DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
NORTH MOKELUMNE RIVER MULTI-BENEFIT PROJECT
STA. 1040+00 – 1200+00

Prepared for:
Reclamation District No. 38
P.O. Box 408
Walnut Grove, California 95690

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June 2021

PROJECT SUMMARY

Project:	North Mokelumne River Multi-Benefit Project, Sta. 1040+00 – 1200+00
Lead Agency:	Reclamation District No. 38 P.O. Box 408 Walnut Grove, CA 95690
Contact:	Robert C. Wagner, P.E. District Engineer Martin Berber, P.E., Project Engineer Wagner & Bonsignore, Consulting Civil Engineers 2151 River Plaza Drive, Suite 100 Sacramento, CA 95833 Ph: (916) 441-6850
Project Location:	Staten Island, San Joaquin County
Project Sponsor:	Delta Levees Program Department of Water Resources P.O. Box 219000 Sacramento, CA 95821-9000
General Plan Designation:	General Agriculture (A/G)
Zoning:	Agriculture
Project Description:	Rehabilitate levee section from Sta. 1040+00 – 1200+00 to the Delta Specific PL 84-99 Standard and construct 7 riparian benches
Surrounding Land Uses and Setting:	Project is bordered by the North Mokelumne River to the west and farmland to the east
Other Public Agencies Whose Approval is Required:	• California Department of Fish and Wildlife (Streambed Alteration Agreement) • Central Valley Flood Protection Board (Encroachment Permit) • Central Valley Regional Water Quality Control Board (Section 401 Water Quality Certification) • Delta Stewardship Council (Delta Plan Consistency Determination) • US Army Corps of Engineers (Section 404 Nationwide Permit 27)
Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1?	No tribes have requested consultation. Tribal Cultural Resources are addressed in Section 3.18.

PROPOSED MITIGATED NEGATIVE DECLARATION

Project: North Mokelumne River Multi-Benefit Project, Sta. 1040+00 – 1200+00

Lead Agency: Reclamation District No. 38

Project Location: Staten Island, San Joaquin County

Project Description: Portions of the Staten Island levee system along the North Mokelumne River are below the Delta Specific PL 84-99 Standard, which requires levee crown elevations be 1.5 feet above the 100-year flood elevation. Additionally, seven levee sections along the North Mokelumne River are experiencing waterside erosion below the normal waterline.

The Project includes 16,000 LF of landside levee rehabilitation and 6,125 LF of waterside habitat enhancement above Mean High Water (MHW). Landside work involves raising the levee crown and stabilizing the landside slope through the construction of a counterbalance berm. Levee sections that are experiencing erosion below the normal water line will be setback to restore waterside geometry. Aggregate base material will be placed on the levee crown to create an all-weather roadway. Waterside work includes excavation of the existing waterside slope, at the seven setback levees, to construct a habitat bench above MHW. The habitat bench and setback levee waterside slope will be planted with native species. Plantings will be monitored and maintained for 3 years to ensure success criteria is met.

Findings: An Initial Study has been prepared to assess the Project's potential effects on the environment and the significance of those effects. Based on the Initial Study, Reclamation District No. 38 has determined that the Project will not have any significant impacts on the environment once mitigation measures included in the Project design are implemented.

Mandatory Findings of Significance:

- The Project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish of wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.
- The Project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The Project does not have impacts that are individually limited but cumulatively considerable.
- The Project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

Proposed Mitigation Measures: Although the Project could have a significant effect on the environment, there will not be a significant effect in this case because Reclamation District No. 38 has agreed to reduce those effects by incorporating mitigation measures into the Project. The mitigation measures are set forth within this document.

Determination

On the basis of this Initial Study, I find that the proposed Project will not have a significant effect on the environment, and that this Mitigated Negative Declaration has been drafted in accordance with the California Environmental Quality Act.

_____ _____

Dawit Zeleke, President
Reclamation District No. 38

Date

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1 INTRODUCTION

The Staten Island levee system consists of approximately 25.3 miles of levee: 9.9 miles of levee are located along the North Mokelumne River (NMR) and 15.4 miles along the South Mokelumne River (SMR). All the levees in the system are non-project levees which are maintained by Reclamation District No. 38 (District). As part of the NMR Multi-Benefit Project (Project), the District plans to rehabilitate approximately 3 miles of the Staten Island levee system along the NMR to the Delta Specific PL 84-99 Standard. This Initial Study/Mitigated Negative Declaration (ISMND) has been prepared in compliance with the California Environmental Quality Act (CEQA) to address the potential environmental effects of the Project.

1.1 Project Vicinity

Staten Island is a 9,200-acre Sacramento-San Joaquin Delta (Delta) island located in northern San Joaquin County (County), California (Figure 1). The island is bordered by the NMR to the west and the SMR to the east and south. The island is situated south of Deadhorse Island, east of Tyler Island, north of Bouldin Island, and west of New Hope Tract, Canal Ranch, Brack Tract and Terminous Tract. Staten Island is accessible by Walnut Grove – Thornton Road at its northern end.

1.2 Project Area

The Project area includes the levee crest and the area extending landside varying distances up to 130 feet from Station (Sta.) 1040+00 – 1200+00 (Figure 2). Additionally, the Project area includes the levee waterside slope above Mean High Water (MHW) at the levee sections summarized in Table 1.

Table 1. Riparian Benches

Site	Start Sta.	Stop Sta.	Length (ft)
A	1044+50	1048+50	400
B	1074+25	1095+00	2,075
C	1099+00	1102+50	350
D	1112+00	1118+00	600
E	1133+00	1147+00	1,400
F	1157+00	1162+00	500
G	1189+00	1197+00	800
		Total	**6,125**

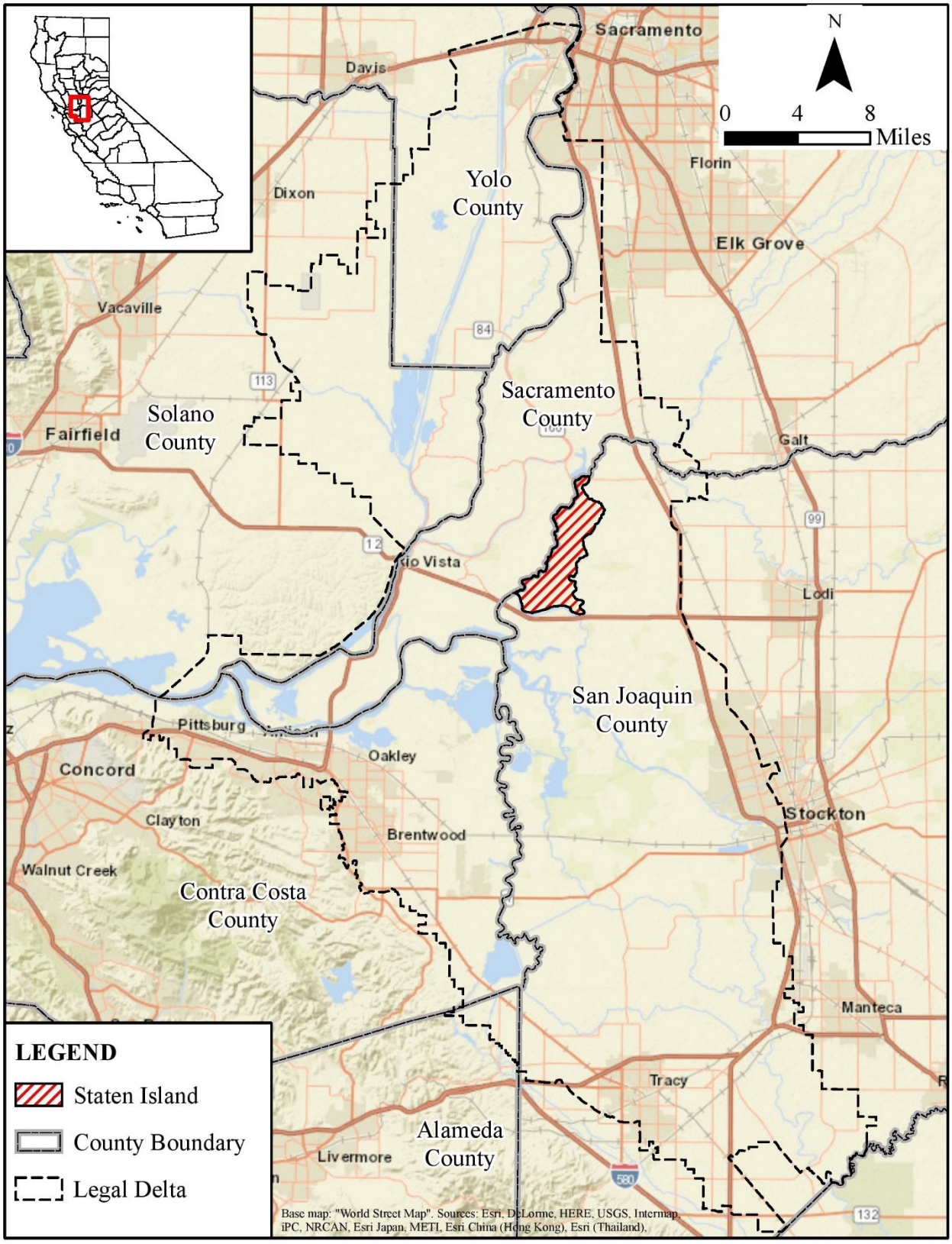


Figure 1. Vicinity Map

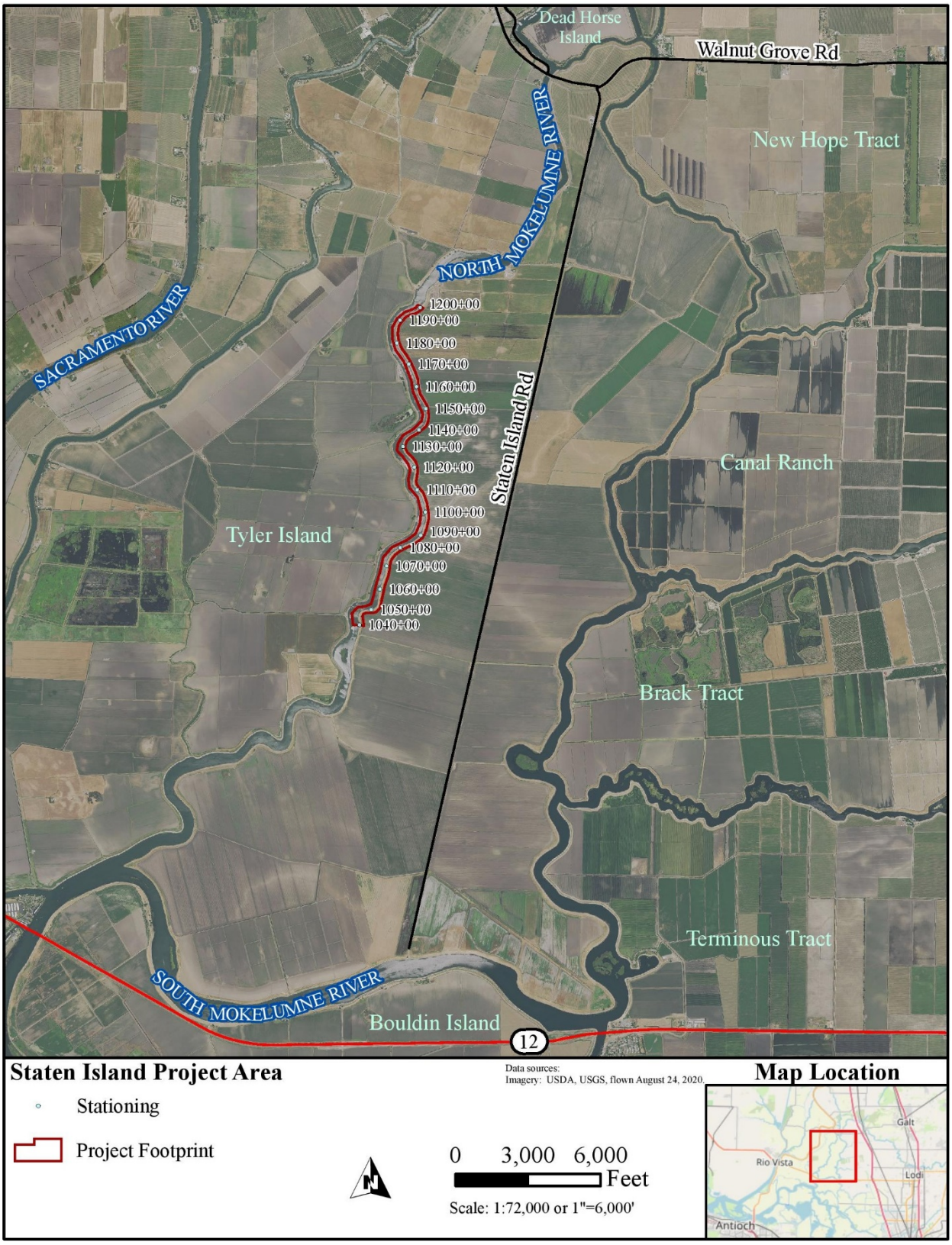


Figure 2. Project Area

1.3 Project Purpose and Benefits

Portions of the Staten Island levee system along the NMR are currently below Delta Specific PL 84-99 geometry criteria, which requires levee crown elevations at 1.5 feet above the 100-year flood elevation, waterside slopes at a minimum of 2:1 and landside slopes at a minimum of 3:1 (Figure 3).

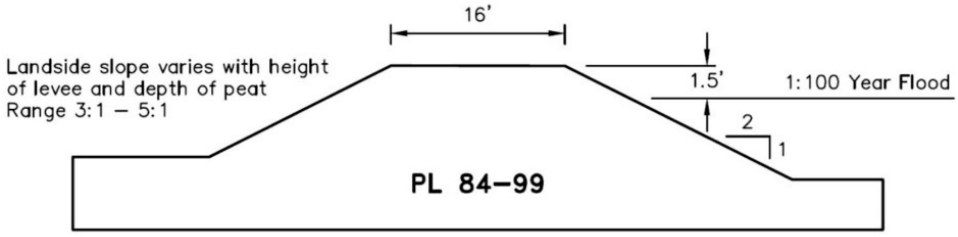


Figure 3. Delta Specific PL 84-99 Standard

Additionally, portions of the NMR levee are experiencing erosion below the normal water line. Erosion has resulted in steep waterside slopes that can lead to sloughing of the levee section and seepage on the landside levee slopes.

The Project will reduce the risk of levee failure, therefore reducing associated risks to Staten Island's farming operation and public infrastructure. Staten Island's farming operation is seasonally flooded to provide habitat for migrating populations of cranes, shorebirds, waterfowl, and birds of prey along the Pacific Flyway. Additionally, the island supports approximately fifteen percent of the region's threatened Greater Sandhill crane population. The Staten Island levee system also protects approximately 1 mile of Walnut Grove Road, which is a direct link between the cities of Walnut Grove and Thornton, thence Interstate 5 and California State Route 160.

1.4 Project Description

1.4.1 Landside Levee Rehabilitation

The Project includes the placement of fill material on the levee crest and landslide slope to achieve PL 84-99 geometry. Additionally, the Project includes the construction of a counterbalance berm to increase levee stability (Figure 4).

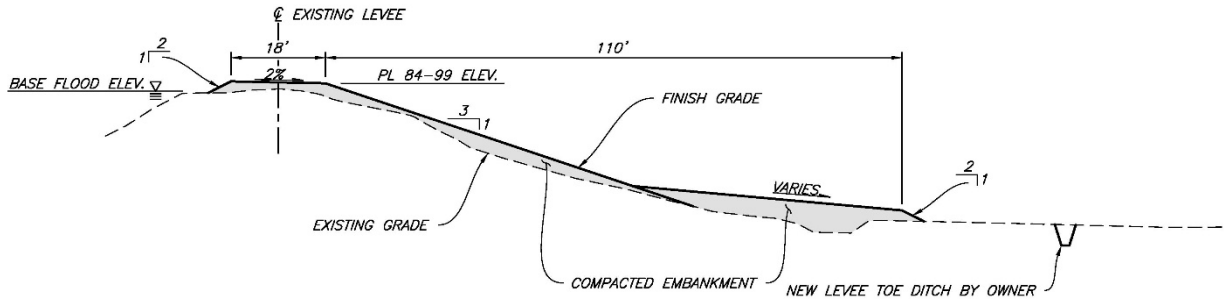


Figure 4. Typical Levee Repair Section

Levee sections that are experiencing erosion below the normal waterline, will be setback to restore waterside slope geometry and accommodate the construction of a 10 – 15-foot riparian bench (Figure 5).

