.

Timing, legal and policy requirements, and scientific and technical standards have been used to develop screening criteria and would be used in mitigation site selection with consideration to circumstances and opportunities. Specifically, the following factors are included in screening criteria:

- It is USACE policy to acquire lands or interests in land for mitigation prior to construction of the project commences and the physical construction of the mitigation work is required to be carried out before or concurrently with project construction (Section 906(a) of WRDA 1986, as amended).
- Larger contiguous tracts may offer better habitat value to wildlife compared to smaller dispersed areas.
- If private land is used, it must be acquired in fee.
- For mitigation parcels to succeed, irrigation is required for the first 3-5 years; therefore, water rights must be included with the property.
- Since the mitigation must remain in perpetuity, a conservation easement is required for public land acquisitions.
- The greater the distance a proposed mitigation site is from the project impacts, the higher the mitigation ratio will be.
- Proposed mitigation sites adjacent to sites with an existing source population of a target species are presumed to have higher value than those more isolated.
- Proposed mitigation sites which offer connectivity for populations of target species or wildlife in general are presumed to have higher value than those more isolated.
- Climate change should be considered for the future sustainability of the proposed site.

After a mitigation site has been selected, additional studies would be conducted as part of developing detailed designs for the mitigation construction. These studies may include additional geotechnical analysis, hydraulic analysis, localized erosion and related sedimentation analysis, topographic and ground surveys, preconstruction surveys to avoid direct impacts to nesting birds and other sensitive species, and cultural resource surveys as appropriate.





**Figure 3. Mitigation site options being considered to compensate for environmental impacts caused by Reach TS30L construction.**

It is expected that construction of the selected mitigation site would begin in May 2024. Soil surveys and professional elevation surveys would be conducted at the selected mitigation site to determine if soils would require amendment and depth to groundwater. Construction of the mitigation site would require minor earthwork to bring the site to appropriate grade. Material removed to lower grades to the appropriate elevation would be reused on other areas of the parcel to raise elevations. It is not anticipated that any material would need to be imported or exported from the site to achieve the habitat goals. Any existing ditches would be enhanced into wetlands and riparian habitat would be planted in the remainder of the site. Existing native trees would be retained, non-native and invasive species would be removed. Plant material would be sourced from local native plant nurseries; in the event a species of interest could not be acquired locally, the plants would be grown out by the contractor. Following earthwork and planting, beaver exclusion fencing, and deer friendly fencing would be placed around the perimeter of the site to allow plants to establish. Irrigation lines would be installed to ensure plant establishment. Following the plant establishment period, the fencing and irrigation lines would be removed. It is estimated that the plant establishment period would last between 3-to-5-years; however, achievement of ecological success criteria would be the determining factor in completion of the plant establishment period. Ecological success criteria would be developed jointly between USACE and USFWS in the long-term habitat management plan.

Maintenance and access roads would remain on the site. Signage designated the area as sensitive habitat would be installed around the site and remain in perpetuity.

#### 2.2.4 Ongoing Operations and Maintenance Activities

Actions to maintain the levee in the proposed condition in perpetuity would include, but not be limited to, the following:

- Grouting of rodent burrows;
- Mowing of landside vegetation up to two times per year;
- Replacement of riprap, as needed; up to 600 cubic yards of material per occurrence;
- Replacement of aggregate, as needed; up to 600 cubic yards of material per occurrence;
- Replenishment of chip seal;
- Repair and re-compaction of patrol roads, up to one cumulative mile per occurrence;
- Removal of encroachments (fences, decks, patios, etc.), as needed;
- Removal of woody vegetation from the levee crown and slopes, up to twice per year;
- Noxious weed abatement, about twice per year, but more frequently as needed;
- Repairs to the levee structure during emergency flood operations including sandbagging on the landside, as needed;
- Minor repair and replacement of piezometer network; and,
- Personnel access for inspections, minimum of twice per year, but likely more often.

## Chapter 3                      AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

### 3.1        Approach to Analysis

Alternative 7a, the recommended alternative in the 2018 LSJR IIFR/EIS/EIR, is the No Action Alternative for this SEA. The existing conditions and regulatory setting were fully described in the above document. The resource impacts were sufficiently analyzed as well, with the exception of impacts related to the Proposed Action. The avoidance, minimization, and mitigation measures described in the 2018 LSRP IIFR/EIS/EIR are applicable to the No Action Alternative and the Proposed Action. As a supplemental NEPA document, this SEA focuses its analysis on changes to the No Action Alternative; specifically the SEWD borrow site, haul routes, staging areas, waterside patrol road, refinements to the levee design, and environmental mitigation. The following resources are likely to be affected by the Proposed Action: Groundwater, Wetlands and other Waters of the United States, Aesthetic Resources, Vegetation and Wildlife, Federal Special Status Species, Socioeconomics and Environmental Justice, Utilities and Public Service, Land Use, Transportation and Circulation, and Air Quality and Greenhouse Gas Emissions.

### 3.2        Regulatory Setting

The Affected Environment and Environmental Consequences chapter of the 2018 LSJR IIFR/EIS/EIR adequately characterizes the regulatory setting for each resource affected by the Proposed Action.

### 3.3        Resources Not Discussed in Detail

The following resources were eliminated from further analysis in this SEA because effects are negligible or the refinements described in the Proposed Action would not create additional impacts to these resources: geology and geomorphology; seismicity; soils and mineral resources; hydrology and hydraulics; water quality; fisheries; recreation; noise; and public health and environmental hazards. These resources and their previous analyses are shown in Table 1. Note that these resources would still have effects under the No Action Alternative, however they are not being discussed further as they have been sufficiently discussed in the 2018 LSJR IIFR/EIS/EIR.

**Table 1. Resources not discussed in detail in this document and where to find previous analyses**

<b>Resource</b>	<b>Section of 2018 LSJR IIFR/EIS/EIR</b>
Geology and Geomorphology	5.1
Seismicity	5.2
Soils and Mineral Resources	5.3
Hydrology and Hydraulics	5.4
Water Quality	5.5
Fisheries	5.11
Recreation	5.17
Public Health and Environmental Hazards	5.20

### 3.4 Groundwater

#### 3.4.1 Existing Conditions

The environmental and regulatory framework described in Section 5.7.1 of the 2018 LSJR IIFR/EIS/EIR covering groundwater is generally applicable to the analysis in this SEA and therefore is not repeated here.

#### 3.4.2 Environmental Effects

##### *No Action Alternative*

Potential effects to groundwater related to cutoff wall installation was analyzed in Section 5.6.4 of the 2018 LSJR IIFR/EIS/EIR. Impacts to groundwater movement and supply were determined to be less than significant. The development and implementation of a Bentonite Slurry Spill Contingency Plan, or frac-out plan, would reduce the risk of groundwater contamination due to the use of bentonite material to less than significant.

##### *Proposed Action*

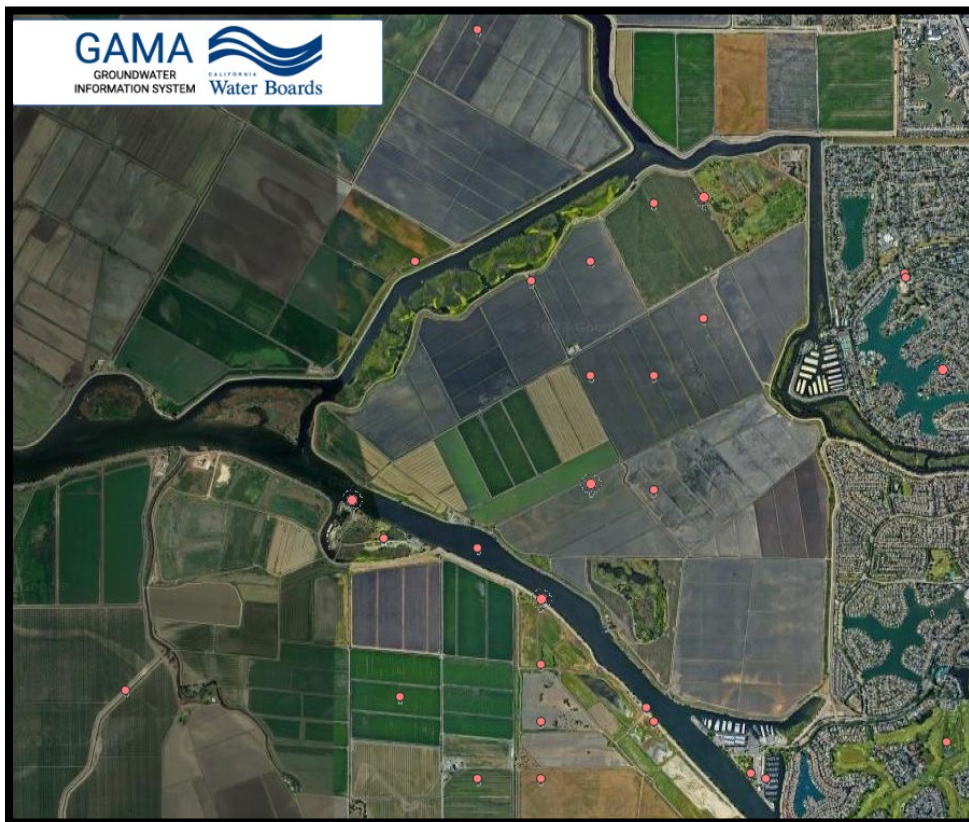
Impacts to groundwater due to the updated levee construction design would be similar to those analyzed in the 2018 LSJR IIFR/EIS/EIR, because these improvements would not entail below-ground construction. Likewise, the staging areas and access routes are for the temporary movement and storage of vehicles and material and would not impact groundwater.

Excavation of levee material from the SEWD borrow site would create basins, which would be utilized for groundwater recharge, resulting in a benefit to groundwater supply in the eastern Stockton area.



One of the selection criteria for the mitigation sites was their ability to provide suitable hydrology and topography to support native riparian and wetland habitat without irrigation. Wetland habitat mitigation areas could be graded to support wetland hydrology and associated plants if needed. During plant establishment, any of the mitigation sites could require drilling of a new well or pumping from the river in order to accommodate irrigation needs of young plants. The irrigation would cease after the 3–5-year plant establishment period, and any new well drilled would be closed and sealed.

The California State Water Resources Control Board’s GAMA Groundwater Information System shows approximate well locations. There are approximately nine water supply wells within the tract containing TS30L and the mitigation sites under consideration, and few to no wells directly beneath the mitigation site footprints (Figure 4). It is not anticipated that on-site or off-site mitigation options would significantly impact these wells because of the lower irrigation requirements of native vegetation and the irrigation would be limited to the 3–5-year plant establishment period, and drip irrigation would be implemented to minimize water usage. The temporary usage of groundwater, combined with the measures described below in Section 3.4.3, results in less than significant groundwater impacts from the Proposed Action.



**Figure 4. Approximate locations of groundwater wells in the vicinity of TS30L and the potential mitigation sites.**

### 3.4.3 Avoidance, Minimization, and Mitigation Measures

The measures described in Section 5.6.10 of the 2018 LSJR IIFR/EIS/EIR and the measures listed below would be implemented to ensure that effects to groundwater resources would be less than significant.

- All parcels considered for mitigation are located in areas where the topography and hydrology naturally support riparian vegetation.
- Wetland areas would be graded so they support wetland hydrology and associated wetland plants.
- Plantings would be irrigated by drip irrigation to minimize water usage.

## 3.5 Wetlands and other Waters of the United States

### 3.5.1 Existing Conditions

The environmental and regulatory framework described in Section 5.7.1 of the 2018 LSJR IIFR/EIS/EIR covering Wetlands and other Waters of the United States is generally applicable to the analysis in this SEA and therefore is not repeated here. Additional site-specific details for segment TS30L are included below.

An aquatic resource delineation was conducted by USACE on March 9, 2021, for the irrigation ditch and the wetlands located between the ditch and the TS30L levee (Figure 5). The delineation measured 2.3 acres of irrigation ditch and 0.6 acres of wetland associated with the ditch. These aquatic resources do not meet the definition of jurisdictional waters of the U.S. under the Clean Water Act according to the latest rule, effective March 20, 2023.

The northern staging area and temporary construction work area west of TS30L (Figure 2) lie in irrigated rice fields and were not included in the original wetland delineation for the TS30L construction footprint. These sites may meet the current definition of jurisdictional waters of the U.S. The on-site mitigation area, described as Mitigation Option 1 in Section 2.2.3, overlays the western portion of the construction work area depicted in Figure 2 and may also meet the definition of jurisdictional waters of the U.S.

Habitat surveys were conducted at each of the three off-site mitigation options in December 2022. The biological community is periodically flooded by nearby waterbodies, such as the irrigation ditches on all three mitigation sites, or has topography and soils that support ponding. These are typically dominated by rooted emergent plants including bulrush (*Schoenoplectus* sp.) and cattail (*Typha* sp.); there are few trees present. All three sites had patches of emergent wetlands associated with agricultural ditches.



**Figure 5. Aquatic resources map along TS30L levee**

### 3.5.2 Environmental Effects

#### *No Action Alternative*

The No Action Alternative includes the wetland and waters of the U.S. impacts described in Alternative 7a in Section 5.7.4 of the 2018 LSJR IIFR/EIS/EIR, which states that Alternative 7a would result in significant and unavoidable impacts to wetlands and waters of the U.S., even with implementation of mitigation measures. For the Delta Front reaches, which includes TS30L, an estimated four acres of permanent

impacts to wetlands would result from levee reshaping and maintenance of the VFZ. Staging areas and mitigation sites were not analyzed in this document.

### *Proposed Action*

The SEWD borrow site and haul routes would have no effect to wetlands or other waters of the United States in addition to what is described in the 2018 LSJR IIFR/EIS/EIR.

The TS30L levee reshaping would affect 0.6 acres of non-jurisdictional wetlands associated with the 2.3-acre irrigation ditch located west of the levee toe. The irrigation ditch would be reconstructed after construction, and the associated wetlands would be recreated by the construction of one of the on-site or off-site mitigation parcels included in the Proposed Action.

Use of the 9-acre northern staging area would involve ceasing irrigation to a rice field to accommodate material and equipment storage and would not involve grading or permanent modifications. Unless the staging area is chosen as a mitigation area, it would be restored to pre-construction conditions and irrigation and farming of the site are presumed to continue. The temporary construction area west of TS30L would be used for equipment access during construction and would also return to pre-construction conditions, unless this area is chosen for on-site mitigation (described as Mitigation Option 1, Section 2.2.3). Because these uses are temporary and would result in full restoration of the rice fields after construction, impacts to wetlands and other waters of the U.S. would be less than significant.

If Mitigation Option 1 (on-site) is chosen, the staging area and linear corridor west of TS30L would be used for mitigation for impacted riparian and wetland habitat caused by construction. Irrigation of approximately 25 acres of rice fields, a non-natural emergent wetland type, would cease, in that area. Another irrigation ditch would be built at the western boundary of the mitigation site to service the rice fields to the west. The mitigation site would consist of restored habitats sustained by the natural hydrology of the area and by hydrologic influence from the irrigation ditch. The current vegetation growing between the levee and irrigation ditch are sustained by a similar situation. Because this action results in a conversion from a monoculture to a natural mosaic of habitats that support the wooded riparian and native wetland vegetation that existed in the area before conversion to agriculture, impacts of Mitigation Option 1 to wetlands and other waters of the U.S. would be less than significant.

