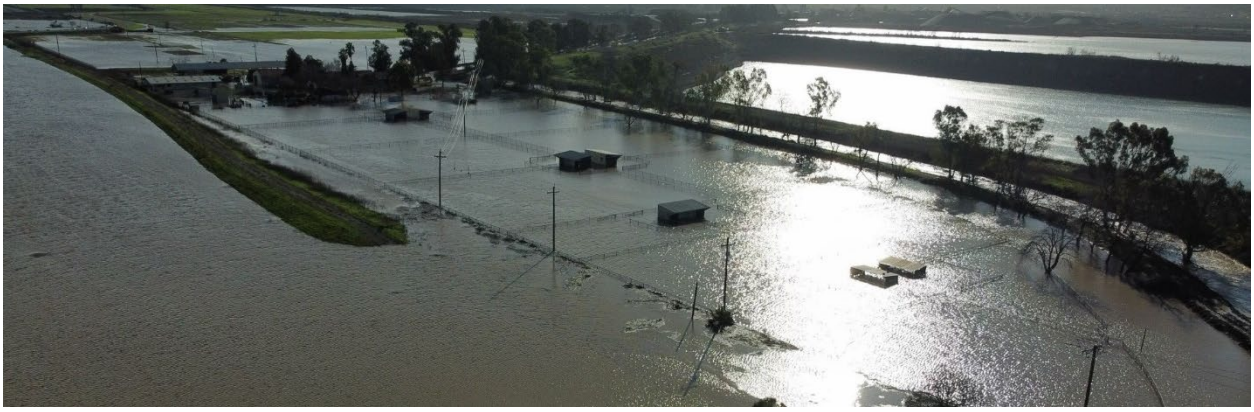
CEQA Exemption Memo

Arroyo Mocho Levee Repair

Pleasanton, Alameda County, California



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CEQA PROJECT DESCRIPTION AND EXEMPTION ANALYSIS

1 PROJECT INFORMATION

1.1 Project Title

Arroyo Mocho Levee Repair

1.2 Lead Agency Name and Address

Alameda County Community Development Agency, Planning Department

224 West Winton Avenue, Room 111

Hayward, CA 94544

1.3 Lead Agency Contact Person and Phone Number

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1.4 Applicant Contact

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1.5 Project Overview

1.5.1 Project Location

The Arroyo Mocho Levee Repair Project (Project) is located along El Charro Road, 1.3-mile south of West Jack London Boulevard, and 1.3-mile west of CA-84, within the Vulcan Materials Pleasanton Quarry facility (Quarry), in unincorporated Alameda County, California (see Figure 1). The Project Site is the Quarry lands owned or leased by Vulcan Materials, including APNs 904-1-7-24, 946-1350-5-3, 946-1350-6-2, and 914-9-1. Levee repairs are proposed at six (6) sites (Project Area) along Arroyo Mocho (Creek).

The Project Area shown in **Figure 1** is the larger area encompassing the six Project Sites throughout which the supporting studies and assessments were performed, totaling approximately 42.34 acres. Regional access to the Project Site is provided by Interstate 580 (I-580), and El Charro Road. Arroyo Mocho flows through the middle of the Quarry property. Ongoing mining, processing facilities, and stockpiled aggregate products are primarily located on the west side of the creek and administrative and aggregate recycling facilities are located on the east side.

1.5.2 Project Description

Vulcan Materials (the applicant) is proposing to perform bank stabilization and repairs at six sites along the Arroyo Mocho levee in the Vulcan Pleasanton Quarry complex. Following a catastrophic breach within the Project Area associated with severe storm events in December 2022 and January

of 2023, the Arroyo Mocho was stabilized with an estimated 50,000-60,000 cubic yards of recycled aggregate material to re-establish flow within the main channel and to stabilize the banks along both sides of the creek while preventing continued flooding of the quarry. Abnormally high flows caused the breaches and levee failures rather than the delinquency or failure to maintain on the part of the Applicant. Vulcan received a notice of alleged violation of the Clean Water Act from the U.S. Army Corps of Engineers (USACE; Corps) and subsequently undertook design and permitting to complete more permanent repairs to areas damaged by storms and comply with the Clean Water Act.

Levee repairs are proposed at a total of six Project Sites within the Vulcan Property where recycled aggregate material has been placed along the banks and levees of Arroyo Mocho. The Project will require removal of all recycled aggregate that was used as an emergency measure and construction of site-specific stabilized banks. Detailed engineering plans/specifications have been included in Attachment A.

General site preparation includes establishment of staging areas and ingress/egress to the site, installation of construction best management practices (BMPs), such as silt fencing, as well as grubbing and grading to allow for bank/levee repairs. Construction will require removal of at least two trees at Site 4; up to seven trees may need to be removed depending on circumstances found during construction. Trees proposed for removal are River red gum trees (*Eucalyptus camaldulensis*) and Blue gum (*Eucalyptus globulus*), non-native species that provide little habitat value.

Construction will require dewatering of Arroyo Mocho. Cofferdams will be installed upstream of active work areas for each site with flowing water to divert streams via creek to creek. Localized ponded water will be dewatered at each Project site via a screened intake pump with the water being routed to a sediment basin.

Listed below are the detailed components for each Project site:

SITES 1, 2, 3, 5, AND 6

- Remove all recycled aggregate material from the levee/creek bank
- Excavate a keyway trench along the toe of slope, and over excavate along the bank for a low boulder toe to provide extra bank stability and scour protection
- Place boulders in keyway trench and in over excavated low bank area
- Grade bank above boulder toe at a stable 2:1 slope, or fill with compacted soil lifts (as necessary), cover with erosion control product, and revegetate

SITE 4

- Removal recycled aggregate material from the levees/creek banks and creek bed
- Remove culverts placed upstream of the breach location
- Remove recycled aggregate material placed along Pond 2 at the breach location
- Push recycled aggregate material to the bottom of Pond 2, and use the material to create a bench from where a new, stable pond bank will be built, augmenting with rock or other hard material as necessary
- Removed paved road that runs along top of the vertical pond banks

- Remove potentially unstable soils between the creek and the pond (upstream of the breach), down to 5 feet below the bottom of the creek bed (this soil may be used to build up new pond bank and rebuild the levee)
- Fill soil from hardened toe up to within approximately 1.5 feet of finished grade of channel bed
- Fill the area where the culverts were removed and rebuild the levees where recycled aggregate material will be removed
- Install a boulder toe along both sides of the creek, keyed in below the finished grade of the channel bed
- Install engineered streambed material along channel bed (approximately 1.5-foot thickness)
- Depending on the depth of recycled aggregate material removed, the creek bank above the boulder toe may be finished with either of the following methods:
    - Grade bank above boulder toe at a stable 2:1 slope, cover with erosion control product, and revegetate
    - Build a bio-stabilized bank with 12-inch, encapsulated soil lifts and planted with willow cuttings

Following reconstruction of the left bank through Site 4, the unpaved levee road, which provides access to portions of the quarry as well as the residence at 212 El Charro Rd, will be rebuilt. The upper two feet of the road alignment area will be compacted with structural fill. Once repair work has been completed, erosion control fabric and burlap-wrapped straw wattles will be used to stabilize exposed soils. Further, disturbed or bare areas will be revegetated with native plants (e.g., live willow stakes, trees, shrubs installation or broadcasting native seed mix).

Figure 1. Project Area

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

0 500 1,000 Feet

N

wra Environmental Consultants

1.5.3 Required Permits and Approvals

Work related to storm repairs along Arroyo Mocho Creek will trigger regulatory permits. Based on a wetland delineation prepared by WRA, Inc. (Attachment B), portions of Arroyo Mocho are subject to Federal jurisdiction and a United States Army Corps of Engineers (USACE) 404 Permit is required for work within the streambed and bank.

Under State regulations, the creek is considered jurisdictional pursuant to the Porter Cologne Act and is considered a water of the State such that work in the creek would require Regional Water Quality Control Board (RWQCB) 401 certification for Clean Water Act conformance. Additionally, work in the drainage ditch will require a 1602 Streambed Alteration Agreement with the California Department of Fish and Wildlife. To obtain and comply with the required permits, the Project applicant will incorporate best management practices (BMPs) into the Project design as necessary. The Project includes general BMPs, which are described in the following section.

1.5.4 Best Management Practices

The Project includes BMPs to comply with federal, State, and local regulations pertaining to air quality, cultural resources, biological resources, equipment staging, erosion control, noise pollution, traffic, and hazards, which are summarized below.

Air Quality (as recommended by the Bay Area Air Quality Management District)

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site will be covered.
3. All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads will be limited to 15 miles per hour.
5. All roadways, driveways, and sidewalks to be paved will be completed as soon as possible.
6. Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage will be provided for construction workers at all access points.
7. All construction equipment will be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. During construction, a publicly visible sign will be posted with the telephone number and person to contact at the County of Alameda regarding dust complaints. This person will respond and take corrective action within 48 hours. The Air District's phone number will also be visible to ensure compliance with applicable regulations.

Cultural Resources

1. A Cultural Resources assessment will be prepared by a qualified archaeologist pursuant to the requirements of Section 106 of the National Historic Preservation Act and in association with the USACE 404 permit application. The permittee will be responsible for implementing any recommendations included in the report.
2. If cultural materials are discovered during construction, work will be halted in that area until a qualified archaeologist has assessed the potential discovery and determined the need for further action.
3. As promulgated in California Health and Safety Code (HSC) 7050.5, if human remains are encountered, excavation or disturbance of the location must be halted in the vicinity of the find, and the county coroner contacted within two days of the discovery. If the coroner determines that the remains are Native American, the coroner will contact the Native American Heritage Commission (NAHC). The NAHC will identify the person or persons believed to be the most likely descended from the deceased Native American. The most likely descendant will make recommendations regarding the treatment of the remains with appropriate dignity.

Biological Resources

1. All trees proposed for removal will be replaced at a one-to-one ratio with native riparian vegetation.
2. For trees within the limits of disturbance, tree preservation measures will be implemented, including installation of orange construction fencing surrounding the limits of disturbance.
3. Prior to initial ground disturbance for levee repair-related work, a qualified plant ecologist shall conduct appropriately timed survey(s) for rare plant species, including but not limited to Congdon's tarplant and bearded sprangletop, within the Project footprint and a 50-foot buffer around the Project footprint. This buffer may be increased by a qualified plant ecologist depending on site-specific conditions and activities planned in the areas but must be at least 50 feet wide. Situations for which a greater buffer may be required include proximity to proposed activities expected to generate large volumes of dust, such as grading; or potential for Project activities to alter hydrology supporting habitat for the species.
4. Surveys should be conducted in a year with near-average or above-average precipitation; surveys conducted in a year of below-average rainfall would be considered valid if examination of reference populations of the target species indicate that the species would be detectable if present. The purpose of the survey shall be to assess the presence or absence of special-status plants, including Congdon's tarplant and bearded sprangletop.
5. To the extent feasible and in consultation with a qualified plant ecologist, the Project will be designed to avoid impacts on all populations of special-status plants within the Project footprint. Avoided special-status plant populations shall be protected by establishing and observing the identified buffer between plant populations and the impact area. All such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, shall be clearly depicted on any construction plans. In

addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided shall be marked in the field (e.g., with flagging, fencing, or other means appropriate for the site). This marking shall be maintained intact and in good condition throughout Project-related construction activities.

6. **Invasive Species and Pathogen Control.** Any equipment and materials entering the Site which were not already operated within the quarry will be cleaned prior to use at the Site as specified in the protocols described in the CDFW Aquatic Invasive Species Disinfection/Decontamination Protocols (CDFW 2022). Heavy equipment brought in from offsite locations will be cleaned by power washing at an offsite location to remove all dirt and seeds before being used on the Project. Hand and power tools which may come in contact with the waters of Arroyo Mocho will also be disinfected by washing thoroughly and treating with a disinfectant solution (e.g. 10% bleach and water solution followed by 72 hours of dry time after being washed). Any equipment used by the biologist will be similarly sanitized with bleach, quaternary ammonia or a similar sterilization method prior to and after use at the Site.

California Red-legged Frog and Northwestern Pond Turtle

9. **UFWS Consultation.** The Project shall consult with the USFWS prior to initiating Project activities (see WRA 2024 USFWS Biological Assessment).
10. **BMPs.** No BMPs containing monofilament will be used onsite.
11. **Exclusion Fencing** will be used to exclude wildlife from the Project Areas.
12. **Preconstruction Survey**. No more than 48 hours prior to the start of work, a USFWS-Approved Biologist will survey the Project Area to investigate all potential areas that could be used by CRLF and NWPT. If a covered amphibian species is encountered during the survey, the USFWS Approved Biologist will relocate the animal at least 300 feet outside of the Project Area using the methods described below.
13. **Biological Monitoring.** During the initial stages of debris removal and restoration, a qualified biologist will be present to observe for CRLF and NWPT. The qualified biologist will perform site clearance at the beginning of each day and will monitor construction activities throughout the day.
14. If CRLF, NWPT, or other special-status species are not observed during the preconstruction survey and none are encountered during initial removal and grading of debris, no further biological monitoring will be warranted and may cease. However, if CRLF are encountered within the work area, or are observed within proximity to the work area such that they may be harmed by ongoing restoration, biological monitoring will continue.
15. **Relocation**. In the event a CRLF is observed within the work area either during the preconstruction surveys or when monitoring, it will be captured by the qualified biologist and relocated to suitable habitat at least 300 feet outside of the Project Area.

Bald Eagle, White-Tailed Kite, Loggerhead Shrike, and Native Nesting Birds

16. To the extent feasible, vegetation removal and initial ground disturbance shall occur from September 1 through January 31, so that initial ground disturbing work occurs outside of the general nesting bird season.
17. For vegetation removal and ground disturbance within the proposed Project Area that is conducted during the general nesting bird season (February 1–August 31), pre-construction nesting bird surveys shall be conducted within the work area and adjacent habitats 7 days prior to the initiation of vegetation removal or grading activities to avoid disturbance to active nests, eggs, and/or young.
18. All active nests of native birds found during the survey shall be protected by a no-disturbance buffer until all young from each nest fledge, or the nest otherwise becomes inactive. The size of each buffer shall be determined by a qualified biologist dependent upon extant conditions and may require consultation with the CDFW. Buffers are typically a minimum of 25 feet for disturbance adapted, non-special-status birds and increase accordingly for large raptors or other special-status species.

Burrowing Owl

19. Burrowing owls may have potential to occupy ground squirrel burrows and man-made culverts adjacent to the Project Area. If burrowing owls are present, construction activities could result in the direct mortality of individuals or generate significant noise and/or visual disturbance during the nesting season sufficient to cause nest abandonment. As candidate species under the California Endangered Species Act, listing as a California Species of Special Concern and a federal Bird of Conservation Concern, nest abandonment or destruction, or mortality of individuals owls is prohibited. To avoid and minimize these potential impacts, the following measures shall be implemented:

    Prior to any ground disturbance, a qualified biologist shall conduct a "Take Avoidance" survey no less than 14 days prior to initiating ground disturbance activities using the recommended methods described in the CDFW 2012 Burrowing Owl Mitigation guidelines (CDFW 2012). The survey shall include all suitable habitat areas within the Project Area and within 150 meters of the Project Area, as accessible. The implementation of avoidance and minimization measures, as determined through consultation with CDFW, would be triggered by positive owl presence on the site where Project activities will occur.

Roosting Bat Protection

20. Prior to the removal of any large trees (DBH>18 inches) a bat roost assessment shall be conducted by a qualified biologist at least 30 days beforehand to determine if potential roost habitat is present.

    - If the tree has no potential to support roosting bats (e.g., no large basal cavities, exfoliating bark or interstitial spaces), the tree may be removed with no further measures required to protect roosting bats.
    - If a potential bat habitat is present, and work is occurring outside the maternity season, the qualified biologist may either 1) conduct an emergence survey to determine if the roost is occupied; or 2) the tree may be felled using a two-phased cut.
    - If the emergence survey confirms the roost is inactive, the tree may be felled normally.

- If the roost is confirmed active, or is assumed to be active, a two-phased cut shall be employed to remove the tree. On day one, the qualified biologist shall oversee removal of branches and small limbs not containing potential bat roost habitat using hand tools such as chainsaws or handsaws only. The next day, the rest of the tree may be removed.
- If potential bat roosting habitat is present and work is occurring during the maternity season, the qualified biologist may either 1.) Conduct an emergence survey to determine if the roost is occupied; or 2.) Assume the roost is occupied and a buffer shall be implemented.
- If the roost assessment does not detect bats, the tree may be removed normally. If roosting bats are detected, or the tree is assumed to be an active roost, the tree shall be given a 100-foot buffer and shall be avoided until after the maternity roosting season is complete.

Fish

21. **Fish Exclusion.** If water is present and cofferdams are necessary to facilitate a bypass, prior to placement of cofferdams, a qualified biologist will survey the Site to ensure fish are not present in the areas where cofferdams will be placed. The biologist may use a dip net, seine or block net to exclude the area where cofferdams are placed prior to installation.
22. **Fish Relocation[1].** *No federal listed species are anticipated to be present given the timing of the Project*. If water is present and cofferdams are necessary, it is anticipated that CDFW will still require a fish and amphibian relocation to occur such that non-special-status fish under the jurisdiction of CDFW will be relocated. Therefore, after cofferdams are placed and bypass activated, a biologist will survey the Project Area and relocate any stranded fish and amphibians.
23. **Work within Watercourses.** When working below the top-of-bank, the contractor will ensure that all work is completed in dry conditions. If any groundwater is encountered, it will be pumped into a dry section of creek channel or into adjacent upland vegetation and allowed to percolate back into subterranean areas.
24. **Bypass**. If water is present and cofferdams are necessary, the bypass pumps or pipe shall be sized to carry 2x the current baseline flow at the time of Project implementation.

Equipment Staging

1. The staging area will be provided on-site along El Charro Rd.
2. BMPs will be applied to the staging area as necessary.
3. The staging area will not affect access to properties or roadways.

[1] This measure is included for completeness and transparency but as noted above, given the timing of the Project, and following the hydraulic analysis below, NMFS regulated species are not likely to be present.

Erosion Control

1. All grading work near Arroyo Mocho will manage runoff to minimize sedimentation.
2. Work will be conducted during low-flow conditions (approximately June – October).
3. If significant sediment or other visual symptoms of impurities are noticed in the stormwater, the County Engineer will be contacted immediately.
4. Sediment on the sidewalks and gutter will be removed by shovel or broom and disposed appropriately.
5. All paved areas will be kept clear of earth material and debris and the site will be maintained so that a minimum of sediment-laden runoff enters the storm drain system.
6. Spoils will be removed promptly and stockpiling of fill materials will be avoided when rain is forecast. If rain is forecast or apparent, stockpiled soils and other materials will be covered appropriately.
7. Construction materials and wastes will be stored, handled, and disposed of to prevent their entry into the storm drain system.
8. No concrete, washwaters, slurries, paint or other materials will be allowed to enter the storm drain system.
9. The work area will be confined to existing road, levee, and pond footprints with limited expansion to immediately adjacent areas.

Noise

1. Construction activities will only occur during the County of Alameda's allowable daytime construction hours.
2. Construction activities will comply with County of Alameda's Noise Ordinance.
3. Construction activities will be conducted in a manner that minimizes the noise impact at the adjacent property boundaries wherever possible. Construction equipment will be positioned as far from noise-sensitive receptors as possible.
4. Unnecessary idling of internal combustion engines will be strictly prohibited.
5. An on-site "disturbance coordinator," will be responsible for responding to any complaints about construction noise. The disturbance coordinator will maintain a complaint log, which will include complaints received, the cause of the noise complaints (e.g., bad muffler, etc.), and how the noise complaint was addressed. Information regarding the construction days/hours, complaint procedures, and telephone number for the disturbance coordinator will be conspicuously posted on a large sign.
6. The construction contractor will prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan will identify a procedure for coordination with adjacent residential land use.

Traffic

1. The construction contractor will maintain access to all driveways and business/commercial/residential door fronts/entries during construction, including pedestrian sidewalk access, or provide detours if closures are necessary.