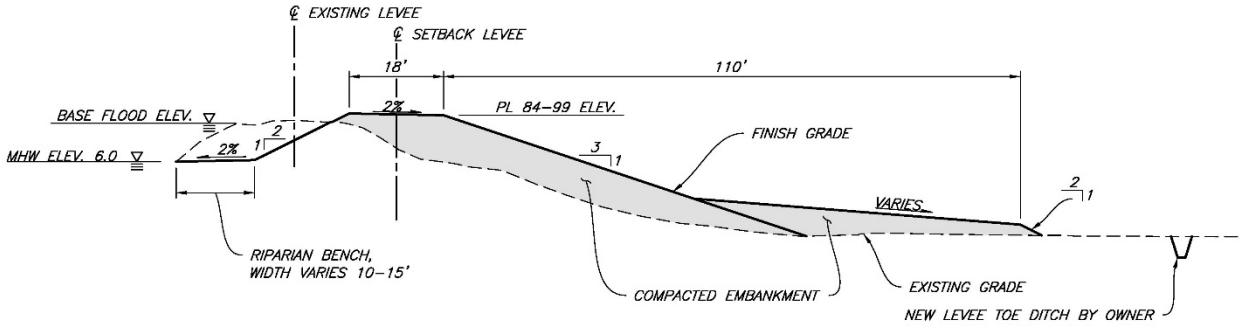


Figure* 5. *Typical Levee Setback Section

Landside levee rehabilitation will begin with clearing, grubbing, and stripping of the Project area. Next, imported fill material will be placed and compacted to achieve design grade elevation. Then, imported aggregate base material will be placed and compacted to construct an all-weather patrol road on the rehabilitated levee crest. Finally, the entire Project area will be hydroseeded with a native seed mixture. The Project will result in the rehabilitation of a 16,000 LF (~3 mile) levee section.

1.4.2 Waterside Habitat Enhancement

The Project will establish 7 riparian benches, totaling 6,125 linear feet (Table 1), along the NMR. A typical riparian bench detail is shown below as Figure 6.

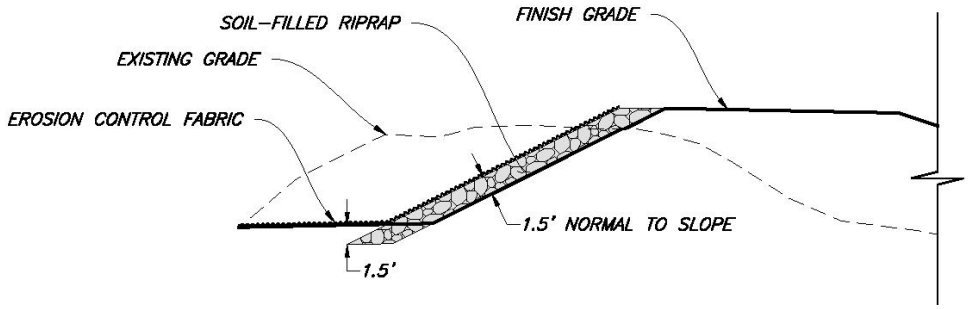


Figure 6. Typical Riparian Bench Detail

Waterside habitat enhancement will begin by excavating the existing levee above MHW, elevation 6.0 (NAVD 88), to construct riparian benches. Tidal elevations for the Project are summarized in Table 2.

Table 2. Tidal Elevations (NAVD 88)

Min	MLLW	MLW	MSL	MHW	MHHW	Max
2.30	3.35	3.74	4.85	5.89	6.29	8.26

The setback levee waterside slopes will be armored with soil-filled riprap using fill material and riprap salvaged from the riparian bench excavation. Prior to the installation of erosion control fabric, the riparian benches and setback levee waterside slopes will be hydroseeded with a native seed mixture. Then, the waterside slopes will be planted with native riparian plants to create scrub-shrub (SS) habitat and new trees will be planted on the riparian benches to create riparian forest (RF) habitat (Table 2). Plantings on the levee waterside will be monitored and maintained for 3 years after planting to ensure 80% success criteria is met, or as determined by the California Department of Fish and Wildlife (CDFW).

Table 3. Planting Acreages

Site	RF	SS
A	0.102	0.156
B	0.448	0.840
C	0.071	0.145
D	0.154	0.255
E	0.351	0.612
F	0.129	0.225
G	0.194	0.380
Total	**1.449**	**2.613**

1.4.3 Mitigation

Impacts to AB 360 habitat will require mitigation at 3:1 for RF habitat, 2:1 for SS habitat, and 1:1 for shaded riverine aquatic (SRA) and freshwater marsh (FM) habitats. However, due to the lack of existing habitat on the existing levee waterside slope, the Project will be self-mitigating.

1.4.4 Imported Materials

The levee rehabilitation phase of the Project will require the import of approximately 761,000 tons of levee fill material and 11,000 tons of aggregate base material. Sources for imported materials will be determined by the contractor once the project is awarded. Materials will be imported by truck and/or river barge.

The habitat enhancement phase of the Project will require the import of approximately 24,000 square yards of erosion control fabric. Riprap will only be imported if it is needed to supplement the riprap salvaged from the riparian bench excavation.

1.4.5 Construction Methods

Construction access to the Project site would be provided by existing levee access roads, including the levee crest patrol road. Construction of the Project would use conventional equipment including dozers, graders, excavators, compactors, backhoes, water trucks, and hand tools. Equipment will initially be staged between the landside levee improvements and existing levee toe ditches. Once the counterbalance berm is constructed, it will also be used for staging. During construction of the waterside habitat enhancement, equipment will also be staged on the rehabilitated levee crest.

1.4.6 Construction Schedule

The Project is expected to occur in two phases over the course of two construction seasons. Landside levee rehabilitation is expected to occur in 2021, however delays in funding and/or approvals from the Department of Water Resources could delay the start of landside levee rehabilitation to 2022. Waterside habitat enhancement will occur once landside levee rehabilitation is complete, and all necessary permits are acquired.

1.5 Conservation Measures

The following conservation measures will be implemented as part of the Project to help assure that the Project will have no impact or only less than significant impacts on the environment.

- **AQ-1. Construction Emissions of PM_{10}**
  - All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, covered with a tarp or other suitable cover or vegetative ground cover.
  - All unpaved roads used to access the Project will be effectively stabilized of dust emissions using water.
  - All land clearing, grubbing, scraping, excavation, land leveling, and grading activities will be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
  - For transportation of imported materials, all material will be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container will be maintained.
  - All operations will limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. In addition, the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions; the use of blower devices is expressly forbidden.
  - Trackout will be immediately removed when it extends 50 or more feet from the site and at the end of each workday.
  - Limit traffic speeds of construction equipment and vehicles on unpaved roads to no more than 15 mph.
- **AQ-2. Emissions from Construction Equipment**
  - Reduce idling time (e.g., turn off trucks that are waiting more than 5 minutes to load or unload, turn off equipment when not in use, use of automatic shutdown feature when available). Provide clear signage that posts this requirement for employees at the entrances to the site.
  - Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.
- **BIO-1. Environmental Training**
  - Prior to construction, the contractor(s) shall be provided with the specific protective measures to follow during implementation of the Project. A qualified biologist shall provide the construction crew with information on the protected species potentially

found in the Project vicinity, the protection afforded the species by the Federal Endangered Species Act and California Endangered Species Act, and guidance on those specific protection measures that must be implemented as part of the Project.

- **BIO-2. Waterside Work Window**
  - Waterside work will occur from June 1st to October 31st, when special-status fish are least likely to be present and/or least vulnerable to waterside activities. This is the window recommended by NOAA Restoration Center's Program to Facilitate Implementation of Restoration Projects in the Central Valley of California (NMFS 2018). The work window may be extended with approval from NMFS, USFWS, and CDFW.
  - Any work necessary below the high tide line of the river shall be conducted at receding or low tide to avoid in-water work to the maximum extent possible. The high tide line occurs between elevation 7.0 to 8.0 feet above mean sea level along the Project, coinciding with a clear woody wrack line on the bank of the river.
- **BIO-3. Water Quality Protection**
  - The Project will implement best management practices (BMPs), including a Storm Water Pollution Prevention Program (SWPPP) or Water Pollution Control Program (WPCP), as appropriate, to minimize adverse effects to water quality, federally listed fish, and designated critical habitat.
  - Where appropriate and practical, barges shall be used to stage equipment and construct the Project to reduce noise and traffic disturbances and effects to terrestrial vegetation. When barge use is not practical, construction equipment and plant materials shall be staged in designated terrestrial areas adjacent to the Project sites. Existing staging sites, maintenance toe roads, and crown roads shall be used to the maximum extent possible for Project staging and access to avoid affecting previously undisturbed areas.
  - The use or storage of petroleum-powered equipment shall be accomplished in a manner that prevents potential release of petroleum materials into state or federal waters. Fuel storage, refueling, and servicing of construction equipment will take place in upland locations.
  - Mechanized equipment working in the stream channel or within 25 feet of a wetted channel shall have a double (i.e., primary and secondary) containment system for diesel and oil fluids. Hydraulic fluids in mechanical equipment working within the river channel shall not contain organophosphate esters. Vegetable-based hydraulic fluids are preferred.
  - Prior to use, all equipment shall be cleaned to remove external oil, grease, dirt, or mud. Wash sites must be located in upland locations so wash water does not flow into the river channel or wetlands. All construction equipment must be in good working condition, showing no signs of fuel or oil leaks. Prior to construction, all mechanical equipment shall be thoroughly inspected and evaluated for the potential of fluid leakage. Mechanical equipment shall be inspected on a daily basis to ensure there are no motor oil, transmission fluid, hydraulic fluid, or coolant leaks. All leaks shall be repaired in the equipment staging area or other suitable location prior to

resumption of construction activity. Equipment stored for a lengthy period of time (more than one week on site) shall have drip and leak pans placed underneath potential leak areas to contain accidental drips.

- Oil absorbent and spill containment materials shall be located on site when mechanical equipment is in operation within 100 feet of watercourses. If a spill occurs, no additional work shall commence in-channel until (1) the mechanical equipment is inspected by the contractor, and the leak has been repaired, (2) the spill has been contained, and (3) NMFS and/or the Corps are contacted and have evaluated the impacts of the spill. Absorbent and spill containment materials will otherwise be inspected regularly to ensure functionality.
- Precautions to minimize turbidity/siltation shall be implemented at the time of construction. This includes installation of silt fencing, coir logs, coir rolls, straw bale dikes, or other siltation barriers so that silt and/or other deleterious materials are not allowed to erode into downstream reaches. If flows within the river reach or have the potential to reach areas of sediment exposed by the Project, a turbidity curtain will be used to minimize the effects of construction on river turbidity. These barriers shall be placed at all locations where the likelihood of sediment input exists and shall be in place during construction activities, and afterward if necessary. If any sediment barrier fails to retain sediment, corrective measures shall be taken immediately.
- Erosion control materials such as coir rolls or erosion control blankets will not contain plastic netting that could entrain reptiles (especially snakes) and amphibians.
- The contractor shall inspect, maintain, and repair all erosion control materials and devices prior to and after any storm event, at intervals during extended storm events, and a minimum of every two weeks until all erosion control measures are no longer needed. If an erosion control measure fails and sediment is discharged, appropriate agencies should be notified within 48 hours of discovery.
- Any excavated material shall be stockpiled in areas a sufficient distance from watercourses, where it cannot enter the stream channel.
- Immediately after Project completion and before close of seasonal work window, all exposed soil shall be stabilized with erosion control measures such as mulch, seeding, and/or placement of erosion control blankets. Where straw, mulch, or slash is used on bare mineral soil, the minimum coverage shall be 95 percent with two-inch minimum depth. All non-natural erosion control materials shall be removed after the Project vicinity has fully stabilized. When seeding is used as an erosion control measure, only seeds from native plant species will be used. Sterile (without seeds), weed-free straw, free of exotic weeds, is required when hay or hay bales are used as erosion control measures.

- **BIO-4. Limit Effects of Construction on Aquatic Habitats**
  - Prior to beginning Project activities, the contractor shall establish and clearly mark the Project limits, including the boundaries of designated equipment staging areas; ingress and egress corridors; stockpile areas for spoils disposal, soil, and materials;

and equipment exclusion zones. Vegetation disturbance will be avoided and minimized to the extent practicable.

- Where feasible, waterside construction shall occur from a barge or from the top of the levee.
- Woody debris and vegetation on the levee and in the river shall not be disturbed if outside of the Project's work area.
- The amount of rock and other structural materials used for levee protection shall be limited to the minimum needed for scour protection.
- Riprap will be placed in a manner that limits resuspension of sediments. The Project shall conduct turbidity monitoring in accordance with the project's CWA 401 Water Quality Certification. If needed, riprap placement methods will be modified, slowed, or suspended in order to comply with the terms and conditions of the Certification.

- **BIO-5. Minimization of Acoustic Impacts to Fish**
  - Barge anchoring and bucket barge operation will occur during daylight hours to allow quiet nighttime migration conditions for fish.
- **BIO-6. Riparian Corridor Creation**
  - Prior to construction, a detailed restoration plan will be prepared and submitted to CDFW and NMFS for review. The restoration plan will describe responsible parties, the species palette, planting locations, planting densities, the schedule for implementation, restoration success criteria, monitoring methods, reporting requirements, and corrective actions to be taken if the proposed success criteria are not being met. The restoration plan will identify the location of the proposed 1.45 acres of RF and 2.61 acres of SS habitat.
  - Restoration shall utilize plant species native to the Project vicinity or region and include a diverse community structure (plantings shall include both woody and herbaceous species). Restoration shall include control and proper disposal of invasive weeds.
- **BIO-7. Western Pond Turtle Avoidance**
  - Within 48 hours prior to the start of work, a qualified biologist will conduct a preconstruction survey for western pond turtle (WPT). The survey area will include the construction area and 250 feet upstream and downstream of the construction area. If the biologist discovers a WPT within the construction footprint on the landside of the levee, the biologist shall, with approval from CDFW, relocate the turtle to suitable habitat in one of the larger main canals on Staten Island outside the Project area. If a potential turtle nest is observed, the monitor shall flag the nest and a 300-foot environmentally sensitive area (ESA) buffer shall be established around the nest. No construction or construction personnel shall be allowed in the ESA. The ESA buffer shall be indicated by temporary fencing if construction has or will begin before nesting periods are ended (the period from egg laying to emergence of hatchlings is normally April to November). If it is not feasible to avoid the nest, CDFW shall be contacted for guidance on potential nest relocation

specific to the project site. WPTs on the waterside of the levee are expected to actively avoid construction by retreating into the river.

- Prior to the start of construction, a biologist will conduct a training session for all construction personnel that includes a description of WPT, their habitat, and how to proceed if a suspected WPT is encountered. The training will also describe the specific measures being implemented to avoid adverse effects to this species.
- Any holes or trenches associated with the Project will be covered during non-work hours to prevent wildlife from becoming trapped or injured. Any holes that are not covered will have an escape ramp during nonwork hours to prevent wildlife from becoming trapped.
- If a WPT is encountered during construction, activities will cease until a qualified biologist verifies that the individuals have left on their own, that work activities will not affect the individuals, or with approval from CDFW, the biologist moves the individual(s) to a suitable and safe location downstream of the Project.

- **BIO-8. Giant Garter Snake Avoidance**
  - Construction shall occur during the active period for the snake, between May 1 and October 1. If any work is proposed between October 2nd and April 30th, the Joint Powers Authority, with the concurrence of the Permitting Agencies' representatives on the Technical Advisory Committee, shall determine if additional measures are necessary to minimize and avoid take.
  - Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary.
  - Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.
  - Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species, including giant garter snake, and the importance of avoiding impacts to these species and their habitats.
  - In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:
    - Install temporary fencing at the edge of the construction area and the adjacent wetland, marsh, or ditch;
    - Restrict working areas, spoils and equipment storage and other Project activities to areas outside of marshes, wetlands and ditches; and
    - Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.
  - If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated

shall be seined and transported to the new aquatic habitat as the old site is dewatered.

- Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.
- Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.
- After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-Project conditions.
- If a giant garter snake is observed during preconstruction surveys or during construction, the Project shall immediately cease construction within 200 feet of potentially occupied aquatic habitat until the appropriate level of consultation with the USFWS is completed.