Mitigation Option 2 (off-site) involves three parcels, which would be evaluated for the extent of any Federally protected waters of the U.S. or wetlands. If present, these features would not be negatively impacted by construction of the Proposed Action. Construction of a mitigation site on any of these parcels would result in the enhancement of any aquatic resources present through the restoration of the surrounding land as described above and preservation of the parcel in perpetuity.

### 3.5.3 Avoidance, Minimization, and Mitigation Measures

The mitigation measures described in Section 5.7.10 of the 2018 LSJR IIFR/EIS/EIR are sufficient to ensure that the impacts of the Proposed Action to Wetlands and Other waters of the U.S. would be less than significant. Additional measures are not required.

## 3.6 Aesthetic Resources

### 3.6.1 Existing Conditions

The environmental and regulatory framework described in Section 5.18.1 of the 2018 LSJR IIFR/EIS/EIR covering Aesthetics is generally applicable to the analysis in this SEA and therefore is not repeated here. Additional site-specific details for segment TS30L are included below.

Staging areas are proposed in the southern portion of the segment at Tenmile Slough and the northern portion at Fourteenmile Slough. The southern staging area is on the northwest corner of March Lane and Riverbrook Drive and is covered in non-native herbaceous vegetation, with ornamental trees along the perimeter. The northern staging area is currently occupied by farmland. A housing development is located to the southeast and a marina is located to the north across from Fourteenmile Slough.

The SEWD borrow site is located on farmland east of Stockton; the main SEWD facility borders the site to the south. A levee and canal separate the borrow site from the Garden Acres neighborhood, which is located to the southwest. The remaining land surrounding the borrow site is farmland.

The acreage in Mitigation Option 1 (on-site) is in agricultural use and is a small portion of the total agricultural land in the area. The proposed mitigation areas in Mitigation Option 2 (off-site) consist of parcels located west and within 2 miles of TS30L.

### 3.6.2 Environmental Effects

#### *No Action Alternative*

Section 5.18.4 of the 2018 LSJR IIFR/EIS/EIR states that Alternative 7a would result in significant and unavoidable impacts to aesthetic resources due to waterside vegetation removal, which contributes to scenic vistas and the existing visual character of the site. Section 5.18.10 of the 2018 LSJR IIFR/EIR/EIS stated that USACE would seek opportunities during the design phase to plant onsite vegetation, if a design deviation is received, which would reduce impacts to aesthetics.

#### *Proposed Action*

The SEWD borrow site is located on farmland about 400 feet and is across a canal from the nearest housing development. It would be stripped of the upper soil layers in order to access suitable levee material beneath. The topsoil that was removed will be re-used to rebuild the levee upon completion of the Proposed Action. Once the borrow site is no



longer used for levee material, it would serve as a groundwater recharge basin for the Stockton East Water District. Therefore, aesthetic impacts due to excavation of the borrow site would be temporary.

The northern and southern staging areas would be utilized for equipment, parking, and material storage. The southern staging area is located along March Lane and would be visible to cars and pedestrians for the duration of the construction. The northern staging area would be visible to boaters on Fourteenmile Slough and from housing developments to the east and north, though the levees would block some of the views. Visual impacts to the use of the staging areas during construction would be temporary.

The levee improvements under the Proposed Action would result in the removal of the approximately 11.4 acres of riparian shrub- scrub vegetation growing on and between the waterside levee slope and the irrigation ditch to accommodate the widening of the levee. The waterside levee slope would be armored with riprap and a waterside patrol road would be built within the 15-foot VFZ. Because of these design changes, on-site plantings within the VFZ are not being considered under the Proposed Action.

Mitigation Option 1 would result in reestablishment of vegetation in two areas: a portion located along a corridor west of the irrigation ditch, and a portion on the northern stockpile site. Both locations are directly adjacent to the construction impacts. The vegetation plantings, totaling approximately 25 acres, would eventually reach similar size to the existing vegetation.

Mitigation Option 2 would involve establishment of riparian vegetation at alternate locations, resulting in most of the TS30L footprint left bare of woody vegetation. The mitigation sites themselves would change the open vistas of agricultural or other open land, as native vegetation would cover the seasonally barren ground typical of agricultural fields. Aesthetic resources would be improved in these locations due to the establishment of mature large trees, wetland, and shrub-scrub habitats.

The impacts to aesthetics due to Project construction were already disclosed in the 2018 LSJR IIFR/EIR/EIS as significant and unavoidable. The additional impacts under the Proposed Action would be less than significant either because they are either temporary in nature (borrow site and staging areas) or, in the case of Mitigation Option 1, would restore vegetation to the site.

### 3.6.3 Avoidance, Minimization, and Mitigation Measures

Section 5.18.10 of the 2018 LSJR IIFR/EIR/EIS stated aesthetics impacts due to compliance with the Vegetation EP would be significant and unavoidable. A design deviation was not sought for TS30L due to the need to remove all waterside vegetation to accommodate the widening of the levee and construction of the waterside access road. Any effects of the Proposed Action in addition to those disclosed in the 2018 LSJR IIFR/EIR/EIS would be less than significant. As an avoidance, minimization, and

mitigation measure to further reduce impacts to aesthetic resources, disturbed land outside of the VFZ would be re-planted once construction is complete.

### 3.7 Vegetation and Wildlife

#### 3.7.1 Existing Conditions

The environmental and regulatory framework described in Section 5.9 ‘Vegetation’ and Section 5.10 ‘Wildlife’ of the 2018 LSJR IIFR/EIS/EIR is generally applicable to the analysis in this SEA and is not repeated here. Rice fields border Reach TS30L to the west, and urban land lies to the east. An agricultural ditch adjacent to the levee supports riparian shrubs and trees. This vegetation extends up the western levee slope and provides nesting habitat for avian species and supports other wildlife common at the urban-agricultural interface.

Vegetation cover is a general indicator of terrestrial habitat, and the potential impacts to vegetation described provide a measure of impact to wildlife. The Fish and Wildlife Coordination Act, as amended, (16 U.S.C. 661-666(c)) allows the USFWS to assess impacts of proposed projects and make recommendations to reduce those impacts. The 2016 Final Fish and Wildlife Coordination Act Report (CAR) was included in the 2018 LSJR IIFR/EIS/EIR in Addendum B of the Environmental Addenda D. A supplemental CAR was completed in 2022 with the results of a HEP survey led by USFWS to evaluate the quality of the acres of riparian habitat to be impacted at TS30L (Appendix D). Riparian scrub-shrub, riparian forest, and wetland cover types are present at TS30L. The riparian cover types combined consist of 11.4 acres, and there are 0.6 acres of wetland. The 2022 Supplemental CAR designated these cover types with a mitigation goal of no net loss of in-kind habitat value and made recommendations on the amount of mitigation land needed to compensate for the loss of these habitats, depending on the mitigation site location.

Habitat surveys were conducted at each of the three off-site mitigation options in December 2022. Table 2 identifies the biological communities that occur at the sites. The most common communities present include annual grasslands and agricultural land, which together make up nearly 80% of the combined area of the three sites. Annual grasslands are primarily found in Parcel C and along the levee slopes along Sites A and B. This biological community mainly consists of non-native grasses and forbs, such as wild oat (*Avena barbata*), bromes (*Bromus diandrus*, *B. hordeaceus*), rye grass (*Festuca perennis*), Bermuda grass (*Cynodon dactylon*), yellow-star thistle (*Centaurea solstitialis*), poison hemlock (*Conium maculatum*), etc. The agricultural community includes row crops, dryland farming, orchards, and vineyards, as well as some infrastructure associated with agricultural operations, including rural dirt access roads. Parcel A was planted in olive trees; areas not planted appeared to be regularly sprayed with herbicides and had little to no vegetation. The majority of Parcel B was fallow open fields that appeared to have been previously planted in wheat or row crops, harvested shortly before observation. Invasive non-native plant species occurred in all

plant communities, but most commonly with and adjacent to annual grasslands and ruderal disturbed areas.

**Table 2. Biological communities occurring on the mitigation sites**

<b>Natural Community</b>	<b>Parcel A, SJR East Site (acres)</b>	<b>Parcel B, SJR West Site (acres)</b>	<b>Parcel C, Fourteenmile Slough Pump Station (acres)</b>
Agriculture	47.93	37.58	0
Annual Grasslands	6.0	8.34	60.30
Developed	0.86	2.06	0
Potential Seasonal Wetland	0	0	0.30
Riparian Woodland	0.75	0	15.80
Riparian Scrub	0	7.79	6.27
Fresh Emergent Wetland	0	2.80	0
Agricultural Ditch	0.85	3.73	1.01
<b>Total</b>	<b>56.39</b>	<b>62.30</b>	<b>83.68</b>

### 3.7.2 Environmental Effects

#### *No Action Alternative*

Section 5.9.4 of the 2018 LSJR IIFR/EIS/EIR estimated that implementation of Alternative 7a would affect 139 acres of riparian trees and shrubs and 10.75 acres of wetlands. Under the descriptions of the levee improvements applicable to TS30L, the 2018 LSJR IIFR/EIS/EIR stated that vegetation would be removed from the levee, as slope reshaping would involve placing material on the landside of the levee, and erosion protection would involve placing riprap on the waterside levee slope. A VFZ would be maintained 15 feet from the landside and waterside levee toes, including the levee slopes, to comply with the USACE EP 1110-2-18, which requires that levees be clear of woody vegetation that might impair levee integrity or maintenance access. However, Section 5.9.4 assumed approximately 25 percent of the waterside vegetation on the lower levee slope and 15-foot waterside easement would remain under a design deviation. If a design deviation was not granted, the VFZ would be seeded with a mixture of native grasses and forbs.

Section 5.10.4 of the 2018 LSJR IIFR/EIS/EIR stated that short-term significant impacts to birds and other wildlife could be experienced in areas adjacent to the construction footprint due to noise, vibration, and dust. Long-term impacts due to vegetation removal were to be avoided by evaluating all levee reaches for suitability for a design deviation. The impact of maintaining the VFZ was deemed significant and unavoidable in the 2018 LSJR IIFR/EIS/EIR because it would eliminate nearly all remaining trees and shrubs throughout the Project footprint in perpetuity.



### *Proposed Action*

The Proposed Action would have short- and long-term impacts to commonly occurring wildlife, including to resident and migratory birds because of the loss of nesting, resting and foraging habitat. This is based upon the removal of vegetation as required for the development of the borrow site, use of the staging areas, construction of levee improvements, compliance with the Vegetation EP, and maintenance of the Operations and Maintenance (O&M) easements. Shorter term impacts could result during the construction and establishment of any mitigation sites.

The 96.4-acre SEWD borrow site lies on agricultural land. A FONSI from the Bureau of Reclamation dated April 11, 2018 states that the borrow site would be utilized by SEWD as a groundwater recharge basin, and that this action “will not significantly impact natural resources”. The haul route from the SEWD borrow site to TS30L utilizes existing roads and would not affect vegetation or wildlife except for tree trimming along a farm road exiting the borrow site. The northern staging area lies on 9 acres of irrigated rice fields, which may be utilized by migratory waterfowl and other wildlife. This parcel would be de-watered for the duration of the anticipated two-year construction. After construction is complete, rice farming would resume, unless the staging area would become a mitigation site.

Reach TS30L is a dryland levee, with the Brookside neighborhood immediately to the east (landside) and several thousand feet of agricultural fields between the levee and the San Joaquin River to the west. Due to real estate constraints, the levee widening under the Proposed Action would shift the levee centerline 20 feet towards the west (waterside), instead of landside as described in the No Action Alternative. Material would be added to the waterside, instead of the landside, in order to accomplish the levee widening. This would result in the removal of all vegetation on the levee slopes and most of the riparian vegetation growing between the waterside levee toe and the irrigation ditch. Approximately 11.4 acres of riparian vegetation and 0.6 acres of wetland would be affected. A design deviation was not sought, as riprap will be installed on the waterside slope (as described in the 2018 LSJR IIFR/EIS/EIR), and an elevated waterside patrol road would be built in the 15-foot waterside easement.

Mitigation Option 1 would offset vegetation and wildlife impacts by creating approximately 25 acres of on-site mitigation. Non-native emergent wetland vegetation would be replaced with a natural mosaic of riparian and wetland habitats, with a mix of native herbaceous vegetation, shrubs and trees capable of supporting higher species diversity. Establishment of a mitigation site at this location would provide habitat linkage between the sloughs to the north and south of Reach TS30L and, according to the USFWS 2022 Supplemental CAR, would require the lowest amount of mitigation land to compensate for the lost habitat.

Mitigation Option 2 would create similar habitat, but at one of the three off-site locations within 3 miles of TS30L. These sites would not function as wildlife corridors between

waterbodies but are located close to the San Joaquin River and White Sough. Parcel A would add to an existing mitigation site, the Pace Preserve, managed by the Center for Natural Lands Management. Due to the distance of these sites from the impacted habitat at TS30L, the USFWS 2022 Supplemental CAR recommends more mitigation acreage is required at these sites to compensate for lost habitat.

In the 2018 LSJR IIFR/EIS/EIR, shrub and tree removal was considered a significant and unavoidable impact because it would eliminate vegetation in the Project footprint in perpetuity. Mitigation Option 1 would make this a temporary impact by allowing for the reestablishment of wildlife habitat immediately adjacent to the TS30L footprint. Once the mitigation site is established, the impact is less than significant. Mitigation Option 2 would not reestablish habitat adjacent to the impact site and would require more acreage to compensate for lost habitat. Either of these options would reduce the Proposed Action's effect on vegetation and wildlife to less than significant.

### 3.7.3 Avoidance, Minimization, and Mitigation Measures

Section 5.9.10 of the 2018 LSJR IIFR/EIS/EIR discussed avoidance, minimization, remediation and compensation for vegetation and wildlife impacts. While a design deviation was not sought, the remaining measures are applicable to Reach TS30L with the following additions, bringing effects of the Proposed Action to vegetation and wildlife to less than significant:

- Permanent impacts to vegetation and wildlife would be remediated by establishing a mitigation site.
- The Project will comply with the USFWS 2022 Supplemental Coordination Act Report recommendations for compensating for lost habitat.

## 3.8 Federal Special-Status Species

### 3.8.1 Existing Conditions

The area surrounding TS30L contains suitable habitat for two federally-listed species (the VELB and the GGS) and one candidate species (the Monarch butterfly). The irrigation ditch adjacent to TS30L does not contain suitable habitat for listed fish species. The environmental and regulatory framework described in Section 5.12 of the 2018 LSJR IIFR/EIS/EIR is generally applicable to the analysis in this SEA; however, in 2017 USFWS published new compensation guidance for VELB: *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle*. This guidance was not addressed in the 2018 LSJR IIFR/EIS/EIR because the consultation with the USFWS was completed in 2016. According to the Framework's decision tree to determine the likelihood of VELB occurrence, the shrubs within the TS30L footprint are located in suitable habitat and are likely occupied.

In addition, the Monarch butterfly became a candidate species in 2020, and therefore was not addressed in the 2016 consultation with USFWS or the 2018 LSJR IIFR/EIS/EIR.