2. All traffic control handling, staging and detours will be in accordance with the latest edition of the California Department of Transportation Manual on Uniform Traffic Control Devices Standard Plans and Specification and the Alameda County Standard Details/Design Guidelines.
3. All signs will be appropriately constructed with reflective material on a backing of metal or fabric and will be maintained throughout construction to provide proper visibility.

Hazards

1. A Spill Prevention Control and Countermeasures (SPCC) Plan will be prepared.

2 RATIONALE FOR THE SECTION 15269(A) STATUTORY EXEMPTION AND THE 15301, 15302, 15303, AND 15304 CATEGORICAL EXEMPTIONS

The Project is exempt from the California Environmental Quality Act (CEQA) per Section 21000-2177, Public Resources Code; Title 14, Division 6, Chapter 3, Section 15000-15387, California Code of Regulations in accordance with the following exemptions: §15269(a) – Emergency Projects, §15301 (Class 1 – Existing Facilities), and §15302 (Class 2 – Replacement or Reconstruction. The Section 15629(a) Emergency Projects statutory exemption applies to the repair, restoration, or replacement of facilities damaged or destroyed because of a disaster in an area for which a state of emergency has been proclaimed by the Governor pursuant to the California Emergency Services Act (Government Code §8550). The Class 1 categorical exemption applies to the maintenance and minor alteration of the existing levees and creek banks. The Class 2 categorical exemption applies to the replacement of the existing levees. The complete description of the exemptions as stated in the CEQA Guidelines is included in Appendix A. Additional discussion of each exemption is provided in the following sections.

2.1 Statutory Exemption Applicability

Section 15269(a) – Emergency Projects: The statutory exemption for emergency Projects applies to "Projects to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster in a disaster-stricken area in which a state of emergency has been proclaimed by the Governor pursuant to the California Emergency Services Act, commencing with Section 8550 of the Government Code."

The Governor issued a statewide emergency proclamation in early January 2023 in response to a series of strong storms that began on December 27, 2022. A subsequent emergency proclamation was issued in March 2023 relating to conditions caused by ongoing winter storms. Both emergency proclamations remain open as of October 2024 (see Attachment C, Emergency Proclamations). The Project will address necessary repairs relating to damage caused by storm events in the winter of 2022-2023 when damage was done to the stream banks and will prepare the Project Area for future high streamflow events. Because the Project will repair storm damage that occurred under an emergency proclamation, the Project is therefore statutorily exempt from CEQA under Section 15269(a).

2.2 Categorical Exemption Applicability

The repair of the existing levee system qualifies for an exemption under Class 1(b), which applies to the repair of "existing facilities of both investor and publicly owned utilities used to provide electric power, natural gas, sewerage, or other public utility services."

The proposed replacement of sections of levees with rip rap and engineered soils qualifies for an exemption under Class 2(c), which applies to "replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity." Proposed facilities include a total of 1,282 linear feet of reconstructed levee bank.

2.3 15300.2. Categorical Exemption Exceptions

Even if a Project is ordinarily exempt under a potential categorical exemption, CEQA Guidelines Section 15300.2 and Public Resource Code Section 21084 provide specific instances where exceptions to the otherwise applicable exemptions apply. There are no exceptions to statutory exemptions from CEQA. The exceptions and response to each exception are as follows:

1. **Cumulative Impact:** The exemption is inapplicable when the cumulative impact of successive programs of the same type and in the same place over time is significant.

   Response: The Project site is located in a developed area in Alameda There are projects of a similar nature or purpose that are planned in the immediate vicinity of the Project site. However, similar to this project, these repair and maintenance projects are exempt from CEQA for similar reasons as these activities along the Arroyo Del Valle were necessitated by the same storms and associated flooding. The Project would not result in significant cumulative impacts due to successive programs of the same type. The Project would not be precluded from being categorically exempt per this exception.

2. **Significant Effect:** A categorical exemption shall not be used for an activity when there is reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

   Response: There are no unusual circumstances associated with the Project that would result in a significant effect on the environment. The Project includes general BMPs to comply with all applicable policies, regulations, and permit requirements. The Project also includes BMPs to avoid and minimize impacts to special-status plants and wildlife, nesting birds, wetlands, and other aquatic features. With implementation of the BMPs as part of the Project design and compliance with conditions of other agency permits, like USACE 401 permit, the Project would not result in a significant effect on the environment due to unusual circumstances. The Project would not be precluded from being categorically exempt per this exception.

3. **Scenic Highways:** A categorical exemption shall not be used for a Project that may result in damage to scenic resources, but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway that has been officially designated as a State Scenic Highway.

   Response: There are no officially designated State Scenic Highways within the vicinity of the Project site. The nearest officially designated State Scenic Highway to the Project Area is Interstate 680 (I-680), which runs approximately 4.3 miles west of the Project Site (Caltrans 2024). Project activities would not cause damage to any scenic resources that are visible from I-680. Therefore, the Project would not result in a significant effect to scenic resources within a highway that has been officially designated as a State Scenic Highway. The Project would not be precluded from being categorically exempt per this exception.

4. **Hazardous Waste Sites:** A categorical exemption shall not be used for a Project located on a site that is included on any list compiled pursuant to Section 65962.5 of the Government Code.

Response: A search of the "Envirostor" database compiled by the California Department of Toxic Substances Control (DTSC) and the "Geotracker" compiled by the State Water Resources Control Board (SWRCB) indicated that the Project site is not located on a site that is included on any list compiled pursuant to Government Code Section 65962.5 (DTSC 2024) (SWRCB 2024). These resources also indicated that there are no listed sites within 1,000 feet of the Project site. The Project would not be precluded from being categorically exempt per this exception.

5. **Historical Resources:** A categorical exemption shall not be used for a Project that may cause a substantial adverse change in the significance of a historical resource.

   Response: The Project involves rehabilitation of approximately 1,282 linear feet of existing levee and stream bank. No historical resources are known to exist within the area that would be affected by the Project. As detailed in Section 1.5 Project Description, BMPs for the accidental discovery of buried materials on the Project site would be implemented during construction. This would ensure that the Project would not have a significant impact on any historical or archaeological resources. The Project would not be precluded from being categorically exempt per this exception.

3 REFERENCES

- Caltrans. 2024. California State Scenic Highway System Map. California Department of Transportation. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed October 17, 2024.
- [DTSC] Department of Toxic Substances Control. 2023. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/. Accessed October 17, 2024.
- [SWRCB] State Water Resources Control Board. 2023. GeoTracker. https://geotracker.waterboards.ca.gov/. Accessed October 17, 2024.
- WRA, Inc. 2024. Arroyo Mocho Levee Repair 60% Construction Drawing Plan Set. Vulcan Materials Company.
- WRA, Inc. 2024. Arroyo Mocho Levee Repair Delineation of Potential Waters of the U.S. and State of California.
- WRA, Inc. 2024. Arroyo Mocho Levee Repair Tree Survey Report.

ATTACHMENT A. 60% PROJECT PLANS

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ARROYO MOCHO
LEVEE REPAIR PROJECT

VULCAN MATERIALS COMPANY

ALAMEDA COUNTY, CALIFORNIA

STATEMENT OF PURPOSE

THE PROJECT WILL REMOVE IN-CHANNEL RECYCLED AGGREGATE FROM THE CREEK BANKS AND PROVIDE NATURALIZED STABILIZATION TO THE ERODED CREEK BANKS ADJOINING THE VULCAN MATERIALS COMPANY PROPERTIES

WORK DESCRIPTION

SITES 1, 2 AND 3: RECYCLED AGGREGATE ON RIGHT CREEK BANK/LEVEE

REMOVE RECYCLED AGGREGATE, STABILIZE CREEK BANK WITH A BURIED ROCK KEYWAY AND VEGETATED SOIL LIFTS

SITE 4: RECYCLED AGGREGATE ON BOTH CREEK BANKS/LEVEES, CONCRETE BLOCKS IN THE CREEK BED, AND LARGE PILES OF RECYCLED AGGREGATE ALONG THE NORTHEAST BANK OF THE POND ADJACENT TO ARROYO MOCHO ("POND 2")

REMOVE RECYCLED AGGREGATE, STABILIZE CREEK BANKS WITH BURIED ROCK KEYWAYS AND VEGETATED SOIL LIFTS, REBUILD CREEK BED WITH NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL, REBUILD LEVEE ROAD, FILL POND 2 NORTHEAST BANK TO ACHIEVE STABLE SLOPE

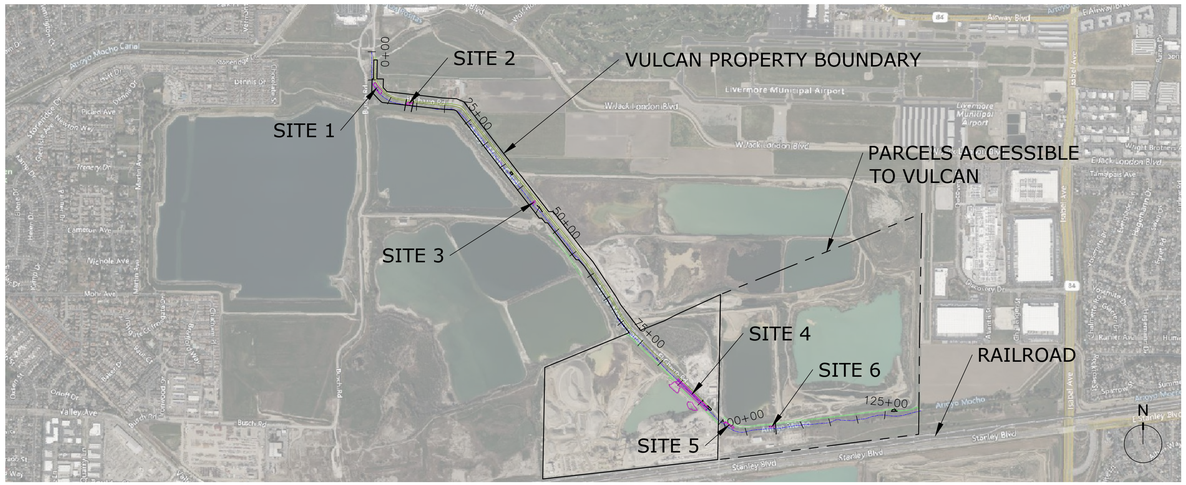
SITE 5: RECYCLED AGGREGATE ON RIGHT CREEK BANK/LEVEE

REMOVE RECYCLED AGGREGATE, STABILIZE CREEK BANK WITH A BURIED ROCK KEYWAY AND VEGETATED SOIL LIFTS

SITE 6: RECYCLED AGGREGATE ON RIGHT CREEK BANK/LEVEE

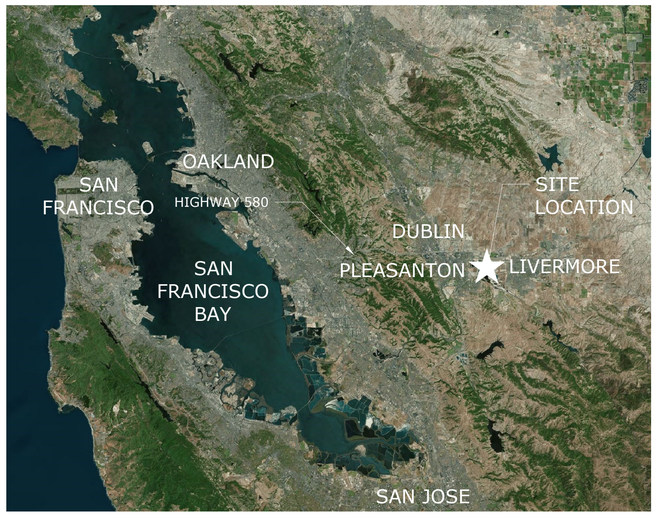
REMOVE RECYCLED AGGREGATE, STABILIZE CREEK BANK WITH A BURIED ROCK KEYWAY AND VEGETATED SOIL LIFTS, RE-CONTOUR CHANNEL BED FOR OPTIMAL FLOW PATTERNS

811 Know what's **below.** **Call 811** before you dig.



1 LOCATION PLAN

NOT TO SCALE



1 VICINITY MAP

NOT TO SCALE

SHEET INDEX

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LEASE HOLDER CONTACT

KEVIN TORELL, AICP
AREA MANAGER - PERMITTING III
VULCAN MATERIALS
WESTERN DIVISION
(510) 340-8215
TORELLK@VMCMAIL.COM

ASSESSOR'S PARCEL NUMBERS

904-1-7-24
946-1350-5-3
946-1350-6-2
904-9-1

SITE ADDRESS

50 EL CHARRO ROAD
PLEASANTON, CA 94588

wra Environmental Consultants

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San Rafael, CA 94901
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ARROYO MOCHO LEVEE REPAIR PROJECT

VULCAN MATERIALS COMPANY

ALAMEDA COUNTY, CALIFORNIA

60% DESIGN

NOT FOR CONSTRUCTION

Date	Issues And Revisions	No.
04/05/24	30% CONCEPTUAL DESIGN	1
11/01/24	60% DESIGN	2

PROJECT 31381
DRAWN BY: JRK, DAG, JMS
CHECKED BY: ACS, IM
ORIGINAL DRAWING SIZE: 22 X 34

TITLE SHEET

G-1.0

PROJECT NOTES

1. PROPERTIES

ALL WORK AND STAGING TO BE PERFORMED IS ON PARCELS #904-1-7-24, 946-1350-5-3, 946-1350-6-2, 904-9-1.

2. TOPOGRAPHY

BASE TOPOGRAPHY SHOWN HEREIN FROM SURVEY CONDUCTED BY O'DELL ENGINEERING, OCTOBER 2023 (PLS LICENSE NUMBER 8385), COMBINED WITH SURFACE CREATED FROM 1FT CONTOUR POLYLINES, PROVIDED BY WRA GIS TEAM, SOURCED FROM 2021 USGS LIDAR.

3. REGULATORY PERMIT REQUIREMENTS

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL REGULATORY PERMITS AND AUTHORIZATIONS ISSUED FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO THOSE ISSUED BY THE FOLLOWING AGENCIES:

a. U.S. ARMY CORPS OF ENGINEERS
b. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
c. REGIONAL WATER QUALITY CONTROL BOARD
d. COUNTY OF ALAMEDA

THE CONTRACTOR SHALL MAINTAIN A BINDER WITH ALL ENVIRONMENTAL PERMITS ON SITE AT ALL TIMES.

4. GENERAL

THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND CONTROLLING FIELD DIMENSIONS AND RESOLVE ALL FIELD CONFLICTS BEFORE SUBMITTING WORKING DRAWINGS AND ORDERING ANY MATERIAL. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER FOR REVIEW AND APPROVAL OF ALL LAYOUTS AND WORK PLANS PRIOR TO INSTALLATION OR CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR COMPLETING THE PROJECT IN ACCORDANCE WITH THE PLANS CONTAINED HEREIN AND THE SPECIFICATIONS PROVIDED. CONTRACTOR SHALL CONSULT WITH THE RESIDENT ENGINEER IF ANY QUESTIONS ARISE RELATED TO THE MATERIAL DEPICTED IN THE PLANS BEFORE PROCEEDING.

CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A COPY OF ALL THE APPROVED GRADING AND EROSION CONTROL PLANS AND ALL APPLICABLE REGULATORY PERMITS ON SITE AT ALL TIMES.

5. ENVIRONMENTAL AWARENESS TRAINING

ALL PEOPLE ENTERING THE SITE DURING CONSTRUCTION SHALL RECEIVE FULL ENVIRONMENTAL AND CULTURAL RESOURCE AWARENESS SENSITIVITY TRAINING PER THE REQUIREMENTS OF ALL ISSUED REGULATORY PERMITS AND SPECIFICATIONS.

6. LIMITATIONS

THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT ENGINEERING, GEOMORPHIC AND RESTORATION STANDARDS. THE DESIGN, NOTES, DETAILS AND SPECIFICATIONS LOCATED HEREIN AND IN ACCOMPANYING DOCUMENTS WERE CREATED CONTINGENT UPON WRA AND KLEINFELDER BEING CONSULTED IF ANY QUESTIONS ARISE WITH REGARD TO ANY INFORMATION CONTAINED HEREIN.

7. STAGING/STOCKPILE LOCATIONS

CONTRACTOR SHALL USE TEMPORARY STAGING AND STOCKPILE LOCATIONS AS SHOWN HEREIN.

8. ENVIRONMENTAL NOTES

ALL EQUIPMENT STAGING AND DISPENSING OF FUEL, OIL, COOLANT, OR OTHER SUCH ACTIVITIES SHALL OCCUR WITHIN THE LIMIT OF DISTURBANCE AND OUTSIDE OF ANY EXISTING SENSITIVE BIOLOGICAL RESOURCE AREAS, AS SHOWN ON THE PLANS. CONTRACTOR EQUIPMENT SHALL BE CHECKED FOR LEAKS PRIOR TO OPERATION AND REPAIRED AS NECESSARY. ALL CONSTRUCTION EQUIPMENT SHALL BE STORED OVERNIGHT WITHIN THE LIMIT OF DISTURBANCE AND OUTSIDE OF ANY EXISTING SENSITIVE BIOLOGICAL RESOURCE AREAS. IF EQUIPMENT IS ON-SITE BETWEEN OCTOBER 15 AND APRIL 31, EQUIPMENT SHALL BE STORED OVERNIGHT IN THE STAGING AREAS AS SHOWN ON THE PLANS.

ANY PROJECT-RELATED SPILLS OF HAZARDOUS MATERIALS SHALL BE IMMEDIATELY REPORTED TO THE RESIDENT ENGINEER AND TO THE APPROPRIATE ENTITIES AND SHALL BE CLEANED UP IMMEDIATELY AND CONTAMINATED SOILS SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF-SITE.

IF ANY ARCHAEOLOGICAL ARTIFACTS, EXOTIC ROCK (NON-NATIVE), OR UNUSUAL AMOUNTS OF SHELL OR BONE ARE UNCOVERED DURING ANY ON-SITE CONSTRUCTION ACTIVITIES, ALL WORK MUST STOP IMMEDIATELY IN THE AREA AND AN ARCHAEOLOGIST RETAINED TO EVALUATE THE DEPOSIT. WORK WITHIN THE AREA MAY ONLY PROCEED AFTER THE RESIDENT ENGINEER AUTHORIZES RESUMPTION OF WORK.

9. SITE ACCESS

ALL SITE ACCESS SHALL BE FROM EL CHARRO ROAD, THE UNNAMED/UNPAVED ROAD ALONG ARROYO MOCHO, OR THE UNPAVED LEVEE ROAD AS SHOWN HEREIN. NO ACCESS IS PERMITTED FROM ADJOINING PROPERTIES. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL PUBLIC ROADWAYS, DRAINAGE FEATURES, FENCES, MAILBOXES, LANDSCAPING AND GUARD RAILS TO THEIR ORIGINAL CONDITION OR DESIGNATED NEW LOCATION UPON COMPLETION OF WORK TO THE SATISFACTION OF THE RESIDENT ENGINEER.

10. SITE PREPARATION

THE CONTRACTOR SHALL STAKE OUT CONSTRUCTION ENTRANCE/EXIT, HAUL ROUTES, AND STAGING AREA BASED UPON THE DRAWINGS. RESIDENT ENGINEER TO APPROVE PRIOR TO COMMENCING WORK.

FOUR FOOT HIGH ORANGE CONSTRUCTION FENCING OR ORANGE FLAGGED STAKES SHALL BE PLACED ALONG THE LIMIT OF DISTURBANCE. THE RESIDENT ENGINEER SHALL APPROVE THE LOCATION OF THE FENCING PRIOR TO MOBILIZING HEAVY EQUIPMENT TO THE WORK AREA. THE CONTRACTOR SHALL MAINTAIN THE FENCING THROUGHOUT THE CONSTRUCTION WORK AND NOT WORK BEYOND THIS LINE WITHOUT PRIOR APPROVAL.