- **BIO-9. Nesting Bird Avoidance**
  - If construction occurs between February 15 and August 31, a qualified biologist shall conduct a preconstruction survey for the active nests of protected birds. The survey shall cover all areas to be disturbed by the Project, and accessible areas within the following buffers surrounding proposed work areas, staging areas, and access roads:
    - 100 feet for MBTA bird nests,
    - 250 feet for protected raptors,
    - 300 feet for tricolored blackbird.
  - The survey shall occur approximately 1 week prior to construction. The measures listed below shall be implemented based on the survey results.

    <u>No Active Nests Found:</u>
  - If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.

    <u>Active Nests Found:</u>
  - If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:
    - Stop all work within a 300-foot radius of the active nest.
    - Notify the Engineer.
    - Do not resume work within the specified radius of the discovery until authorized.
  - The biologist shall establish a minimum 300-foot Environmentally Sensitive Area (ESA) if the nest is of a bird of prey or tricolored blackbird, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey. Activity in the ESA will be restricted as follows:
    - Do not enter the ESA unless authorized.
    - If the ESA is breached, immediately: Secure the area and stop all operations within 60 feet of the ESA boundary.

        - Notify the Engineer.
    - If the ESA is damaged, the County determines what efforts are necessary to remedy the damage and who performs the remedy.
    - No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.
    - The ESA may be reduced if the biologist monitors the construction activities and determines, in coordination with CDFW, that no disturbance to the active nest is occurring. Reduction of the ESA depends on the species of bird, the location of the nest relative to the Project, Project activities during the time the nest is active, and other Project-specific conditions.
    - Between February 15 and September 30, if additional vegetation removal is required after construction has started, the survey for active nests will be repeated in the area to be affected. If an active nest is found, the above measures will be implemented.
    - If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.
- **BIO-10. Burrowing Owl Avoidance**
    - Prior to any construction, regardless of season, a qualified biologist will conduct Take Avoidance Surveys in accordance with applicable portions of Appendix D of the CDFW *Staff Report on Burrowing Owl Mitigation guidelines* (7 March 2012). One Take Avoidance Survey will be conducted within 14 days prior to initiation of ground-disturbing activities. The survey will cover all accessible potential burrowing owl habitat within 500 feet of the Project construction footprint.
    - If active burrowing owl burrows are found, the following measures will be implemented:
        - During the non-breeding season (September 1 through January 31), the biologist will establish a 160-foot Environmentally Sensitive Area (ESA) around the burrow. During the breeding season (February 1 through August 31), the biologist will establish a 250-foot ESA around the burrow. No construction activity will be allowed in the ESA.
        - The size of the ESA may be reduced if, in consultation with CDFW, the biological monitor determines that no disturbance to the burrowing owl is occurring.
        - In consultation with CDFW, burrowing owls that cannot be avoided through other means may be passively excluded during the non-breeding season using one-way doors, as described in the Exclusion Plan of Appendix E of the Staff Report on Burrowing Owl Mitigation (CDFW 2012).
    - If a potentially occupied burrowing owl burrow is observed during construction, work shall immediately cease within 500 feet of the burrow. A qualified biologist shall verify occupancy and follow procedures outlined above including establishment of an ESA.

- **BIO-11. Swainson's Hawk Avoidance**
    - If construction is proposed to begin during the nesting season for Swainson's hawk (March 1 through September 15), a qualified biologist shall conduct a preconstruction survey for Swainson's hawk in accordance with the applicable sections of the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk TAC 2000). The survey effort shall include at minimum one survey for Swainson's hawk within 14 days in advance of the construction start date. The survey area will include the Project site (which contains no potential nest trees) and a 0.25-mile radius around the site.
    - If a nesting Swainson's hawk is found within 0.25 mile of the Project, then a biologist experienced with raptor behavior will establish a 0.25-mile protection buffer. If construction activities that may cause nest abandonment or forced fledging are necessary within the buffer, then the biologist shall monitor the nest for signs of disturbance on a daily basis during construction. If the Swainson's hawk is showing agitated behavior, then construction will cease or be reduced to a point that it does not disturb the hawks. Monitoring may be reduced if the on-site biologist determines, in coordination with CDFW, that construction is not disturbing the nesting hawks. Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance would generally not be prohibited within the buffer.
- **CUL-1. Avoid and Minimize Potential Effects on Cultural Resources**
    - If buried materials are encountered, all soil disturbing work should be halted at the location of any discovery until a qualified archaeologist completes a significance evaluation of the find(s) pursuant to Section 106 of the National Historic Preservation Act (36CFR60.4). Prehistoric archaeological site indicators expected within the general area include: chipped chert and obsidian tools and tool manufacture waste flakes; grinding and hammering implements that look like fist-size, river-tumbled stones; and for some rare sites, locally darkened soil that generally contains abundant archaeological specimens. Historical remains expected in the general area commonly include items of ceramic, glass, and metal. Features that might be present include structure remains (e.g., cabins or their foundations) and pits containing historical artifacts.
    - Per the requirements of the California Code of Regulations, Title 14, Chapter 3, Section 15064.5(e) if human remains are encountered during the course of the project, excavation or disturbance of the location must be halted in the vicinity of the find, and the County coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the National American Heritage Commission (NAHC) within 24 hours. The NAHC will identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent may make recommendations about the treatment or disposal of the human remains with appropriate dignity.

- **GEO-1. Avoid and Minimize Potential Effects on Paleontological Resources**
    - If any subsurface paleontological resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified paleontologist can examine these materials, make a determination of their significance and, if significant, recommend further mitigation measures that would reduce potential effects to a level that would be less than significant. Such measures could include 1) preservation in place or 2) excavation, recovery and curation by qualified professionals. The District shall be responsible for retaining qualified professionals, implementing recommended mitigation measures and documenting mitigation efforts in a written report, consistent with the requirements of the State CEQA Guidelines.
- **HAZ-1. Best Management Practices Regarding the Use of Hazardous Materials**
    - No potentially hazardous materials will be stored in a location where there is potential to enter any waterways and/or contaminate aquatic resources.
    - All construction materials with the potential to pollute runoff will be handled and delivered with care and stored under cover and/or surrounded by berms when rain is forecast or during wet weather.
    - An effort will be made to store only enough of a product necessary to complete the job.
    - Materials, fuels, liquids and lubricants, and equipment supplies stored onsite will be stored in a neat, orderly manner, in their appropriate containers, with the original manufacturer's label and, if possible, in an enclosure.
    - Any hazardous materials will be stored and labeled according to local, state, and federal regulations.
    - If drums must be stored without overhead cover, they will be stored at a slight angle to reduce corrosion and ponding of rainwater on the lids.
    - Substances will not be mixed with one another unless recommended by the manufacturer.
    - Manufacturer's recommendations for proper use and disposal of a product will be followed.
    - Whenever possible, all of a product will be used up before disposal of its container.
    - If surplus product must be disposed of, the manufacturers or the local and State recommended methods for proper disposal will be followed.
- **HAZ-2. Prevent, Control, and Minimize Impacts from a Spill**
    - Minor spills are those that can be controlled by onsite personnel. The following actions will occur upon discovery of a minor spill:
        - The spread of the spill will be contained.
        - If the spill occurs on impermeable surfaces, such as any temporary surfaces installed for pollution prevention during construction, it will be cleaned up using "dry" methods (i.e., absorbent materials, cat litter, and/or rags).
        - If the spill occurs in permeable substrate areas, it will be immediately contained by constructing an earthen dike. The contaminated soil will be dug up and properly disposed of.

- If the spill occurs during rain, the impacted area will be covered to avoid runoff, and appropriate clean-up steps will be taken after precipitation.

- Onsite personnel should not attempt to control major spills until the appropriate and qualified emergency response staff has arrived at the site. Failure to report major spills can result in significant fines and penalties.
  - Any major release or threatened release of a hazardous material requires immediate reporting by the responsible person to the Cal OES State Warning Center (800) 852-7550 and the Unified Program Agency (UPA) or 911.
  - For spills of federal reportable quantities, the National Response Center will also be notified at (800) 424-8802. The federal reportable spill quantity for petroleum products is any oil spill that (1) violates applicable water quality standards, (2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or (3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.
  - A written report will be sent to all notified authorities.
- Diesel fuel, oil, gasoline, and lubricants are considered petroleum products. These materials will be handled carefully to minimize their exposure to storm water. The risks in using petroleum products will be reduced by following these steps:
  - Waste oil and other petroleum products will not be discharged into the ground or other water bodies.
  - Petroleum products will be stored in tightly sealed containers that are clearly labeled, in a covered area, within prefabricated spill containment devices, earthen berms, or similar secondary containment features.
  - Onsite vehicles will be monitored for fluid leaks and receive regular preventative maintenance to reduce the chance of leakage (e.g., check for and fix fuel oil leaks in construction vehicles on a regular basis).
  - Bulk storage tanks having a capacity of more than 55 gallons will be provided with a secondary containment measure. Containment can be provided by a prefabricated temporary containment mat, a temporary earthen berm, or other measure.
  - Bulk fuel or lubricating oil dispensers will have a valve that must be held open to allow the flow of fuel into construction vehicles. During fueling operations, the contractor will have personnel present to detect and contain spills.
- The following additional spill control and cleanup practices will be followed:
  - Spills will be contained and cleaned up immediately after discovery.
  - Manufacturer's methods for spill cleanup of a material will be followed as described on the material safety data sheet (MSDS) sheets (kept with product containers).
  - Materials and equipment needed for cleanup procedures will be kept readily available onsite, either at an equipment storage facility or on the contractor’s trucks. Equipment to be kept onsite will include, but not be

limited to, brooms, dust pans, shovels, granular absorbents, sand, sawdust, absorbent pads and booms, plastic and metal trash containers, gloves, and goggles.
    - Onsite personnel will be made aware of cleanup procedures, the location of spill cleanup equipment, and proper disposal procedures.
    - Toxic, hazardous, or petroleum product spills required to be reported by regulations will be documented, and a record of the spills will be kept with this Project.
    - If a spill occurs that is reportable to the federal, state, or local agencies, the contractor is responsible for making and recording the reports.

- **HAZ-3. Reduce the Potential for Fire**
    - Smoking will be permitted only in designated smoking areas or within the cabs of vehicles or equipment.
    - Every fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C, and all flammable materials will be removed from equipment parking and storage areas.

2 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Dawit Zeleke, President
Reclamation District No. 38

Date

3 ENVIRONMENTAL IMPACTS

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazardous & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

3.1 Aesthetics

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

a) Would the Project have a substantial adverse effect on a scenic vista?

Staten Island is not a designated scenic vista, and the Project will not damage any scenic resources. Following the Project construction, the general appearance of the levee system as viewed from public areas would be the same as existing conditions. Thus, there will be no impact.

b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Staten Island is not located within a state scenic highway. Thus, there will be no impact.

c) Would the Project in non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Construction activities will temporarily disrupt the visual character of the Project area due to the removal of existing vegetation and the presence of construction equipment. However, at Project completion, native grasses will be reestablished and construction equipment will be removed. Thus, effects of the Project are considered temporary and less than significant.

d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

There will be no creation of a new source of substantial light or glare as a result of the Project. Thus, there will be no impact.

3.2 Agriculture and Forestry Resources

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project is limited to the existing levee. Thus, no impact would occur.

b) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project will not conflict with existing zoning for agricultural use, or a Williamson Act contract because the Project is limited to an existing levee. Thus, no impact would occur.

c) Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No portion of Staten Island is zoned for forest land, timberland, or Timberland Production. Thus, no impact would occur.

d) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

See answer to c) above.

e) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Given that the Project is limited to an existing levee, no changes on Farmland or forest land are expected. Thus, no impact would occur.

3.3 Air Quality

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The Project is in the northern region of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which includes eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley Air Basin portion of Kern.

The SJVAPCD has developed plans to attain state and federal standards for ozone and particulate matter. The SJVAPCD's air quality plans include emissions inventories to measure sources of air pollutants, to evaluate feasibility of implementing different control methods, and to show strategies for how air pollution will be reduced. The SJVAPCD's plan also includes computer modeling for estimation of future levels of pollution (San Joaquin Valley Air Pollution Control District, 2015).

The Project will not impact the implementation of any applicable air quality plan, thus there will be no impact.

b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Clean Air Act (CAA) requires the Federal Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six (6) common air pollutants. These commonly found air pollutants are known as "criteria pollutants" and can be detrimental to human health and the environment. Criteria pollutants include particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. Pollutants are generally

classified in primary and secondary. Primary pollutants are generated and emitted directly into the atmosphere; examples include particulates (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), sulfur oxides (SOx), nitrogen oxides (NOx). Secondary pollutants are formed by chemical reactions in the atmosphere; ozone is an example of a secondary pollutant (San Joaquin Valley Air Pollution Control District, 2015).

States can also determine their own air quality standards, given that state standards shall be at least as stringent as the NAAQS. In California, the Air Resources Board (ARB) is the agency responsible for management and coordination of state and local air pollution control programs and for implementing the California CAA. The State Department of Public Health and the California ARB have established and adopted California Ambient Air Quality Standards (CAAQS) as an effort to protect human health and welfare. Areas with air quality not meeting the standards are designated as "Nonattainment". The nonattainment classification is further divide based on the severity into marginal, moderate, serious, severe, and extreme for ozone. Nonattainment categories for PM range from marginal to serious (California Air Resources Board, n.d.; San Joaquin Valley Air Pollution Control District, 2015).

Based on the federal standards, the SJVAPCD is classified as extreme nonattainment for the 8-hour ozone standard, and nonattainment for $PM_{2.5}$. Based on state standards, the SJVAPCD was deemed severe nonattainment for the 1-hour ozone, nonattainment for the 8-hour ozone, PM_{10}, and $PM_{2.5}$. The District's attainment status, at the time of this writing, is presented in Table 4.

Table 4. San Joaquin Valley Attainment Status

Pollutant	**Designation/Classification**	
	Federal Standards	***State Standards***
Ozone - One hour	Revoked in 2005	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment

Emissions associated with Project construction were calculated using the Road Construction Emissions Model (RCEM), version 9.0, May 2018. The RCEM was developed by the Sacramento Metropolitan Air Quality Management District (Sac Metro) and recommended for CEQA process to analyze construction emissions for non-linear projects (including levees) within the Sacramento region. The RCEM model was selected to evaluate Project's construction emissions given that the Project is located along the boundary of Sacramento County.

Project emissions were estimated for the landside levee rehabilitation given that the waterside habitat enhancement is expected to have a lesser impact due minimum usage of equipment.

The RCEM model calculations were based on a total area of 50 acres and a project length of 3 miles. An equipment list for Project construction is provided in Table 5. Details about the materials amounts and construction assumptions used in the RCEM model are given below:

- Anticipated maximum number of acres the equipment can pass over in an 8-hour workday: 0.8 acres (expected for the grading/excavation period),
- Haul truck capacity of 25 tons (15 $yd^{3)}$,
- Volume of material imported for grading is 4,000 yd^3 per day,
- Volume of aggregate material for paving is 1,500 yd^3 per day,
- Number of workers: 4 for grubbing/land clearing, 10 for grading, and 4 for paving,
- Number of commute miles is 35 per one-way trip per worker,
- Total number round trips are 267 per truck per day for the grading, and 100 trips per truck per day for the paving,
- Assumed an 8-hour workday, and 5 days per week.

Table 5. List of Construction Equipment

Construction Period	Number of Vehicles
Grubbing/Land Clearing	(1) Dozer (1) Grader (1) Water truck
Grading/Excavation	(1) Dozer (1) Grader (1) Excavator (2) Scrapers (1) Roller (1) Backhoe (1) Water truck
Paving	(1) Grader (1) Roller (1) Water truck

The RCEM model results for landside construction are provided in Table 6.

Table 6. Estimate of Construction Emissions

ROG	CO	NOx	Total PM_{10}	Exhaust PM_{10}	Fugitive Dust PM_{10}	Total $PM_{2.5}$	Exhaust $PM_{2.5}$	Fugitive Dust $PM_{2.5}$	SOx
0.33	2.77	10.23	0.90	0.38	0.51	0.32	0.22	0.11	0.05

Notes:
1) Emission values in tons.
2) PM_{10} and $PM_{2.5}$ estimates assume 50% control of fugitive dust from watering and associated dust control measures provided by water trucks as specified.
3) Total PM_{10} emissions are the sum of exhaust and fugitive dust emission; total $PM_{2.5}$ emissions are the sum of exhaust and fugitive dust emissions.