### 3.8.2 Environmental Effects

#### *No Action Alternative*

##### Valley Elderberry Longhorn Beetle (*Desmocerus californicus*)

Ten elderberry shrubs, the host plant to VELB, are located within the TS30L construction footprint (see Figure 6), growing along the levee slope and near the irrigation ditch. Section 5.12.10.1 of the 2018 LSJR IIFR/EIS/EIR stated that compensation for VELB impacts would be achieved by transplanting elderberry shrubs to a Fourteenmile Slough VELB mitigation site, to be created by the Project just north of TS30L.

##### Giant Garter Snake (*Tamnophis gigas*)

Suitable habitat for GGS exists adjacent to TS30L due to the presence of irrigated rice fields, an irrigation ditch, wetlands, and upland habitat along the levee. Under the No Action Alternative, levee improvements would temporarily affect aquatic GGS habitat through dewatering and relocation of portions of the irrigation ditch while the construction is occurring. Section 5.12.10.1 of the 2018 LSJR IIFR/EIS/EIR stated that compensation for permanent impacts to aquatic and upland GGS habitat would through the purchase of mitigation bank credits prior to Project construction.

##### Monarch Butterfly (*Danaus plexippus*)

Adult Monarch butterflies have been reported within two miles of the proposed TS30L site within the last five years (Journey North 2023). The construction of the TS30L levee improvements would result in a loss of habitat due to the removal of vegetation along 5900 feet of the waterside levee slope. The butterfly requires milkweed (*Asclepias* spp.) as its host plant for egg laying and as a larval food source. While several milkweed plants were observed on the site, a sufficient quantity to support the monarch butterfly was not present.

#### *Proposed Action*

##### Valley Elderberry Longhorn Beetle (*Desmocerus californicus*)

No elderberry shrubs will be affected by the development of the SEWD borrow site, the haul routes, or the two staging areas.

The Fourteenmile Slough mitigation area will not be in place prior to TS30L construction. Under the Proposed Action, the ten elderberry shrubs located within the construction footprint would be transplanted to a conservation bank and credits would be purchased to compensate for transplantation impacts. To compensate for loss of

riparian habitat associated with the elderberry shrubs, elderberry plantings would also be incorporated into the riparian habitat established at the chosen mitigation parcel. Elderberry shrubs already exist at mitigation sites A and B; although no shrubs were observed on Parcel C, there is riparian woodland habitat present, which would be supportive of elderberry.

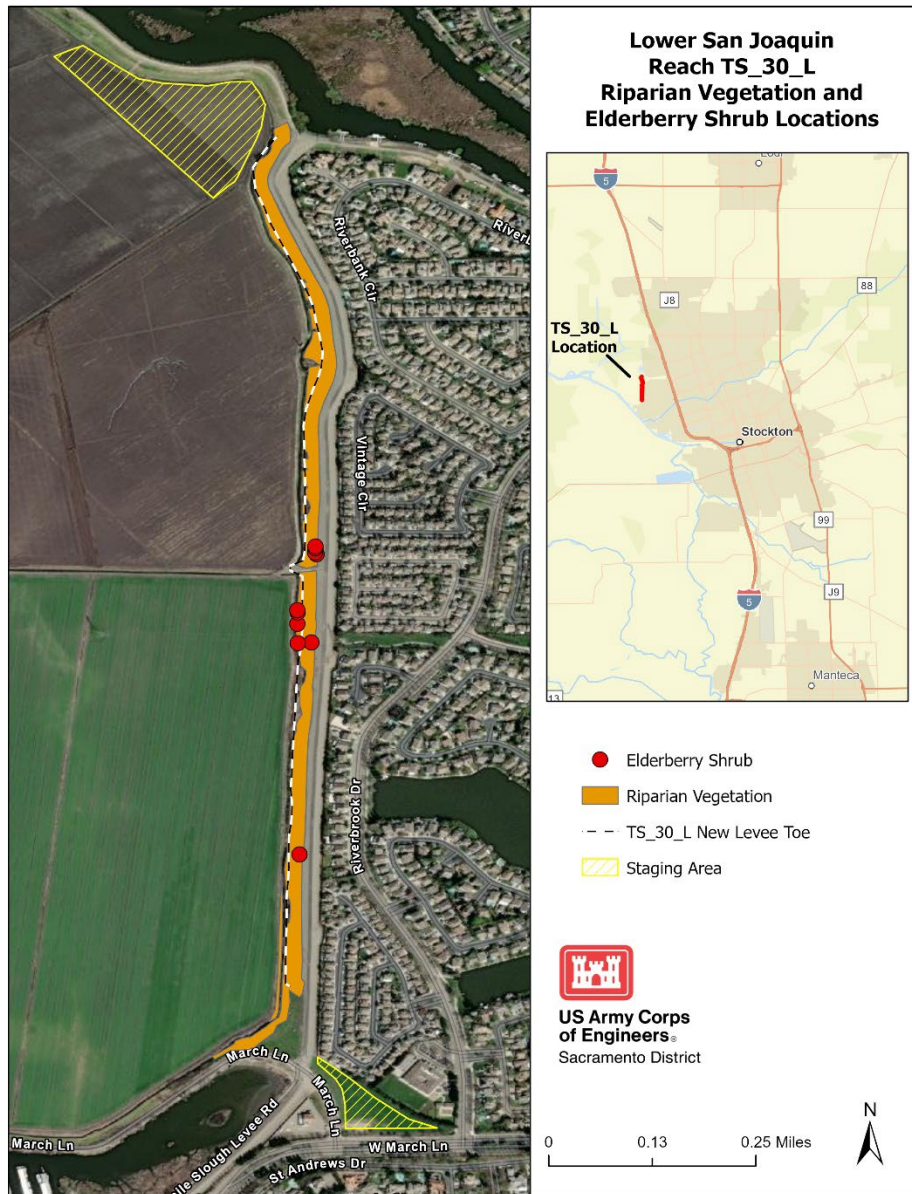


Figure 6. Elderberry shrub locations and riparian vegetation along Reach TS30L

Giant Garter Snake (*Thamnophis gigas*)

The SEWD borrow site does not contain suitable GGS habitat, as it is located over 200 feet east and across a levee from the nearest water source, the Stockton Diverting

Canal. The haul route from the borrow site would utilize canal levee before accessing city streets and appropriate snake avoidance measures would be implemented while this haul route is utilized. Impacts to snake habitat due to utilization of the stockpile sites are considered temporary, as those sites would return to pre-Project conditions after construction is complete.

Permanent impacts to aquatic GGS habitat are anticipated due to the removal of 0.6 acres of wetland associated with the irrigation ditch. The irrigation ditch itself would be temporarily affected during construction of the TS30L improvements through dewatering and equipment operation but would be rebuilt after completion of construction. Impacts to upland GGS habitat would occur during construction through grubbing and widening of the levee, which would affect any burrows the snakes could utilize for refuge. These impacts would be temporary, as riprap would be placed on the levee slope and would provide crevices, which ultimately serve as alternative refugia for the snake.

If Mitigation Option 1 (on-site) is implemented, the proposed mitigation corridor and northern stockpile site would convert approximately 25 acres of rice fields, which could serve as foraging habitat for GGS, to native riparian and wetland habitat to replace the habitat lost by TS30L construction. A new irrigation ditch and farm road would be constructed to the west of the mitigation corridor to serve the remaining rice fields. Under this mitigation option, the riparian and wetland habitat would be reestablished approximately 100 feet to the west of its current location, making permanent impacts to aquatic GGS habitat would be less than significant.

Under Mitigation Option 2, the aquatic GGS habitat permanently affected by TS30L construction would be recreated by establishing wetland habitat at one of the three off-site locations. Due to their distance from TS30L, these sites would require more acreage to compensate for impacts. Parcel A also borders the same rice field as TS30L and surrounds an existing mitigation site, the Pace Preserve. Mitigation at Parcel A would connect the existing riparian, wetland, and upland habitats at the Pace Preserve with the surrounding rice field. Parcels B and C also border rice fields; development of these mitigation sites would establish a natural wetland type surrounded by wooded riparian vegetation adjacent to these existing rice fields. This mitigation option would also result in less than significant impacts to aquatic GGS habitat.

#### Monarch Butterfly (*Danaus plexippus*)

Under the Proposed Action, the Monarch butterfly would still experience a small amount of habitat loss due to vegetation removal on the levee slope; however, construction of the compensation area would result in a greater amount of superior habitat, since pollinator-specific species would be included in the plantings and the area would not be subject to pesticide drift. Since the loss of habitat would be replaced within one season, the effect is expected to be muted. Therefore, the proposed action is not likely to jeopardize the continued existence of the Monarch butterfly, and effects would be less than significant.

### 3.8.3 Avoidance, Minimization, and Mitigation Measures

All Avoidance and Minimization Measures and Compensation Measures included in the TS30L Biological Assessment (Appendix F), which are adapted from the 2016 LSJR BO as discussed in Section 5.12.10 of the 2018 LSJR IIFR/EIS/EIR, would be implemented. Any additional measures that may be included in the TS30L BO expected from USFWS in September 2023 would also be incorporated. These guidelines, along with the additional measures below, bring the effects of the Proposed Action to less than significant:

- The ten elderberry shrubs would be transplanted in accordance with the guidelines in Section 5.2 of the 2017 Framework to a USFWS-approved mitigation bank and credits would be purchased to compensate for impacts.
- Wooded riparian habitat would be established at one of four mitigation parcels under consideration; this habitat would include elderberry plantings.
- Permanent impacts to aquatic GGS habitat would be compensated by establishing wetland habitat at the chosen mitigation parcel.

## 3.9 Socioeconomics and Environmental Justice

### 3.9.1 Existing Conditions

Environmental justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income. It ensures that there is thoughtful consideration and opportunity for input in developing, implement, and enforcing environmental laws, regulations, and policies so that no group bears a disproportionate burden of environmental harm or risks. In March 2022, the Assistant Secretary of the Army (Civil Works) established a comprehensive EJ policy in the memorandum “Implementation of Environmental Justice and the Justice40 Initiative.” The memorandum directs USACE to listen to partners and stakeholders to understand their needs and problems, identify opportunities to address those challenges, and identify and remove barriers to partnering with communities. Additional guidance was provided by Major General Graham, Deputy Commanding General for Civil and Emergency Operations, in the memorandum “Implementation of the Interim Environmental Justice Strategic Plan” signed in December 2022.

To implement the Justice40 Initiative, agencies must identify communities impacted by EJ concerns. The Justice40 Initiative as well as Executive Order (EO) 14008 and the Council on Environmental Quality (CEQ) identify “disadvantaged communities” as those that are marginalized, underserved, and overburdened by environmental hazards. The Climate and Economic Justice Screening Tool was created under EO 14008 to provide a consistent government-wide method to identify communities with EJ concerns (<https://screeningtool.geoplatform.gov/en>). Disadvantaged communities are identified by census tracts that meet the thresholds for at least one category of socioeconomic or environmental burden, or if they are on land within the boundaries of Federally recognized Tribes.

Additional tools are available to provide data for communities that may not be identified in the Climate and Economic Justice Screening Tool. The Environmental Protection Agency's (EPA) EJScreen Tool (<https://www.epa.gov/ejscreen>) provides additional demographic data that supplements the datasets in the Climate and Economic Justice Screening Tool. Local tools or information may provide additional specificity for a particular situation (e.g., California's CalEnviroScreen Tool, the California Department of Water Resources Disadvantaged Communities Mapping Tool).

### 3.9.2 Environmental Effects

#### *No Action Alternative*

The 2018 LSJR IIFR/EIS/EIR found that Alternative 7a would reduce flood risk to 162,000 residents. Section 5.13.4 of the 2018 LSJR IIFR/EIS/EIR found that the decreased flood risk from the proposed levee improvements would benefit all north and central Stockton and would have a positive impact to socioeconomics in this region. The CEQ's Climate and Economic Justice Screening Tool shows that residential area surrounding land side of the levee for TS30L is not identified as disadvantaged. The Tool shows that the tract on the waterside of the TS30L levee is considered disadvantaged, meeting more than one burden threshold and the associated socioeconomic threshold. Burdens consist of projected flood risk, PM<sub>2.5</sub> in the air, lack of green space, linguistic isolation, unemployment, low income, and less-than high school education.

Although the CEQ Tool shows several burdens, the census tract used for analysis encompasses a much greater expanse and is not representative of the Proposed Action area, which contains primarily agricultural land and a decommissioned wastewater treatment site. No residences or public areas are present on the Wright-Elmwood Tract. Construction of the Proposed Action would not impact the existing burdens within the census tract.

Overall, effects EJ and socioeconomics from the No-Action Alternative would be largely beneficial by decreasing flood risk to north central Stockton.

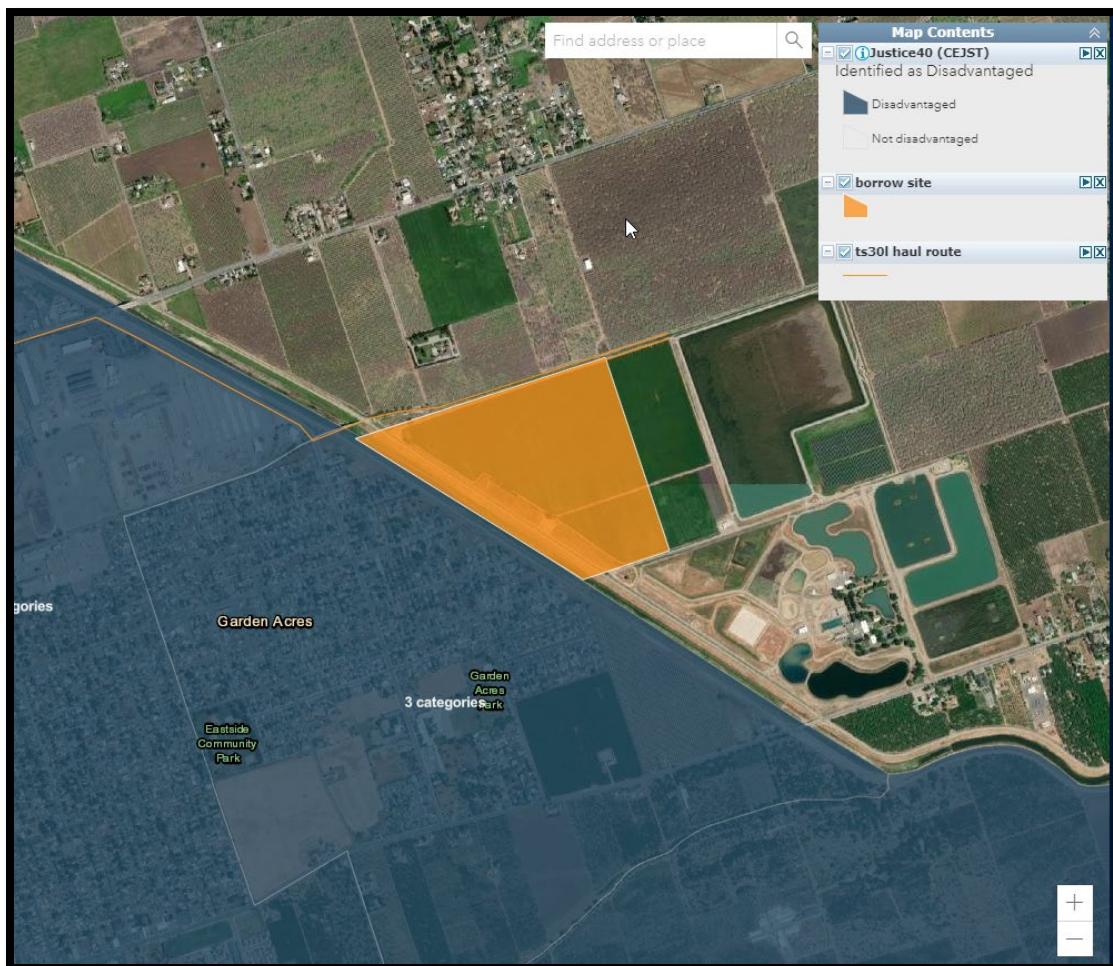
#### *Proposed Action*

The Proposed Action includes hauling material from the SEWD borrow site east of Stockton. The haul route crosses the Stockton Diverting Canal on the northern edge of the Garden Acres neighborhood but does not cross through the neighborhood itself. From there, the route utilizes Cardinal Ave through an industrial area before accessing state highways and I-5. Material hauling would occur six days per week from 8:00 am to 4:00 pm from February through October 2024. An average of 45 truck trips per day are expected to travel this route for approximately 80 days during the construction season.