11. CLEARING AND GRUBBING

CONTRACTOR SHALL CLEAR ALL INVASIVE SPECIES INCLUDING RED & BLUE GUM EUCALYPTUS (*EUCALYPTUS CAMALDULENSIS* & *EUCALYPTUS GLOBULUS*, RESPECTIVELY), COMMON FIG (*FICUS CARICA*), TREE TABACO (*NICOTIANA GLAUCA*), HIMALAYAN BLACKBERRY (*RUBUS ARMENIACUS*), BLACK LOCUST (ROBINIA PSEUDOACACIA), AND TAMARISK (*TAMRIX RAMOSISSIMA*), AS REQUIRED FOR GRADING ACTIVITIES, FROM THE SITE AND REMOVE TO A LANDFILL AUTHORIZED TO RECEIVE THE MATERIAL.

12. TREE REMOVALS

ALL TREE REMOVALS SHALL BE COMPLETED PER THE PLANS AND SPECIFICATIONS AND ENVIRONMENTAL PERMIT CONDITIONS.

13. SUBMITTALS

SUBMITTALS ARE REQUIRED FOR ALL MATERIALS IMPORTED ONTO THE SITE BY THE CONTRACTOR PER THE SPECIFICATIONS.

14. PHYTOPTHORA TREATMENT

ALL LOGS, PLANT MATERIALS OR OTHER ORGANIC MATERIALS IMPORTED ONTO THE SITE SHALL BE TREATED OR GROWN ACCORDING TO CURRENT INDUSTRY BEST MANAGEMENT PRACTICES TO PREVENT THE SPREAD OF *PHYTOPTHORA RAMORUM* AND OTHER PLANT PATHOGENS.

15. CONSTRUCTION OVERSIGHT

ALL WORK IS TO BE COMPLETED UNDER THE SUPERVISION OF THE RESIDENT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALERTING THE RESIDENT ENGINEER OF SCHEDULE ON A REGULAR BASIS PER THE SPECIFICATIONS.

16. TRAFFIC CONTROL

CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL FOR INGRESS AND EGRESS FROM STAGING AREAS.

17. UTILITIES

THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING 811 TO HAVE ALL UTILITIES MARKED AT LEAST TWO DAYS PRIOR TO EXCAVATION.

18. HEALTH AND SAFETY PLAN

THE CONTRACTOR SHALL PREPARE A HEALTH AND SAFETY PLAN FOR ALL WORK ON THE SITE PER THE SPECIFICATIONS.

19. FIRE SAFETY

ALL GASOLINE AND DIESEL POWERED EQUIPMENT USED ON THE SITE SHALL HAVE SPARK ARRESTORS, OR OTHER MECHANISMS TO PREVENT EXHAUST AND ENGINE PARTS FROM IGNITING FIRES. ALL EQUIPMENT, INCLUDING VEHICLES, ENTERING THE SITE SHALL BE EQUIPPED WITH FUNCTIONING FIRE EXTINGUISHERS.

20. DEBRIS REMOVAL

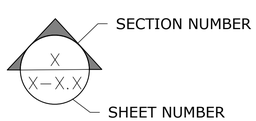
ALL DEBRIS, INCLUDING RECYCLED AGGREGATE, CONCRETE, STEEL AND OTHER MAN-MADE MATERIALS TO BE REMOVED SHALL BE PERMANENTLY DISPOSED OF AT AN APPROVED FACILITY.

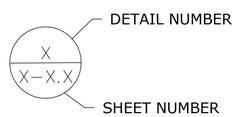
21. SITE GRADING

SMOOTH, PARABOLIC TRANSITIONS SHALL BE MADE BETWEEN CHANGES IN SLOPE.

22. DEMOBILIZATION

CONTRACTOR SHALL REMOVE THE TEMPORARY CONSTRUCTION ACCESS AND RESTORE THE STAGING AREA AND HAUL ROADS TO EXISTING CONDITIONS.





ABBREVIATIONS

AB	AGGREGATE BASE
ABUT	ABUTMENT
AC	ACRES
APN	ASSESSOR PARCEL NUMBER
ARS	ACCELERATION RESPONSE SPECTRUM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BB	BEGIN BRIDGE
BC	BEGIN CURVE
BEG	BEGIN
BRG	BEARING
BVC	BEGIN VERTICAL CURVE
BW	BARBED WIRE
CDFW	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
CIDH	CAST-IN-DRILLED- HOLE
Cl	CLASS
CL	CENTERLINE
CP	CATCH POINT COPPER PIPE
CMP	CORRUGATED METAL PIPE
CY	CUBIC YARDS
DBH	DIAMETER AT BREAST HEIGHT
DIA	DIAMETER
(E)	EXISTING
E:	EASTING
EB	END BRIDGE
EC	END CURVE
EG	EXISTING GRADE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ESM	ENGINEERED STREAMBED MATERIAL
EVC	END VERTICAL CURVE
(E)	EXISTING
(A)	FINISHED
FG	FINISHED GRADE
FT	FEET
GP	GRADING PLAM
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL
HP	HINGE POINT
ID	INSIDE DIAMETER
L	LENGTH
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
N:	NORTHING
NAD 83	NORTH AMERICAN DATUM 0F 1983
NAVD 88	NORTH AMERICAN VERTICAL DATUM OF 1988
NOA	NATURALLY OCCURRING ASBESTOS
NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NMFS	NATIONAL MARINE FISHERIES SERVICE
O/C	ON CENTER
OG	ORIGINAL GROUND
OH	OVERHEAD
OHW	ORDINARY HIGH WATER
(P)	PROPOSED
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PG	PROFILE GRADE
PRC	POINT OF REVERSE CURVE
PVC	POLYVINYL CHLORIDE
R	RADIUS
REM	REMOVE
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
RW	ROOTWAD
RWQCB	REGIONAL WATER QUALITY CONTROL BOARD
SAW	SAWCUT
SHLD	SHOULDER
STBB	SINGLE THRIE BEAM BARRIER
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
T	TANGENT
TOB	TOP OF BANK
TOT	TOTAL
TPB	TREATED PERMEABLE BASE
TYP	TYPICAL
USACE	U.S. ARMY CORPS OF ENGINEERS
USFWS	U.S. FISH AND WILDLIFE SERVICE
VAR	VARIES
VC	VERTICAL CURVE
VERT	VERTICAL
WRA	WRA, INC.
WSE	WATER SURFACE ELEVATION

wra Environmental Consultants

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ARROYO MOCHO LEVEE REPAIR PROJECT

VULCAN MATERIALS COMPANY

ALAMEDA COUNTY, CALIFORNIA

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PROJECT 31381
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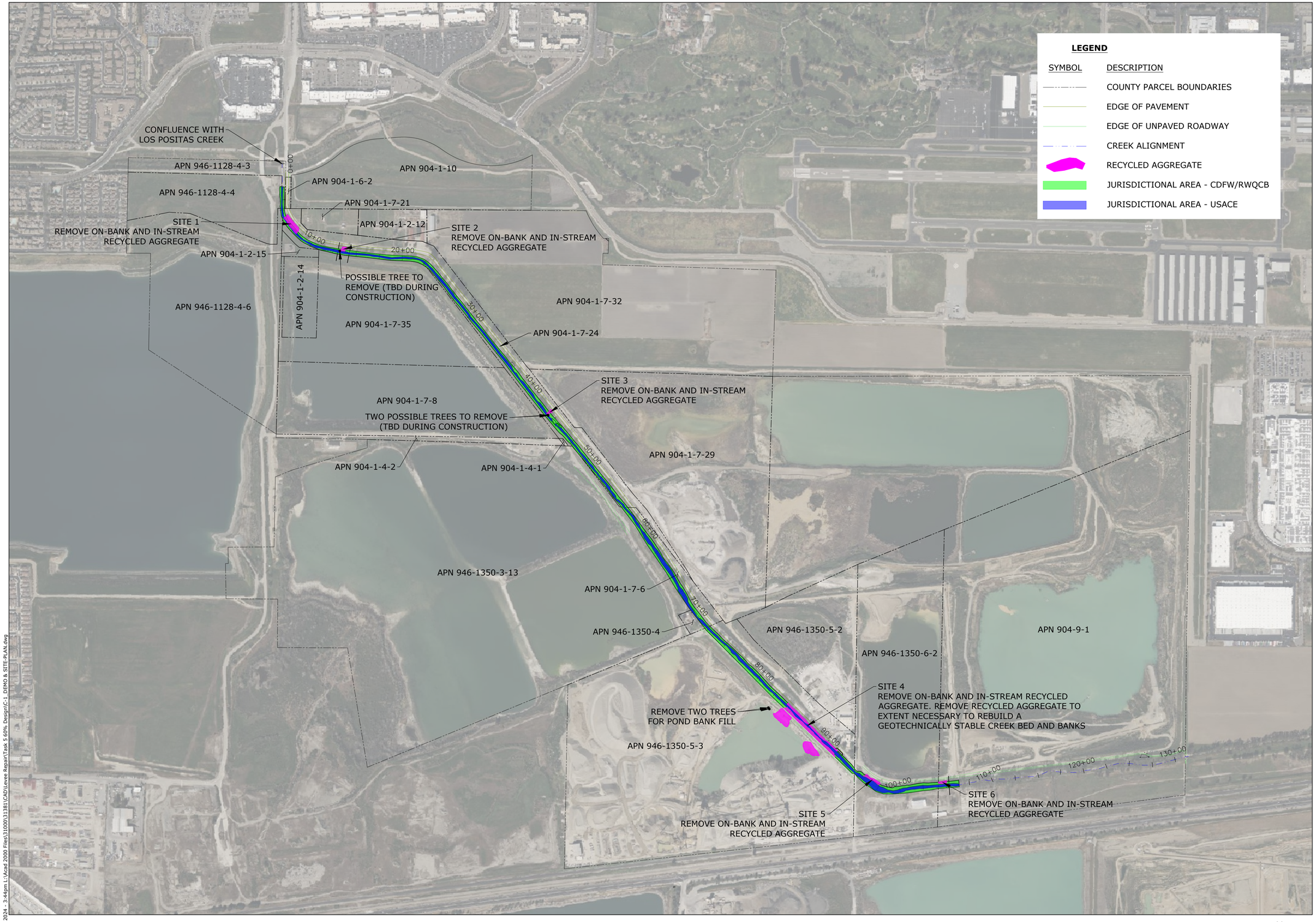
CHECKED BY: ACS, IM
ORIGINAL DRAWING SIZE: 22 X 34

NOTES AND ABBREVIATIONS

Sheet 2 of 22

G-1.1



1 PLAN VIEW

0 500' 1000'

SCALE: 1" = 500'

N

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CHECKED BY: ACS, IM
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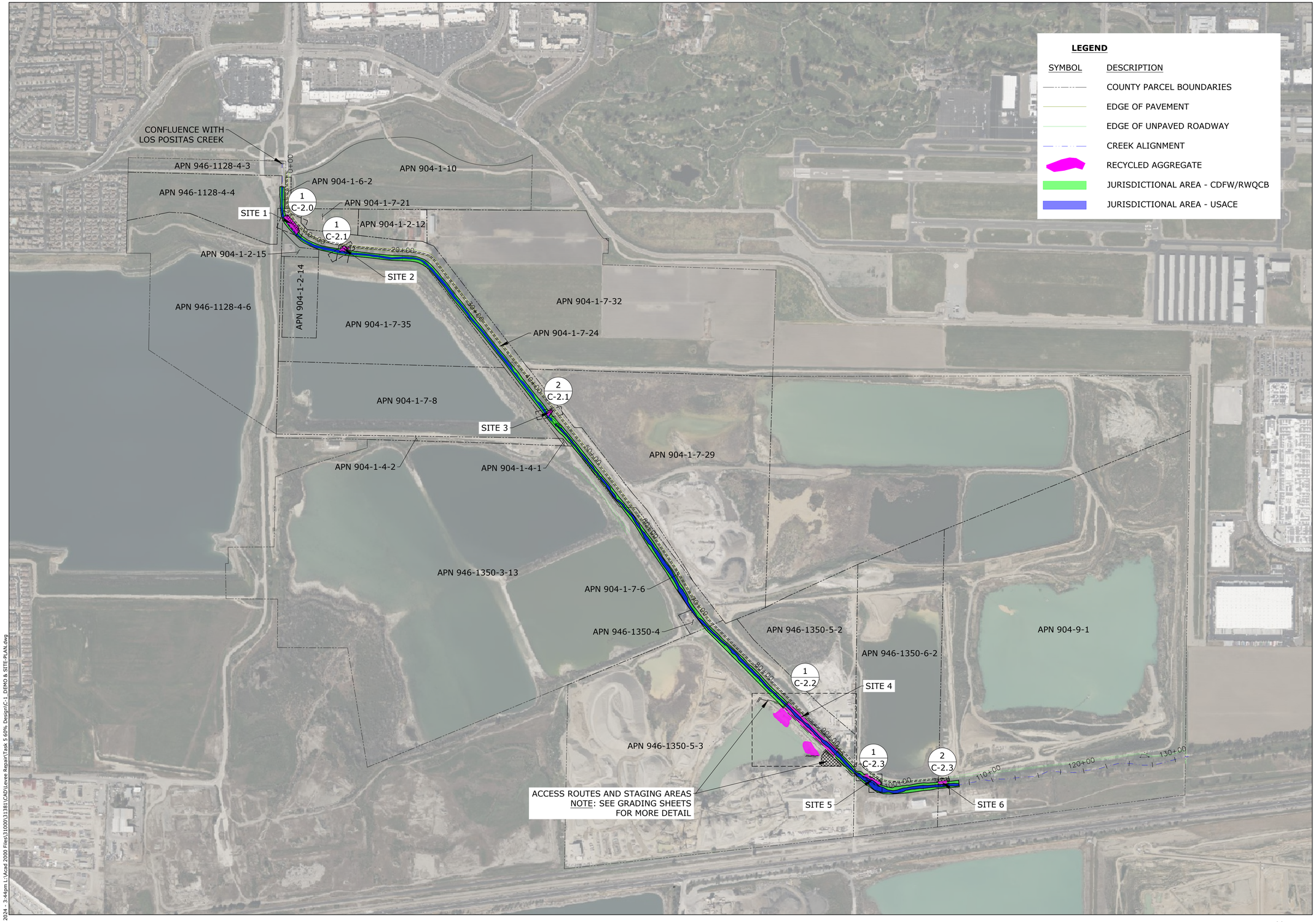
DEMOLITION PLAN

Sheet 3 of 22

D-1.0



LEGEND

SYMBOL	DESCRIPTION
	COUNTY PARCEL BOUNDARIES
	EDGE OF PAVEMENT
	EDGE OF UNPAVED ROADWAY
	CREEK ALIGNMENT
	RECYCLED AGGREGATE
	JURISDICTIONAL AREA - CDFW/RWQCB
	JURISDICTIONAL AREA - USACE

1 PLAN VIEW

0 500' 1000'

SCALE: 1" = 500'

N

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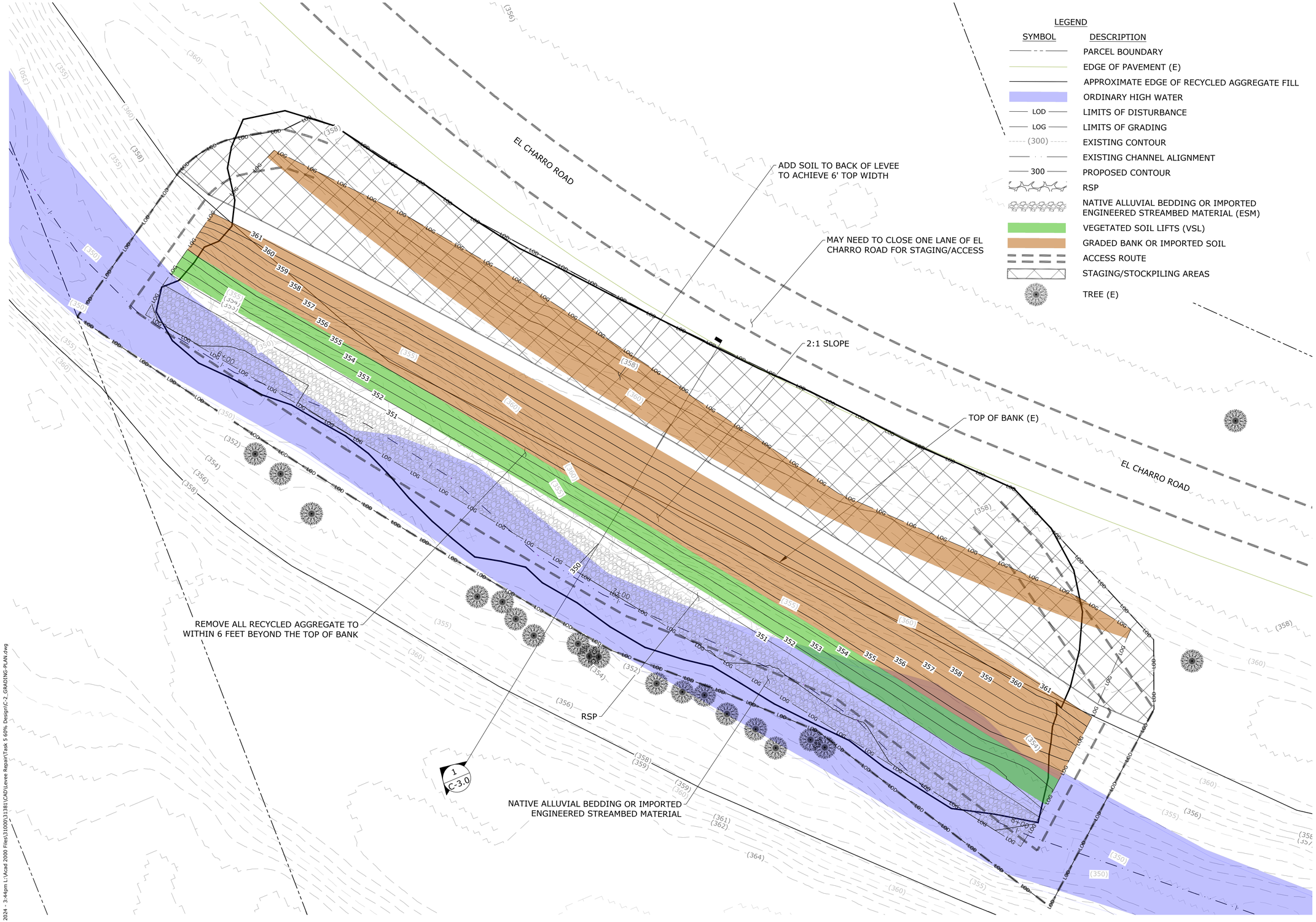
SITE PLAN