The results of the emission model were compared with the SJVAPCD thresholds of significance for criteria pollutant emissions (Table 7). The model results indicate that emissions from the Project will not considerably increase any of the criteria pollutants for which the project region is non-attainment. The Project will implement mitigation measures AQ-1 (Construction Emissions of PM_{10}) and AQ-2 (Emissions from Construction Equipment) to control emissions of PM_{10} associated with construction activities and construction equipment.

Although construction of the Project is expected to generate some emissions for which the San Joaquin Valley Air Basin is considered nonattainment, these emissions are only temporary and the Project will not involve any operational emissions. Thus, the Project would have no cumulative impact on the air quality of the region and the District will implement appropriate mitigation measures to reduce air pollutant emissions.

Table 7. SJVAPCD's Air Quality Thresholds of Significance – Criteria Pollutants

Pollutant/Precursor	**Construction Emissions**	**Operational Emissions**	
		Permitted Equipment and Activities	**Non-Permitted Equipment and Activities**
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Locations that may contain a high concentration of highly sensitive population groups are called sensitive receptors and include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. There are no sensitive receptors near the Project area. The only sensitive receptors in Staten Island are 10 residential homes, located outside of the Project boundary. Thus, the Project would not expose sensitive receptors to substantial pollutant concentrations.

d) Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The Project will not create other emissions leading to odors and is in a sparsely populated area. Thus, no impact would occur.

3.4 Biological Resources

Would the Project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, U.S. Fish and Wildlife Service or National Marine Fisheries Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game, U.S. Fish and Wildlife Service or National Marine Fisheries Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, U.S. Fish and Wildlife Service or National Marine Fisheries Service?

Data from the California Natural Diversity Database (CNDDB), CDFW, California Native Plant Society (CNPS), United States Fish and Wildlife Service (USFWS), and biological field surveys by Sycamore Environmental biologists in May, November, and December 2020, were used to determine the special-status species that could occur in the Project area or be affected by the Project (Sycamore Environmental 2021b). Species with potential to be affected are discussed below and mitigation measures are included where necessary to avoid, minimize, and mitigate potentially significant impacts.

i) Plants

Protocol botanical surveys conducted during the evident and identifiable period in May and November 2020 did not document any special-status species in or near the Project footprint (Sycamore Environmental 2021b). Potential habitat for rare plants is limited due to extensive agriculture on the landside of the levee and complete armoring of the waterside of the levee with rock slope protection.

Impacts: No impact.

Mitigation: None required.

ii) Fish

The following special-status fish species are known to occur in the NMR adjacent to the Project and have the potential to be affected (Sycamore Environmental 2021b):

- North American green sturgeon, southern DPS (*Acipenser medirostris*; Federal threatened; designated critical habitat present in Project area; State species of special concern)
- White sturgeon (*Acipenser transmontanus*; State species of special concern)
- Pacific lamprey (*Entosphenus tridentatus*; State species of special concern)
- Delta smelt (*Hypomesus transpacificus*; Federal threatened; designated critical habitat present in Project area; State endangered)
- Western river lamprey (*Lampetra ayresii*; State species of special concern)
- Sacramento hitch (*Lavinia exilicauda exilicauda*; State species of special concern)
- California Central Valley steelhead DPS (*Oncorhynchus mykiss*; Federal threatened; designated critical habitat present in Project area)
- Central Valley fall, late-fall-run Chinook salmon ESU (*Oncorhynchus tshawytscha*; State species of special concern)
- Central Valley spring-run Chinook salmon ESU (*Oncorhynchus tshawytscha*; Federal threatened; State threatened)
- Sacramento River winter-run Chinook salmon ESU (*Oncorhynchus tshawytscha*; Federal endangered; State endangered)

- Sacramento splittail (*Pogonichthys macrolepidotus*; State species of special concern)
- Longfin smelt, San Francisco Bay-Delta DPS (*Spirinchus thaleichthys*; Federal candidate; State threatened)

The portion of the NMR in the Project area is a migration corridor for the special-status fish species listed above. The expected timing of each species' spawning migration is described in the biological resources evaluation report (Sycamore Environmental 2021b), but generally coincides with increased river flows in late fall, winter, and spring.

The portion of the NMR in the Project area provides marginal juvenile rearing habitat for green sturgeon, white sturgeon, Sacramento hitch, CCV steelhead, SR Chinook salmon, and WR Chinook salmon. Rearing habitat is considered marginal due to the extent of existing riprap and the lack of channel vegetation. The portion of the NMR in the Project area does not provide suitable juvenile rearing habitat for smelt, lampreys, or Sacramento splittail (Sycamore Environmental 2021b).

No spawning habitat for the special-status fish species listed above occurs in the Project area (Sycamore Environmental 2021b).

Impacts: Most of the Project involves work on the landside of the levee, which will not affect special-status fish in the river. Work on the waterside of the levee has the potential to impact migrating and/or rearing special-status fish during construction. Impacts could occur in the form of 1) acoustic stress on individual fish from the installation of spud pile anchors and bucket barge operation, 2) accidental spills of gasoline, lubricants, and other chemicals used on or in construction equipment, 3) localized temporary increases in turbidity from moving equipment and ground-disturbing activities.

The Project includes creation of RF (approximately 1.45 acres) and SS habitat (approximately 2.61 acres) on a waterside habitat bench and levee slope that are currently covered with riprap and lack any riparian vegetation. The habitat enhancement proposed by the Project will result in positive long-term benefits to special-status fish species in the river. With implementation of mitigation measures Bio-1 (Environmental Training), Bio-2 (Waterside Work Window), Bio-3 (Water Quality Protection), Bio-4 (Limit Effect of Construction on Stream Habitat), Bio-5 (Minimization of Acoustic Impacts to Fish), and Bio-6 (Creation of Riparian Habitat), impacts to special-status fish species will be less-than-significant.

Mitigation: Implement Bio-1 through Bio-6. These measures limit waterside work to the period of June 1 through October 31 as recommended by NMFS, protect water quality, control erosion, limit potential effects to aquatic habitats, limit potential impacts from acoustic stress during construction, and outline onsite riparian habitat creation.

iii) Western Pond Turtle

No western pond turtles (WPT) were observed during biological surveys of the Project area in 2020 (Sycamore Environmental 2021b). WPT is known to occur in the NMR and in the irrigation ditches on the landside of the levee (pers. comm., E. Wells, Conservation Farms and Ranches). The ditches in the Project area are generally shallow and may not provide sufficient

habitat for a large WPT population. WPT could nest in the BSA. Nesting is considered unlikely due to the extent of cultivated agriculture on the landside of the levee and the steep, riprap lined, levee slope on the waterside of the levee.

When nesting areas for pond turtles are identified on a project site, a buffer area of 300 feet shall be established between the nesting site (which may be immediately adjacent to wetlands or extend up to 400 feet away from wetland areas in uplands) and the wetland located near the nesting site. These buffers shall be indicated by temporary fencing if construction has or will begin before nesting periods have ended (the period from egg laying to emergence of hatchlings is normally April to November).

Impacts: The Project has the potential to impact WPT. With implementation of mitigation measures Bio-1 (Environmental Training) and Bio-7 (Western Pond Turtle Avoidance), impacts to WPT will be less-than-significant.

Mitigation: Implement mitigation measures Bio-1, and Bio-7.

iv) Giant Garter Snake

No giant garter snake (GGS) populations are known to occur on Staten Island or in the NMR. No GGS were observed in the Project area during the 2020 general biological survey (Sycamore Environmental 2021b). In 2018 and 2019, the USGS conducted GGS trapping studies in the Delta. No GGS were captured at any of the 5 sites on Staten Island (Fouts et al. 2020). The nearest record is approximately 4 miles away in Snodgrass Slough. There are no records of GGS in the NMR or on Staten Island. Irrigation ditches in the Project area provide potential aquatic habitat for GGS. Potential GGS upland habitat occurs in the areas located within 200 feet of the ditches. The portion of the NMR in the Project area is a tidal river that generally lacks emergent vegetation and does not provide suitable aquatic habitat (Sycamore Environmental 2021b; San Joaquin County 2000).

Impacts: No impacts to GGS individuals are anticipated. The Project has the potential to impact potential GGS habitat. The Project will temporarily disturb approximately 24.72 acres of potential GGS upland habitat (nonnative grassland). The Project will permanently convert approximately 0.01 acres of potential GGS aquatic habitat (portion of an irrigation ditch), and 4.40 acres of potential GGS upland habitat (nonnative grassland). The Project will create approximately 4.06 acres of RF and SS habitat. The converted upland habitat consists primarily of disturbed areas on levee slopes. Impacts to GGS are less-than-significant because GGS are not known to occupy Staten Island. As a precaution, the Project will implement GGS avoidance measures based on the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP; San Joaquin County 2000). With implementation of Bio-1 (Environmental Training), and Bio-8 (Giant Garter Snake Avoidance), potential impacts to GGS are less-than-significant.

Mitigation: Implement measure Bio-1 and Bio-8.

v) Tricolored Blackbird

Tricolored blackbirds have been observed foraging on Staten Island, but there are no known breeding colonies on the Island (pers. comm., E. Wells, Conservation Farms and Ranches). There is no nesting habitat for tricolored blackbird in the Project area. The pockets of marsh vegetation along the NMR do not provide adequate cover for a nesting colony and are subject to periodic inundation and wave action. The irrigation ditches do not provide adequate cover for a nesting colony. Tricolored blackbird may forage in the open areas in the nonnative grassland, irrigated pasture, and agricultural fields on the landside of the levee. Tricolored blackbirds are unlikely to forage on the waterside of the levee, which is covered in riprap. No tricolored blackbirds were observed during biological surveys in 2020 (Sycamore Environmental 2021b).

Impacts: The Project has the potential to impact tricolored blackbird. The Project will temporarily disturb approximately 24.72 acres of foraging habitat (nonnative grassland) and permanently convert approximately 4.40 acres of foraging habitat (nonnative grassland) as a result of the new levee crest and levee crest road alignments. The Project will create approximately 4.06 acres of RF and SS habitat which could be used for nesting and foraging. No impacts to tricolored blackbird nesting habitat are anticipated. Ample suitable foraging habitat occurs in the surrounding area on Staten Island and adjacent Delta islands. With implementation of Bio-1 (Environmental Training), Bio-6 (Riparian Corridor Creation), and Bio-9 (Nesting Bird Avoidance), potential impacts to tricolored blackbird are less-than-significant.

Mitigation: Implement Bio-1, Bio-6, and Bio-9.

vi) Lesser and Greater Sandhill Cranes

Staten Island is a wintering destination for sandhill cranes moving along the Pacific Flyway and sandhill cranes are the primary conservation focus on the Island. Lesser and greater sandhill cranes were assumed to be among the approximately 1,000 sandhill cranes observed foraging and loafing in the agricultural fields on the landside of the levee during the biological surveys conducted on November 23 and 24, 2020 (Sycamore Environmental 2021b). No cranes were observed foraging on the levee, although they are known to do so (pers. comm., E. Wells, Conservation Farms and Ranches). No breeding occurs on Staten Island, which is outside the breeding range. Hundreds of sandhill cranes were also visible foraging and loafing on neighboring Tyler Island, on the west side of the NMR, outside the Project area. The agricultural fields on Staten Island are managed to provide wintering habitat for sandhill cranes. The agricultural fields are harvested and flooded without being disked so the cranes can forage on the leftover crop material (pers. comm., E. Wells, Conservation Farms and Ranches). Lesser and greater sandhill cranes are likely to occur within the Project area from approximately September through April.

Impacts: The Project has the potential to impact lesser and greater sandhill cranes. The Project will temporarily disturb approximately 24.72 acres of foraging habitat (nonnative grassland) and permanently convert approximately 4.40 acres of foraging habitat (nonnative grassland)

as a result of the new levee crest and levee crest road alignments. The loss of potential foraging habitat is not expected to result in an adverse impact to these populations, as there are approximately 470,000 acres of leveed lands in agricultural production within the Delta (Whipple et al. 2012). Construction will occur mostly during the summer when sandhill cranes are not present. Some construction may occur during the period of September through April when cranes may be using wintering habitat on Staten Island. According to the SJMSCP, sandhill cranes are highly mobile while they forage and can easily relocate to nearby foraging sites in the event of a disturbance to the foraging field. The risk of actually killing or harming (taking) one of these species during SJMSCP Permitted Activities is therefore nearly non-existent (San Joaquin County 2000). The SJMSCP does not require ITMMs for sandhill cranes. With implementation of Bio-1 (Environmental Training), potential impacts to lesser and greater sandhill cranes will be less-than-significant.

Mitigation: Implement Bio-1.

vii) Burrowing Owl

No burrowing owls were observed during biological surveys (Sycamore Environmental 2021b). No burrowing owls are known to occupy the Project area or areas within 1 mile. Burrowing owls nesting elsewhere may still forage in the Project area. Burrowing owls could occupy suitable burrows in the Project area should any be present or become established. Burrowing owls are not expected to nest on the waterside levee slope due to extensive riprap and the proximity of tidal waters that lower temperatures, inundate, or splash up the slope. One large mammal burrow complex was observed on the landside of the levee within the Project area at Levee Station 1190+00. Burrows in the complex provide potentially suitable nesting habitat for burrowing owl. No sign of burrowing owl was observed at the burrows. The burrows could be occupied by an owl predator, such as coyote (*Canis latrans*). California ground squirrels (*Otospermophilus beecheyi*) were observed along the road berm near Sta. 1151+00 during the biological surveys, but no ground squirrel burrows were observed within the Project area. California ground squirrel burrows can pose a threat to levee integrity. The ground squirrel population is managed on an as-needed basis (pers. comm., E. Wells, Conservation Farms and Ranches), limiting potential nesting opportunities for burrowing owl.

Impacts: The Project has the potential to impact burrowing owl. The Project will temporarily disturb approximately 24.72 acres of foraging habitat (nonnative grassland) and permanently convert approximately 4.40 acres of foraging habitat (nonnative grassland) as a result of the new levee crest and levee crest road alignments. The Project will create approximately 4.06 acres of RF and SS habitat which could be used for foraging. Ample foraging habitat occurs elsewhere on Staten Island and throughout the Delta. No impacts to nesting burrowing owl are anticipated. With implementation of Bio-1 (Environmental Training), Bio-9 (Nesting Bird Avoidance), and Bio-10 (Burrowing Owl Avoidance), potential impacts to burrowing owl are less-than-significant.

Mitigation: Implement measure Bio-1, Bio-9, and Bio-10.

viii) Swainson's Hawk

Swainson's hawks were observed flying overhead during the survey conducted on May 27, 2020 (Sycamore Environmental 2021b). Swainson's hawks likely forage regularly in the Project area. There are no trees and thus no nesting opportunities within the Project area. One potential raptor nest was observed in a tree approximately 400 feet west of the Project area on Tyler Island, across from Staten Island Levee Station 1100+00 during the survey conducted on November 23, 2020. The nest showed no sign of activity on that date, but could be used by Swainson's hawk during the breeding season. The nearest tree suitable for nesting on Staten Island occurs approximately 1,100 feet northeast of the Project area on the landside levee slope, north of and adjacent to an equipment yard. While no nests were observed in this tree, a nest could become established. The nearest known nesting occurred approximately 1.75 miles northwest of the BSA in 1994 (Sycamore Environmental 2021b).

Impacts: The Project has the potential to impact Swainson's hawks. The Project will temporarily disturb approximately 24.72 acres of foraging habitat (nonnative grassland) and permanently convert approximately 4.40 acres of foraging habitat (nonnative grassland) as a result of the new levee crest and levee crest road alignments. The Project will create approximately 4.06 acres of RF and SS habitat which could be used for foraging. Ample foraging habitat occurs elsewhere on Staten Island and throughout the Delta. If any Swainson's hawks are nesting nearby, they could be disturbed by construction activities. Measure Bio-13 protects nesting Swainson's hawks by requiring preconstruction surveys for Swainson's hawk in accordance with the applicable sections of the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk TAC 2000), and avoidance buffers if any active Swainson's hawk nests are found.

With implementation of Bio-1 (Environmental Training), Bio-9 (Nesting Bird Avoidance), and Bio-11 (Swainson's Hawk Avoidance), potential impacts to Swainson's hawk are less-than-significant.