The Climate and Economic Justice Screening Tool identifies all roads of the haul route except for W. March Lane as being within disadvantaged communities. However, all of these roads are large thoroughfares and any additional noise and traffic generated from



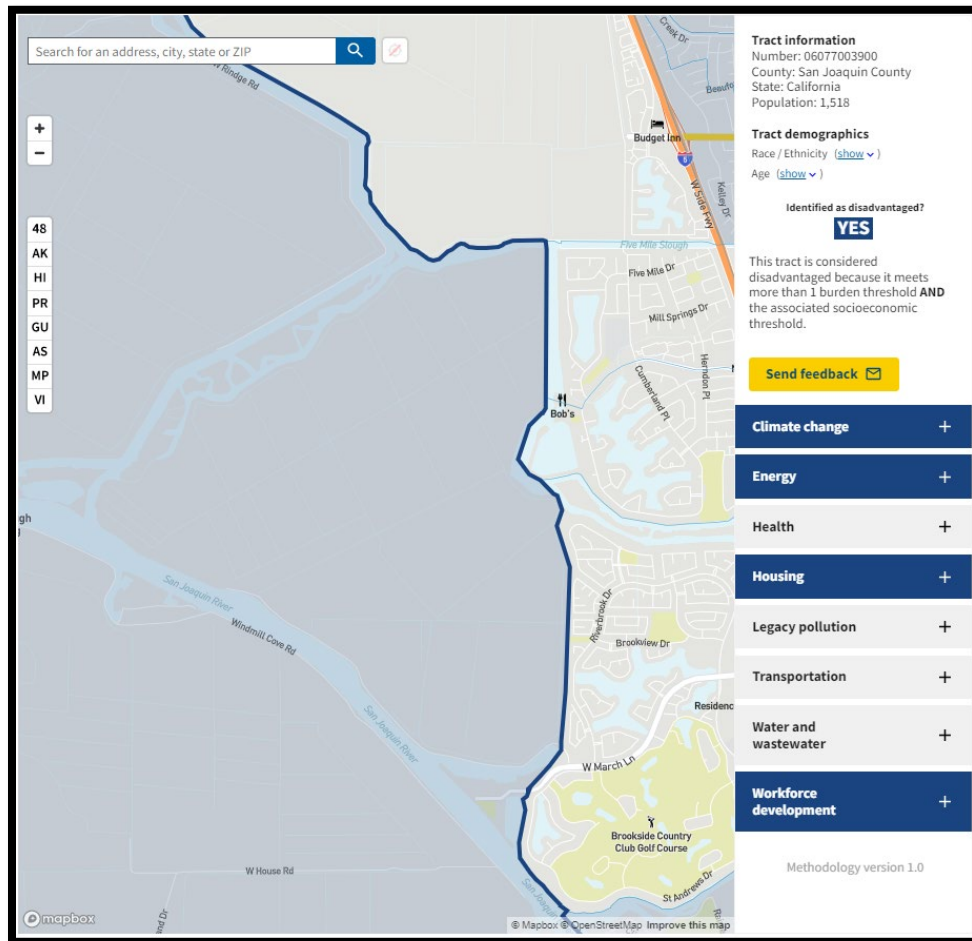
the haul trucks along these roadways generally would not be detectable to residents. The Garden Acres neighborhood, located across the Stockton Diverting Canal from the borrow site, could potentially experience adverse effects due to its proximity. This area is identified as disadvantaged due to environmental and socioeconomic burden thresholds, including PM<sub>2.5</sub> in the air, proximity to Risk Management Plan facilities, linguistic isolation, unemployment, low income, and less-than high school education. The haul route utilizes a levee road within 450 feet of the homes along the northeastern portion of the neighborhood until it crosses the Stockton Diverting Canal. After crossing the canal, the route comes within 200 feet of several homes before turning away from the neighborhood along an existing industrial area on Cardinal Avenue. The industrial area contains two freight hauling businesses with a rail line between the businesses and the neighborhood. Due to the haul route's distance from the neighborhood and the existing truck and train noise originating from the freight hauling businesses, impacts from the borrow haul trips would be temporary and less than significant.



**Figure 7. Map of the SEWD borrow site and haul route (orange) adjacent to the Garden Acres neighborhood, which is identified as disadvantaged by the Climate and Economic Justice Screening Tool.**



The tract surrounding the potential mitigation sites and stockpile area is in a rural setting that has been identified as disadvantaged by the screening tool (Figure 8). As described above for the *No Action Alternative*, the area is part of a very large tract, and there are no residences near the proposed action area. The Proposed Action would not impact existing burdens within the tract. The Brookside neighborhood, located to the east of TS30L is not identified as disadvantaged. Therefore, impacts from the levee construction, stockpile sites, and development of environmental mitigation sites to Socioeconomics, Population, and Environmental Justice would be less than significant.



**Figure 8. Map of the census tract identified as disadvantaged (shaded) containing the mitigation parcels under consideration for TS30L impacts.**

### 3.9.3 Avoidance, Minimization, and Mitigation Measures

To avoid, minimize, or mitigate impacts to the neighborhood adjacent to the borrow site, the measures discussed in the 2018 LSJR IIFR/EIS/EIR Sections 5.8.10 (air quality), 5.15.10 (transportation), and 5.19.10 (noise) would be implemented, as applicable. In particular, dust control measures would be implemented to minimize air quality impacts due to fugitive dust. Additionally, to minimize impacts to residences, haul trucks must

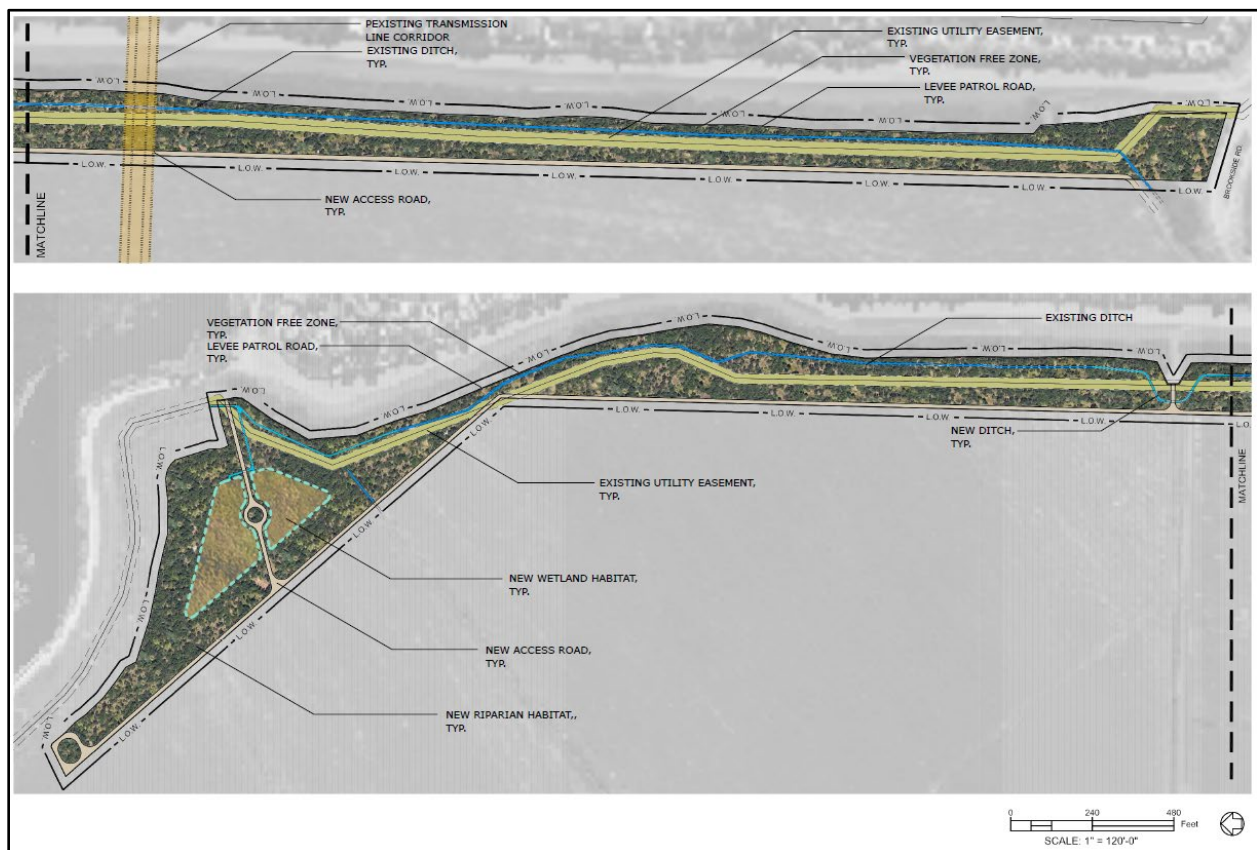
follow the designated haul route and will not be permitted to drive through the Garden Acres neighborhood.

### 3.10 Utilities and Public Services

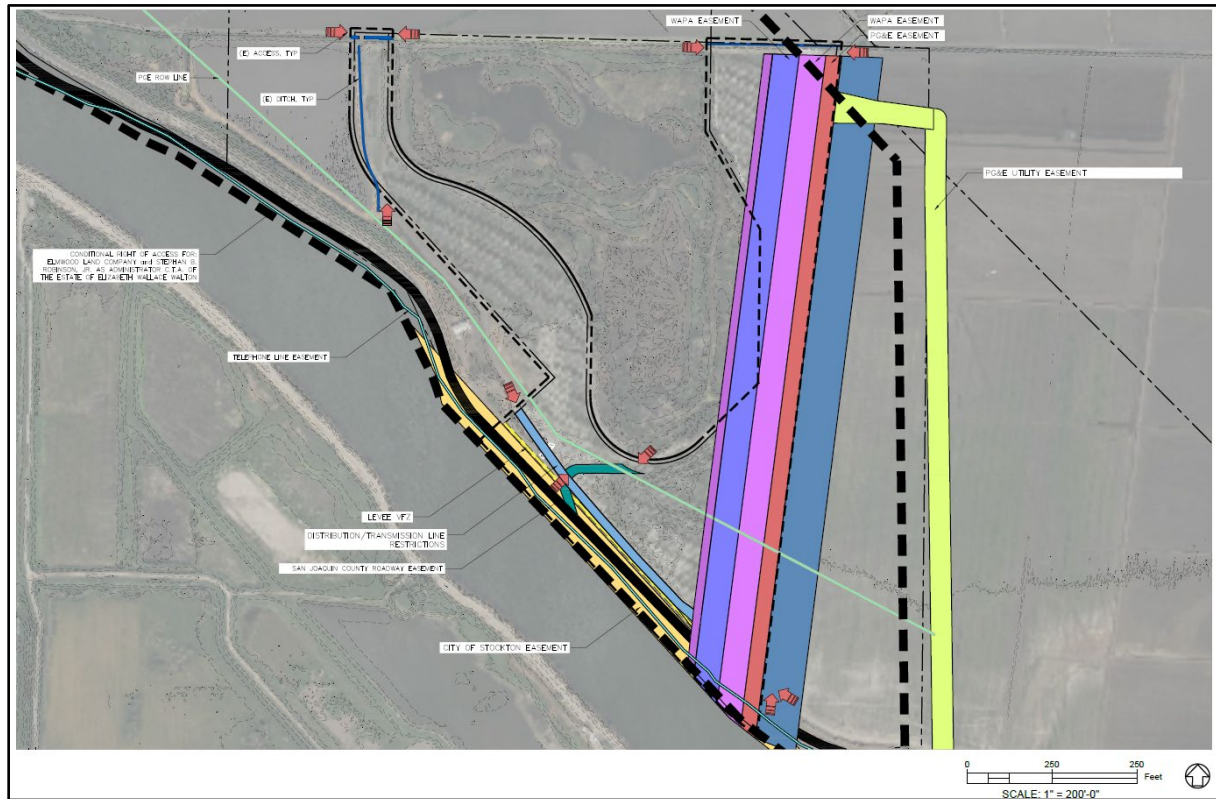
#### 3.10.1 Existing Conditions

The environmental and regulatory framework described in Section 5.16 of the 2018 LSJR IIFR/EIS/EIR is generally applicable to the analysis in this SEA and therefore is not repeated here. The area contains PG&E electric power lines and a guy wire. There is an existing 30-foot-wide easement that runs in parallel to the Tenmile Slough levee protecting a 30-inch only sanitary sewer force main (SSFM) which serves the Brookside community. The City of Stockton plans on installing a future sanitary sewer main that runs parallel to the existing main within the same easement. There is an existing 75-foot-wide easement to PG&E high voltage transmission lines that run north to south across the Tenmile Slough levee.