Sheet 4 of 22

C-1.0



1 SITE 1: PLAN VIEW

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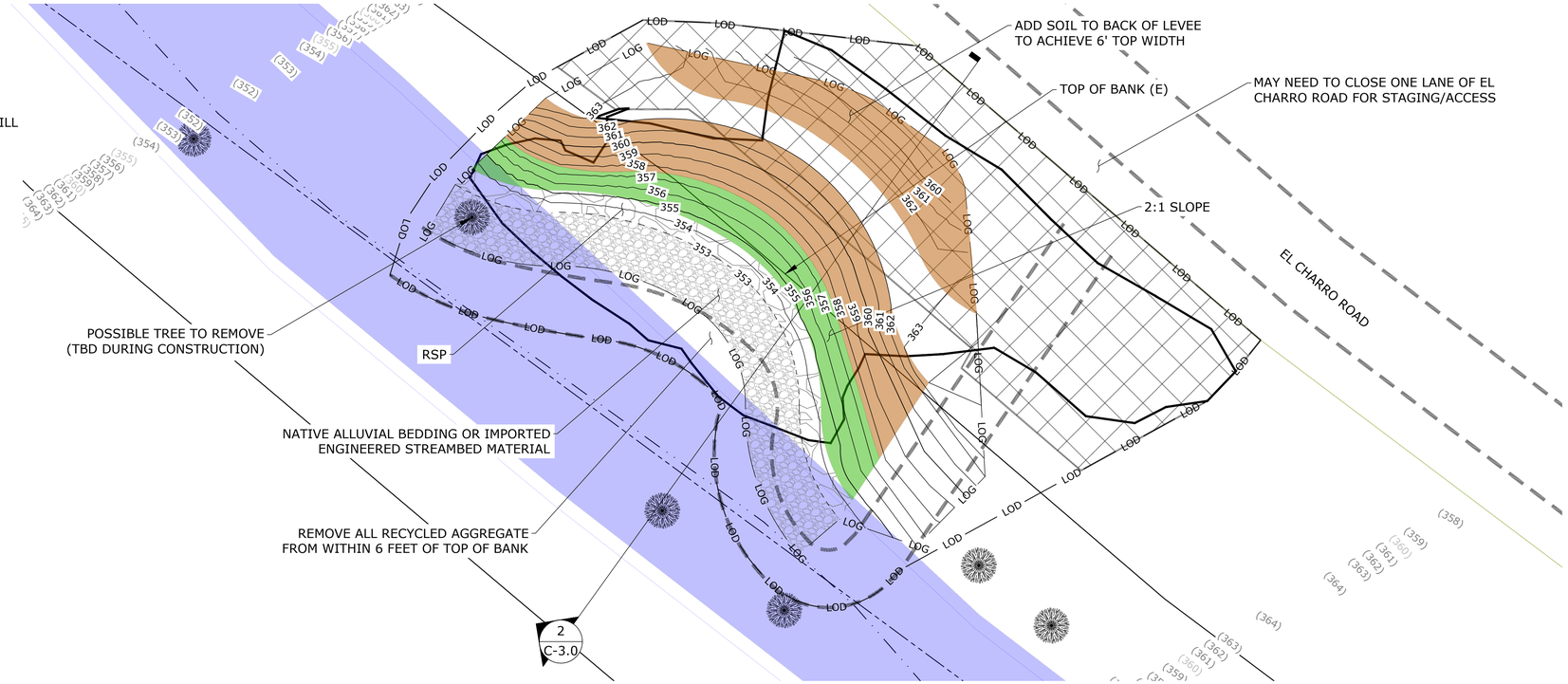
SITE 1
GRADING PLAN

Sheet 5 of 22

C-2.0

LEGEND

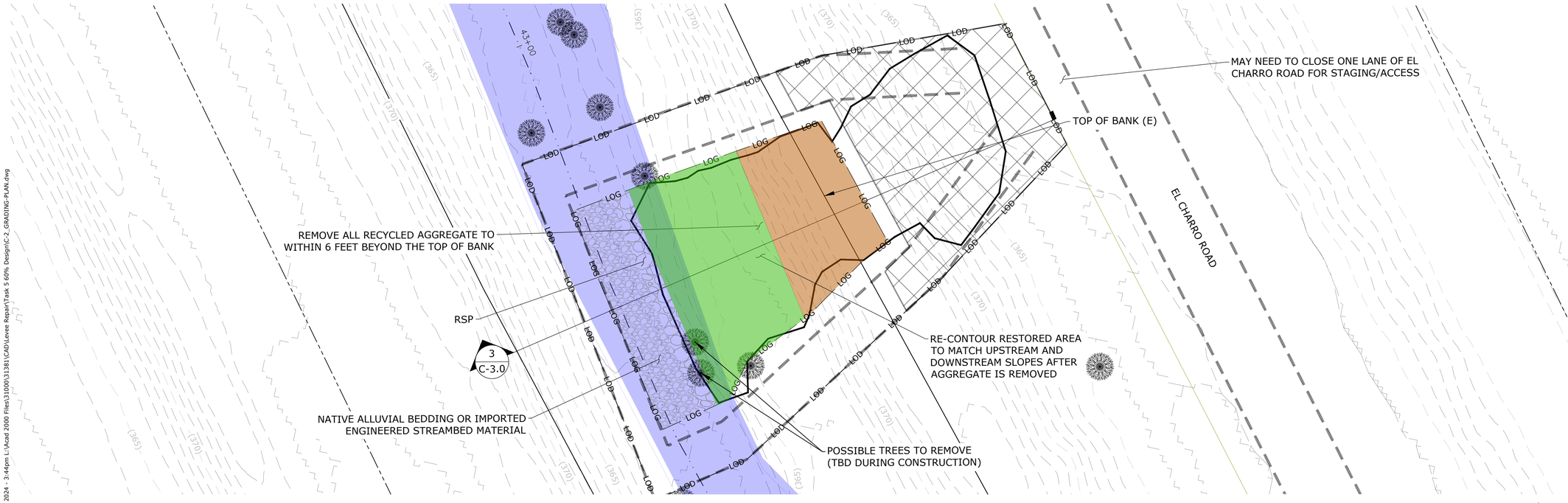
SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF PAVEMENT (E)
	APPROXIMATE EDGE OF RECYCLED AGGREGATE FILL
	ORDINARY HIGH WATER
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
(300)	EXISTING CONTOUR
300	PROPOSED CONTOUR
	EXISTING CHANNEL ALIGNMENT
	RSP
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)
	VEGETATED SOIL LIFTS (VSL)
	GRADED BANK OR IMPORTED SOIL
	ACCESS ROUTE
	STAGING/STOCKPILING AREA
	TREE (E)



1 SITE 2: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'



2 SITE 3: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

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SITES 2 & 3
GRADING PLAN

Sheet 6 of 22

C-2.1

REMOVE TREES FOR POND BANK FILL

(E) FILL PLACED AT LEVEE BREACH

1
C-3.1

APPROXIMATE FILL ALONG NORTHEAST BANK OF POND 2 TO CREATE A 2:1 SLOPE

4
C-3.0

RIPRAP AT BASE OF POND BANK UP TO THE AVERAGE POND WSE (~316' NAVD88)

REBUILD UNPAVED LEVEE ROAD

(E) FILL PLACED AT DIVERSION CULVERTS' OUTFALL

REMOVE ALL RECYCLED AGGREGATE TO WITHIN 6 FEET BEYOND THE TOP OF BANK

NATIVE ALLUVIAL BEDDING OR ENGINEERED STREAMBED MATERIAL

EL CHARRO ROAD

2:1 SLOPE

TOP OF BANK (E)

MAY NEED TO CLOSE ONE LANE OF EL CHARRO ROAD FOR STAGING/ACCESS

RSP

REMOVE ALL RECYCLED AGGREGATE TO WITHIN 6 FEET BEYOND THE TOP OF BANK

EL CHARRO ROAD

LEGEND

SYMBOL	DESCRIPTION
	EDGE OF PAVEMENT (E)
	EDGE OF UNPAVED ROADWAY (E)
	APPROXIMATE EDGE OF RECYCLED AGGREGATE FILL
	ORDINARY HIGH WATER
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
300	PROPOSED CONTOUR
	RSP
	VEGETATED SOIL LIFTS (VSL)
	GRADED BANK OR IMPORTED SOIL
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)
	REBUILT UNPAVED LEVEE ROAD
	ACCESS ROUTE
	STAGING/STOCKPILING AREA
	TREE (E)

1 SITE 4: PLAN VIEW

0 40' 80'

SCALE: 1" = 40'

N

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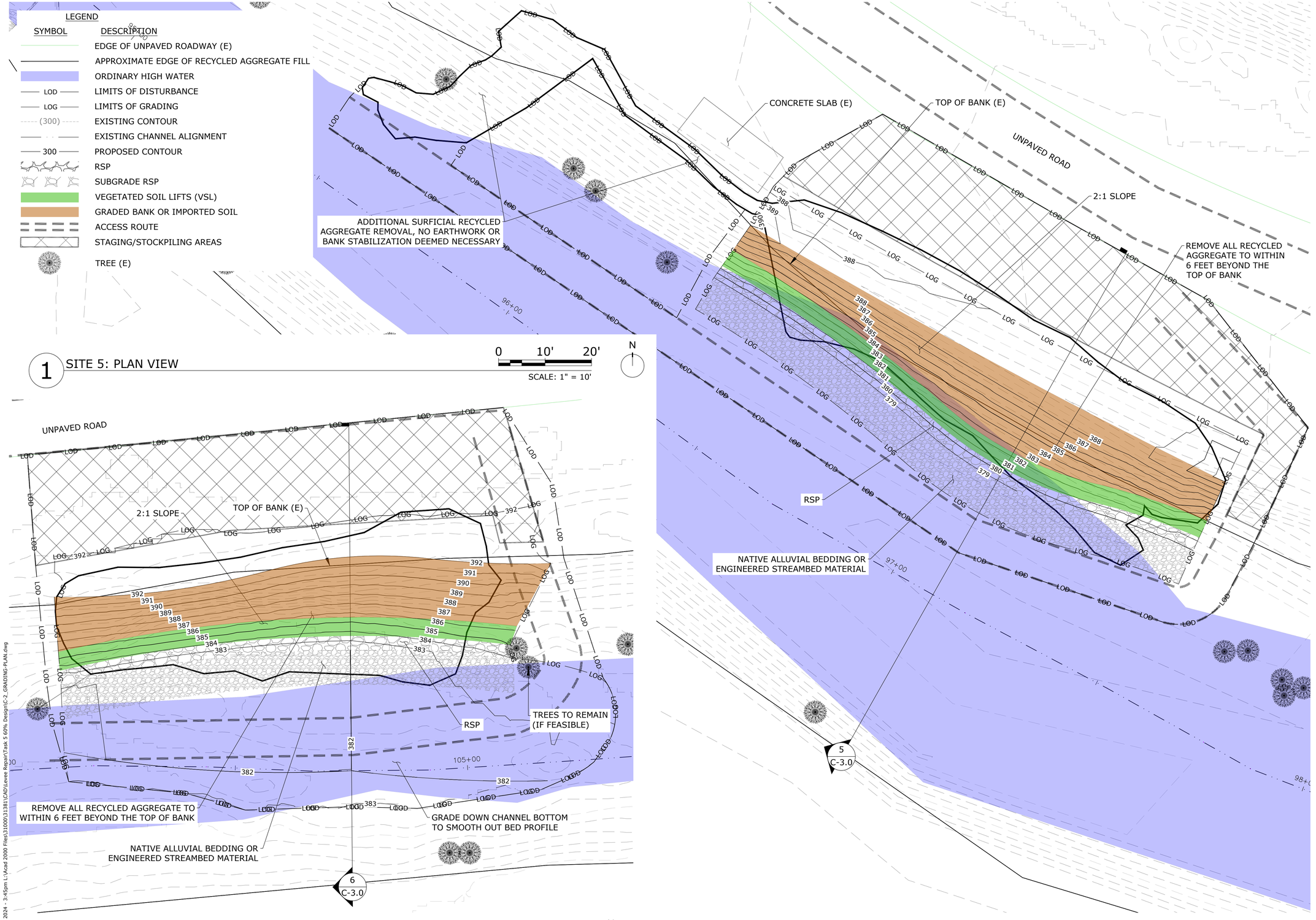
SITE 4
GRADING PLAN

Sheet 7 of 22

C-2.2

LEGEND

SYMBOL	DESCRIPTION
	EDGE OF UNPAVED ROADWAY (E)
	APPROXIMATE EDGE OF RECYCLED AGGREGATE FILL
	ORDINARY HIGH WATER
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
300	PROPOSED CONTOUR
	RSP
	SUBGRADE RSP
	VEGETATED SOIL LIFTS (VSL)
	GRADED BANK OR IMPORTED SOIL
	ACCESS ROUTE
	STAGING/STOCKPILING AREAS
	TREE (E)



1 SITE 5: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N

2 SITE 6: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N

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SITES 5 & 6
GRADING PLAN

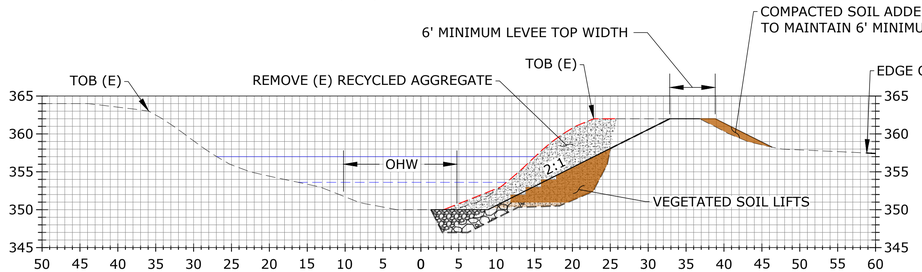
Sheet 8 of 22

C-2.3

LEGEND

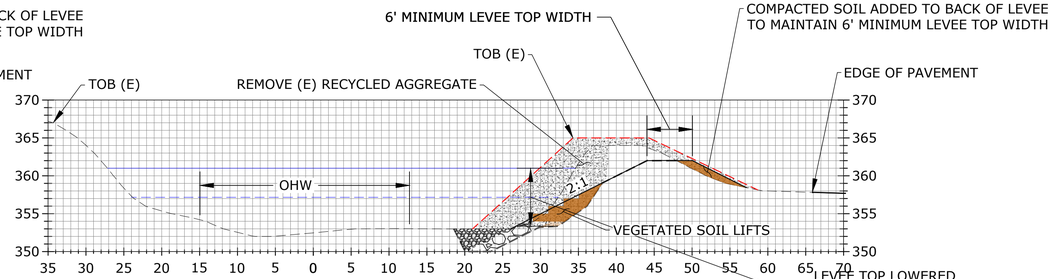
SYMBOL	DESCRIPTION
	PRE-FILL GRADE (2021 LIDAR)
	APPROXIMATE EXISTING GRADE (NOTE: SITES 4 & 6 WERE SURVEYED IN OCTOBER 2023)
	PROPOSED GRADE
	(E) 2-YEAR WSE
	(E) MAX CAPACITY WSE (CONTROLLED BY LOWEST POINT OF LEVEE, NEAR SHERIFF'S HOUSE)
	(E) APPROXIMATE RECYCLED AGGREGATE FILL
	SUBGRADE EXCAVATION
	ROCK SLOPE PROTECTION (9-INCH D50)
	IMPORTED SOIL
	NATIVE MATERIAL FROM OVEREXCAVATION (SOIL/GRAVEL/COBBLE) AND/OR IMPORTED SOIL
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)

NOTES:
1. EACH CROSS SECTION REPRESENTS AN AREA WHERE RECYCLED AGGREGATE WAS PLACED ALONG THE CREEK BANK/LEVEE
2. DESIGN PLAN IS TO REMOVE ALL RECYCLED AGGREGATE AND STABILIZE THE CREEK BANK WITH A VEGETATED SLOPE
3. EXISTING RECYCLED AGGREGATE IS ESTIMATED, BASED ON SITE VISITS AND PHOTOS.
4. EXTENT OF BANK STABILIZATION AND IMPORTED SOIL VOLUME IS ESTIMATED AND WILL REQUIRE FIELD FITTING UPON REMOVAL OF RECYCLED AGGREGATE.
5. SIX FOOT MINIMUM PROPOSED LEVEE TOP WIDTH



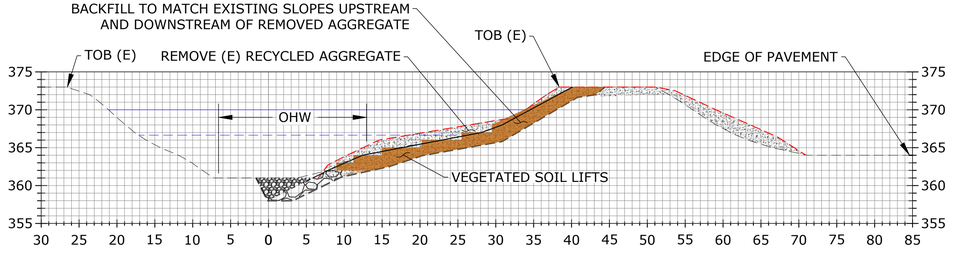
1 C-2.0 SITE 1 TYPICAL SECTION

SCALE: 1" = 10'



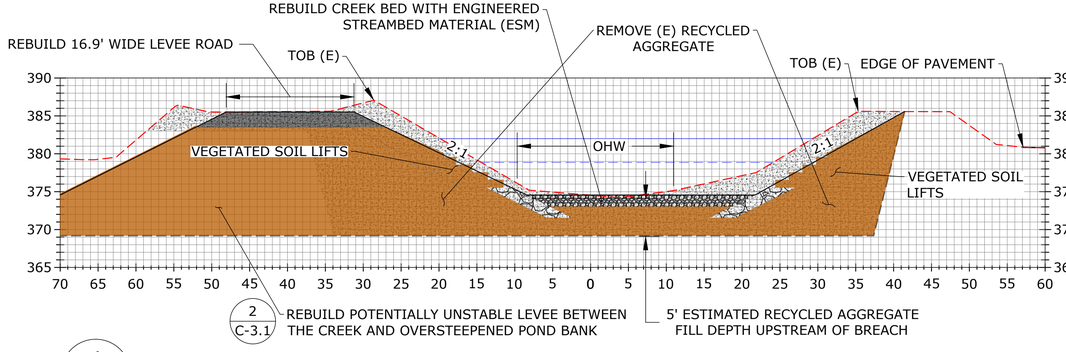
2 C-2.1 SITE 2 TYPICAL SECTION

SCALE: 1" = 10'



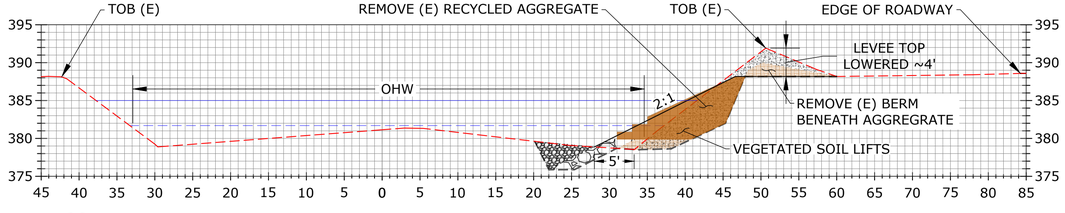
3 C-2.1 SITE 3 TYPICAL SECTION

SCALE: 1" = 10'



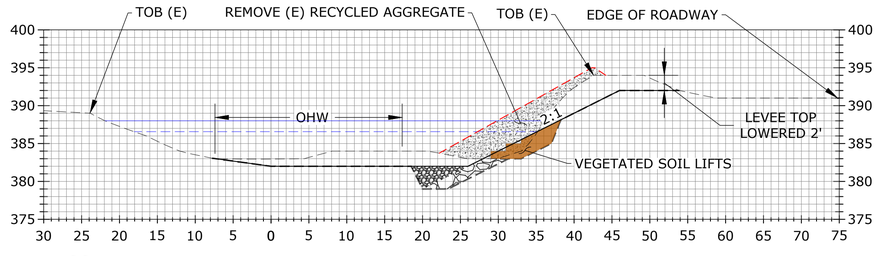
4 C-2.2 SITE 4 TYPICAL SECTION

SCALE: 1" = 10'



5 C-2.3 SITE 5 TYPICAL SECTION

SCALE: 1" = 10'



6 C-2.3 SITE 6 TYPICAL SECTION

SCALE: 1" = 10'

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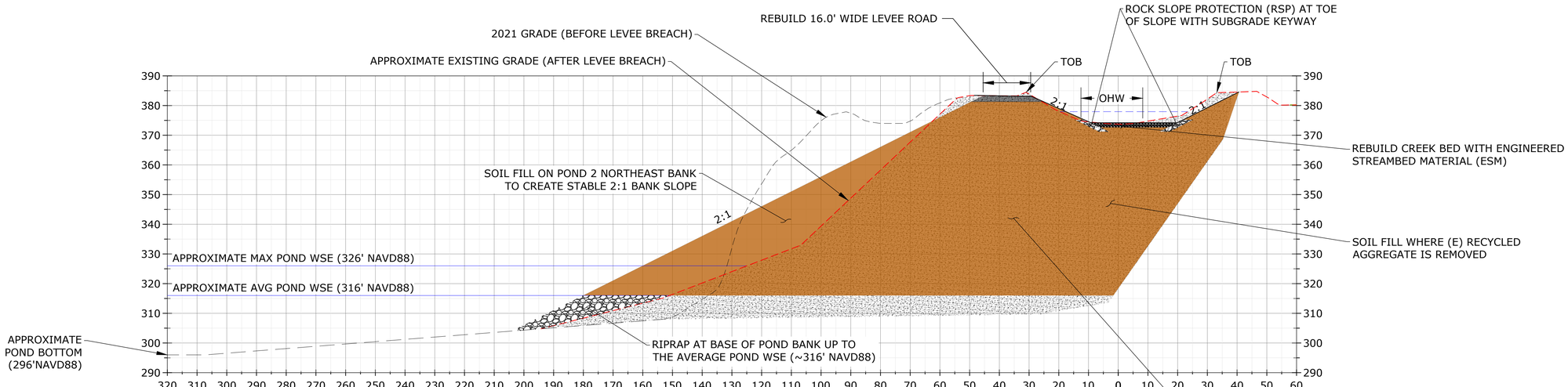
SECTIONS