Mitigation: Implement measures Bio-1, Bio-9, and Bio-11.

ix) White-tailed Kite

One white-tailed kite was observed foraging in the Project area during the May 2020 biological survey. There are no trees and thus no nesting opportunities within the Project area (Sycamore Environmental 2021b). One potential raptor nest was observed in a tree approximately 400 feet west of the Project area on Tyler Island, across from Staten Island Levee Station 1100+00 during the survey conducted on November 23, 2020. The nest showed no sign of activity on that date, but could be used by white-tailed kite during the breeding season. The nearby potential nest trees are patchily distributed and/or isolated, and do not provide the dense groves preferred by white-tailed kite for nesting. White-tailed kite may forage in the Project area.

Impacts: The Project has the potential to impact white-tailed kite. The Project will temporarily disturb approximately 24.72 acres of foraging habitat (nonnative grassland) and permanently convert approximately 4.40 acres of foraging habitat (nonnative grassland) as a result of the

new levee crest and levee crest road alignments. The Project will create approximately 4.06 acres of RF and SS habitat which could be used for foraging. Ample foraging habitat occurs elsewhere on Staten Island and throughout the Delta. If any white-tailed kites are nesting nearby, they could be disturbed by construction activities.

With implementation of Bio-1 (Environmental Training), and Bio-9 (Nesting Bird Avoidance), potential impacts to white-tailed kite are less-than-significant.

Mitigation: Implement measures Bio-1 and Bio-9.

x) American Peregrine Falcon

American peregrine falcon has been observed on Staten Island in the winter (pers. comm., E. Wells, Conservation Farms and Ranches). American peregrine falcon was not observed in the Project area during the biological surveys (Sycamore Environmental 2021b). There is no nesting habitat in or near the Project area. American peregrine falcon may forage in the Project area.

Impacts: The Project will not affect American peregrine falcon nesting habitat. The Project will temporarily disturb approximately 24.72 acres of foraging habitat (nonnative grassland) and permanently convert approximately 4.40 acres of foraging habitat (nonnative grassland) as a result of the new levee crest and levee crest road alignments. The Project will create approximately 4.06 acres of RF and SS habitat which could be used for foraging. Ample foraging habitat occurs elsewhere on Staten Island and throughout the Delta. Potential impacts to American peregrine falcon are less-than-significant without mitigation.

Mitigation: None required.

xi) Bald Eagle

Bald eagles are occasionally observed on Staten Island in the winter (pers. comm., E. Wells, Conservation Farms and Ranches). Bald eagle was not observed within the Project area during the biological surveys (Sycamore Environmental 2021b). The Project area is not within the bald eagle breeding range. Bald eagles could forage for fish during winter months in the NMR.

Impacts: The Project will not affect bald eagle nesting habitat. The Project may temporarily impact bald eagle foraging habitat in the NMR, mostly during the summer months. Ample foraging habitat occurs elsewhere in the Delta. Potential impacts to bald eagle are less-than-significant without mitigation.

Mitigation: None required.

xii) Song Sparrow "Modesto Population"

Song sparrow was observed foraging in the Project area along the levee toe ditch during the biological survey conducted on May 27, 2020 (Sycamore Environmental 2021b). The song sparrows were likely Modesto song sparrows. No potential Modesto song sparrow nests were observed within the Project area. The irrigation ditches are sometimes lined with dense vegetation that could be used for nesting. Dense clumps of lamp rush present within the

irrigated pasture could also be used for nesting (Sycamore Environmental 2021b). Modesto song sparrow may forage in the Project area.

Impacts: The Project has the potential to impact Modesto song sparrows. The Project will temporarily disturb approximately 24.72 acres of foraging habitat (nonnative grassland) and permanently convert approximately 4.40 acres of foraging habitat (nonnative grassland) as a result of the new levee crest and levee crest road alignments. The Project will create approximately 4.06 acres of RF and SS habitat which could be used for foraging and possibly nesting. Ample nesting and foraging habitat occur elsewhere on Staten Island, mainly in the irrigation ditches, canals, and fields. With implementation of Bio-1 (Environmental Training) and Bio-9 (Nesting Bird Avoidance), potential impacts to Modesto song sparrow are less-than-significant.

Mitigation: Implement measures Bio-1 and Bio-9.

xiii) Other Migratory Birds and Birds of Prey

No active bird nests were observed within the Project area during biological surveys (Sycamore Environmental 2021b). The Project area does not provide nesting habitat for bird species that require trees for nesting. Nests could become established on the ground or in clumps of dense vegetation during the breeding season, which is approximately February 15 to August 31 for most species in the Central Valley.

Impacts: The Project has the potential to impact migratory birds and birds of prey. Construction during the period of February 15 through August 31 could contribute to nest abandonment of migratory birds and birds of prey that nest in low-growing vegetation or on the ground. The Project will not affect large trees suitable for raptor nesting. Vegetation removed during construction will be restored with native plantings, including native grasses on the levee slope. With implementation of Bio-1 (Environmental Training) and Bio-9 (Nesting Bird Avoidance), potential impacts to migratory birds and birds of prey are less-than-significant.

Mitigation: Implement measures Bio-1 and Bio-9.

b) Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game, U.S. Fish and Wildlife Service or National Marine Fisheries Service?

Biological communities in the Project area are mapped and described in detail in the biological resources evaluation report (Sycamore Environmental 2021b). The NMR and irrigated pasture-wetland are sensitive natural communities in the Project area. No riparian communities were identified in the Project area (Sycamore Environmental 2021b). The proposed Project will create riparian habitat along the edge of the NMR.

Federal designated critical habitat for North American green sturgeon southern distinct population segment (*Acipenser medirostris*), California Central Valley steelhead (*Oncorhynchus mykiss*), and Delta smelt (*Hypomesus transpacificus*) occurs in the NMR. The critical habitat extends laterally to the high tide line (HTL), which coincides with the ordinary high-water mark (OHWM) (Sycamore Environmental 2021b). The NMR is also Essential Fish Habitat (EFH) for Chinook salmon.

Impacts: Project impacts to biological communities, including the NMR, are summarized in Table 8 and shown on the Project Impact Map (Figure 7 through Figure 12). The Project will not impact wetlands. The Project will not impact riparian vegetation. The Project will create approximately 1.45 acres of RF and 2.61 acres of SS habitat in areas of exposed riprap that currently lack riparian vegetation. A total of 6,125 linear feet of riparian benches will be constructed across 7 different sites.

Table 8. Summary of Biological Community Impacts and Habitat Creation

Biological Community	Permanent Impacts	Temporary Impacts	Habitat Created
North Mokelumne River – Intertidal Riprap (within jurisdictional waters)	--	0.38 ac	--
Created Riparian Forest (created jurisdictional waters on bench at MHW)	--	--	1.45 ac
Created Riparian Scrub Shrub (on levee slope adjacent to jurisdictional waters)	--	--	2.61 ac
Irrigation Ditch	0.01 ac	--	--
Nonnative Grassland	4.40 ac	24.72 ac	--
Total:	4.41 ac	25.10 ac	4.06 ac

NOTE: Permanent Impacts result from the new setback levee alignment and improvements to the levee crest road. Tabulation does not include portions of the construction footprint that overlap existing road, riprap, and previously disturbed/developed areas.

Riparian bench creation will occur at the edge of the NMR in the setback levee areas. The benches will be installed above MHW elevation, thus expanding the lateral extent of the river, critical habitat in the river, and EFH in the river. The habitat creation work will result temporarily disturb approximately 0.38 acre of the NMR (existing intertidal riprap) as the edge of the river is modified to create the bench with riparian habitat.

With implementation of mitigation measures Bio-3 (Water Quality Protection), Bio-4 (Limit Effect of Construction on Stream Habitat), and Bio-6 (Creation of Riparian Habitat), impacts to riparian habitat or other sensitive natural communities will be less-than-significant.

Mitigation: Implement Bio-3, Bio-4, and Bio-6.

c) Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

A formal jurisdictional wetland delineation has been completed and no potential federally protected wetlands were identified in the Project area (Sycamore Environmental 2021a). The portion of the NMR in the Project area is a tidally influenced jurisdictional water of the United States up to the high tide line (7-8 ft). The portion of the NMR delineated in the Project area includes intertidal marsh, riprap, subtidal vegetated shallows, and subtidal open water. A riparian corridor does not occur along the affected portion of the NMR under existing conditions. The irrigation ditches and irrigated wetlands are non-jurisdictional waters (Sycamore Environmental 2021a).

Impacts: The Project has been designed to minimize impacts to waters of the U.S. as defined by Section 404 of the Clean Water Act. The Project will temporarily disturb approximately 0.38 acre of the NMR during construction of riparian habitat benches. The temporary impacts will affect the edge of the NMR, which is covered in existing riprap. No impacts to intertidal or subtidal vegetation are anticipated. The setback levees will expand the extent of Section 404 jurisdictional waters within the NMR by moving the high tide line (which coincides with the ordinary high-water mark) landward.

Impacts to jurisdictional features may be permitted under a Section 404 Clean Water Act permit, a Section 10 Rivers & Harbors Act permit, a Section 401 Water Quality Certification, and a CDFW 1602 Streambed Alteration Agreement. Required permits will be obtained prior to commencement of waterside construction. The bid specifications and contract will specify that the contractor will comply with the terms and conditions outlined in the permits.

With implementation of mitigation measures Bio-3 (Water Quality Protection), Bio-4 (Limit Effect of Construction on Stream Habitat), and Bio-6 (Creation of Riparian Habitat), impacts to Clean Water Act jurisdictional waters will be less-than-significant.

Mitigation: Implement Bio-3, Bio-4, and Bio-6.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?

The Project will not substantially interfere with the movement of native fish and wildlife. Construction of the Project could temporarily disrupt movement of native fish and wildlife species that occur in or adjacent to the Project area. Since the Project occurs at the edge of the approximately 400-foot-wide river, the Project will not block fish migration. By restricting the

waterside work window to the period when special-status fish are least likely to be present (Bio-2), the Project avoids directly affecting major fish migrations. Following Project completion, the setback levee and riparian habitat created by the Project will enhance the passage of fish and wildlife through the project area by providing vegetation cover and structure within intertidal areas.

With implementation of mitigation measures Bio-2 (Waterside Work Window), Bio-3 (Water Quality Protection), Bio-4 (Limit Effect of Construction on Stream Habitat), Bio-5 (Minimization of Acoustic Impacts to Fish), and Bio-6 (Creation of Riparian Habitat), impacts to movement and migratory corridors of fish wildlife species will be less-than-significant.

Impacts: Implement Bio-2 through Bio-6.

Mitigation: None required.

e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

According to the San Joaquin County Development Title Supplement 103, any potential destruction, elimination, or degradation of riparian habitat requires a riparian habitat mitigation plan. There is no existing riparian habitat in the Project area. The Project will create approximately 4.06 acres of riparian habitat, resulting in a net increase in riparian habitat. The proposed Project does not conflict with any local policies or ordinances protecting biological resources including tree ordinances.

Impacts: No impact.

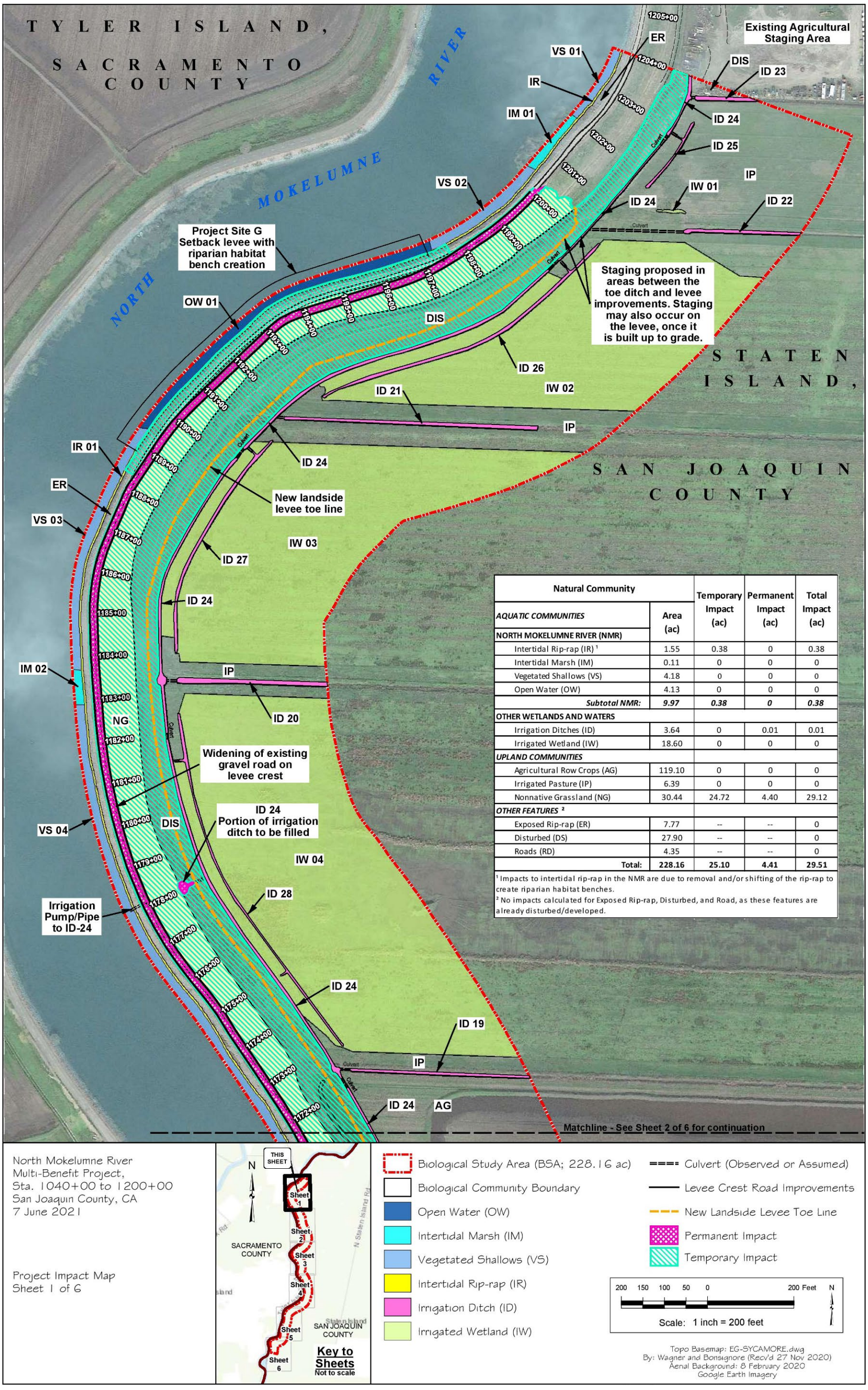
Mitigation: None required.

f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project is located in San Joaquin County in an area covered by the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Participation in the SJMSCP is voluntary and the Project may elect to participate in the Plan. There are no other Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans covering the Project area. The Project does not conflict with the SJMSCP or any other Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impacts: No impact.

Mitigation: None required.



Natural Community	Area (ac)	Temporary Impact (ac)	Permanent Impact (ac)	Total Impact (ac)
AQUATIC COMMUNITIES				
NORTH MOKELUMNE RIVER (NMR)				
Intertidal Rip-rap (IR) [1]	1.55	0.38	0	0.38
Intertidal Marsh (IM)	0.11	0	0	0
Vegetated Shallows (VS)	4.18	0	0	0
Open Water (OW)	4.13	0	0	0
Subtotal NMR:	***9.97***	***0.38***	***0***	***0.38***
OTHER WETLANDS AND WATERS				
Irrigation Ditches (ID)	3.64	0	0.01	0.01
Irrigated Wetland (IW)	18.60	0	0	0
UPLAND COMMUNITIES				
Agricultural Row Crops (AG)	119.10	0	0	0
Irrigated Pasture (IP)	6.39	0	0	0
Nonnative Grassland (NG)	30.44	24.72	4.40	29.12
OTHER FEATURES [2]				
Exposed Rip-rap (ER)	7.77	--	--	0
Disturbed (DS)	27.90	--	--	0
Roads (RD)	4.35	--	--	0
Total:	**228.16**	**25.10**	**4.41**	**29.51**

[1] Impacts to intertidal rip-rap in the NMR are due to removal and/or shifting of the rip-rap to create riparian habitat benches.
[2] No impacts calculated for Exposed Rip-rap, Disturbed, and Road, as these features are already disturbed/developed.