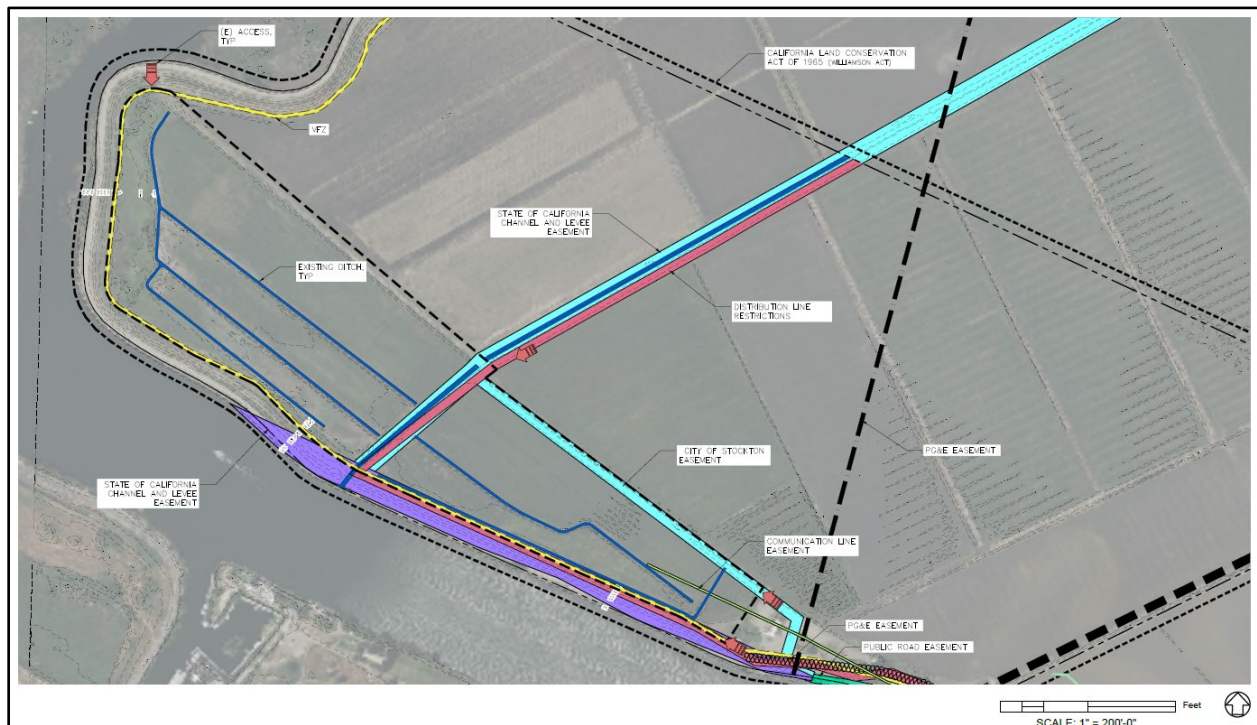
Existing utilities and associated easements at each of the potential mitigation sites are shown in Figure 9 through Figure 12.



**Figure 9. Existing utilities infrastructure and easements in the on-site mitigation footprint**



**Figure 10. Existing utilities infrastructure and easements at the SJR East Site (Parcel A)**



**Figure 11. Existing utilities infrastructure and easements at the SJR West Site (Parcel B)**





**Figure 12. Existing utilities infrastructure and easements at the Fourteenmile Slough Pump Station (Parcel C)**

### 3.10.2 Environmental Effects

#### *No Action Alternative*

Section 5.16.4 of the 2018 LSJR IIFR/EIS/EIR stated that construction associated with Alternative 7a, such as grading and excavation, could encroach on multiple types of utility equipment and facilities. Impacts to utilities and public services, such as temporary interruptions in service, would be coordinated with the providers and impacts would be less than significant with mitigation.

#### *Proposed Action*

No impacts to utilities and public services are anticipated as a result of developing the SEWD borrow site, use of the haul route, or use of the stockpile sites.

The TS30L construction requires shifting the levee centerline approximately 20-feet towards the waterside (west). This proposed 20-foot shift to the levee configuration would require realignment of the existing waterside irrigation ditch at ten discrete locations to maintain 15-feet from the waterside levee toe. The relocation of the irrigation ditch would not interfere or require movement of the SSFM. The SSFM will be monitored during construction to ensure there is no damage.

Mitigation Option 1 (on-site) would establish an on-site mitigation corridor adjacent to the TS30L levee and would overlay the SSFM. No disruption of the SSFM would occur, as construction of the mitigation site would avoid any excavation near the SSFM. A 30-

foot easement would be maintained free of woody vegetation and access would be maintained for any maintenance vehicles. The properties considered under Mitigation Option 2 (off-site) contain powerlines and utility easements; however, construction of these options would not involve disruption of any utilities. Any existing utility easements would be maintained.

### 3.10.3 Avoidance, Minimization, and Mitigation Measures

Mitigation measures outlined in Section 5.16.10 of the 2018 LSJR IIFR/EIS/EIR are sufficient to ensure adverse impacts from the Proposed Action remain less than significant. In addition, for the construction of any mitigation site, utility easements would be maintained with compatible vegetation to allow for maintenance vehicle access.

## 3.11 Land Use

### 3.11.1 Existing Conditions

The environmental and regulatory framework described in Section 5.14 of the 2018 LSJR IIFR/EIS/EIR is applicable to the analysis in this SEA and therefore is not repeated here. Reach TS30L is on the border of the Stockton city limits but still within the city's sphere of influence, with unincorporated San Joaquin County located to the west. The land immediately to the east of TS30L is designated Low Density Residential under the City's General Plan Map. The land immediately west of the TS30L levee is designated Open Space/Agriculture under the City's General Plan and as Agriculture/General under the San Joaquin County General Plan.

The SEWD borrow site, the northern stockpile site, and the parcels under consideration for mitigation all lie on land designated as prime farmland by the National Resource Conservation Service's (NRCS) Web Soil Survey.

### 3.11.2 Environmental Effects

#### *No Action Alternative*

The land use analysis for Alternative 7a in Section 5.14.3 of the 2018 LSJR IIFR/EIS/EIR determined that the overall Project would not conflict with land use plans, policies, or regulations and would not conflict with master plans, policies, or regulations because the overall affected acreage is small in comparison to the city and county. While locations were not identified at the time, the document stated that staging, stockpile, and haul roads would be developed on agricultural land during Project construction, but impacts would be temporary. The 2018 LSJR IIFR/EIS/EIR estimated the Project would convert 1 acre of farmland along the Calaveras River.

#### *Proposed Action*

The 96.4-acre SEWD borrow site lies just east of the city limits and is designated Institutional under the City's General Plan and Agriculture/General under the San

Joaquin County General Plan. It also lies on land designated as prime farmland by the NRCS's Web Soil Survey. The excavation of borrow material will form depressions which would be utilized as a groundwater recharge basin; therefore, the site would not be able to be utilized as farmland once the Proposed Action is constructed. USACE consulted with the NRCS to determine a Land Evaluation and Site Assessment (LESA) score for this parcel, which indicates whether the Farmland Protection Policy Act (FPPA) applies and if an alternate parcel should be considered. The borrow site score did not exceed the threshold for significant prime farmland impacts.

The haul routes would utilize existing roads and no impacts to land use would occur.

The 9-acre northern stockpile site lies in unincorporated San Joaquin County and is designated Open Space/Agriculture under the City's General Plan and as Agriculture/General under the San Joaquin County General Plan. The southern stockpile site is located within the city limits and is part of the right of way for March Lane. Unless used for mitigation, these areas would return to their original uses once the Proposed Action is constructed.

The TS30L levee improvements consist of a cutoff wall construction, levee reshaping, waterside erosion protection, and construction of a waterside patrol road. These improvements will occur on the current levee footprint, though the levee reshaping will cause the footprint to expand 20 feet to the west. This expansion would occur on open land and would not affect adjacent agricultural uses, making the land use impacts due to the levee improvements less than significant.

The parcels under consideration for mitigation all lie on land designated as prime farmland by the NRCS. All parcels are currently farmed except for the Fourteenmile Slough Pump Station site, which formerly contained wastewater treatment ponds. USACE consulted with NRCS to determine LESA scores for each parcel. Due to the abundance of farmland in the area, none of the scores exceeded the threshold for significant impacts to prime farmland; therefore, mitigation for the converted farmland is not required and the Project is in compliance with the FPPA.

### 3.11.3 Avoidance, Minimization, and Mitigation Measures

Implementation of the TS30L levee improvements and the development of the borrow site and staging areas do not conflict with land use plans, policies, or regulations, and associated effects would be less than significant. Therefore, no mitigation in addition to what is described in Section 5.14.9 of the 2018 LSJR IIFR/EIS/EIR is required.

## 3.12 Transportation and Circulation

### 3.12.1 Existing Conditions

The environmental and regulatory framework described in Section 5.15 of the 2018 LSJR IIFR/EIS/EIR is generally applicable to the analysis in this SEA and therefore is not repeated here.

### 3.12.2 Environmental Effects

#### *No Action Alternative*

Section 5.15.4 of the 2018 LSJR IIFR/EIR/EIS states that Alternative 7a would result in minimal, short-term impacts on traffic but would not substantially restrict emergency access. Traffic would increase on local roadways associated with construction trips and may involve hauling materials through residential areas that are not designated truck routes. Additionally, haul routes may occur in the vicinity of schools throughout the Project area. Temporary lane closures associated with levee improvements and with construction staging areas could cause or contribute to temporary increases in traffic levels as traffic slows down on local, collector and arterial streets. Increased traffic congestion on road segments and intersections would temporarily interfere with the use of main roadways for emergency evacuation routes. These impacts were determined to be significant and unavoidable.

#### *Proposed Action*

The SEWD borrow site is located approximately nine miles east of the TS30L levee site. Hauling from this site would occur Monday through Saturday between the hours of 8:00 am to 4:00 pm. An average of 45 truck trips per day is anticipated between the borrow site and the construction site. The haul route from the SEWD property would follow a private road on the west side of the property, parallel the Stockton Diverting Canal, cross the canal and utilize Cardinal Ave to SR 26. It would then follow SR 99 until its interchange with SR 4. SR 4 leads to I-5, which would be followed north and west to West March Lane, which leads directly onto the south end of TS30L. This route does not pass by any schools. West March Lane is a six-lane road which runs between two residential neighborhoods. Haul trucks would use one designated lane on March Lane in the eastern and western direction, which would be specified in the traffic control plan. There is an at-grade railroad crossing on Cardinal Avenue, and coordination with Stockton Terminal and Eastern Railroad would occur prior to the start of construction.

Access to and from the staging and stockpile areas for the levee construction would use West March Lane as an access point to the TS30L levee and would then utilize the levee road (Brookside Road) and the parallel agricultural road on the west side of the waterside levee toe. Temporary access routes would be constructed to access the levee crown, which is gated from the public and is not utilized as a public road. The haul routes for other construction materials (e.g., riprap for runoff erosion protection) are based on the location of the material source. All riprap source options are commercial sites within 50 miles of the construction site and all haul routes would use local roads and major state and interstate highways to access West March Lane. Any deviation from the approved routes would be approved by the City of Stockton and the State for the use of off-ramps and on-ramps.

The Proposed Action includes West March Lane as a haul route, which runs through a residential area but not directly adjacent to houses. Because the haul trucks would not

utilize roads within the neighborhoods and would be restricted to a single lane in each direction of March Lane, truck traffic associated with construction of TS30L and the selected mitigation site is not expected to increase congestion in the residential area. The No Action Alternative impacts discussed in the 2018 LSJR IIFR/EIR/EIS regarding lane closures for levee road work, construction traffic near schools, railroad service disruption due to work under railroad crossings, and road closures due to levee work requiring drilling through roadways would not apply to the Proposed Action. Adverse impacts caused by the Proposed Action's site access and haul routes are not expected to exceed those described in the 2018 LSJR IIFR/EIS/EIR.

No significant impacts to transportation and circulation are anticipated due to construction of the mitigation sites. The mitigation sites will not be constructed concurrently with the construction of the TS30L levee.

### 3.12.3 Avoidance, Minimization, and Mitigation Measures

Mitigation measures outlined in Section 5.15.10 in the 2018 LSJR IIFR/EIS/EIR are sufficient to ensure adverse impacts from the Proposed Action are not greater than those stated in the 2018 LSJR IIFR/EIS/EIR.

## 3.13 Air Quality and Greenhouse Gas Emissions

### 3.13.1 Existing Conditions

Air quality management and protection are regulated by Federal, State, and local levels of government. The primary statutes that establish ambient air quality standards and authorities to enforce regulatory attainment are the Federal Clean Air Act (CAA) and California Clean Air Act.

The environmental and regulatory framework described in Section 5.8 of the 2018 LSJR IIFR/EIS/EIR is generally applicable to the analysis in this SEA and therefore is not repeated to the same depth here. The San Joaquin County attainment status of the National Ambient Air Quality Standards (NAAQS) for each of the criteria pollutants is included here for quick reference (Table 3). The applicable *de minimis* thresholds in tons per year (tpy) are listed in the table as well.

Analysis using the Road Construction Emission Model (RCEM) done for the 2018 LSJR IIFR/EIS/EIR was used to evaluate the significance for criteria air pollutants generated by Alternative 7a. Results showed emissions would be below the San Joaquin Valley Air Pollution Control District (SJVAPCD) and Federal conformity thresholds for all pollutants, including greenhouse gas (GHG) emissions, except for oxides of nitrogen (NO<sub>x</sub>).



**Table 3. San Joaquin County NAAQS attainment status for criteria pollutants**

<b>Pollutant</b>	<b>Attainment Status</b>	<b><i>De minimis</i> emission level (tpy)</b>
Ozone (8-hour, 2015)	Non-attainment, extreme	10 <sup>1</sup>
PM <sub>2.5</sub> (2012)	Non-attainment, serious	70 <sup>2</sup>
PM <sub>10</sub> (1987)	Maintenance	100
Sulfur dioxide (2010)	Attainment	n/a
Lead (2008)	Attainment	n/a
Carbon monoxide (1971)	Maintenance (Stockton urbanized area only)	100
Nitrogen dioxide	Attainment	n/a

<sup>1</sup>Ozone emissions include ROG and oxides of nitrogen (NO<sub>x</sub>)

<sup>2</sup>PM<sub>2.5</sub> emissions include direct emissions, SO<sub>2</sub>, NO<sub>x</sub>, ROG, and ammonia

### *Climate Change*

Existing conditions summarizing global climate change are adequately discussed in the 2018 LSJR IIFR/EIS/EIR. Locally, the effects of climate change are apparent within the San Joaquin Valley (Fernandez-Bou et al. 2021):

- The annual average maximum temperature in San Joaquin Valley increased in by 1 °F from 1950 to 2020 and is projected to increase by 5 to 8 °F by the end of this century.
- Snowpack in the Sierra Nevada, which serves as an essential water storage for the Valley, is decreasing. Earlier snowmelt will shift peak flows by two to four months by the end of the century, which may reduce water storage.
- Precipitation will likely become more intense during the rainy season, creating longer dry seasons.
- Sea level rise increases flood risk to Delta communities and cities, including Stockton.
- Multi-year climate extremes are becoming more frequent, such as the 2012-2016 drought when thousands of wells dried, decreasing the drinking water quality.

In January 2023, the CEQ released interim guidance regarding the consideration of GHG emissions and climate change in NEPA documents for Federal actions. According to the guidance, when analyzing a proposed action's climate change effects under NEPA, agencies should: (1) quantify the reasonably foreseeable GHG emissions of each alternative; (2) disclose and provide context for the GHG emissions and climate impacts associated with the alternatives, including by monetizing climate damages using estimates of the social cost of GHG (SC-GHG), placing emissions in the context of relevant climate action goals, and providing common equivalents; and (3) analyze reasonable alternatives, including those that would reduce GHG emissions relative to baseline conditions, and identify available mitigation measures to avoid, minimize, or compensate for climate effects.

The impacts of climate change are more pronounced in rural, disadvantaged communities of the San Joaquin Valley than in the rest of the state. Over half of the population of San Joaquin Valley live in disadvantaged communities, and climate change is already disproportionately exacerbating their vulnerabilities, including extremely poor air quality.