Sheet 9 of 22

C-3.0

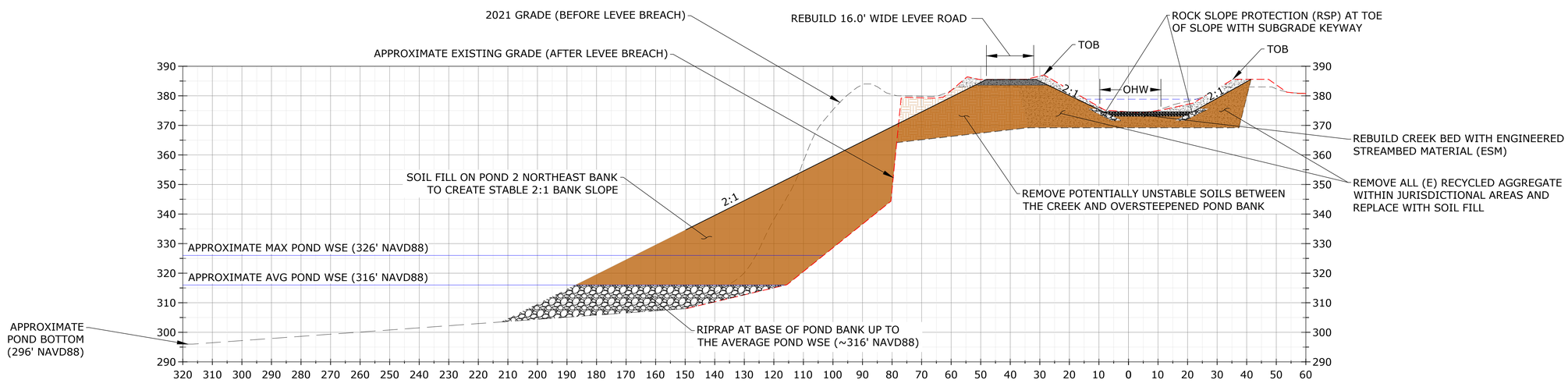
LEGEND

SYMBOL	DESCRIPTION
	PRE-FILL GRADE (2021 LIDAR)
	EXISTING GRADE OF CREEK/LEVEE (APPROXIMATE GRADE OF POND BANK)
	PROPOSED GRADE
	(E) 2-YEAR WSE
	(E) APPROXIMATE RECYCLED AGGREGATE FILL
	(E) NATIVE SOIL
	SUBGRADE EXCAVATION
	ROCK SLOPE PROTECTION
	IMPORTED SOIL
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)



1 / C-2.2 SITE 4 SECTION AT BREACH

SCALE: 1" = 20'



2 / 3.0 SITE 4 SECTION UPSTREAM OF BREACH

SCALE: 1" = 20'

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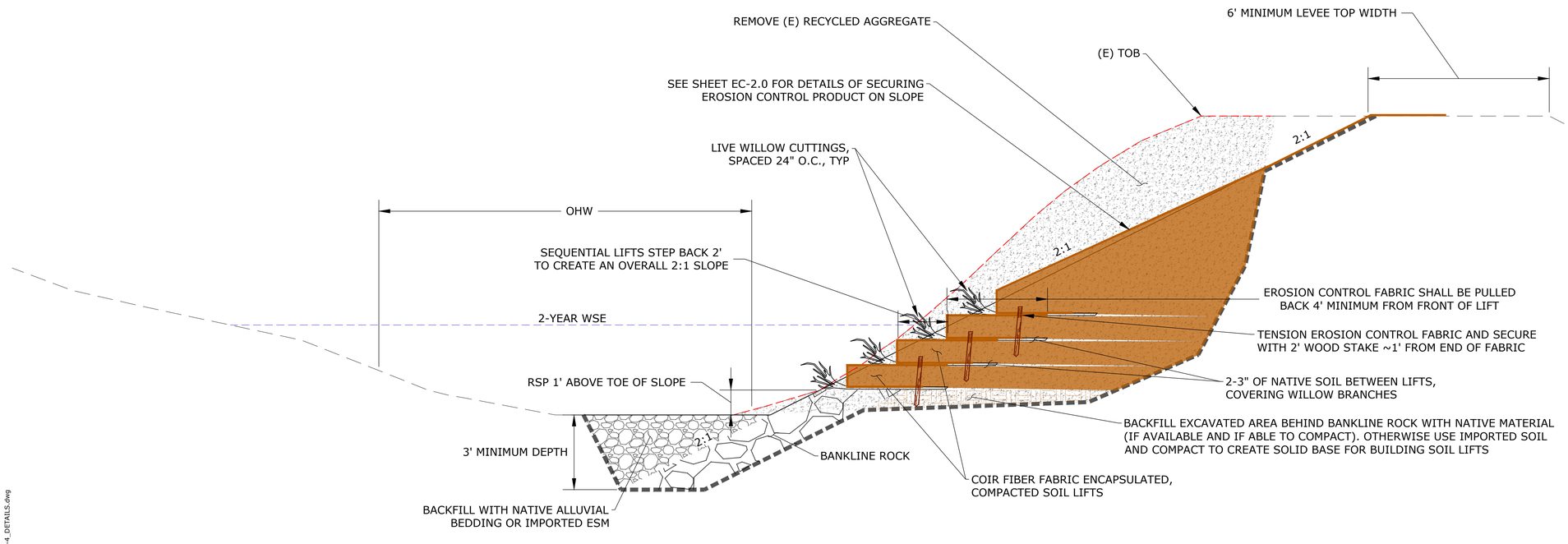
SITE 4 AND POND 2 SECTION

Sheet 10 of 22

C-3.1

LEGEND

SYMBOL	DESCRIPTION
	PRE-FILL GRADE (2021 LIDAR)
	APPROXIMATE EXISTING GRADE (NOTE: SITES 4 & 6 WERE SURVEYED IN OCTOBER 2023)
	PROPOSED GRADE
	(E) 2-YEAR WSE
	(E) RECYCLED AGGREGATE FILL
	SUBGRADE EXCAVATION
	ROCK SLOPE PROTECTION (9-INCH D50)
	IMPORTED SOIL
	NATIVE MATERIAL FROM OVEREXCAVATION (SOIL/GRAVEL/COBBLE) AND/OR IMPORTED SOIL
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)
	EROSION CONTROL FABRIC



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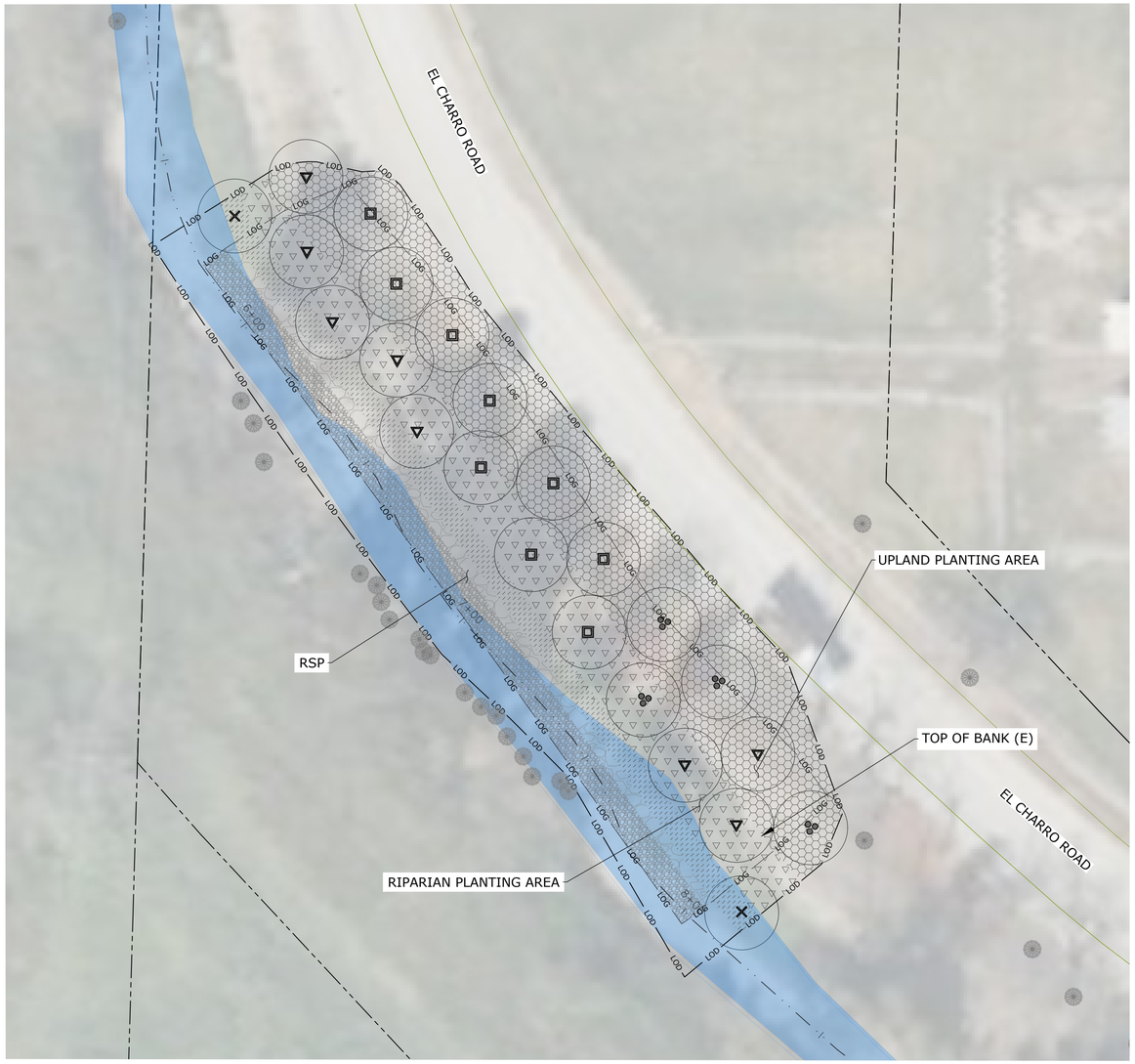
DETAILS

Sheet 11 of 22

C-4.0

LEGEND

SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF UNPAVED ROAD (E)
	APPROXIMATE EDGE OF UNPERMITTED FILL
LOD	LIMIT OF DISTURBANCE
LOG	LIMIT OF GRADE
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
	ORDINARY HIGH WATER
	RIPARIAN PLANTING AREA
	UPLAND PLANTING AREA
	WILLOW STAKE PLANTING AREA



1 SITE 1: PLAN VIEW

SCALE: 1" = 20'

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PLANTING NOTES

RIPARIAN AND UPLAND PLANTING AREAS:

1. PLANT INSTALLATION SHALL OCCUR BETWEEN OCTOBER 15TH AND DECEMBER 31ST OR AS APPROVED BY THE OWNER'S REPRESENTATIVE. THE DRIP IRRIGATION SYSTEM SHALL BE OPERATIONAL PRIOR TO PLANTING.
2. THE CONTRACTOR SHALL STAKE OR MARK THE OUTER LIMITS OF THE PLANTING AREAS AND A LAYOUT PLANTS OR FLAG MARKERS FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. THE CONTRACTOR SHALL ENSURE THAT THE RIPARIAN PLANTINGS ARE INSTALLED WITHIN THE APPROPRIATE ELEVATION RANGES.

WILLOW POLE PLANTING AREAS:

1. WILLOW POLE INSTALLATION SHALL OCCUR BETWEEN DECEMBER 1ST AND DECEMBER 31ST OR AS APPROVED BY THE OWNER'S REPRESENTATIVE. THE DRIP IRRIGATION SYSTEM SHALL BE OPERATIONAL PRIOR TO PLANTING.
2. THE CONTRACTOR SHALL STAKE OR MARK THE OUTER LIMITS OF THE PLANTING AREAS AND A TYPICAL LAYOUT FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
3. CREATE A WATERING BASIN FOR EACH WILLOW POLE IN ACCORDANCE WITH THE PLANTING DETAIL FOR TREES AND SHRUBS.

MITIGATION TREES

SYMBOL	SCIENTIFIC NAME	COMMON MAME	CONTAINER SIZE	SPACING O.C. (FT)	QUANTITY
	AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	TP-4	20	43
	FRAXINUS LATIFOLIA	OREGON ASH	TP-4	20	17
	JUGLANS HINDSII	CALIFORNIA BLACK WALNUT	TP-4	20	40
	POPULUS FREMONTII	FREMONT COTTONWOOD	TP-4	20	15
					115

UPLAND PLANTING PALETTE (SHRUBS)

SYMBOL	SCIENTIFIC NAME	COMMON MAME	CONTAINER SIZE	SPACING O.C. (FT)	QUANTITY
	ARTEMISIA CALIFORNICA	CALIFRONIA SAGEBRUSH	DEEPOT	4	1181
	BACCHARIS PILULARIS	COYOTE BRUSH	DEEPOT	8	394
	HETEROMELES ARBUTIFOLIA	TOYON	TP-4	15	128
	ROSA CALIFORNICA	CALIFORNIA ROSE	DEEPOT	8	394

RIPARIAN PLANTING PALETTE (SHRUBS)

SYMBOL	SCIENTIFIC NAME	COMMON MAME	CONTAINER SIZE	SPACING O.C. (FT)	QUANTITY
	ARTEMISIA DOUGLASIANA	MUGWORT	DEEPOT	4	362
	BACCHARIS PILULARIS	COYOTE BRUSH	DEEPOT	8	91
	BACCHARIS SALICIFOLIA	MULEFAT	DEEPOT	8	91
	ROSA CALIFORNICA	CALIFORNIA ROSE	DEEPOT	8	91
	SAMBUCUS MEXICANA	BLUE ELDERBERRY	TP-4	10	57

WILLOW PLANTING PALETTE (LIVE STAKES)

SYMBOL	SCIENTIFIC NAME	COMMON MAME	CONTAINER SIZE	SPACING O.C. (FT) OUTSIDE SOIL LIFTS	SPACING O.C. (FT) INSIDE SOIL LIFTS
	SALIX EXIGUA	SANDBAR WILLOW	STAKES	4	2
	SALIX LASIOLEPIS	ARROYO WILLOW	STAKES	4	2

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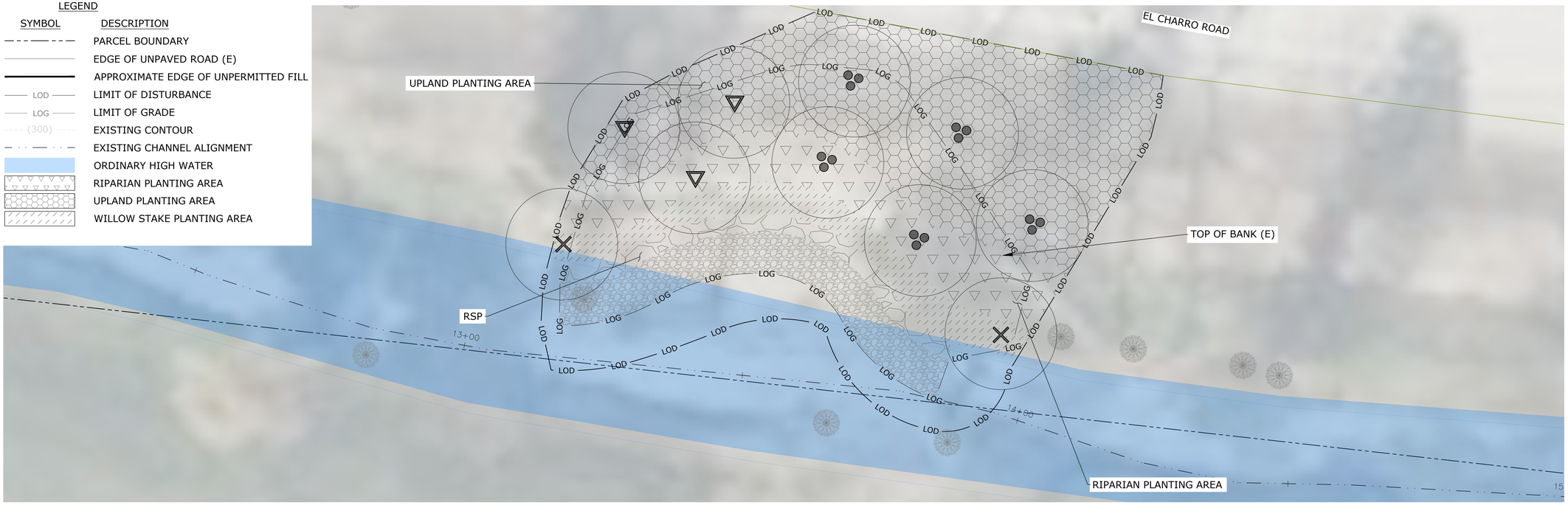
SITE 1 PLANTING PLAN, NOTES AND PALETTE

Sheet 12 of 22

L-1.0

LEGEND

SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF UNPAVED ROAD (E)
	APPROXIMATE EDGE OF UNPERMITTED FILL
LOD	LIMIT OF DISTURBANCE
LOG	LIMIT OF GRADE
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
	ORDINARY HIGH WATER
	RIPARIAN PLANTING AREA
	UPLAND PLANTING AREA
	WILLOW STAKE PLANTING AREA



1 SITE 2: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

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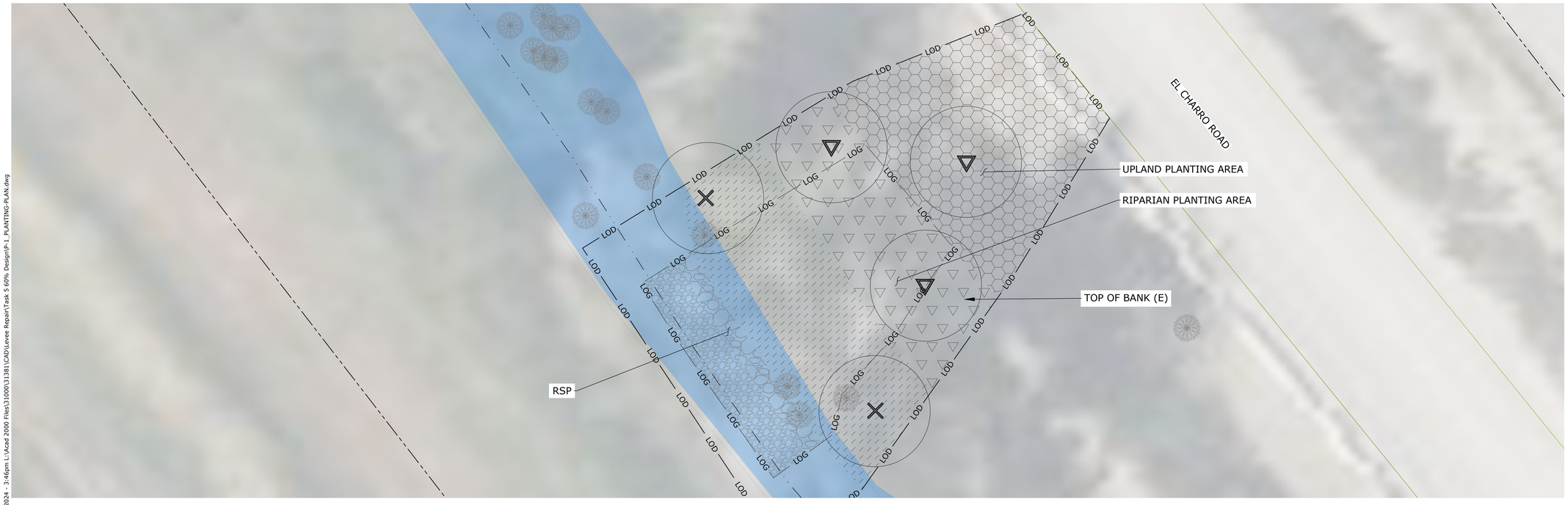