Figure 7. Project Impact Map (Sheet 1 of 6)

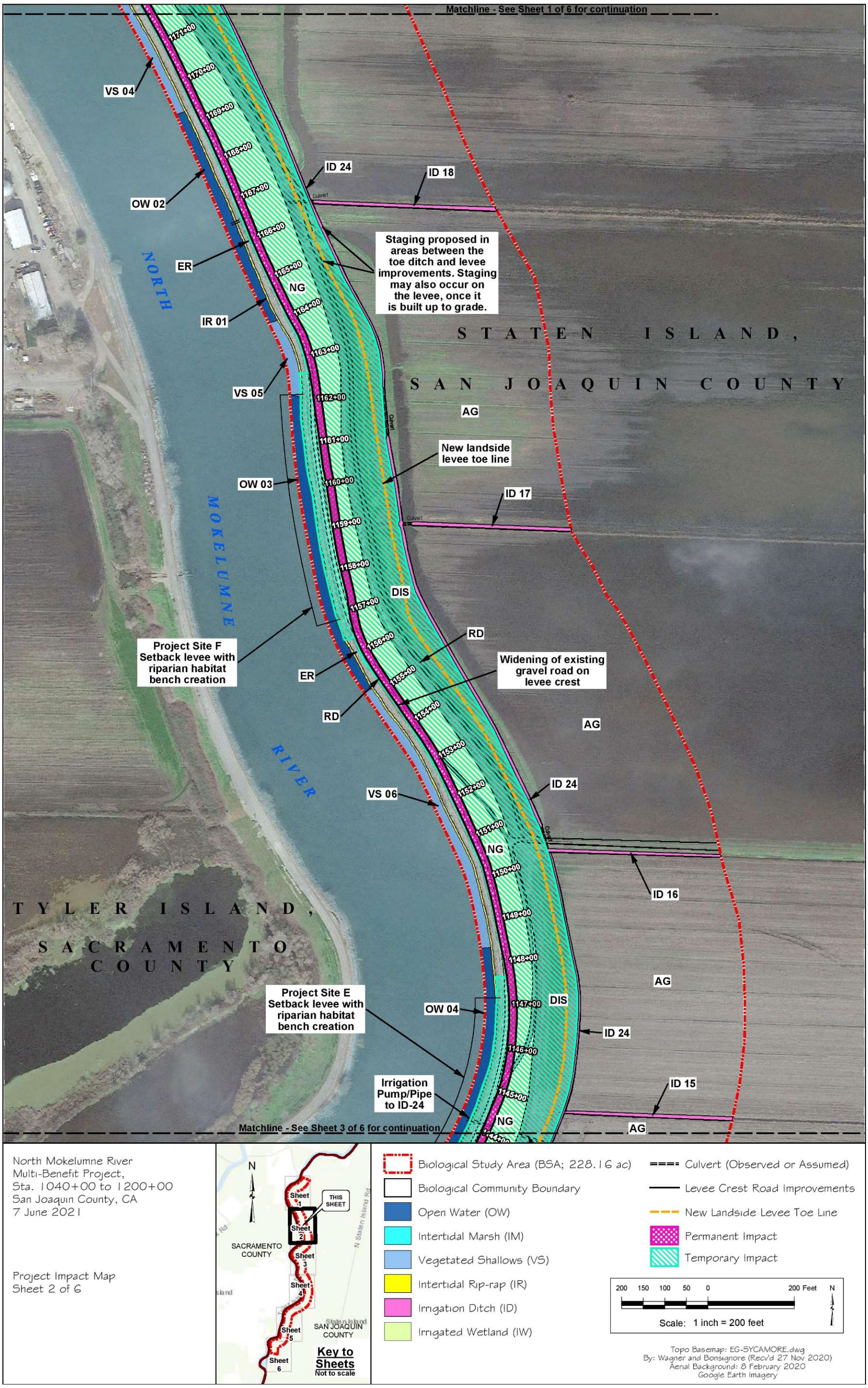


Figure 8. Project Impact Map (Sheet 2 of 6)

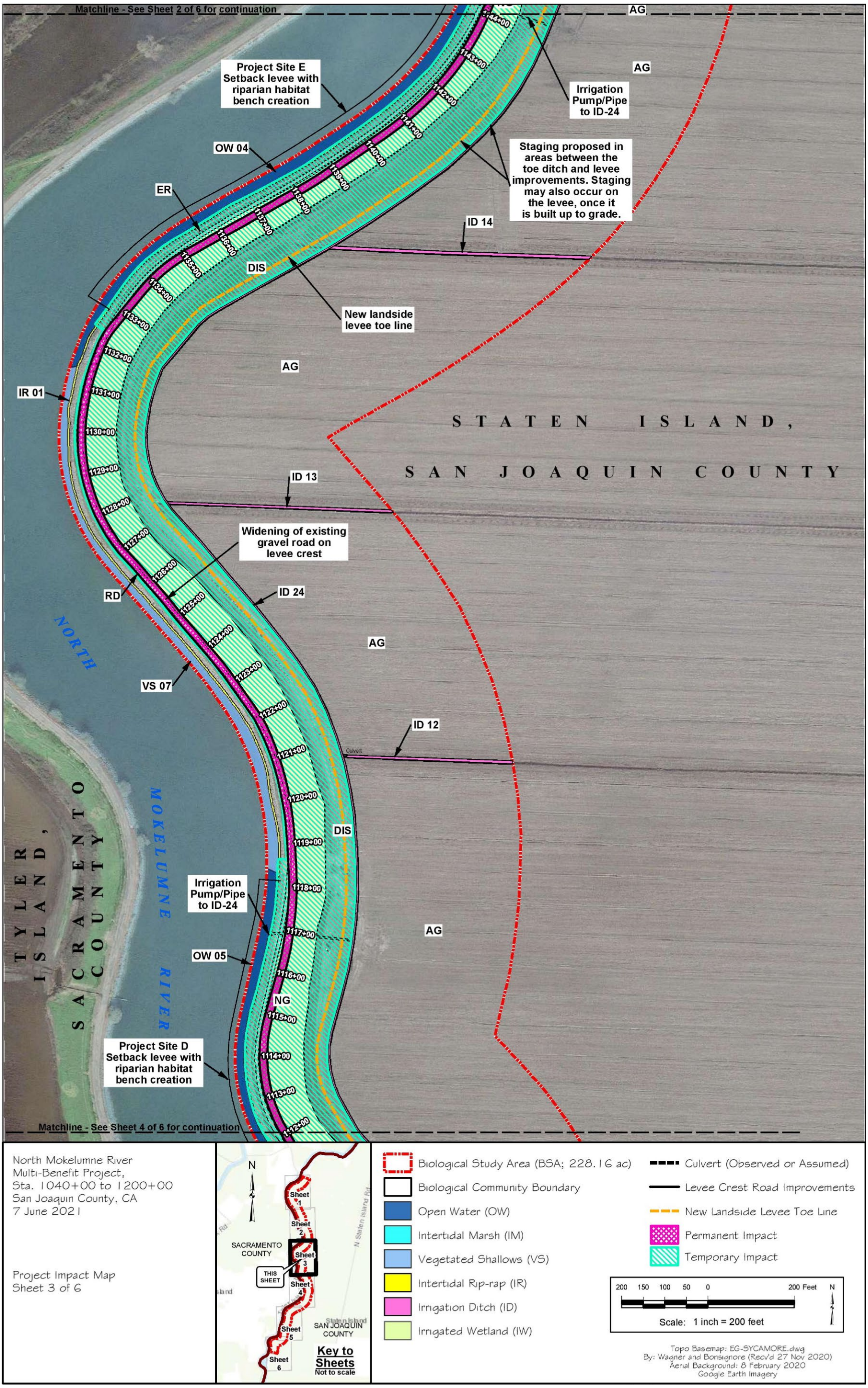


Figure 9. Project Impact Map (Sheet 3 of 6)

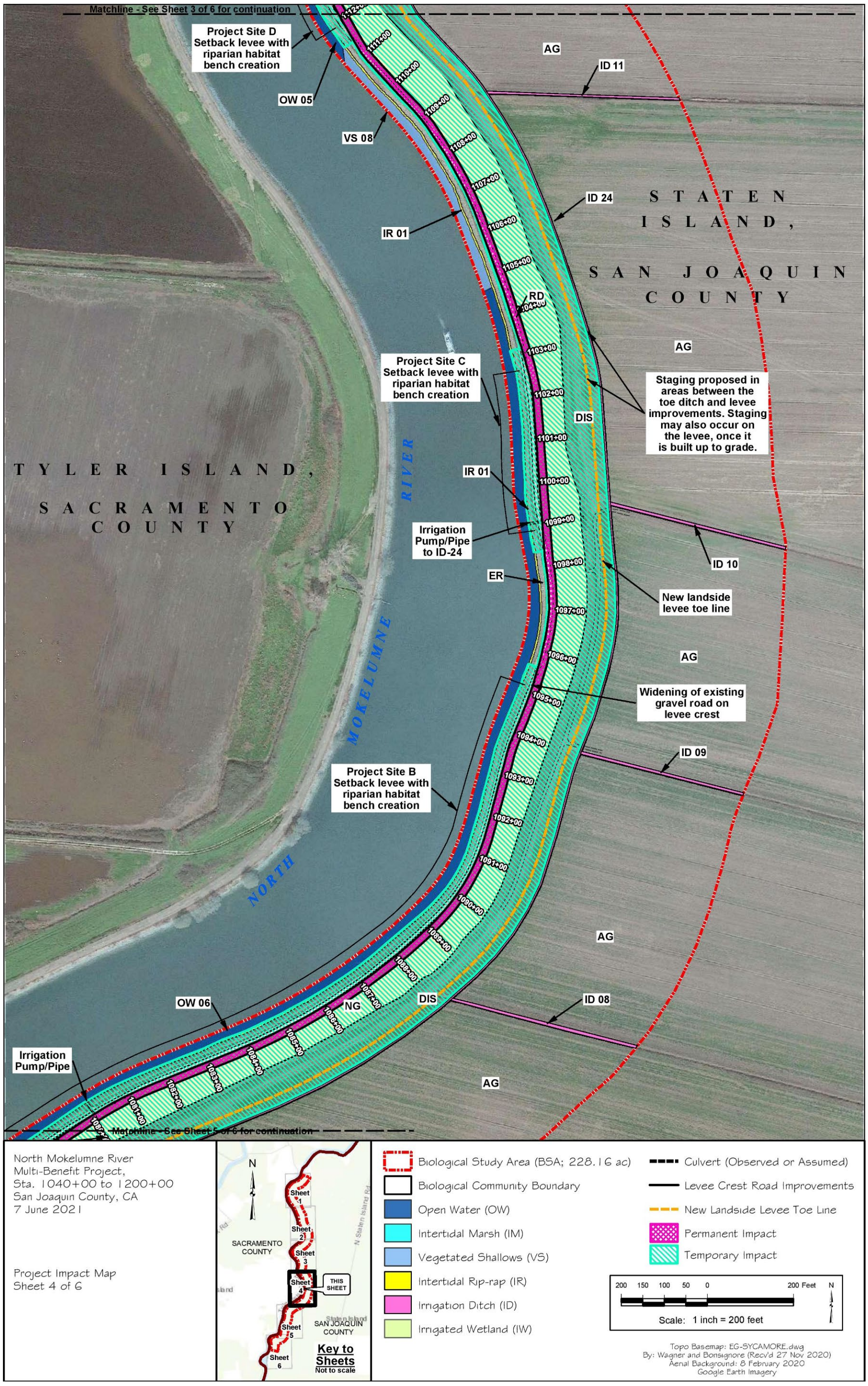


Figure 10. Project Impact Map (Sheet 4 of 6)

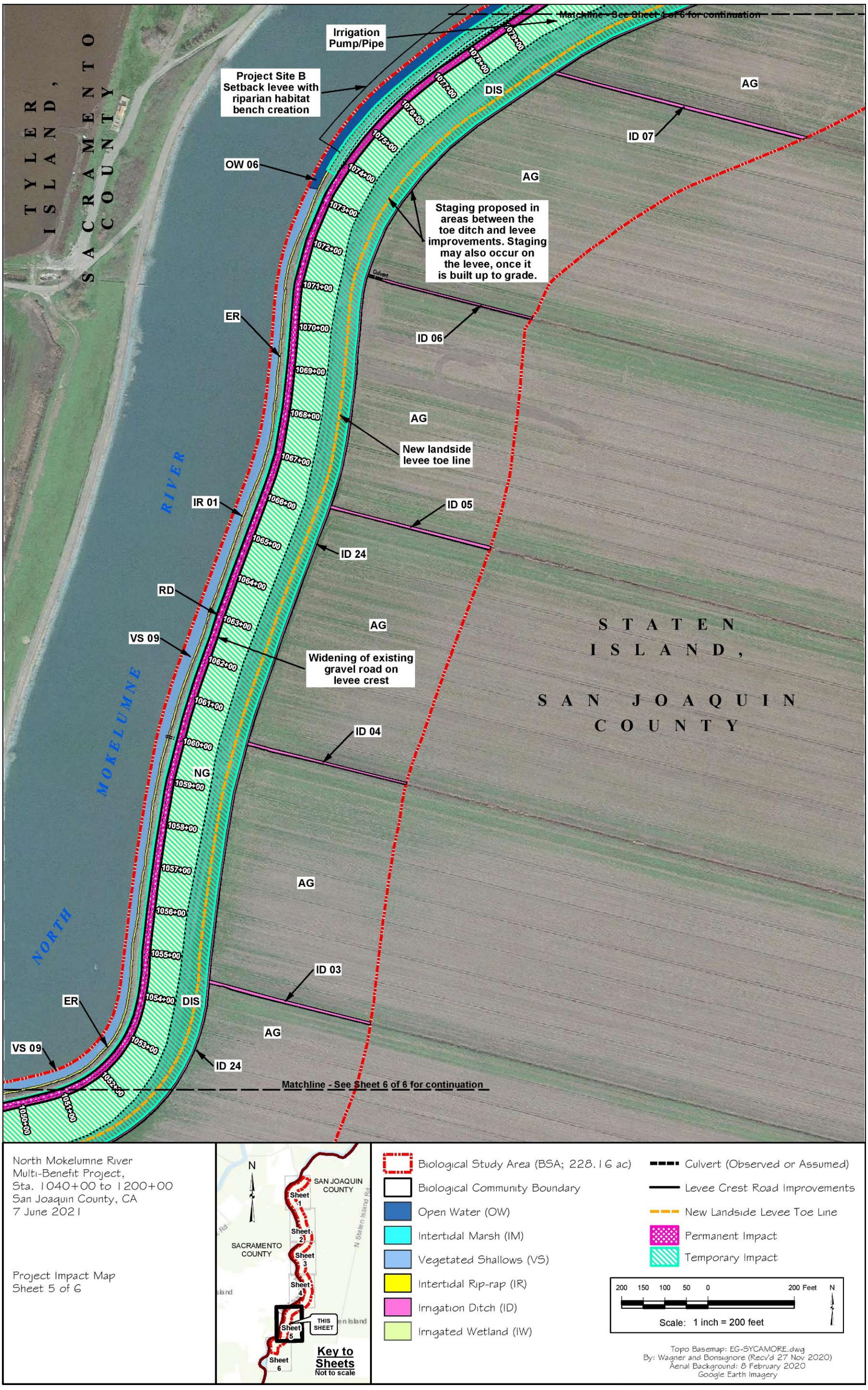


Figure 11. Project Impact Map (Sheet 5 of 6)