### 3.13.2 Environmental Effects

#### *No Action Alternative*

Section 5.8.4 of the 2018 LSJR IIFR/EIR/EIS states that Alternative 7a would be below the San Joaquin Valley Air Pollution Control District's (SJVAPCD) and Federal and State conformity thresholds for all pollutants except NO<sub>x</sub>, which can be found in Table 5-9 of the 2018 LSJR IIFR/EIR/EIS. Alternative 7a would generate emissions exceeding the SJVAPCD's CEQA thresholds and Federal conformity thresholds. Additionally, the 2018 LSJR IIFR/EIR/EIS states that construction-related NO<sub>x</sub> emissions would likely be reduced due to replacement of older equipment and by flood avoidance. Air pollutant emissions runs higher during the first five years due to greater construction activity. However, with exceedance in NO<sub>x</sub> emissions comes a contribution to ozone exceedances in an area designated as an extreme ozone nonattainment area. Consequently, the under Alternative 7a NO<sub>x</sub> emissions are significant.

Table 5-9 in the 2018 LSJR IIFR/EIS/EIR describes emissions for all of Alternative 7a; in order to establish a baseline to compare with the Proposed Action, emissions for Reach TS30L are presented here (Table 4), assuming that construction is completed in one season, Tier 4 equipment is required, and dust abatement mitigation is implemented. Estimated values for emissions of regulated pollutants and greenhouse gas emissions were calculated using the RCEM Version 9.0.0. Model inputs and calculations are presented in detail in Appendices B and C.

The 2018 LSJR IIFR/EIS/EIR estimates Project total NO<sub>x</sub> using 1980s equipment (Tier 0) to exceed the 10 tons per year threshold for five years between 2019-2023, whereas results from mitigated emissions using Tier 4 equipment at TS30L does not exceed 10 tons per year for any year. All regulated pollutants generated are under conformity thresholds established by the SJVAPCD, and all are less than the applicable Federal *de minimis* emission levels (Table 3). Therefore, effects to air quality would be less than significant.

**Table 4. Mitigated construction emissions, No Action Alternative**

	<b>ROG</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>SO<sub>x</sub></b>
No Action Alternative emissions (tpy)	0.73	13.07	1.72	7.28	1.57	0.03
San Joaquin County Thresholds (tpy)	10	100	10	15	15	27

Table 4 presents the mitigated project emissions of criteria pollutants from construction of the No Action Alternative, and GHG emissions are shown in Table 5. For context, the CO<sub>2</sub> emissions produced by the No Action Alternative would be equivalent to the annual CO<sub>2</sub> emissions of 531 passenger vehicles (assuming the average vehicle emits 4.6 tons CO<sub>2</sub> per year, EPA 2022). This is less than 1% of the number of autos and trucks registered in San Joaquin County in 2021 (CA DMV 2023). The SC-GHG for the No Action Alternative was calculated to be \$126,372 (IWG 2021). These metrics illustrate that GHG emissions from the No Action Alternative would be relatively minor, and the overall effects to climate change would be less than significant.

**Table 5. Estimated GHG emissions from implementation of the No Action Alternative**

<b>GHG</b>	<b>Estimated emissions (tpy)</b>
CO <sub>2</sub>	2442
CH <sub>4</sub>	0.74
N <sub>2</sub> O	0.04
CO <sub>2</sub> e	2472

The No Action Alternative would not result in disproportionate adverse effects to air quality in disadvantaged communities. Although there are no disadvantaged communities immediately surrounding the TS30L action area (except for near the SEWD borrow site), emissions can affect the ambient air quality over a larger area, which would include such communities. However, emissions of such a minor degree would not have a significant adverse effect on the surrounding disadvantaged communities.

### *Proposed Action*

Emissions from the Proposed Action would be generated from the construction of the riparian mitigation site within San Joaquin County. Emissions associated with other elements of the Proposed Action, such as the identified haul route, borrow site, and staging area, are included in the No Action calculations, because even though the details of where these features would be were unknown, they were certainly going to be part of the Project, so they were included in estimating emissions. It is assumed that the updated footprint and the addition of a waterside patrol road would not significantly change the emissions.

In calculating emissions for the construction of the Proposed Action, it was assumed that construction would occur in one calendar year and Tier 4 equipment would be required. Estimated values for emissions of regulated pollutants and greenhouse gas emissions were calculated using the RCEM Version 9.0.0. Model inputs and calculations are presented in detail in Appendices B and C.

Table 6 presents the mitigated emissions of regulated pollutants from construction of the Proposed Action under the assumptions that construction would be completed in a single calendar year, Tier 4 equipment would be required, and dust abatement mitigation is implemented. All regulated pollutants generated by are under conformity thresholds established by the SJVAPCD and the Federal *de minimis* emission levels, even when considered in conjunction with emissions from the No Action Alternative. Thus, effects to air quality would be less than significant.

**Table 6. Mitigated construction emissions, Proposed Action**

	ROG	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>
Proposed Action Emissions (tpy)	0.06	1.05	0.16	2.21	0.46	0.0
San Joaquin County Thresholds (tpy)	10	100	10	15	15	27

Table 7 presents the emissions of GHG pollutants from construction of the TS30L levee and the riparian mitigation sites construction with the following assumptions: each project will be completed in a single calendar year; Tier 4 equipment is required; dust abatement mitigation is implemented; and construction phases are sequential. The GHG total is estimated as CO<sub>2</sub>e or the equivalent quantity of CO<sub>2</sub> based on the higher atmospheric heating efficiency of CH<sub>4</sub> and N<sub>2</sub>O compared to CO<sub>2</sub>. SJVAPCD does not currently regulate GHG emissions.

The CO<sub>2</sub> emissions produced by the Proposed Action would be equivalent to the annual CO<sub>2</sub> emissions of 45 passenger vehicles, an 8% increase to the No Action Alternative. The SC-GHG for the Proposed Action was calculated to be \$10,914 (IWG 2021). These metrics illustrate that GHG emissions from the Proposed Action would be extremely minor, and the overall effects to climate change would be less than significant.

**Table 7. Estimated GHG emissions from implementation of the Proposed Action**

<b>GHG</b>	<b>Estimated emissions (tpy)</b>
CO <sub>2</sub>	209
CH <sub>4</sub>	0.05
N <sub>2</sub> O	0.01
CO <sub>2</sub> e	211

Similar to the No Action Alternative, the Proposed Action would not result in disproportionate adverse effects to air quality in disadvantaged communities.

### 3.13.3 Avoidance, Minimization, and Mitigation Measures

The mitigation measures outlined in Section 5.8.10 in the 2018 LSJR IIFR/EIS/EIR would be adopted to reduced impacts from the Proposed Action. Those measures, in addition to the measures below, would ensure that Proposed Action would have no significant impacts to air quality and GHG emissions. Note: measures marked with an asterisk (\*) would help to reduce the impacts of GHG emissions specifically.

- During construction, the use of off-road equipment that meets or exceeds USEPA or California Air Resource Board (CARB) Tier 4 off-road emission standards would be required. (This requirement is more stringent than the 2018 LSJR IIFR/EIS/EIR, which required the use of Tier 3 equipment.)\*
- Maintain properly functioning emission control devices on all vehicles and equipment.\*
- During construction, implement all appropriate dust control measures, such as tarps or covers on dirt piles, in a timely and effective manner.
- Periodically water all construction areas having vehicle traffic, including unpaved areas, to reduce generation of dust. Application of water would not be excessive or result in runoff into storm drains.
- Suspend all grading, earth moving, or excavation activities when winds exceed 20 miles per hour.
- Water or cover all material transported offsite to prevent generation of dust.
- Sweep paved streets adjacent to construction sites, as necessary, at the end of each day to remove excessive accumulations of soil or dust.

- Cover all trucks hauling dirt, sand, soil, or other loose material, or maintain at least 2 feet of freeboard (minimum vertical distance between top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114. This provision would be enforced by local law enforcement agencies.
- Revegetate or pave areas cleared by construction in a timely manner to control fugitive dust.
- Prior to construction, obtain necessary permit(s) from the San Joaquin Valley Air Pollution Control Board.

### 3.14 Noise

#### 3.14.1 Existing Conditions

The environmental and regulatory framework described in Sections 5.19 of the 2018 LSJR IIFR/EIS/EIR is generally applicable to the analysis in this SEA and therefore is not repeated here.

In addition to the noise related provisions in the 2018 LSJR IIFR/EIS/EIR, the allowable work hours by the City of Stockton are 8:30 am to 4:30 pm. For work outside of these hours, an encroachment permit must be obtained from the City of Stockton.

#### 3.14.2 Environmental Effects

##### *No Action Alternative*

Section 5.19.4 of the 2018 LSJR IIFR/EIR/EIS states that Alternative 7a would generate short-term and intermittent noise and vibration at or near sensitive locations along the Project reaches. Individual sensitive receptors would be exposed to construction noise for up to a full construction season. Short term construction-related noises would exceed applicable daytime standards, including those of San Joaquin County and the City of Stockton. In addition, Alternative 7a would introduce construction-related vibration that could exceed the standard for human annoyance for sensitive receptors. Noise- and vibration-reducing practices would reduce the severity of the impacts, but short-term effects would remain significant and unavoidable.

##### *Proposed Action*

In general, the noise effects associated with the Proposed Action are sufficiently described in Section 5.19.4 of the 2018 LSJR IIFR/EIS/EIR. Therefore, only impacts unaccounted for in that document are discussed here.

Sensitive receptors surrounding the Proposed Action area (including the potential mitigation sites) could be subjected to construction related noise between the work hours of 7:00 am and 7:00 pm, which falls within the daytime working hours in accordance with the noise ordinances in both the San Joaquin County Code and City of Stockton Municipal Code. However, construction work hours generally allowed by the City of Stockton are 8:30 am to 4:30 pm. The Proposed Action would expose sensitive

receptors in the nearby Brookside residential area to noise outside of these hours, however, any effects beyond those disclosed in the 2018 LSJR IIFR/EIS/EIR would be less than significant.

### 3.14.3 Avoidance, Minimization, and Mitigation Measures

All measures in the 2018 LSJR IIFR/EIS/EIR Section 5.19.10 would be implemented as applicable. In addition, prior to construction, an encroachment permit would be obtained from the City of Stockton for any noise-generating work planned to occur outside of the hours of 8:30 am to 4:30 pm. These measures would ensure that any effects associated with the Proposed Action would be less than significant.

## 3.15 Cultural Resources

### 3.15.1 Existing Conditions

The environmental and regulatory framework for Cultural Resources described in Section 5.21 of the 2018 LSJR IIFR/EIS/EIR is applicable to the analysis in this SEA and therefore is not repeated here.

USACE is complying with Section 106 of the National Historic Preservation Act for the LSJRP through implementation of the Programmatic Agreement Between the US Army Corps of Engineers and the California State Historic Preservation Officer Regarding the Lower San Joaquin River Feasibility Study Project, San Joaquin County, California (PA), executed on May 11, 2016, and amended on May 11, 2021. USACE has been utilizing the PA, which is described in the 2018 LSJR IIFR/EIS/EIR, since the PA was executed.

USACE initiated consultation with the California SHPO and the following Native American tribes; Buena Vista Rancheria of Me-Wuk Indians, California Valley Miwok Tribe, The Confederated Villages of Lisjan, Guidiville Indian Rancheria, Lone Band of Miwok Indians, Muwekma Ohlone Indian Tribe of the SF Bay Area, North Valley Yokuts Tribe, Tule River Indian Tribe, Wilton Rancheria and Wuksache Indian Tribe/Eshom Valley Band regarding Reach TS30L in letters dated September 4, 2020. In those letters, USACE delineated the Area of Potential Effects (APE) for Reach TS30L including the staging area and provided documentation of identification and evaluation efforts for Reach TS30L. The haul routes are not included in the APE for Section 106 compliance since they are paved roads and will not be impacted by the Proposed Action. In a letter dated September 28, 2021, the SHPO had no comments on the APE. The SHPO concurred that the Tenmile and Fourteenmile Slough Levees, the only cultural resources identified in the APE, are not eligible for listing in the National Register of Historic Places (NRHP).

In a letter dated November 3, 2021, USACE consulted with the SHPO and interested Native American tribes to revise the APE to include a proposed borrow area for Reach TS30L levee repairs, an actively farmed field between the SEWD percolation pond and Stockton Diverting Canal. During the identification efforts, a previously recorded cultural



resource, a historic-era refuse scatter (SEWD-01), was identified within the APE. No additional cultural resources were identified in the APE. In the same letter, USACE determined that SEWD-01 was ineligible for listing in the NRHP. USACE also proposed a continued finding of no historic properties affected for Reach TS30L. In a letter dated December 1, 2021, the SHPO did not have comments on the APE revision and concurred that SEWD-01 was not eligible for listing in the NRHP. The SHPO also did not object to the continued finding of no historic properties affected for Reach TS30L.

In a letter dated June 7, 2022, USACE consulted with the SHPO and interested Native American tribes to revise the APE to include the Fourteenmile Slough Sanitary Complex (potential off-site mitigation Parcel C), a barge landing area, an access route southwest of Reach TS30L, and a perimeter road of the SEWD in the APE. During the identification efforts, the Wright-Elmwood Tract, a previously unrecorded cultural resource was identified within the APE. A segment of the Southern Pacific Railroad (SPRR), part of the SPRR Oakdale Branch, was also identified within the APE. In the same letter, USACE consulted on a determination that Wright-Elmwood Tract (including SJC Levee 31 & SJC Levee 115), Fourteenmile Slough Sanitary Complex, and the Southern Pacific Railroad Company (SPRR) Oakdale Branch are not eligible for listing on the NRHP. USACE also proposed a continued finding of no historic properties affected for Reach TS30L. In a letter dated July 8, 2022, the SHPO had no comments of the APE revision and concurred with USACE determinations of eligibility for the Wright-Elmwood Tract, Fourteenmile Slough Sanitary Complex, and the SPRR Oakdale Branch. The SHPO also did not object to the finding of no historic properties affected for Reach TS30L.

USACE has revised the APE to include the SJR East (Parcel A) and SJR West (Parcel B) potential habitat mitigation sites. APE consultation letters were sent out to the SHPO and interested Native American tribes on February 6, 2023. In a letter dated March 2, 2023, the SHPO indicated no comments on the revised APE consultation. USACE received an email on February 9, 2023 from the Northern Valley Yokuts stating that the proposed LSJR Project in Stockton has a high potential for inadvertent discoveries of human remains. They recommended that Native American monitors be on site during any ground disturbance. USACE responded to the Northern Valley Yokuts via email on February 23, 2023, thanking them for their comments and letting them know that USACE will reach out to interested Tribes prior to construction of the mitigation sites.

During the identification efforts, five ditches within the Wright-Elmwood Tract were recorded as features, evaluated, and determined not eligible for the NRHP under any criteria. Hurley-Tracy No. 1 Transmission Line, Hurley–Tracy No. 2 Transmission Line, Eight Mile Road-Stagg 230 kV Transmission Line, and Stagg-Tesla 230 kV Transmission Line were all evaluated and determined not eligible for the NRHP under any criteria. In a letter dated March 16, 2023, to the SHPO and interested Native American tribes, USACE proposed a continued finding of No Historic Properties Affected for the Project and requested SHPO concurrence on the determinations of ineligibility. In a letter dated April 11, 2023, the SHPO stated that they would not be able

to respond within the 30 calendar days stipulated by the PA. USACE responded to the SHPO in a letter dated April 18, 2023, stating that the Project's Section 106 compliance is guided by a PA, which outlines timelines and review procedures. According to Stipulation I (Review Procedures and Timeframes) of the PA, "For all documents and deliverables produced in accordance with the stipulations of this Agreement....the SHPO shall have thirty (30) calendar days to respond. Failure of the SHPO, Concurring Parties, and Native American interested parties and Tribes to respond within thirty (30) calendar days of any submittal shall not preclude Corps from moving to the next step in this Agreement." Therefore, USACE does not require a SHPO response and will move forward to construction of the Project. USACE requested that the SHPO discontinue review of the finding of effect and our determinations of ineligibility and that a response is no longer required by the agency under the terms of the PA. The SHPO responded via email on April 18, 2023, stating they will proceed with what was stated in the letter.