2 SITE 3: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N

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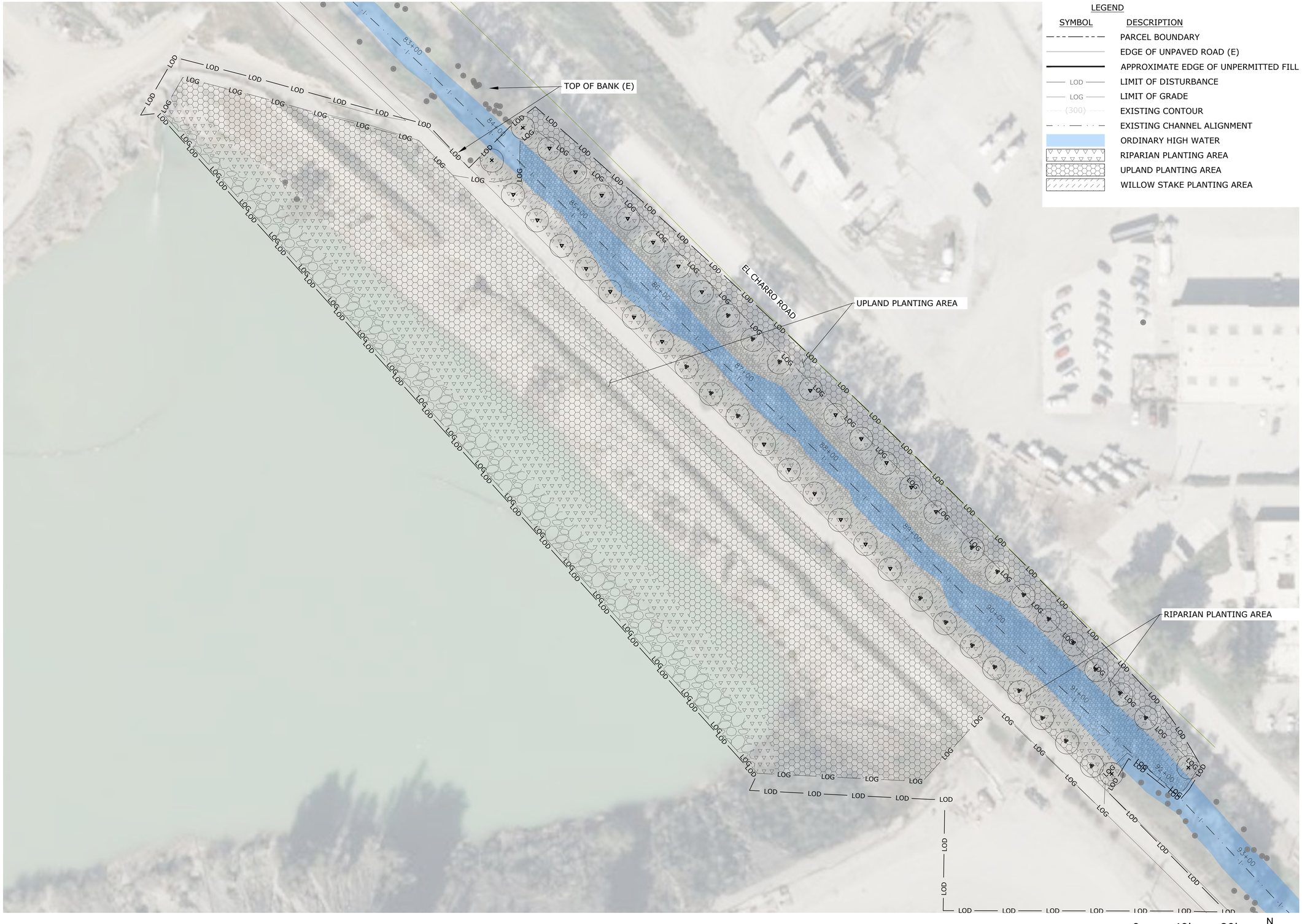
SITE 2 & 3
PLANTING PLAN

Sheet 13 of 22

L-1.1



LEGEND

SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF UNPAVED ROAD (E)
	APPROXIMATE EDGE OF UNPERMITTED FILL
LOD	LIMIT OF DISTURBANCE
LOG	LIMIT OF GRADE
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
	ORDINARY HIGH WATER
	RIPARIAN PLANTING AREA
	UPLAND PLANTING AREA
	WILLOW STAKE PLANTING AREA

A SITE 4: PLAN VIEW

0 40' 80'

SCALE: 1" = 40'

N

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SITE 4
PLANTING PLAN

Sheet 14 of 22

L-1.2

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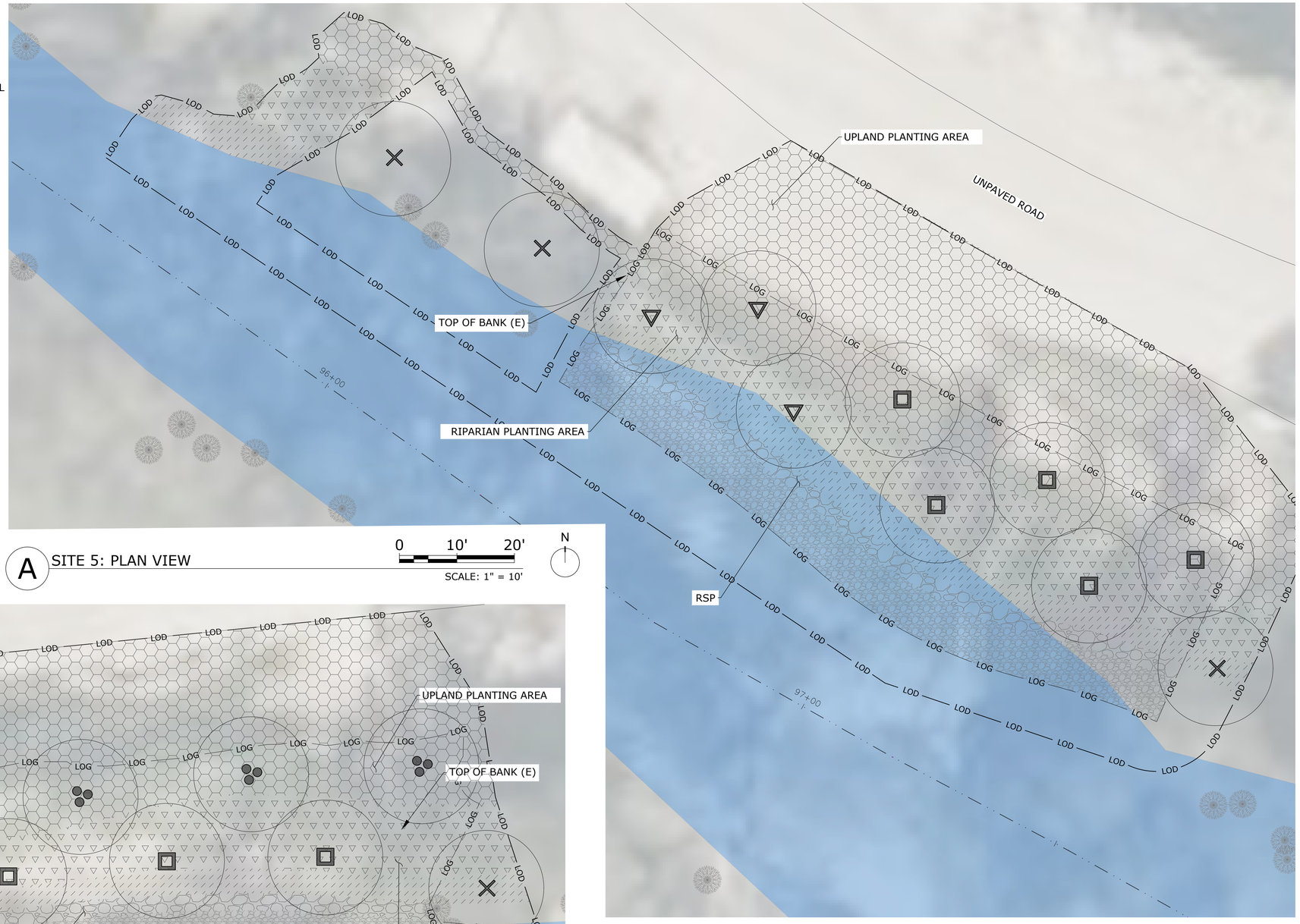
LEGEND

SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF UNPAVED ROAD (E)
	APPROXIMATE EDGE OF UNPERMITTED FILL
LOD	LIMIT OF DISTURBANCE
LOG	LIMIT OF GRADE
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
	ORDINARY HIGH WATER
	RIPARIAN PLANTING AREA
	UPLAND PLANTING AREA
	WILLOW STAKE PLANTING AREA

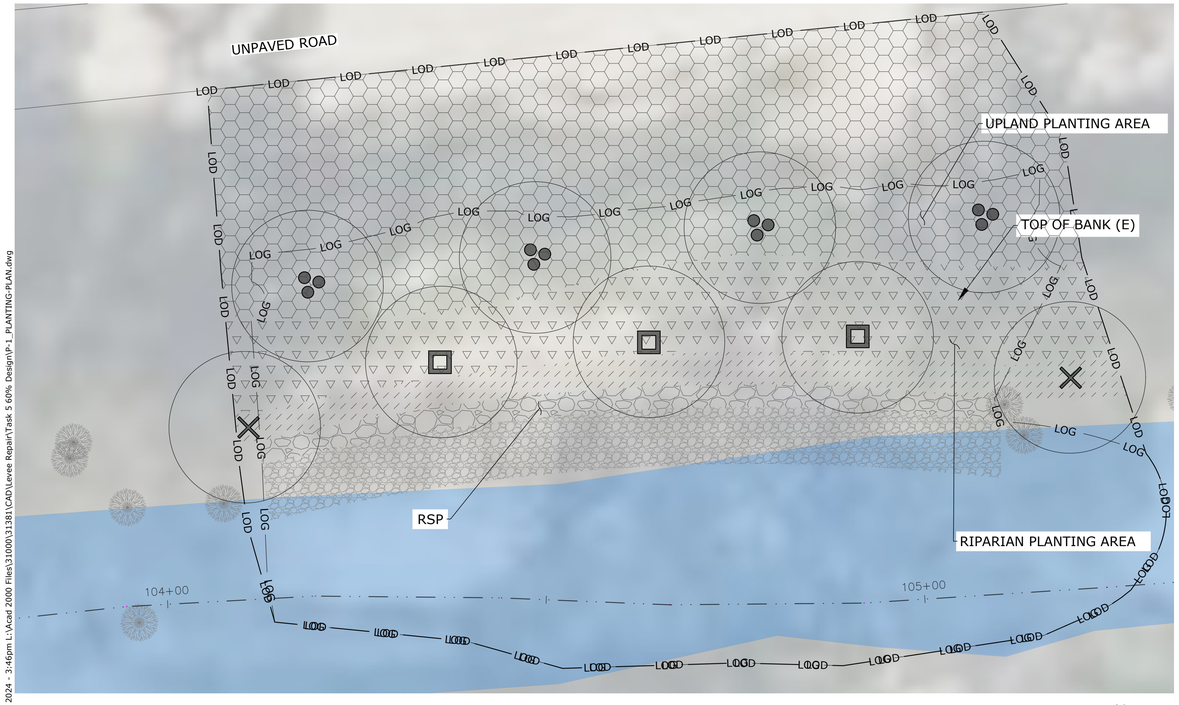


A SITE 5: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N



B SITE 6: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N

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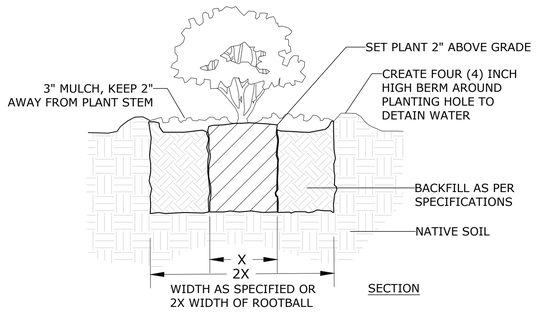
SITES 5 & 6
PLANTING PLAN

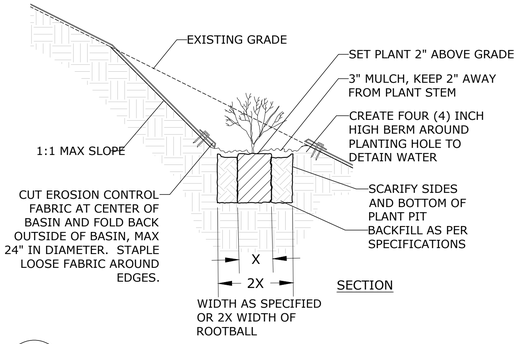
Sheet 15 of 22

L-1.3



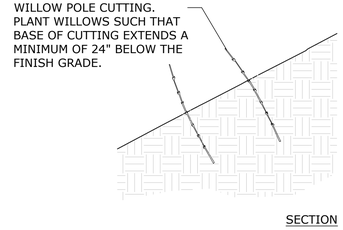
1 TREE & SHRUB PLANTING DETAIL

NOT TO SCALE



2 TREE & SHRUB PLANTING DETAIL, ON SLOPE

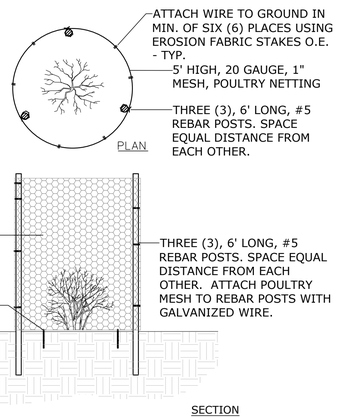
NOT TO SCALE



3 WILLOW POLE CUTTING DETAIL

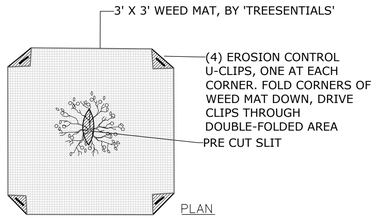
NOT TO SCALE

CAGE DIAMETER	PLANT SIZE
3'	16" DEEPOT OR 1 GAL
3'	POLE CUTTINGS
3'	4 GALTREE POT
4'	5 GAL
4'	15 GAL
5'	24" BOX



4 WIRE CAGE DEER PROTECTION

NOT TO SCALE



NOTES
1. PREPARE PLANTING HOLE, PLANT SEEDLING, THEN INSTALL WEED MAT BY GENTLY PASSING SEEDLING THROUGH SLIT IN WEED MAT, SECURE WEED MAT TO GROUND WITH U-CLIPS.

5 WEED MAT

NOT TO SCALE

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PLANTING DETAILS

Sheet 16 of 22

L-1.4

SEED MIX

SCIENTIFIC NAME	COMMON MAME
ACHILLEA MILLEFOLIUM	YARROW
ARTEMISIA DOUGLASIANA	MUGWORT
ASCLEPIAS FASCICULARIS	NARROW LEAF MILKWEED
BROMUS CARINATUS	CALIFORNIA BROME
CORETHROGYNE FILAGINIFOLIA	CALIFORNIA ASTER
DATURA WRIGHTII	JIMSONWEED
ELYMUS GLAUCUS	BLUE WILDRYE
ELYMUS TRITICOIDES	CREEPING WILD RYE
ESCHSCHOLZIA CALIFORNICA	CALIFRONIA POPPY
HETEROTHECA GRANDIFLORA	TELEGRAPH WEED
FESTUCA MICROSTACHYS	SMALL FESCUE
TRIFOLIUM WILLDENOVII	TOMCAT CLOVER
TRITICUM AESTIVUM X ELYTRIGA ELONGATA	"REGREEN" STERILE WHEAT

LEGEND

SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF PAVEMENT (E)
	APPROXIMATE EDGE OF RECYCLED AGGREGATE FILL
	ORDINARY HIGH WATER
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
300	PROPOSED CONTOUR
	RSP
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)
	EROSION CONTROL FABRIC
	SEEDING
	TREE (E)

POSSIBLE SITE ACCESS PATH

EL CHARRO ROAD

EROSION CONTROL FABRIC SHALL EXTEND MINIMUM 2' BEYOND FG TOP OF BANK AND TO COVER FILLED BACKSIDE OF LEVEE (SEE DETAIL C ON EC-2.0)

EL CHARRO ROAD

POSSIBLE SITE ACCESS PATH

0 10' 20'

SCALE: 1" = 10'

N

1 SITE 1: PLAN VIEW

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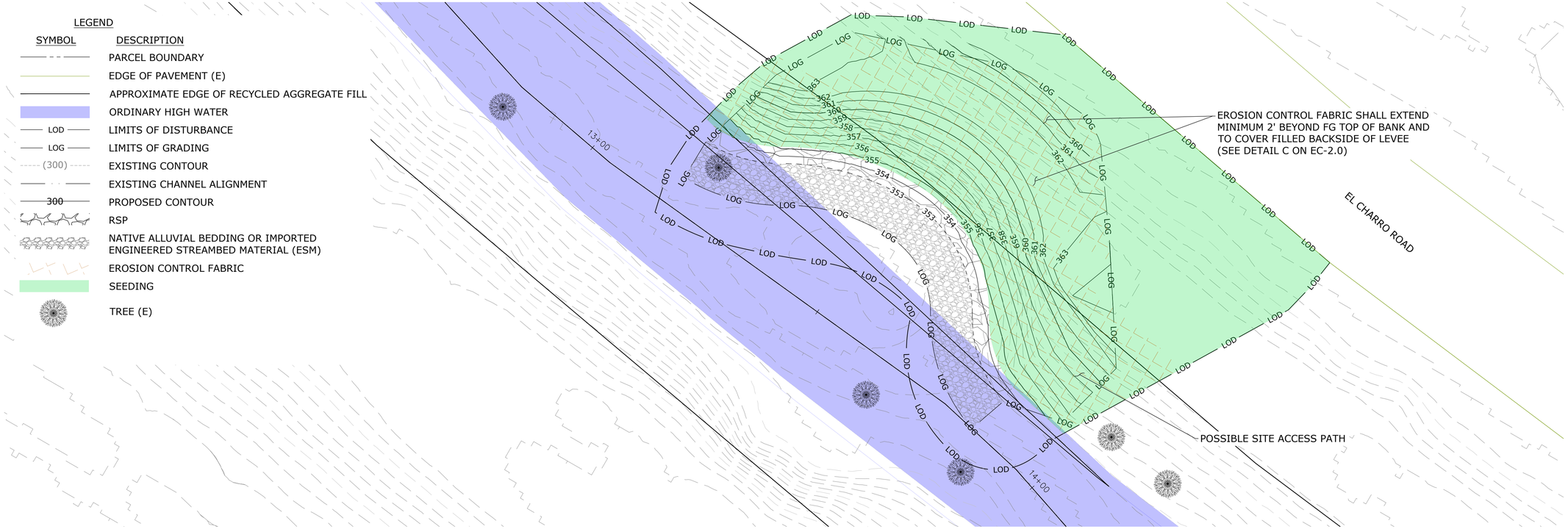
SITE 1
EROSION CONTROL & SEEDING PLAN