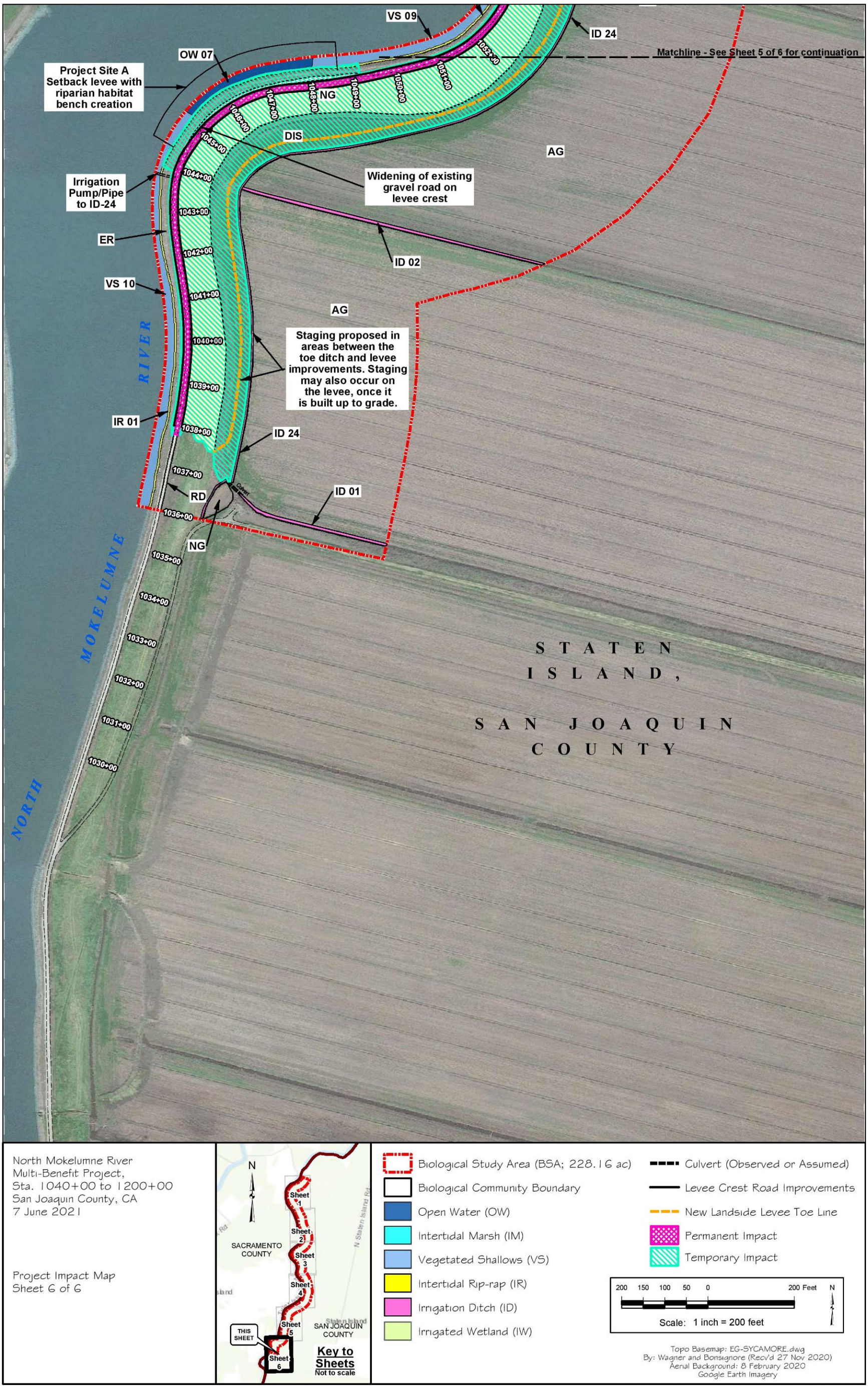


Figure 12. Project Impact Map (Sheet 6 of 6)

3.5 Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

a) Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

A cultural resources study for the Project was conducted by Tom Origer & Associates (2021). The study included archival research at the Central California Information Center, California State University, Stanislaus, examination of the library and files of Tom Origer & Associates, Native American contact, and field inspection of the Area of Potential Effects (APE).

The cultural resources study indicated that historical-era debris scatters were found at three site locations within the APE. The few fragments found corresponded to former agricultural camps on Staten Island.

To determine if any subsurface remains were present at the three sites and to determine the sites and the levee's eligibility for inclusion on the National Register of Historic Places (NRHP), Solano Archaeological Services (SAS), and Foothill Resources, Ltd., conducted a program of archival research and archaeological testing. The NRHP evaluation indicated that the three sites are not eligible for NRHP listing due to their lack of significant historical associations, important characteristics, data potential, and integrity. In addition, Foothill Resources conducted an NRHP evaluation and survey of the approximately 3 miles of the Staten Island levee system located within the APE. Foothill Resources recommended that the levee segment within the APE is not eligible for listing on the NRHP, the California Register of Historical Resources (CRHR), or the list of San Joaquin County Historic Sites and Points of Interest.

The reports prepared by Tom Origer & Associates and Foothill Resources/SAS contain information about the location of cultural resources. For the protection of these resources, the documents are not provided in this ISMND, but they are available for qualified reviewers by contacting Wagner & Bonsignore, Consulting Civil Engineers.

During the field surveys, no previously unrecorded archeological site indicators were found within the APE. However, the presence of buried historical resources is possible within the

APE. Implementation of mitigation measure CUL-1 (Avoid and Minimize Potential Effects on Cultural Resources) will avoid any substantial adverse changes to the significance of these historical resources. Therefore, impacts to any undiscovered historical resources will be less than significant with the adoption of CUL-1.

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

As discussed in the response to a) above, there are three archeological site locations within the APE, however none of the identified resources were considered eligible for inclusion on the CRHR or the NRHP. The Project will implement mitigation measure CUL-1 to avoid adverse effects to the historical materials found on these three sites. Because there is the potential for buried historic-era archaeological features, mitigation measure CUL-1 will also be implemented if archaeological resources are discovered during earthwork activities. Implementation of this mitigation measure will reduce impacts on undiscovered archaeological resources to a level that would be less than significant.

c) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

The cultural resources study indicates no human burials within the APE, and no human remains were encountered within the Project area during the field survey. Based on current information, the Project will likely not disturb any human remains, including those interred outside of formal cemeteries. If human remains are discovered during construction work, mitigation measure CUL-1 will be implemented to reduce the impacts to less than significant.

3.6 Energy

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction equipment used for the rehabilitation of the existing levee have diesel engines. Unnecessary consumption of diesel fuel during the construction of the Project will be limited by reducing idling time by implementing AQ-2 (Emissions from Construction Equipment). The rehabilitated levee will not consume any fuel. Overall, Project construction would not consume energy resources to be considered wasteful, inefficient, or unnecessary. Thus, impacts generated from energy consumption are expected to be less than significant.

b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The following are the state programs and policies for the support of plans related to renewable energy and energy efficiency (Source: 2018 Regional Transportation Plan/ Sustainable Communities):

- Warren-Alquist Act
- California Energy Plan
- Assembly Bill 2076: Reducing Dependence on Petroleum
- Integrated Energy Policy Report (IEPR)
- Senate Bill 1078: California Renewables Portfolio Standard Program
- Senate Bill X1-2: California Renewable Energy Portfolio Standard
- Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015
- Assembly Bill 1493: Reduction of Greenhouse Gas Emissions
- Energy Action Plan (EAP)
- Assembly Bill 1007: State Alternative Fuels Plan
- Bioenergy Action Plan, Executive Order #S-06-06
- Title 24, California Code of Regulations

- California Green Building Standards Code (2016), California Code of Regulations Title 24, Part 11
- Western Electricity Coordinating Council and the North American Electric Reliability Council
- 2016 California Gas Report

Local plans and programs related to energy use, energy conservation, and energy efficiency are described in the San Joaquin County 2035 General Plan.

Once rehabilitated, the levees will not consume any energy, other than the vehicles used for regular inspection and patrolling by the District. The Project will not interfere with any state or local plans for renewable energy or energy efficiency. Thus, there will be no impact.

3.7 Geology and Soils

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐

a) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The San Joaquin Valley is in the southern half of the Great Valley Geomorphic Province. Most of the areas in the Central Valley are known to be distant from active faults and generally would experience infrequent, low levels of seismic shaking. However, infrequent earthquakes with stronger shaking could occur. The San Joaquin Valley is bounded by the Stockton Fault of the Stockton Arch on the north and the Bakersfield Arch on the south. Most of the fault zones in the San Joaquin Valley do not appear to be active (U.S. Bureau of Reclamation, 2019).

The closest potentially active lineament is the Midland Fault Zone about 9 miles west of the Project area. In areas adjacent to the San Joaquin Valley, the dominant active fault structure is the Great Valley blind thrust associated with the San Andreas Fault. Other active faults occur along the western boundary of the San Joaquin Valley, including the Hayward, Concord-Green Valley, Coast Ranges-Sierra Block boundary thrusts, Mount Diablo, Greenville, Ortigalita, Rinconada, and Hosgri Faults (U.S. Bureau of Reclamation, 2019).

The Alquist-Priolo Earthquake Fault Zoning Act is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (San Joaquin Council of Governments, 2018). The Project area is not located within a delineated Alquist-Priolo Earthquake Zoned fault. The rehabilitation of the levee does not involve the construction of new structures or residences. Therefore, there will be no adverse impacts regarding this issue.

ii) Strong seismic ground shaking?

The Delta region has a higher potential for stronger ground shaking due to its close proximity to several major fault systems. There are also various named and unnamed regional faults in the vicinity. Although the Project is situated on an area that is susceptible to seismic shaking, the Project will improve levee stability and reduce the risk of levee failure by meeting the Delta Specific PL 84-99 Standard. In addition, a geotechnical study for the Project by Hultgren – Tillis Engineers (2021) concluded that the rehabilitated levee will experience minor deformations under different earthquake scenarios. Due to the Project increasing levee stability, there will not be adverse effects in regard to seismic risk and the associated seismic hazards including liquefaction.

iii) Seismic-related ground failure, including liquefaction?

See response to ii) above.

iv) Landslides?

The Project is located on a relatively flat topography and the potential for landslides is considered remote in the Delta due to the lack of significant slopes. Although the only sloped terrain is the levee surrounding the island, the Project is intended to improve levee stability and protect the levee slopes from erosion. Thus, there will be no impact as a result of the Project.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

The Project proposes the use of riprap material on the waterside slope for erosion protection. The geotechnical study performed at the Project indicated that the protective facing will need to be extend over the portion of slope face that will be exposed to wave action, including the estimated height of run-up. The new landside levee slope and counterbalance berm will be hydroseeded with a native seed mix to promote the establishment of grasses. In the long-term, these measures will prevent soil erosion and stabilize the levee slope; there is no topsoil present. Thus, the Project will have no impacts related to erosion or loss of topsoil.

c) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The levees on Staten Island, like many levees in the Delta, are founded on weak marsh deposits consisting predominately of clay and peat (Hultgren – Tillis Engineers, 2021). Because of the marsh soil, the geotechnical study for the Project provides recommendations related to the construction on soft soil.

According to the geotechnical report, the levee should be constructed in stages. The landside slope and crest should be completed prior to excavating the waterside bench. The analysis indicates that the rehabilitated levee meets generally accepted factors of safety for seepage.

The report concludes that construction of the counterbalance berm at the toe of the landside slope will improve stability both for static loading and for earthquake forces. The geotechnical study also concludes that the levee crest should be constructed at least 12 inches higher to accommodate future crest settlement.

Although the Project area is located on unstable soils, the rehabilitation of the levee will substantially increase levee stability. Therefore, Project impacts related to unstable soils will be less than significant.

d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils are characterized by the ability to undergo significant volume change (shrink and swell) as a result of variation in soil moisture content. The geotechnical study states that

Staten Island is situated on peat and marsh deposits that accumulated thousands of years ago during an episode of sea-level rise. The marsh deposits are underlain by older alluvium. Since the levees are not located on expansive soils, no impacts will occur regarding this issue.

e) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The rehabilitation of the levee does not involve construction or operation of any type of wastewater disposal facility, including septic tanks. Thus, there are no impacts regarding this issue.

f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

It is not known if any paleontological resource exists in the Project area. The rehabilitation of the levee does not involve deep excavation, and most construction work will occur near or above the surface.

If any paleontological resources are encountered during construction of the Project, the District will implement the mitigation measure GEO-1 (Avoid and Minimize Potential Effects on Paleontological Resources) to address paleontological discoveries. Thus, implementation of the mitigation measure will reduce any potential impacts on these resources to a less than significant level.

3.8 Greenhouse Gas Emissions

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Greenhouse gas (GHG) emissions associated with the Project were estimated using the RCEM model (see Section 3.3) and the total emission amounts are given in Table 9.

Table 9. Total GHG Emissions Estimates for Project Construction

CO_2 (tons)	**CH_4** (tons)	**N_2O** (tons)	**CO_2e** (MT)
4,750.96	0.12	0.69	4,499.71

Carbon dioxide (CO_2) is one of six widely accepted and frequently monitored GHGs contributing to climate change. The other five common GHG include nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and methane. CO_2e refers to carbon dioxide equivalent and is a term to describe different GHGs as equivalent to units of carbon dioxide based on their global warming potential.

To determine whether the level of GHG emissions will have a significant effect on the environment, model results were compared with threshold of significance proposed by the ARB. Assuming the Project is a stationary source, ARB derived a quantitative threshold of 7,000 metric tons of CO_2e per year (MT CO_2e/year) for operational emissions (excluding transportation), and performance standards for construction and transportation emissions (San Joaquin Valley Unified Air Pollution Control District, 2009).

According to the model results, GHG total emissions associated with Project construction were below the threshold of 7,000 metric tons of CO_2e proposed by ARB. Thus, the Project is not expected to have a significant impact on the environment.

b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project will not interfere with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Thus, there will be no impact.

3.9 Hazards and Hazardous Materials

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Project involves short-term construction activities and, once the work is completed, there will be no routine use, transportation, or disposal of hazardous materials. Hazardous chemicals used during construction activities could include, but are not limited to, fuel, motor oil and lubricants for the operation and maintenance of equipment. The transport and use of hazardous materials is strictly regulated by local, state and federal agencies to minimize the adverse

impacts of accidental spills. Contractors are typically required to use, store and dispose any hazardous materials in accordance with all applicable regulations. In addition to state and federal regulations, the San Joaquin County General Plan provides policies and regulations regarding the use, transportation, storage, and disposal of hazardous materials.

To minimize the risk of hazardous materials releases duringProject construction, the District will implement and adopt the Best Management Practices (BMPs) described in HAZ-1 (Best Management Practices Regarding the Use of Hazardous Materials) and HAZ-2 (Prevent, Control, and Minimize Impacts from a Spill).

If hazardous chemicals such as fuel or motor oil were to be mishandled, leaking or spilled at the Project area, contractors will provide spill containment for vehicles and the containment will adhere to all required state and federal standards. The San Joaquin County Environmental Health Department (SJC EHD) needs to be notified of a hazardous material release of ANY quantity within 24 hours of the release. The District can do so by calling the SJC EHD main line at 209-468-3420. Hazardous materials spills or releases, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of quantity spilled, must be immediately reported if the spill has entered or threatens to enter a water of the State, or has caused injury to a person or threatens injury to public health. Immediate notification must be made to the local emergency response agency, or 911, and the OES Warning Center (San Joaquin Council of Governments, 2018).

However, the most likely incidents involving hazardous materials during the Project construction would be minor spills or drips. According to San Joaquin Council of Governments (2018), small fuel or oil spills would have a negligible impact on public health.

Considering the small amount of hazardous chemicals that will be used for Project construction and the implementation of the BMPs outlined in HAZ-1 and HAZ-2, the Project will create a less than significant hazard to the public or the environment due to handling of hazardous materials.

b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

See response to (a) above.

c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no existing or proposed schools within one-quarter mile of the Project area. The closest schools are in Walnut Grove (i.e., Seta Headstart Preschool and Walnut Grove Elementary School), located about 3 miles north of the Project area. Thus, the Project would not have any impacts.

d) Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Data regarding hazardous material sites were searched from two database systems: (1) GeoTracker, which is developed and supported by the State Water Board, and (2) EnviroStor, which is the Department of Toxic Substances Control's data management system. There is no record of hazardous waste facilities and sites located in the footprint or the vicinity of the Project area. Thus, there will be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the project area?

The Project is not located within two miles of a public airport. Thus, there will be no impact.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Project will rehabilitate an existing levee section along the NMR and replace a levee crest road. However, this road is private and used only by the District for inspections and patrolling. Since the road is not public and it is not planned to be used for emergency evacuations, the Project will have no impact regarding this issue.

g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The California Department of Forestry and Fire Protection (Cal Fire) has mapped the entire area of Staten Island as "Local Reasonability Area" with no "moderate" to "very high" fire hazard severity zones (San Joaquin County Geographic Information Systems, 2020). Furthermore, the Project is located in an area of irrigated and cultivated agricultural fields, there are no structures or residences within the Project area and no new structures will result from the Project. Therefore, the Project is expected not to expose people or structures to a significant risk of loss, injury or death involving wildland fires. In addition, the Project will implement HAZ-3 (Reduce the Potential for Fire) to reduce the potential for a grass fire. Thus, the Project will have no impact.