### 3.15.2 Environmental Effects

USACE uses effects determinations arrived at through NHPA Section 106 compliance to assess effects to cultural resources under NEPA and to mitigate for adverse effects under both laws. Any adverse effects to historic properties determined through the Section 106 process would be considered as significant impacts under NEPA if they were to alter, directly or indirectly, the characteristics of a historic property that qualify it for inclusion in the NRHP in a manner that diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

#### *No Action Alternative*

Alternative 1 - No Action. Under the No Action Alternative, USACE would complete the levee improvements as described in Alternative 7a in Section 5.21.4 of the 2018 LSJR IIFR/EIS/EIR. Based on the results of previous Section 106 consultation with the SHPO, the No Action Alternative would not impact any known historic properties.

#### *Proposed Action*

Alternative 2 - Proposed Action. Under the Proposed Action, the levee improvements described in the 2018 LSJR IIFR/EIS/EIR would take place along with the following elements not previously analyzed: borrow site and haul routes, two staging areas, refinements to the levee design, and mitigation for environmental impacts. USACE has completed Section 106 consultation for all of the Proposed Action's elements. The Proposed Action would not impact any known historic properties.

### 3.15.3 Avoidance, Minimization, and Mitigation Measures

To date, USACE has determined that Proposed Action activities would have no significant impact to cultural resources and no mitigation measures specific to that action are currently contemplated. If adverse effects to any historic properties are found through additional Section 106 consultation, or occur during construction, those effects would be mitigated as stipulated in the PA.

## Chapter 4 CUMULATIVE EFFECTS

This EA also considers the effects of cumulative impacts as required in 40 CFR §1508.7 and concurrent actions as required in 40 CFR §1508.25[1]. A cumulative impact, as defined by the CEQ (40 CFR §1508.7) is the "...impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of which agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

Actions in the region of influence for this Project not already discussed in the 2018 LSJR IIFR/EIS/EIR that could occur during the same time period and have effects, which could combine with effects of the Proposed Action include the Lower San Joaquin River Mossdale Tract and Vicinity Feasibility Study

### 4.1 Groundwater

The Proposed Action would not prevent the percolation or movement of the underlying groundwater basin and would not use groundwater and there would be no cumulative impact to groundwater supply. The Proposed Action does not include any new subsurface activities that would reach the depth of the underlying water table, so there is no potential to introduce contaminants into groundwater below construction locations. Therefore, the Proposed Action would not contribute to a cumulatively significant impact on groundwater quality.

### 4.2 Wetlands and Other Waters of the U.S.

Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR identifies cumulative impacts to wetlands and other waters of the U.S. as significant and unavoidable, due to short- and long-term effects on waters of the U.S., including wetlands, as a result of construction and operation of in-water closure structures, placement of fill, and elimination of existing vegetation in the receiving waters. Temporary impacts associated with the fill and relocation of landside toe drains and irrigation ditches would also occur.

Implementation of the Proposed Action would result in the removal of approximately 0.6 acres of wetland habitat. This loss of wetlands would be compensated for through creation of new wetland habitat at a nearby mitigation site either adjacent to the Proposed Action area or at one of Parcels A, B, or C after construction begins. This loss of wetlands, along with the loss attributed to other projects in the area, would contribute to adverse cumulative effects to wetlands and other waters of the U.S., but not above the significant and unavoidable level already discussed in the 2018 LSJR IIFR/EIS/EIR.

### 4.3 Aesthetic Resources

Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR states that implementation of projects within the study area in the past together with those planned for the future would result

in significant and unavoidable cumulative impacts to aesthetics, primarily related to the loss of visual quality during and after construction. The Proposed Action would contribute to this significant cumulative impact because it would result in permanent loss of large trees and other vegetation along Tenmile Slough. A new mitigation site would be created with habitat that would improve visual quality; however, a long-time period is required for planted vegetation to reach a similar size as the existing vegetation. The adverse cumulative effects to aesthetic resources associated with the Proposed Action would not exceed those significant and unavoidable level described in the 2018 LSJR IIFR/EIS/EIR.

#### 4.4 Vegetation and Wildlife

Cumulative effects to vegetation and wildlife due to the LSJR and other projects are described in Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR. Implementation of avoidance, mitigation, and compensatory mitigation measures in Section 5.9.10 and 5.10.10 would reduce the magnitude of the contribution, but effects as identified would remain significant and unavoidable.

The 2018 LSJR IIFR/EIS/EIR states that 139 acres of riparian habitat and 10.75 acres of wetland habitat would be removed under Alternative 7a; these estimates include the 11.4 acres of riparian and 0.6 acres of wetland habitats that would be removed under the Proposed Action. Therefore, effects from the Proposed Action would not increase the magnitude of the cumulative effects beyond what is described in the 2018 LSJR IIFR/EIS/EIR.

In addition, application of mitigation measures outlined in Section 5.9.10 and Section 5.10.10 of the 2018 LSJR IIFR/EIS/EIR and in Section 3.7.3 of this SEA, including compliance with the recommendations of the USFWS in their 2022 Supplemental CAR for the Proposed Action to the extent feasible and the creation of up to 71 acres of wetland and riparian habitat at a mitigation site would further reduce the magnitude of the Proposed Action's effects.

#### 4.5 Federal Special Status Species

As discussed in Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR, Alternative 7a would result in considerable contributions to direct and indirect effects on special status species and have a significant and unavoidable cumulative impact. Implementation of the mitigation measures described in Section 5.12.10 of the 2018 LSJR IIFR/EIS/EIR would reduce the impacts, except where there is direct and indirect loss of shaded riverine aquatic (SRA) habitat. The method of mitigation under the Proposed Action has changed (mitigation site construction instead of the purchase of credits) but will provide equivalent reduction to the impacts.

There are two special status species in the Proposed Action area: the VELB and the GGS. The elderberry shrubs within the proposed footprint would be transplanted to an approved conservation bank. To account for the transplant effects, riparian habitat with planted elderberries would be created at the selected mitigation site. This would offset

effects to the VELB and reduce any added cumulative impacts from the proposed action to the VELB to a less than significant level. To minimize effects to GGS, work would be conducted during the GGS's active period so they can move and avoid the construction area. To compensate for the loss of GGS habitat, wetland and upland habitat would be created at the selected mitigation site. This in addition to avoidance and minimization measures would reduce cumulative impacts on GGS to a less than significant level.

#### 4.6 Socioeconomics and Environmental Justice

The LSJR Project would have beneficial cumulative effects to socioeconomics by reducing flood risk to the City of Stockton. The Proposed Action contribute to the beneficial effects, and the overall beneficial cumulative effects.

The Proposed Action could have slight adverse impacts on the Garden Acres neighborhood, a community adjacent to the SEWD borrow site identified as disadvantaged. These impacts would be less than significant, as discussed in Section 3.9.2. The Proposed Action would not create barriers that would divide any established community or disproportionately affect minority or low-income populations, thus would not contribute to adverse cumulative effects to the community when considered with other projects in the area.

#### 4.7 Utilities and Public Services

As stated in Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR, significant cumulative impacts related to the expansion and services from utilities resulting from Alternative 7a and other projects are possible. Implementation of the Proposed Action would not require the use or expansion of local utilities, including water supply. All utilities and utility easements within the proposed footprint, including the mitigation area, would be maintained and protected. The Proposed Action would not contribute to significant cumulative impacts to utilities or public services.

#### 4.8 Land Use

The implementation of the Proposed Action would result in a permanent conversion of a small amount of agricultural land including prime farmland into levees, flood risk management supporting features, and habitat mitigation. However, this small amount of agricultural land does not represent a significant effect to land use. It is a small portion of the available agricultural land on Wright-Elmwood Tract, and the remainder of such land would remain functional for crop production. Construction of the Proposed Action would not contribute to a significant cumulative impact to land use, even when considered with other projects in the area.

#### 4.9 Transportation and Circulation

Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR determines that Alternative 7a would not contribute to significant cumulative impacts on traffic or transportation. The changes to the alternative, analyzed as the Proposed Action, would not change this determination,

as there are no planned projects in the study area surrounding the Proposed Action locations, including TS30L and the SEWD borrow site.

#### 4.10 Air Quality and GHG Emissions

All projects within the SJVAPCD would cumulatively contribute to emissions of criteria pollutants, particularly if they are constructed concurrently, which could have a significant cumulative effect on air quality as described in Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR. Criteria pollutant emissions associated with the Proposed Action are mostly covered in the description of Alternative 7a in the 2018 LSJR IIFR/EIS/EIR, with the exception of the construction of a new mitigation site. However, the construction of a new site would be a minor relative contribution to the No-Action emissions, and the Proposed Action would not contribute significantly to cumulative effects on air quality.

A challenge with GHG emissions and climate change is that no single action is likely to contribute significantly to the climate change process on its own; it is entirely a cumulative progression. It is expected that the primary impacts from concurrent projects would be due to construction activities. On an individual basis, each project would mitigate emissions below the general reporting threshold. If projects are implemented concurrently, it is possible that the combined cumulative effects could be above reporting requirements for GHG emissions. However, with the implementation of mitigation measures, which would be required for each project, it is possible that the effects could be reduced to less than significant. In addition, by implementing flood risk management projects such as the Proposed Action, potential future emissions associated with flood fighting and emergency actions would be reduced. The overall cumulative GHG emissions from these projects are considered to be less than significant.

#### 4.11 Noise

The Proposed Action would contribute to cumulative noise impacts if there are other local projects that would result in temporarily increased levels of ambient noise in the Proposed Action area. None of the projects are in close enough proximity of the proposed TS30L or mitigation construction sites to create a cumulative effect from concurrent construction. If there are any unforeseen projects constructing within audible distance from one another, USACE would coordinate with the other projects to ensure that the Proposed Action would not be constructing at the same time as other, adjacent construction. Therefore, the Proposed Action would not contribute to a significant cumulative impact to noise.

#### 4.12 Cultural Resources

In general, the cumulative impacts to cultural resources would be significant and unavoidable as described in Section 5.23.5 of the 2018 LSJR IIFR/EIS/EIR, due to the amount of earth-disturbing activity associated with construction of the levee

improvements, which, in conjunction with other heavy construction projects, could contribute to the progressive loss of cultural resources. The Proposed Action would not affect known historic or cultural resources; therefore, no contribution to cumulative impacts on cultural resources would occur from the implementation of the Proposed Action.



## Chapter 5 COMPLIANCE WITH FEDERAL LAWS AND REGULATIONS

Certain Federal laws and regulations require issuance of permits before project implementation; other laws and regulations require agency consultation but may not require issuance of any authorization or entitlements before project implementation. For each of the laws and regulations addressed in this section, the description indicates either full or partial compliance; if partial compliance is indicated, full compliance will be achieved prior to issuance of a NEPA decision document.

### 5.1 Clean Air Act, as amended, 42 U.S.C. 7401, et seq.

Air quality regulations were first communicated with the Clean Air Act (CAA). The CAA is intended to protect the Nation's air quality by regulating emissions of air pollutants. The CAA established the NAAQS and delegated enforcement of air pollution control to the states. CARB has been designated as the state agency responsible for regulating air pollution sources at the state level. CARB, in turn, has delegated the responsibility of regulating stationary emission sources to local air pollution control or management districts which, for the Proposed Action is within the SJVAPCD.

The CAA states that all applicable federal and state ambient air quality standards must be maintained during the operation of any emission source. The CAA also delegates to each state the authority to establish air quality rules and regulations. State adopted rules and regulations must be at least as stringent as the mandated federal requirements. In states where the National Ambient Air Quality Standards (NAAQS) are exceeded, the CAA requires preparation of a State Implementation Plan (SIP) that identifies how the state will meet standards within timeframes mandated by the CAA. The U.S. EPA, in conjunction with the U.S. Department of Transportation, established the General Conformity Rule on November 30, 1993. The rule implements the CAA conformity provision, which requires federal agencies to identify, analyze, and quantify emission impacts of an action and mandates that the federal government not engage, support, or provide financial assistance for licensing or permitting, or approve any activity not conforming to an approved CAA implementation plan.

Section 5.8.4 Alternative 7A of the 2018 LSJR IIFR/EIR/EIS states that the No Action Alternative would be below the SJVAPCD and Federal conformity threshold for all pollutants except NO<sub>x</sub>.

The Proposed Action area meets NAAQS for criteria pollutants and therefore, no conformity analysis was required. This SEA evaluates air emissions resulting from the Proposed Action and concludes that with mitigation there will be less than a significant impact on air quality.

## 5.2 Clean Water Act, as amended, 33 U.S.C. 1251, et seq.

The Clean Water Act (CWA) is the primary Federal law that governs and authorizes water quality control activities by the EPA, the lead federal agency responsible for water quality management, and the State. Sections 401 and 404 of the CWA applies to jurisdictional waters of the U.S. and regulate the movement or placement of fill materials and construction activities within these waters.

A jurisdictional delineation of the agricultural ditch and associated wetlands adjacent to TS30L was conducted on March 9, 2021, which found these aquatic resources did not meet the definition of jurisdictional waters of the U.S. under the June 2020 Navigable Waters Protection Rule in effect at the time of the delineation. As of March 20, 2023, a new rule definition waters of the U.S. has come into effect. Under the current rule, the aquatic resources still would not meet the definition of jurisdictional waters of the U.S. The northern staging area and temporary construction work area west of TS30L which lie in irrigated rice fields were not included in the original wetland delineation for the TS30L construction footprint, but may meet the current definition of jurisdictional waters of the U.S.

The Proposed Action includes establishing mitigation sites in areas which may include aquatic resources considered waters of the U.S. and may be subject to Sections 401 and 404 of the CWA. Prior to construction, USACE will prepare a Water Quality Certification and Section 404(b)(1) evaluation for any site which falls under federal CWA jurisdiction.

Prior to construction, the contractor will be required to obtain a Construction General Permit and the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for potential effects related to stormwater discharge. With implementation of these permits, the Proposed Action will be in compliance with the CWA.

## 5.3 Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. 9601, et seq.

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, known as Superfund) was passed to facilitate the cleanup of toxic waste sites. In 1986, the Act was amended by the Superfund Amendment and Reauthorization Act Title III (community right-to-know laws). Title III states that past and present owners of land contaminated with hazardous substances can be held liable for the entire cost of the cleanup, even if the material was dumped illegally when the property was under different ownership. Hazardous material may be present in the vicinity of the Proposed Action, in particular, the potential mitigation site located at the former wastewater ponds at the Fourteenmile Slough pump station (Parcel C). A Phase 1 Environmental Site Assessment was conducted in October 2022, indicating the need for a Phase 2 Assessment, which is tentatively scheduled to occur in May 2023. If the Phase 2 Assessment finds that contaminants exist at the site, it is unlikely that it would be

selected as the mitigation site for TS30L. If the parcel is chosen for mitigation, these lands would require remediation before construction of the site. These conditions, along with those described in Section 5.20.10 of the 2018 LSJR IIFR/EIS/EIR would ensure the Proposed Action remains compliant with CERCLA.