Sheet 17 of 22

EC-1.0

LEGEND

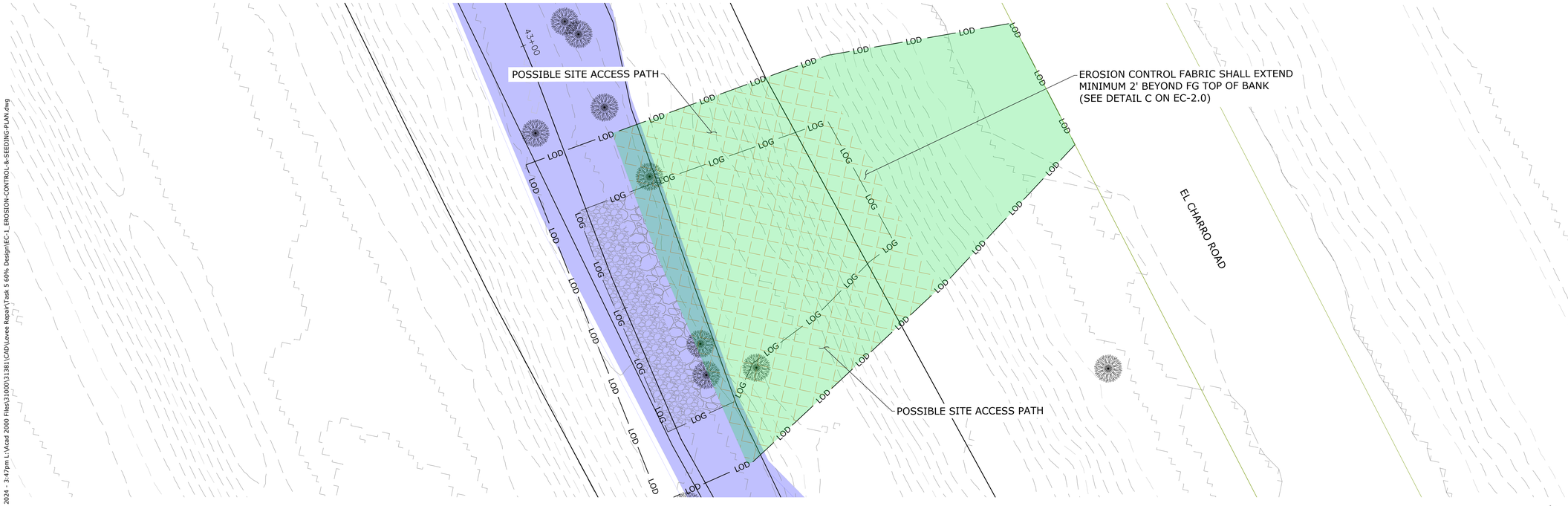
SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF PAVEMENT (E)
	APPROXIMATE EDGE OF RECYCLED AGGREGATE FILL
	ORDINARY HIGH WATER
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
300	PROPOSED CONTOUR
	RSP
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)
	EROSION CONTROL FABRIC
	SEEDING
	TREE (E)



1 SITE 2: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'



2 SITE 3: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N

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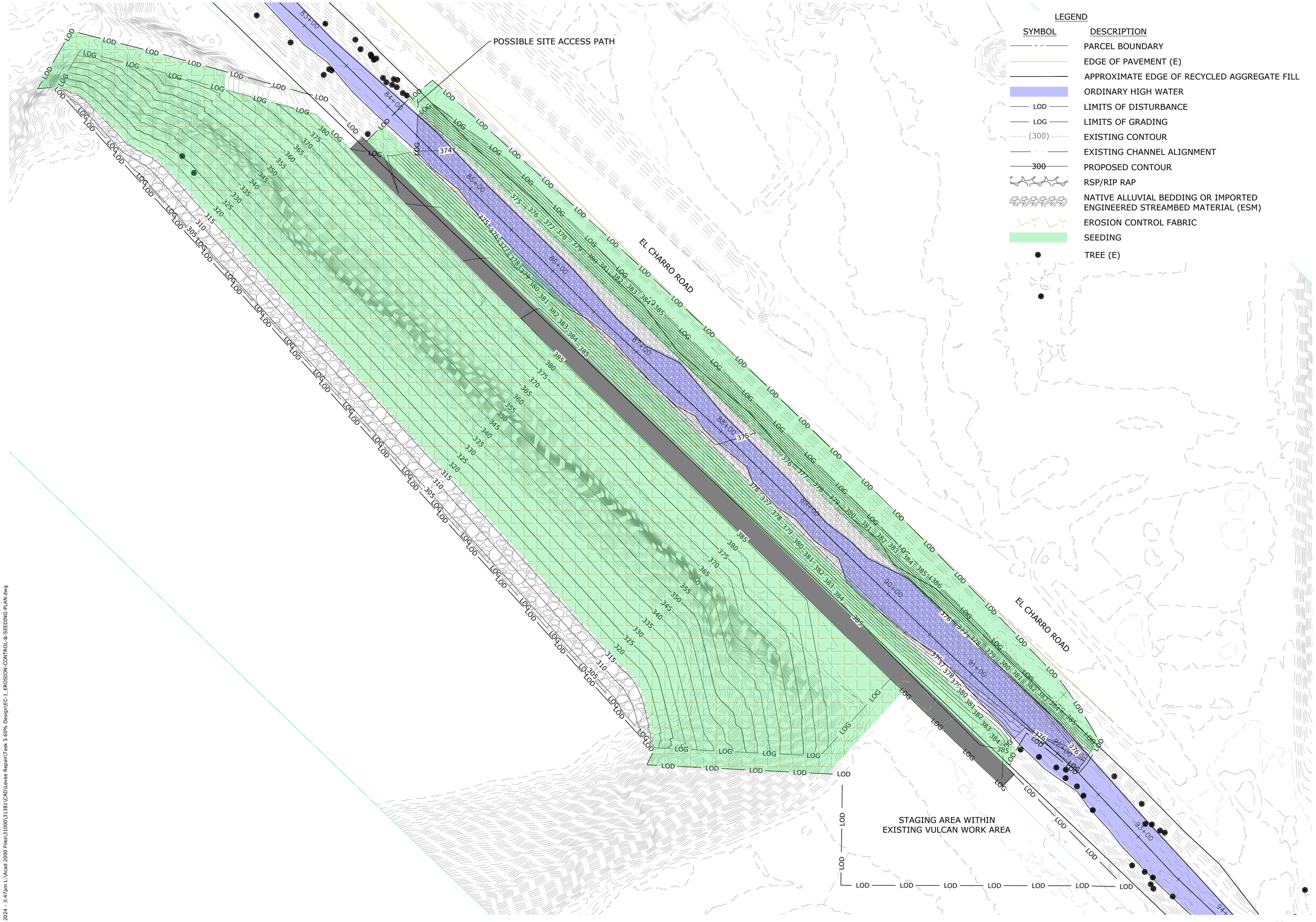
SITES 2 & 3
EROSION CONTROL & SEEDING PLAN

Sheet 18 of 22

EC-1.1



LEGEND

SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF PAVEMENT (E)
	APPROXIMATE EDGE OF RECYCLED AGGREGATE FILL
	ORDINARY HIGH WATER
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
300	PROPOSED CONTOUR
	RSP/RIP RAP
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)
	EROSION CONTROL FABRIC
	SEEDING
	TREE (E)

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SITE 4
EROSION CONTROL & SEEDING PLAN

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EC-1.2

1 SITE 4: PLAN VIEW

0 40' 80'

SCALE: 1" = 40'

N

LEGEND

SYMBOL	DESCRIPTION
	PARCEL BOUNDARY
	EDGE OF PAVEMENT (E)
	APPROXIMATE EDGE OF RECYCLED AGGREGATE FILL
	ORDINARY HIGH WATER
LOD	LIMITS OF DISTURBANCE
LOG	LIMITS OF GRADING
(300)	EXISTING CONTOUR
	EXISTING CHANNEL ALIGNMENT
300	PROPOSED CONTOUR
	RSP
	NATIVE ALLUVIAL BEDDING OR IMPORTED ENGINEERED STREAMBED MATERIAL (ESM)
	EROSION CONTROL FABRIC
	SEEDING
	TREE (E)

UNPAVED ROAD

EROSION CONTROL FABRIC SHALL EXTEND MINIMUM 2' BEYOND FG TOP OF BANK (SEE DETAIL C ON EC-2.0)

POSSIBLE SITE ACCESS PATH

96+00

97+00

98+00

1 SITE 5: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N

UNPAVED ROAD

EROSION CONTROL FABRIC SHALL EXTEND MINIMUM 2' BEYOND FG TOP OF BANK (SEE DETAIL C ON EC-2.0)

POSSIBLE SITE ACCESS PATH

104+00

105+00

2 SITE 6: PLAN VIEW

0 10' 20'

SCALE: 1" = 10'

N

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SITES 5 & 6
EROSION CONTROL & SEEDING PLAN

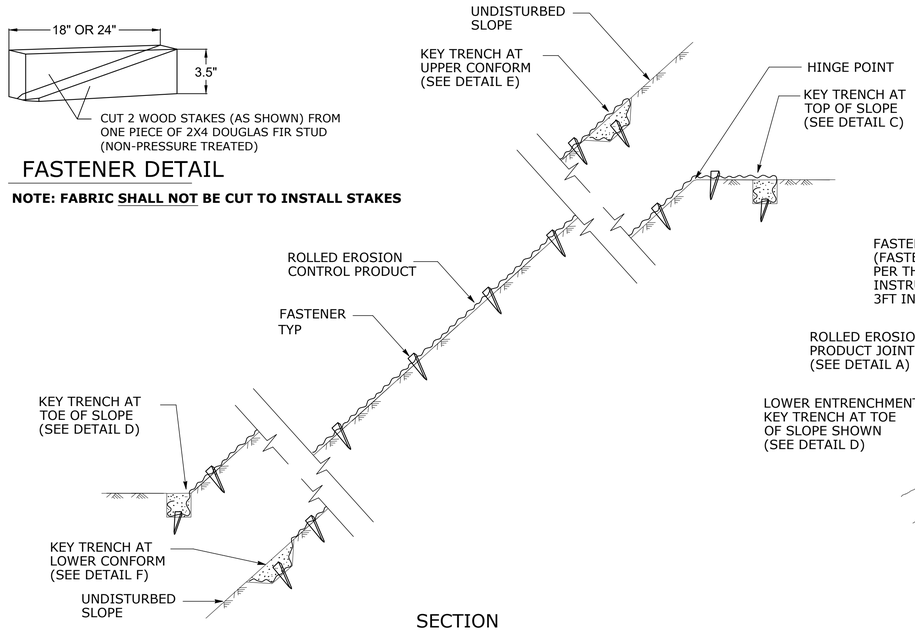
Sheet 20 of 22

EC-1.3

jake.kramarz Nov 01, 2024 - 3:47pm L:\Acad 2000 Files\31000\31381\CAD\Levee Repair\Task 5 60% Design\EC-1_EROSION-CONTROL-&-SEEDING-PLAN.dwg

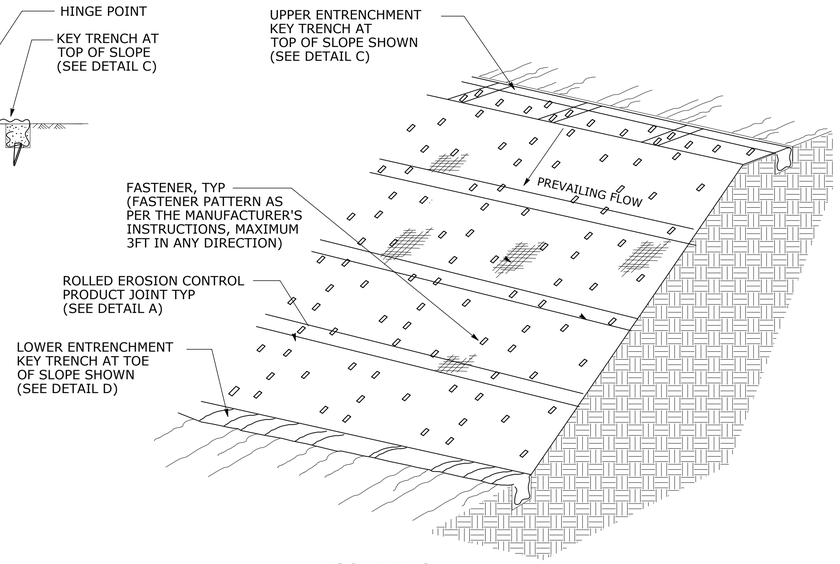
FASTENER DETAIL

NOTE: FABRIC SHALL NOT BE CUT TO INSTALL STAKES



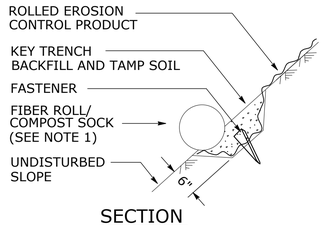
SECTION

ROLLED EROSION CONTROL PRODUCT
ON SLOPE WITH VARIOUS KEY ENTRENCHMENTS



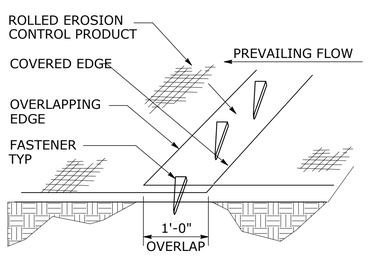
ISOMETRIC

ROLLED EROSION CONTROL PRODUCT
ON SLOPE



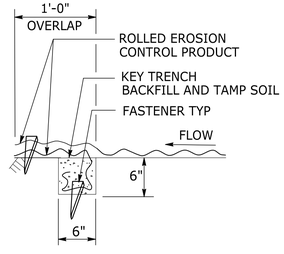
SECTION

DETAIL F
KEY TRENCH AT
LOWER CONFORM



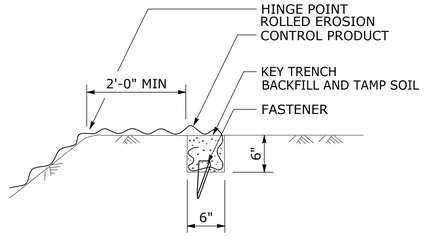
PERSPECTIVE

DETAIL A
LONGITUDINAL ROLLED EROSION
CONTROL PRODUCT JOINT



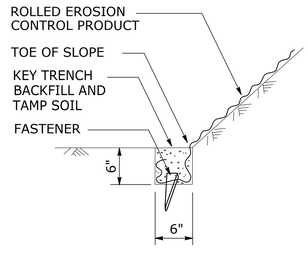
SECTION

DETAIL B
TRANSVERSE ROLLED EROSION
CONTROL PRODUCT JOINT



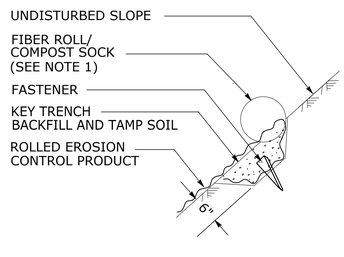
SECTION

DETAIL C
KEY TRENCH AT
TOP OF SLOPE



SECTION

DETAIL D
KEY TRENCH AT
TOE OF SLOPE



SECTION

DETAIL E
KEY TRENCH AT
UPPER CONFORM

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Sheet 21 of 22

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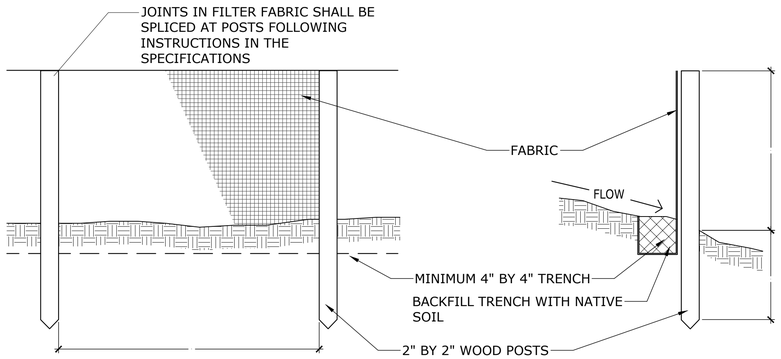
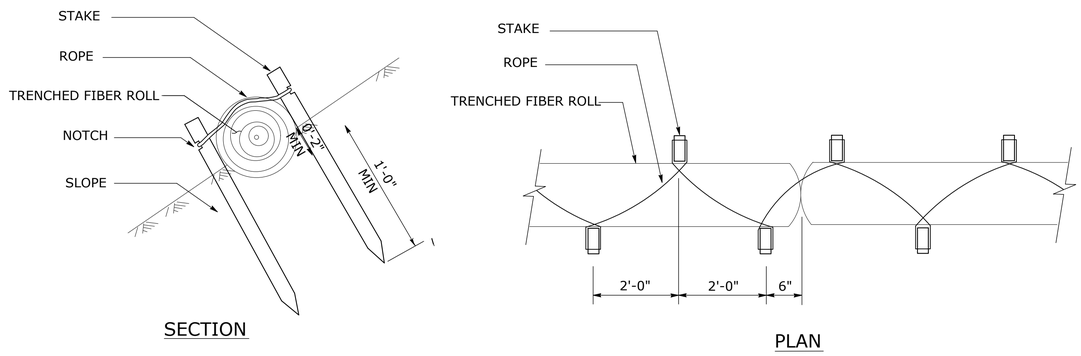


NOTE: SILT FENCE SHALL BE INSTALLED ALONG CONTOUR.

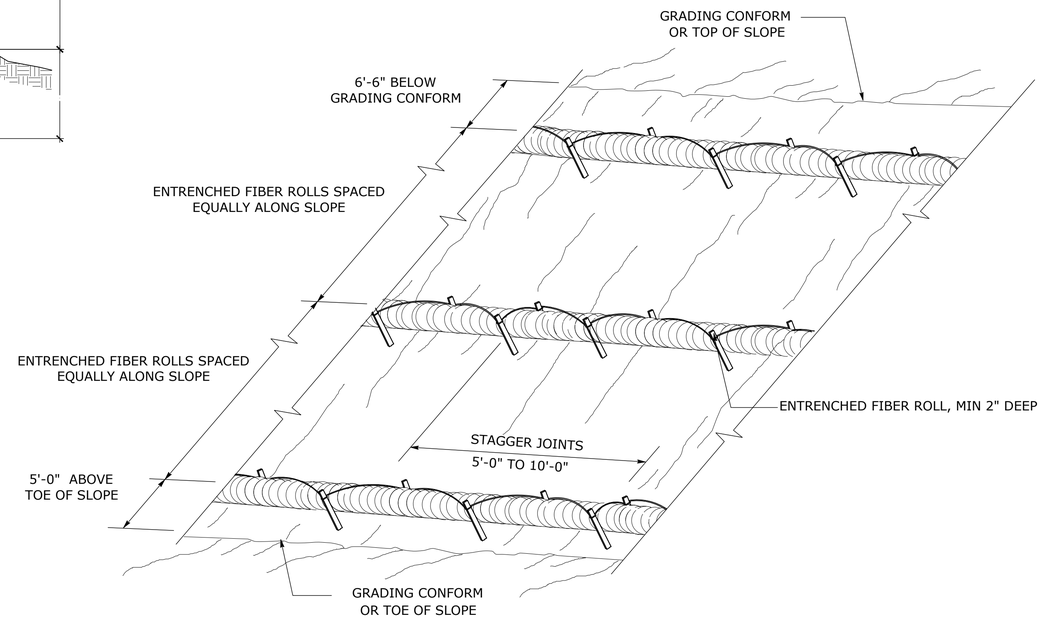
SILT FENCE



SECTION

PLAN

TRENCHED FIBER ROLL
(TYPE 2)



PERSPECTIVE

ENTRENCHED FIBER ROLL (TYPE 2)

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EROSION CONTROL DETAILS

Sheet 22 of 22

EC-2.1

ATTACHMENT B. WETLAND DELINEATION (2024)

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Delineation of Potential Waters of the U.S. and State

Arroyo Mocho Levee Repair Project

Pleasanton, Alameda County, California

Prepared for:

Vulcan Materials Company
500 North Brand Ave, Suite 500
Glendale, CA 91203

Attn: Kevin Torell
torellk@vmcmail.com
October 2024

Prepared by:

WRA, Inc.
2169 G East Francisco Boulevard
San Rafael, CA 94901

Attn: Rob Schell
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WRA#31381

Contents

List of Tables

List of Appendices

List of Preparers

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Matt Osowski	Project Manager
Scott Batiuk	Associate Plant Biologist
Katie Tyree	Biologist
Rachel Miller	Plant Biologist / Wetland Ecologist
Sundaran Gillespie	GIS Analyst

List of Acronyms

CFR	Code of Federal Regulations
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Code
Corps	U.S. Army Corps of Engineers
CSRL	California Soil Resource Lab
CWA	Clean Water Act
DEM	Digital Elevation Model
DWR	Department of Water Resources
EPA	Federal Environmental Protection Agency
FAC	Facultative Plant
FACU	Facultative Upland Plant
FACW	Facultative Wetland Plant
HTL	High Tide Line
HUC	Hydrologic Unit Code
MHW	Mean High Water
NAVD88	North American Vertical Datum of 1988
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OBL	Obligate Wetland Plant
OHWM	Ordinary High Water Mark
RHA	Rivers and Harbors Act
RWQCB	Regional Water Quality Control Board
SWRCB	California State Water Resources Control Board
TOB	Top of Bank
TNW	Traditional Navigable Water
UPL	Upland Plant
USGS	U.S. Geological Survey
WRA	WRA, Inc.