3.10 Hydrology and Water Quality

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substation erosion or siltation on- or off-site;	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The proposed Project is limited to short-term construction activities that include clearing, grubbing, excavation, and grading. Once the work is completed, no activities will be conducted at the rehabilitated levee. Activities related to the Project construction would have the potential to disturb and expose site soils to water erosion and increase the potential for sediment-laden stormwater runoff entering the NMR. In addition, accidental discharge of hazardous materials

such as fuels, oils, grease, and lubricants used for construction equipment could potentially result in contamination of the water or adversely affect aquatic life, fish, or wildlife.

The District will implement appropriate mitigation measures outlined in BIO-2 and BIO-3 to minimize the risk for surface or groundwater quality degradation. Thus, this issue will have a less than significant impact with mitigation measures incorporated.

As explained in Section 3.9 (Hazards and Hazardous Materials), accidental leaks, spills or releases of hazardous substances are expected to be minor with no significant adverse effect on the environment. In cases of accidental discharge of hazardous materials, contractors will implement appropriate BMPs to prevent or minimize the potential for hazardous materials degrading water quality (HAZ-1 and HAZ-2).

SWPPP compliance, coupled with the adoption and implementation of the BMPs described in Section 1.5 (Conservation Measures), would reduce the Project's potential water quality impacts to a less than significant level. Upon completion of construction work, the rehabilitated levee will have no impacts to surface or groundwater quality.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

There are three groundwater subbasins within San Joaquin County, including the Eastern San Joaquin, Tracy, and Cosumnes. Staten Island is located within the boundary of the Eastern San Joaquin subbasin. In Bulletin 118-80, DWR designated the Eastern San Joaquin Basin as "critically overdrafted". Historically, the basin has benefited from groundwater baking during wet periods (San Joaquin Council of Governments, 2018). During Project construction, excavation activities will be shallow and will not interfere or disturb groundwater supplies. The supply for the water trucks will be provided by the District's main drainage canal. After completion, the rehabilitated levee will not use groundwater supplies. Therefore, the Project will not interfere with groundwater supplies and or groundwater storage/recharge. Thus, the project will have no impact on the sustainable groundwater management of the basin.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substation erosion or siltation on- or off-site;

The Project involves rehabilitation of an existing levee system by placing fill material as compacted embankment on the levee crest and landside levee slopes, and construction of a counterbalance berm. For the portions of the levee experiencing erosion below the normal waterline, the levee section will be setback landward to create a riparian bench. The setback levee waterside slopes will be armored with soil-filled riprap. The rehabilitated levee is expected to reduce the risk of failure and erosion. The Project does not propose alterations to existing drainage pattern of the site or area, neither will alter the course of a stream or

river that could result in substation erosion or siltation on- or off-site. Thus, no impact is expected regarding this issue.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

The Project will result in a rehabilitated levee section which will not increase the rate or amount of surface runoff due to the lack of impervious surfaces; the rehabilitated levee will consist of fill material and aggregate base material. Thus, there is no impact.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

The Staten Island levee system includes ditches and canals that are used for irrigation and drainage. The Project will rehabilitate a section of the existing levee along the NMR and will not substantially increase runoff contributions relative to current conditions. Thus, no impact is expected regarding this issue.

iv) impede or redirect flood flows?

Staten Island is mapped as zone AE by the FEMA Flood Insurance Rate Map (FIRM). This zone is listed as a high risk and special flood hazard area. Further, these areas are subject to inundation by the 1-percent-annual-chance (100-year) flood. The Project consists of rehabilitation of an existing levee for protection against the 100-year flood. The Project will increase levee stability and reduce the risk of levee failure, therefore reducing associated risks to Staten Island's farming operation and public infrastructure.

d) Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Per the National Oceanic and Atmospheric Administration (NOAA), a tsunami is a series of extremely long waves caused by a large and sudden displacement of the ocean, usually the result of an earthquake below or near the ocean floor. The Counties of San Joaquin and Sacramento are not identified to be at risk of tsunami. Seiches are standing waves in an enclosed or partially enclosed body of water. Seiches are typically caused by strong winds and rapid changes in atmospheric pressure. The Project will not influence the potential for this type of events. The rehabilitation of the levee system along Staten Island will increase flood protection from the events described herein. Thus, there will be no impacts.

3.11 Land Use and Planning

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a) Would the Project physically divide an established community?

Rehabilitation of the existing levee system will not physically divide an established community. Thus, there will be no impact.

b) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

There are numerous federal, state, and local laws, regulations, policies, programs, plans, codes, and ordinances that regulate land use in the San Joaquin region. Local land use changes are regulated by the general plans, specific plans, and zoning ordinances of San Joaquin County as well as the cities within the County (San Joaquin Council of Governments, 2018). Rehabilitation of the levee will have no conflict with any land use plan, policy, or regulation. In addition, there are no significant environmental impacts associated with the Project.

3.12 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The Project will not result in the loss of availability of a known mineral resource as the proposed and current project uses and configuration are nearly identical. Thus, there will be no impact.

b) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The Project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan a no resource recovery sites exists on Staten Island. Thus, there will be no impact.

3.13 Noise

Would the Project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a) Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Since the Project is located on an agricultural and rural area, there are no sensitive land uses (e.g., residences, schools, and hospitals) in the adjacent areas to the Project. The closest residence is located approximately 3,000 feet from the northern end of the Project. Noise levels during construction of the Project are generated by the operation of heavy equipment during the grading/excavation, placement of fill as compacted embankment, and replacement of aggregate base road. Stationary equipment (e.g., pumps, generators, and air compressors) will not be used in the Project. Typical noise levels from heavy equipment used in the Project are provided in Table 10. This assessment includes predicted construction noise impact at the first sensitive receptor located approximately 3,000 feet north from the Project boundary. The following assumptions were considered for the noise impact assessment: continuous operation time of one-hour, free-field conditions and ignoring ground effects.

Table 10. Construction Equipment Noise Levels

Source: FTA (Federal Transit Administration, 2018), except as noted.

Equipment	Typical Noise Level at 50 feet from Source, dBA	Expected Noise Level at 3,000 feet from Source, dBA
Water truck	84	48
Dozer	85	49
Grader	85	49
Excavator	85*	49
Roller	85	49
Scraper	85	49
Backhoe	80	44

*From FHWA, Construction Noise Handbook (Federal Highway Administration, 2006).

The standard reduction for point source noise is 6 dB per doubling of distance from the source.

The construction noise assessment included the scenario when several pieces of equipment are operating at the same time. To determine combined noise level from multiple sources at the same location, the three pieces of equipment with the loudest noise levels were added in accordance with the rules for decibel addition by U.S. Nuclear Regulatory Commission (NRC, 2012). A total noise level for all equipment combined is assumed to not exceed 91 dBA at 50 feet, equivalent to approximately 55 dBA at a distance of 3,000 feet.

According to the Federal Transit Administration (2018), local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project.

Although there are no standardized criteria for assessing construction noise impacts, the following guidelines can be considered reasonable criteria for assessment:

Table 11. General Assessment Construction Noise Criteria

Source: (Federal Transit Administration, 2018)

Land Use	$L_{eq.equip\ (1\ hr)}$, dBA	
	Day	Night
Residential	90	80
Commercial	100	100
Industrial	100	100

The predicted noise levels from the assessment were compared with the construction noise criteria. Construction activities for the Project are scheduled for daylight hours only. The predicted noise levels of the individual pieces of equipment and total noise levels will not exceed the general construction noise criteria for residential land use. Therefore, the Project will not substantially increase ambient noise levels in the vicinity of the project. Thus, potential impacts are less than significant regarding this issue.

b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Operation of construction equipment causes vibrations that spread through the ground and diminish with distance however, construction vibrations do not often reach the levels that can damage structures (Federal Transit Administration, 2018).

The rehabilitation of the levee does not involve construction activities that may result in building damage or prolonged annoyance (e.g., blasting, pile-driving, vibratory compaction, demolition, and drilling or excavation near sensitive structures). Therefore, there is no need for a quantitative construction vibration assessment.

There are no adopted state policies or standards for groundborne vibration. Some local jurisdictions regulate vibration through enforcement of local ordinance standards. These standards generally relate to preventing perceptible vibration from being generated past the property line of the source location (San Joaquin Council of Governments, 2018).

There are no buildings, equipment that is highly sensitive to groundborne vibration, or sensitive receptors in the immediate vicinity of the Project. Therefore, rehabilitation of the levee is not anticipated to be a source of substantial vibration.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

The Project is not located within the vicinity of a private airstrip or within two miles a public airport. Thus, no there will be no impact.

3.14 Population and Housing

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The Project will not induce population growth on Staten Island. The Project will increase flood protection, however the zoning of Staten Island as agriculture impedes population growth. Thus, there will be no impact.

b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Existing people and housing on Staten Island will not be displaced as result of the Project. Thus, there will be no impact.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Rehabilitation of the existing levee would not generate demand for police or fire services, schools, parks, or other public facilities. The project does not involve the construction of new infrastructure. Thus, no impacts are expected regarding this issue.

b) Police protection?

See response to (a) above.

c) Schools?

See response to (a) above.

d) Parks?

See response to (a) above.

e) Other public facilities?

See response to (a) above.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

There are no parks or recreational facilities on Staten Island. Thus, there will be no impact.

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The Project does not include recreational facilities. Thus, there will be no impact.

3.17 Transportation

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

a) Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

There are no transportation plans established for Staten Island. Thus, there will be no impact.

b) Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Senate Bill 743, signed in 2013, required changes to the guidelines implementing CEQA of transportation impacts. In January 2019, the Natural Resources Agency and the Governor's Office of Planning and Research (OPR) codified SB 743 into the Public Resources Code (PRC) and the CEQA Guidelines (City of Long Beach, 2020).

Pursuant to SB 743, Section 15064.3 defines vehicle miles traveled[1] (VMT) as the most appropriate measure to evaluate transportation impacts.

CEQA Guidelines Section 15064.3, subdivision (b) [Criteria for Analyzing Transportation Impacts] creates a presumption of no significant transportation impacts for (a) land use projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor, (b) land use projects that reduce VMT below existing conditions, and (c) transportation projects that reduce or have no impact on VMT.

Section 15064.3, subdivision (b) also allows a lead agency to qualitatively evaluate VMT impacts if existing models are not available; and gives lead agencies discretion to select the most appropriate methodology to evaluate a project's VMT, but requires lead agencies to

[1] "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project.

document the methodology and/or model assumptions in the environmental document prepared for the project.

Although, there will be an amount of travel for all vehicles used by the employees during Project construction, the associated impact on VMT is only temporary and will not significantly increase total VMT of the region. After construction work is completed, the Project will not change the VMT of the area relative to current conditions.

Following the recommendations provided by the 2018 OPR's Technical Advisory on Evaluating Transportation Impacts (Technical Advisory), rehabilitation projects designed to improve the condition of existing transportation assets (e.g., roadways) that would not increase vehicle capacity would not likely lead to a substantial or measurable increase in vehicle travel and therefore, no quantitative analysis is required (Governor's Office of Planning and Research, 2018).

The Project will place fill material along the existing levee, construct setback levees, and reconstruct a private levee road. Rehabilitation of the existing levee is not considered a transportation or land use project, and the daily VMT from the workers is limited to the duration of Project construction. The Project will not have short term or long-term effects on the VMT of Staten Island or nearby areas. The Project will have no effect on the total change in the VMT of the area in comparison with current conditions (i.e., driving patterns are not expected to change). Given the limited impact on VMT, the Project will not interfere with the state goals to reduce greenhouse gas emissions as planned under SB 375. Thus, the Project is expected to cause a less than significant impact on this issue.

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The geometric design features of the rehabilitated levee will be similar to the existing features and will be compatible with existing uses. Thus, there will be no impact.

d) Would the Project result in inadequate emergency access?

Staten Island is only accessible by Walnut Grove Road at its northern end. The Project area does not include Walnut Grove Road or any other public road. There will be no change to emergency access to the island. Thus, there will be no impact.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) Listed or eligible for listing in the California Register for Historical Resources, or in the local register or historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in submission (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register for Historical Resources, or in the local register or historical resources as defined in Public Resources Code Section 5020.1(k), or

As noted in Section 3.5 (Cultural Resources), a cultural resources study for the Project was conducted by Tom Origer & Associates (2021). The study included a record search of the Sacred Land File (SLF) by the Native American Heritage Commission (NAHC) which indicated absence of resources in the Project site. However, NAHC recommended contacting other sources of cultural resources for information regarding known and recorded sites. NAHC provided Tom Origer & Associates with a list of twelve contacts representing nine Native American tribes who may have knowledge of resources at the Project site. Tom Origer &

Associates contacted each tribe formally notifying about the Project. As a result of this outreach, only one tribe (Northern Valley Yokuts Tribe) responded stating that the tribe would like to consult on the Project.

In accordance with Assembly Bill 52 and Section 21080.3.1(d) of the California Public Resources Code (PRC), the District sent a letter dated March 8, 2021 to the North Valley Yokuts Tribe with formal notification about the Project and the opportunity to consult regarding cultural resources. The North Valley Yokuts Tribe did not respond to the District within the 30-day timeframe set by AB 52; therefore, no further consultation is required.

Given that there is the possibility that construction work could unearth cultural resources of significance, implementation of mitigation measures is required to address such encounters. Mitigation measure CUL-1 (Avoid and Minimize Potential Effects on Cultural Resources) would reduce any potential impacts on unknown resources of potential value to Native American tribes, including burials, to a level that is less than significant.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in submission (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

See response to i) above.

3.19 Utilities and Service Systems

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

a) Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The Project will not require the relocation or construction of water, wastewater, electric, natural gas, or telecommunications facilities. Thus, there will be no impact.

b) Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The water utilized during construction of the Project, including water use for the mitigation measures, will be provided by the District. Upon work completion, The Project will not require a water supply for operation or maintenance. Therefore, there will be no impacts regarding this issue.

c) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

There will be no wastewater generated by the Project. Therefore, the Project will not be served by a wastewater treatment provider. Thus, there will be no impact.

d) Would the Project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

There will be no solid waste created by the Project. Thus, there will be no impact.

e) Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

There will be no solid waste created by the Project and no violation of statues and regulations is expected. Thus, there will be no impact.

3.20 Wildfire

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risk, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

a) Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

The Project involves improvement of an existing levee and replacement of a levee crest road. However, this road is private and it is only used by the District for inspections and patrolling. Since the road is not public and it is not planned to be used for emergency evacuations, the Project will have no impact regarding this issue.

b) Would the Project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The Project is located on a topographically flat area with few habitable structures in the vicinity and none within the Project boundary. The proposed work does not involve construction of structures and therefore, it will not exacerbate wildfire risks or expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Thus, there will be no impact.

c) Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The Project will not require the installation of associated infrastructure that may exacerbate fire risk. Thus, there will be no impact.

d) Would the Project expose people or structures to significant risk, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The Project consist of rehabilitating a levee section to the Delta Specific PL 84-99 Standard and will not increase runoff contributions or alter drainage patterns on the site. Additionally, the Project includes the construction of a counterbalance berm to increase levee stability. Therefore, the Project is intended to reduce the potential for flooding or landslide. Thus, there will be no impact.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

This ISMND identifies the various potential environmental impacts of the Project to Biological Resources (Section 3.4), Cultural Resources (Section 3.5), and Hydrology and Water Quality (Section 3.10). Several mitigation measures (Section 1.5) will be implemented as an effort to reduce potentially significant impacts on each of these topics to a less than significant level.

b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The results described in this ISMND indicate that the environmental impacts associated with the levee rehabilitation are generally categorized as either less than significant or no impacts are expected. When the Project generates an impact that is less than significant with mitigation incorporated, the Project proposes several mitigation measures (see Section 1.5) that will be implemented to help assure that the Project will have no impact or only less than significant impact.

There are currently no other projects in the area, which combined will increment the environmental effect of the Project. The District has previously worked on various levee rehabilitation projects on Staten Island. The Project, in combination with similar past and future projects, will generate beneficial impacts by improving levee stability and enhancing flood protection for the existing assets on Staten Island.

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Rehabilitation of the existing levee and construction of riparian benches for habitat enhancement is expected to not have significant environmental effects. Several mitigation measures will be implemented during construction to reduce the potential impacts to air quality, biological resources, cultural resources, hydrology and water quality of the area. The Project will increase flood protection of Staten Island and will not adversely alter the life of the island's inhabitants. Thus, the Project will not degrade the quality of life of human beings, either directly or indirectly.

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4.1 Document Preparers

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