#### 5.4 Endangered Species Act, as amended, 16 U.S.C. 1531, et seq.

Under Section 7(a)(2) of the Endangered Species Act (ESA), federal agencies must consult with USFWS and the National Marine Fisheries Service (NMFS) to ensure that agency actions do not jeopardize the continued existence of any threatened or endangered species or their habitats. BOs were received for the LSJR Project from USFWS and NMFS in June 2016 which concluded that the Project is unlikely to jeopardize the continued existence of federally listed species in the Project area. For TS30L, the species of concern are the VELB and GGS. USACE re-initiated formal consultation with USFWS for the Proposed Action on May 15, 2023 due to changes in the Project that may affect VELB and GGS, particularly relating to compensatory mitigation for the Proposed Action. Under the 2016 consultation, a conservation measure proposed for VELB was a compensatory mitigation site created by a 14-acre levee setback, which would receive the elderberry transplants. However, this levee setback would not be constructed prior to TS30L construction. Additionally, the Project's original compensation strategy was to purchase credits for riparian and wetland habitat. However, since such credits are not available, USACE is instead proposing to construct a mitigation site. These changes were included in the consultation with USFWS, and a BO detailing the Service's determination and any Terms and Conditions is expected in September 2023. All conservation measures and Terms and Conditions resulting from the TS30L consultation will be implemented throughout all phases of the Proposed Action.

#### 5.5 Executive Order 11990, Protection of Wetlands

EO 11990, signed May 24, 1977, directs all Federal agencies to refrain from assisting in or giving financial support to projects that encroach on publicly or privately owned wetlands. It further requires that Federal agencies support a policy to minimize the destruction, loss or degradation of wetlands. Any wetland loss at TS30L will be offset by restoring wetlands at one of four adjacent or nearby parcels, ensuring that wetlands are not lost as a result of the levee improvements. Any existing wetlands at the proposed mitigation parcels would be protected and enhanced by the Proposed Action.

#### 5.6 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EO 12898 directs federal agencies to address disproportionate environmental and human health effects of federal actions on minority and low-income populations. EO 12898 requires that adverse effects on minority or low-income populations be taken into

account during preparation of environmental and socioeconomic analyses of projects or programs that are proposed, funded, or licensed by Federal agencies.

The Proposed Action includes a borrow site located near a residential neighborhood identified as disadvantaged, however the haul route does not go through the neighborhood. The Proposed Action has identified measures to minimize dust and noise impacts resulting from the hauling of material, demonstrating full compliance with EO 12898.

## 5.7 Executive Order 13112, Invasive Species.

EO 13112, signed February 3, 1999, directs all Federal agencies to prevent and control the introduction of invasive species in a cost-effective and environmentally sound manner. It established the National Invasive Species Council, composed of Federal agencies and departments, and the supporting Invasive Species Advisory Committee, composed of state, local and private entities. The Council's National Invasive Species Management Plan recommends objectives and measures to implement EO 13112, and to prevent the introduction and spread of invasive species (National Invasive Species Council 2008). EO 13112 requires consideration of invasive species in NEPA analysis, including their identification and distribution, their potential effects and measures to prevent or eradicate them. A management plan would be developed and implemented for the construction phase of the Proposed Action and included in the O&M Manual, after which the Project and Proposed Action would be in compliance.

## 5.8 Farmland Protection Policy Act, 7 USC 4201 et seq.

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which federal programs contribute to unnecessary conversion of farmland to nonagricultural uses. While the FPPA does not require the federal agency to modify a project solely to avoid farmland impacts, it does require the agency to examine the effects and consider alternatives to lessen those effects. If an action is to affect agricultural lands, coordination with the U.S. Department of Agriculture, NRCS will occur.

The SEWD borrow site and all parcels under consideration for mitigation lie on land designated as prime farmland. USACE consulted with NRCS to determine LESA scores for each parcel, which indicates whether the FPPA applies and alternate parcels should be considered. None of the scores exceeded the threshold for significant impacts to prime farmland; therefore, mitigation for the converted farmland is not required and the Project and Proposed Action are in compliance with the FPPA.

## 5.9 Fish and Wildlife Coordination Act, as amended, 16 USC 661, et seq.

The Fish and Wildlife Coordination Act directs the USFWS to provide recommendations to minimize impacts to fish and wildlife resources because of a proposed federal

action's effect on a body of water. The USFWS CAR was prepared in 2016 and included in the Environmental Addendum of the 2018 LSJP IIFR/FEIS/FEIR. A supplemental CAR was prepared in 2022 to provide habitat analysis and recommendations specific to TS30L. The Proposed Action will follow the recommendations provided in the CARs.

#### 5.10 Magnuson-Stevens Fishery Conservation and Management Act, as amended, 16 USC 1801, et seq.

The Magnuson-Stevens Fishery Conservation and Management Act established a management system for national marine and estuarine fishery resources. Essential Fish Habitat (EFH) is defined as "waters and substrate necessary to fish spawning, breeding, feeding or growth to maturity." 16 USC 1802. It states that migratory routes to and from anadromous fish spawning grounds should also be considered EFH. This Act requires Federal agencies to consult with NMFS regarding all action or proposed actions permitted, funded, or undertaken that may adversely affect EFH. The Proposed Action area does not affect any waterways that are defined as EFH.

#### 5.11 Migratory Bird Treaty Act, as amended, 16 USC 703 et seq.

The Migratory Bird Treaty Act (MBTA), as amended, implements treaties and conventions between the United States, Canada, Japan, Mexico, and Russia providing protection for migratory birds as defined in 16 USC 715j. It established hunting seasons and capture limits for game species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR Part 21; 50 CFR Part 10). Permits from USFWS are required for both incidental and direct take.

Migratory birds and their nests are likely to occur within, and adjacent to, the footprint of the proposed action. To ensure that the Proposed Action does not affect migratory birds, vegetation removal would occur during the non-nesting season, and preconstruction surveys would be conducted by a qualified biologist in areas within and adjacent to the construction site. If breeding birds are found in the area, a protective buffer would be delineated and USFWS and California Department of Fish and Wildlife (CDFW) would be consulted for further actions.

#### 5.12 National Environmental Policy Act, as amended, 42 USC 4321 et seq.

NEPA applies to all Federal agencies and requires Federal agencies to provide a detailed statement on proposals for major Federal actions significantly affecting the quality of the human environment. NEPA requires every Federal agency to disclose the environmental effects of its actions for public review purposes and directs the Federal agency to assess alternatives to, and the consequences of, the proposed action. This document supplements the original 2018 LSJR IIFR/EIS/EIR NEPA document, providing additional information to consider the environmental consequences of design

refinements developed since the original 2018 LSJR IIFR/EIS/EIR. This document will be circulated for a 45-day public review. After the public review period, a final document will be prepared that incorporates public comments, as appropriate. Following this review and the issuance of a FONSI, the Project and Proposed Action will be in full compliance with NEPA.

### 5.13 National Historic Preservation Act, as amended, 54 USC 300101 et seq.

The National Historic Preservation Act (NHPA) is the primary Federal legislation governing the preservation of significant historic properties. Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties. Undertakings are projects, activities, or programs funded in whole or in part under the direct or indirect jurisdiction of a Federal agency. USACE uses effects determinations arrived at through compliance with Section 106 of the NHPA, to assess effects to cultural resources under NEPA, and to mitigate for adverse effects under both laws.

USACE has consulted and received SHPO concurrence with a finding of No Historic Properties Affected for the activities consisting of the levee repairs, staging areas, the proposed borrow area, and the Fourteenmile Slough Pump Station (Parcel C). USACE completed consultation with the SHPO on a finding of effect related to the SJR East Site (Parcel A) and SJR West Site (Parcel B). USACE determined that the addition of the two sites to the APE would have a continued finding of No Historic Properties Affected for the Project.

### 5.14 Noise Control Act, as amended, 42 USC 4901, et seq.

Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. EPA is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and control. The Noise Control Act requires that Federal agency activities comply with all Federal, State, and local laws and regulation that regulate noise emissions threshold, which were incorporated into the significance thresholds used in the assessment of potential project impacts. The general plans for San Joaquin County, the City of Stockton, and the City of Manteca identify noise emissions thresholds, which were incorporated into the significance threshold used in the assessment of potential Project impacts in the 2018 LSJR IIFR/EIS/EIR (Section 5.19.4).

Construction related noise is not likely to exceed land use compatibility threshold on agricultural lands but could result in intermittent noise impacts to residential uses within 700 feet of construction activities. Truck routes would be properly maintained. No night-time construction between the hours of 10:00 pm and 7:00 am would occur. Development of the proposed mitigation sites would not add additional noise than has already been expected in the 2018 LSJR IIFR/EIS/EIR.

#### 5.15 Noxious Weed Act, as amended, 7 USC 2801, et seq.

The Noxious Weed Act was authorized to control and manage the spread of nonnative plant species that may have adverse effects on agriculture, commerce wildlife resources, or public health. It inhibits the transport, trade or sale of noxious plant species in the U.S. and gave the Secretary of Agriculture authority to determine noxious plant species, and to establish measures to control them. As amended, the Act requires all Federal agencies to establish a management plan to control the spread of noxious plant species in the jurisdiction. A management plan would be developed and implemented for the construction of the Proposed Action and included in the O&M Manual, after which the Proposed Action would be in compliance with this Act.

#### 5.16 Resources Conservation and Recovery Act, as amended, 42 USC 6901 et seq.

The Resources Conservation and Recovery Act enables EPA to administer a regulatory project that extends from the manufacture of hazardous materials to their disposal, thus regulating the generation, transportation, treatment, storage and disposal of hazardous waste at all facilities and sites in the U.S. The LSJR Proposed Action would comply with this Act when transporting or disposing of hazardous material found in the Proposed Action area.

#### 5.17 Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended, 42 USC 4601 et seq.

The proposed TS30L construction footprint falls within easements and real estate acquisition is not anticipated to construct the levee improvements. Three of the proposed mitigation sites fall on private land and real estate acquisition would be required for on-site mitigation, Parcel A, or Parcel B. Parcel C is located on City of Stockton property and would require a conservation easement. The San Joaquin Area Flood Agency is USACE's partner and is responsible for the Lands, Easements, Rights-of-Way, Relocations, and Disposal (LERRD) processes including any property acquisitions in order to comply with the Act.

#### 5.18 Wild and Scenic Rivers Act, as amended, 16 USC 1271, et seq.

The Proposed Action does not contain any wild or scenic Rivers, therefore the Wild and Scenic Rivers Act is not applicable.



## Chapter 6 COORDINATION OF THE SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

This Draft SEA and Draft FONSI will be circulated for public review from May 31 to July 17, 2023. This 45-day period aligns with the public review period of the Draft Supplement Environmental Impact Report as required by CEQA. A public meeting will occur on June 26 in two sessions – one virtual and one in person in the Brookside community. Substantive comments received during the public review period along with USACE's responses will be incorporated into the final SEA as appropriate and will be summarized and included as an appendix to the final report.

Agencies coordinated with during the development of this report include USFWS, NMFS, the SHPO, and EPA.

USACE sent a letter of reinitiation to USFWS for Section 7 consultation under the ESA for the TS30L reach on May 15, 2023. A BO is expected from USFWS in September 2023.

USACE has consulted with the California SHPO and the following Native American tribes; Buena Vista Rancheria of Me-Wuk Indians, California Valley Miwok Tribe, The Confederated Villages of Lisjan, Guidiville Indian Rancheria, Lone Band of Miwok Indians, Muwekma Ohlone Indian Tribe of the SF Bay Area, North Valley Yokuts Tribe, Tule River Indian Tribe, Wilton Rancheria and Wuksache Indian Tribe/Eshom Valley Band on the following dates:

- On September 4, 2020 USACE sent a letter delineating the Area of Potential Effects (APE) for Reach TS30L including the staging area and provided documentation of identification and evaluation efforts for Reach TS30L.
- On November 3, 2021, USACE consulted with the SHPO and interested Native American tribes to revise the APE to include the proposed borrow area for Reach TS30L levee repairs. USACE also proposed a continued finding of no historic properties affected for Reach TS30L.
- On June 7, 2022, USACE consulted with the SHPO and interested Native American tribes to revise the APE to include the Fourteenmile Slough Sanitary Complex (potential off-site mitigation Parcel C), a barge landing area, an access route southwest of Reach TS30L, and a perimeter road of the SEWD in the APE. USACE also proposed a continued finding of no historic properties affected for Reach TS30L.
- On February 6, 2023 USACE sent out consultation letters revising the APE to include the SJR East (Parcel A) and SJR West (Parcel B) potential habitat mitigation sites. USACE received an email on February 9, 2023 from the Northern Valley Yokuts stating that the proposed LSJR Project in Stockton has a high potential for inadvertent discoveries of human remains. They recommended

that Native American monitors be on site during any ground disturbance. USACE responded to the Northern Valley Yokuts via email on February 23, 2023, thanking them for their comments and letting them know that USACE will reach out to interested Tribes prior to construction of the mitigation sites. On March 16, 2023, USACE sent letters proposing a continued finding of No Historic Properties Affected for the Project and requesting SHPO concurrence on the determinations of ineligibility for five ditches recorded as features within the Wright-Elmwood Tract.

## Chapter 7 FINDINGS

The anticipated environmental effects of the Proposed Action on twelve resource areas were evaluated within this SEA for LSJR Reach TS30L. The analysis indicates that, with implementation of the avoidance, minimization, and mitigation measures described in the 2018 LSJR IIFR/EIS/EIR and the additional measures described in this SEA, the Proposed Action would not cause any new significant impacts beyond those described in the 2018 LSJR IIFR/EIS/EIR. A Draft FONSI of the Proposed Action has been prepared and has been circulated with this SEA.

## Chapter 8 REFERENCES

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- [USFWS] U.S. Fish and Wildlife Service. 2016. Final Fish and Wildlife Coordination Act Report for the Lower San Joaquin River Feasibility Study.

- \_\_\_\_\_. 2017. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). Sacramento, California. 28 pp.
- \_\_\_\_\_. 2022. Supplemental Fish and Wildlife Coordination Act Report for the Lower San Joaquin River Feasibility Study: Segment TS30L Habitat Evaluation Procedures.

## APPENDIX A – PUBLIC COMMENTS AND RESPONSES

This Draft SEA and Draft FONSI will be circulated for public review from May 31 to July 17, 2023. A public meeting will occur on June 26 in two sessions – one virtual and one in person in the Brookside community. Substantive comments received during the public review period along with USACE's responses will be incorporated into the final SEA as appropriate and will be summarized and included in this Appendix to the final report.

## APPENDIX B – AIR QUALITY EMISSIONS FOR CONSTRUCTION OF TS30L

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## APPENDIX C – AIR QUALITY EMISSIONS FOR TS30L MITIGATION

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## APPENDIX D – AGENCY COORDINATION LETTERS

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## APPENDIX E – TS30L SUPPLEMENTAL COORDINATION ACT REPORT

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## APPENDIX F – BIOLOGICAL ASSESSMENT AND USFWS BIOLOGICAL OPINION

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