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1.0 INTRODUCTION

This report presents the results of a delineation of potential waters of the U.S. as defined by the Clean Water Act (CWA) and waters of the state as defined by the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Wetland Policy, SWRCB 2019). The Study Area for this delineation includes the 51.03-acre Study Area alongside El Charro Road at the Vulcan Materials facility located in unincorporated Alameda County, California (Appendix A – Figure 1).

On November 10, 2023, WRA, Inc. (WRA) conducted a delineation within the Study Area to identify wetlands and non-wetland waters potentially subject to jurisdiction by the U.S. Army Corps of Engineers (Corps) under Section 404 of the CWA and/or Section 10 of the Rivers and Harbors Act (RHA) as well as the California State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) as defined in the State Wetland Policy (SWRCB 2019). The following sections describe the regulatory background and methods used to guide the delineation and provide a summary of wetlands and non-wetland waters within the Study Area. This delineation is considered "potential" subject to the approval of the Corps and, where appropriate, RWQCB[1].

2.0 REGULATORY BACKGROUND

2.1 Section 404 of the Clean Water Act

The objective of the CWA is to maintain and restore the chemical, physical, and biological integrity of the waters of the U.S. (33 CFR Part 328 Section 328.4). Waters of the U.S. is the encompassing term for areas that qualify for federal regulation under Section 404 of the CWA. Section 404 of the CWA gives the U.S. Environmental Protection Agency (EPA) and the Corps regulatory and permitting authority regarding discharge of dredged or fill material into "navigable" waters of the U.S. Section 502(7) of the CWA defines navigable waters as "waters of the United States, including territorial seas." Section 328 of Chapter 33 in the Code of Federal Regulations (CFR) defines the term "waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps under the CWA. A summary of this definition of "waters of the United States" in 33 CFG 328.3(a) includes:

> *(1) waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; the territorial seas; or interstate waters;*
>
> *(2) impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (5) of this section;*

[1] *Per the State Wetland Policy (SWRCB 2019), the SWRCB or local RWQCB "shall rely on any wetland area delineation from a final aquatic resource report verified by the Corps for the purposes of determining the extent of wetland waters of the U.S. A delineation of any wetland areas potentially impacted by the project that are not delineated in a final aquatic resource report verified by the Corps shall be performed using the methods described in the ..."1987 Manual and Supplements" to determine whether the area meets the state definition of a wetland."*

(3) tributaries of waters identified in paragraph (1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) wetlands adjacent to the following waters: waters identified in paragraph (1) of this section; or relatively permanent, standing or continuously flowing bodies of water identified in paragraph (2) or (3) of this section and with a continuous surface connection to those waters;

(5) intrastate lakes and ponds not identified in paragraphs (1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (1) or (3) of this section.

The definitions of wetlands and non-wetland waters, as well as areas exempt from jurisdiction, are discussed in more detail below.

2.1.1 Wetlands

Wetlands are defined in 33 CFR 328.3(c) as:

> *...those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

The basis for determining whether a given area is a wetland for the purposes of Section 404 of the CWA is outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Delineation Manual* for the respective region (Arid West or Western Mountains, Valleys, and Coast for California). As defined in 33 CFR 328.4(c), the extent of federal jurisdiction within wetlands is defined as extending to the limit of the wetland as determined using the methods outlined in the manuals.

2.1.2 Non-Wetland Waters

The limit of federal jurisdiction in non-tidal non-wetland waters extends to the ordinary high water mark (OHWM) which is defined in 33 CFR 328.3(c) as:

> *...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

2.1.3 Areas Exempt from Section 404 Jurisdiction

Some areas that meet the technical criteria for wetlands or waters may not be jurisdictional under the CWA per Section 404 regulations and the Corps Manual. As defined in 33 CFR 328.3(b), the following features are exempt from Section 404 Jurisdiction:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body water meets the definition of waters of the United States; and

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

2.2 Waters of the State

The Porter-Cologne Water Quality Control Act gives the SWRCB authority to regulate discharge of dredged or fill material that may affect the quality of "waters of the state." "Waters of the state" are defined broadly as (SWRCB 2019):

> *...any surface water or groundwater, including saline waters, within the boundaries of the state.*

In April 2019, the SWRCB adopted the State Wetland Policy, which provides a state wetland definition, procedures, and requirements for regulation of the discharge of dredge or fill material to wetlands and non-wetland waters of the state. The State Wetland Policy also includes exemptions from regulation of dredge and fill discharges for certain types of wetland and non-wetland waters features, as well as for certain classes of activities, such as activities covered by an existing RWQCB or SWRCB Order. The state wetland definition (SWRCB 2019), is similar to, but slightly different from that used by the Corps:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The State Wetland Policy utilizes existing Corps delineation procedures (Environmental Laboratory 1987, Corps 2008, 2010). According to the State Wetland Policy, the SWRCB and

RWQCBs generally rely on the Corps for verification of wetland and non-wetland waters as part of an aquatic resource report. Any potential wetland area not identified in a report verified by the Corps is required to be delineated using Corps methods for consideration as a state wetland and verification by SWRCB or RWQCB staff. This report includes wetlands and non-wetland waters meeting both the Corps and state wetland definitions. Some features mapped as non-wetland waters under the Corps wetland definition may be considered wetlands under the state definition.

This report identifies wetlands and non-wetland waters according to the Corps definitions and criteria, consistent with the State Wetland Policy's reliance of these criteria. This report also recognizes that some non-wetland waters features may meet the wetland definition of the State Wetland Policy. The State Wetland Policy regulates wetlands and non-wetland waters equivalently. Therefore, the classification of an unvegetated feature as a wetland or non-wetland water does not affect the scope of State regulation of that feature. In contrast, feature classification for purposes of Corps jurisdiction can affect some regulatory permitting decisions, such as determining the applicability of Nationwide Permit Program thresholds. Therefore, the Corps definitions are relied upon for feature classifications in this report. In some cases, features mapped and classified as non-wetland waters may meet the State Wetland Policy definition of a wetland, where those features contain anaerobic substrates. Regardless of how they are defined, wetlands and non-wetland waters deemed jurisdictional may be regulated by the RWQCB and/or SWRCB under the State Wetland Policy.

3.0 STUDY AREA DESCRIPTION

The approximately 51.03-acre Study Area is located in unincorporated Alameda County between the cities of Pleasanton and Livermore, California (Appendix A – Figure 1). The Study Area follows El Chorro Road, a private road owned and maintained by Vulcan Materials Company. Land uses within the Study Area include quarry activities and agricultural plots. Baseline habitat conditions within the Study Area are generally disturbed, with heavy development due to quarry activities in the area. The Study Area ranges from approximately 350 to 400 feet in elevation (USGS 2021).

3.1 Vegetation

Vegetation within the Study Area consists of mixed riparian, scrub-shrub wetland, and ruderal communities. Dominant vegetation within mixed riparian vegetation includes blue gum (*Eucalyptus globulus*) and red gum (*E. camaldulensis*), with the occasional Northern California black walnut (*Juglans hindsii*) and Fremont cottonwood (*Populus fremontii*). The scrub-shrub wetland community is dominated by narrowleaf willow (*Salix exigua*). Other vegetation, within ruderal areas, is dominated by non-native, invasive herbs. The Study Area is within an active quarry and has been heavily altered since the 1950s, when the quarry was established (NETR 2024).

3.2 Soils

Web Soil Survey (USDA 2024a) and SoilWeb (CSRL 2024) list four soil mapping units within the Study Area: *Sunnyvale clay loam; Sycamore silt loam, 0 to 2 percent slopes, MLRA 14; Yolo loam, calcareous substratum, 0 to 6 percent slopes, MLRA 14;* and *Yolo gravelly loam, 0 to 3 percent slopes*. Descriptions of the soil series that comprise the soil mapping units are provided below.

The distribution of these soil mapping units within the Study Area is depicted in Appendix A – Figure 2.

Sunnyvale Series: The Sunnyvale series consists of poorly drained, calcareous soils on nearly level valley floors north of Pleasanton. The surface soil is gray, granular, slightly calcareous, heavy clay loam. (CSRL 2024). The *Sunnyvale clay loam* soil mapping unit is considered hydric (USDA 2023b).

Sycamore Series: This series consists of moderately acid to moderately alkaline clay loam to silt loam soils that in mixed sedimentary alluvium, and it is situated on nearly level flood plains at elevations ranging from 0 to 100 feet. These soils are poorly drained with slow to very slow runoff, and moderate to moderately slow permeability (CSRL 2024). The *Sycamore silty clay loam, 0 to 2 percent slopes, MLRA 17* and *Sycamore silt loam, 0 to 2 percent slopes, MLRA 14* soil mapping units are both considered hydric (USDA 2024b).

Yolo Series: The Yolo series consists of very deep, well drained soils that formed in alluvium from mixed rocks on alluvial fans and flood plains that range in elevation from near sea level to 2,400 feet. These soils are well drained with slow to medium runoff and moderate permeability (USDA 2023a). The *Yolo loam, calcareous substratum, 0 to 6 percent slopes* and *Yolo gravelly loam, 0 to 3 percent slopes* mapping units are both considered hydric (USDA 2023b).

3.3 Hydrology

The Study Area is located in the regional watershed of San Francisco Bay (HUC 8: 18050004). And within the Lower Arroyo Mocho (HUC 12: 180500040302) local watershed (NRCS 2024). Annual rainfall within this watershed averages 14.18 inches, with the majority of rain falling between November and March. The Livermore USGS quadrangle shows one stream within the Study Area, Arroyo Mocho. The natural hydrology of the site has been altered by quarry activities since the 1950s (NETR 2024) including channelization and alteration of the natural flow of the water. Water within the Study Area is contained within Arroyo Mocho and flows in a northwesterly direction where it joins San Ramon Creek, flows to Alameda Creek, and finally to the San Francisco Bay. In the summer months, the Zone 7 Water Agency releases imported water from the South Bay Aqueduct into Arroyo Mocho for the purposes of artificial recharge of the groundwater basin.

4.0 METHODS

WRA biologists performed a delineation of aquatic resources within the Study Area on November 10, 2023. Prior to conducting the evaluation, WRA reviewed a range of background materials including the Web Soil Survey (USDA 2024), SoilWeb (CSRL 2024), the National Wetlands Inventory (USFWS 2024), the California Aquatic Resource Inventory (SFEI 2024), and the U.S. Geological Survey (USGS) Livermore 7.5-minute quadrangle map (USGS 2024). WRA also reviewed historic aerial imagery from Google Earth (Google Earth 2024). High-resolution topographic data was collected by O'Dell Engineering in December 2023.

4.1 Wetlands

WRA followed the Routine Method to evaluate the Study Area for the presence or absence of indicators of the three wetland parameters described in the Corps Manual (Environmental Laboratory 1987) and Arid West Supplement (Corps 2008). Data on vegetation, hydrology, and soils were collected at sample points within potential wetland communities and adjacent upland areas. Sample points that contained positive indicators for hydrophytic vegetation, hydric soils, and wetland hydrology were considered to be wetland. Sample points that lacked one or more indicators were considered to be upland. Sample point data were reported on Arid West Supplement data forms. Sample point locations were recorded using a handheld GPS unit with mapping grade accuracy.

4.1.1 Vegetation

Plant species observed in the Study Area were identified using the Jepson eFlora (Jepson Flora Project 2024). Plants were assigned a wetland indicator status according to the National Wetland Plant List (NWPL; Corps 2022).

Wetland indicator statuses listed in the NWPL are based on the expected frequency of occurrence in wetlands, as follows in Table 1:

Table 1. Explanation of the Wetland Indicator Statuses in the National Wetland Plant List

CLASSIFICATION (ABBREVIATION)	DEFINITION	HYDROPHYTIC SPECIES? (Y/N)
Obligate (OBL)	Almost always is a hydrophyte, rarely in uplands	Y
Facultative Wetland (FACW)	Usually is a hydrophyte but occasionally found in uplands	Y
Facultative (FAC)	Commonly occurs as either a hydrophyte or non-hydrophyte	Y
Facultative Upland (FACU)	Occasionally is a hydrophyte but usually occurs in uplands	N
Upland / Not Listed (UPL / NL)	Rarely is a hydrophyte, almost always in uplands	N

The presence of hydrophytic vegetation was then determined based on indicator tests described in the Arid West Supplement. The Arid West Supplement requires that a three-step process be conducted to determine if hydrophytic vegetation is present. The procedure first requires the delineator to apply the "50/20 rule" (Indicator 1; Dominance Test) described in the manual. To apply the "50/20 rule," dominant species are chosen independently from each stratum of the community. Dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. Dominants are the most abundant species that individually or collectively account for more than 50% of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20% of the total vegetative cover. If more than 50% of the dominant species has an OBL, FACW, or FAC status, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails Indicator 1 and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation; however, if the sample point fails Indicator 1 but hydric soils and wetland hydrology are both present, the delineator must apply Indicator 2.

Indicator 2 is known as the Prevalence Index. The prevalence index is a weighted average of the wetland indicator status for all plant species within the sampling plot. Each indicator status is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Indicator 2 requires the delineator to estimate the percent cover of each species in every stratum of the community and sum the cover estimates for any species that is present in more than one stratum. The delineator must then organize all species into groups according to their wetland indicator status and calculate the Prevalence Index using the following formula, where A equals total percent cover:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

The Prevalence Index will yield a number between 1 and 5. If the Prevalence Index is equal to or less than 3, the sample point meets the hydrophytic vegetation criterion; however, if the community fails Indicator 2, the delineator must proceed to Indicator 3.

Indicator 3 is known as Morphological Adaptations. If more than 50 percent of the individuals of a FACU species have morphological adaptations for life in wetlands, that species is considered a hydrophyte and its indicator status should be reassigned to FAC. If such observations are made, the delineator must recalculate Indicators 1 and 2 using a FAC indicator status for this species. The sample point meets the hydrophytic vegetation criterion if either test is satisfied.

4.1.2 Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

> *"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part."*
>
> Federal Register July 13, 1994,
> U.S. Department of Agriculture, NRCS

Soils formed over long periods of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils can have a hydrogen sulfide (rotten egg) odor, low chroma matrix color, designation of 0, 1, or 2 (used to identify them as hydric), presence of redox concentrations, gleyed or depleted matrix, or high organic matter content.

Specific indicators used to determine whether a soil is hydric for the purposes of wetland delineation are provided in the NRCS *Field Indicators of Hydric Soils in the U.S.* (USDA 2018). Soil samples were collected and described according to the methodology provided in the Arid West Supplement. Soil chroma and values were determined by utilizing a standard Munsell soil color chart (Munsell Color 2009).

Hydric soils were determined to be present if any of the soil samples met one or more of the hydric soil indicators described in *Field Indicators of Hydric Soils in the U.S.* (USDA 2018) that occur in the Arid West region.

4.1.3 Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days in the Arid West region). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation, drift deposits, oxidized root channels, and salt crusts, or secondary indicators such as the FAC-neutral test, presence of a shallow aquitard, or crayfish burrows. The Arid West Supplement contains 16 primary hydrology indicators and 10 secondary hydrology indicators. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

The presence or absence of the primary or secondary indicators described in the Arid West Supplement was utilized to determine if sample points within the Study Area met the wetland hydrology criterion.

A hydrologic analysis using the Antecedent Precipitation Tool (Deters 2023) was conducted to determine whether precipitation levels during the 3 months prior to the site visits were above, below, or within the 30-year average for the region as well as to determine if the region was experiencing long-term drought conditions. Long-term precipitation data were obtained from weather stations in the vicinity of the Study Area. Drought condition data were obtained from monthly Palmer Drought Severity Index dataset published by the National Ocean and Atmospheric Administration (NOAA 2024).

During the 3-month period prior to the site visit, precipitation was drier than normal, and at the time of the site visit, the region was experiencing incipient wetness. The full results of the Antecedent Precipitation Tool analysis are provided as Appendix F.

4.1.4 Boundary Determinations

Wetland boundaries were identified using a combination of indicators observed on the ground, most often corresponding to changes in topography and dominant vegetation, in addition to other indicators.

4.2 Non-Wetland Waters

This study also evaluated the presence of non-wetland waters using Corps manuals and guidance for the identification of OHWM indicators (Corps 2005, Mersel and Lichvar 2014). Examples of non-wetland waters include lakes, rivers, and streams in addition to all areas below the high tide line in areas subject to tidal influence. Non-wetland water types potentially subject to both Corps and RWQCB/SWRCB jurisdiction were investigated and identified in the field and as part of this report.

4.2.1 Ordinary High Water Mark

The location of the OHWM in non-wetland waters was determined based on the Corps of Engineers Regulatory Guidance Letter 05-05 (Corps 2005), A Field Guide to Ordinary High Water

Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States (OHWM Guide; Mersel and Lichvar 2014) and the National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams, Interim Version (Corps 2022). This combination of OHWM delineation manuals is best suited to determining the location of OHWM at the site. The location of the OHWM was determined based on a combination of indicators observed on the ground as described in these manuals. The OHWM was mapped in the field using a GPS unit with mapping grade accuracy.

4.3 RESULTS

A map showing the location and extent of potential jurisdictional waters mapped within the Study Area is provided in Appendix A – Figure 3. As discussed above, the features are classified according to definitions relied upon by the Corps of Engineers, which in some cases may differ from classification under the State Wetland Policy. A summary of acreages of potential Corps jurisdiction under Section 404 of the CWA is provided in Table 2 below. Wetland Determination Data Forms are provided as Appendix B. Arid West OHWM Datasheets are provided as Appendix C. Photographs of the Study Area are provided as Appendix D. A list of all plant species observed within the Study Area during a summer protocol-level plant survey in August 2023, and any additional species found during delineation site visit is included as Appendix E. The results of a precipitation and hydrological analysis are included as Appendix F.

Table 2. Summary of Wetlands and Non-Wetland Waters Mapped Within the Study Area

FEATURE TYPE	CLASSIFICATION[1]	POTENTIAL SECTION 404 WATERS OF THE U.S.		POTENTIAL WATERS OF THE STATE	
		ACRES	LINEAR FEET	ACRES	LINEAR FEET
Scrub-shrub Wetland	PSS1e	0.08	-	0.08	-
Intermittent Stream	R4SB3	5.67	5.67	5.67	10,390
Total:		**5.75**	**10,390**	**5.75**	**10,390**

[1]FGDC 2013

Table 3. Summary of RWQCB and CDFW Jurisdictional Areas Mapped Within the Study Area

JURISDICTION	FEATURE TYPE	ACRES	LINEAR FEET
RWQCB and CDFW	Top of Bank (TOB) + Riparian Canopy	16.93	10,390

Table 4. Areas Determined Exempt from State and Federal Jurisdiction

FEATURE TYPE	ACRES	BASIS FOR EXEMPTION
Pond 2	3.73	Meets 33 CFR 328.3(b) condition (7) for features which are exempt from Section 404 Jurisdiction: "Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body water meets the definition of waters of the United States..." Not a Water of the State under State Wetland Policy as an artificial and was constructed and is currently used as part of an active surface mining facility.

4.4 Wetlands

4.4.1 Scrub-shrub Wetland

Scrub-shrub wetlands consist of woody vegetation typically under 20 feet in height, within saturated soil conditions. They are typically found in temporarily flooded floodplains, along river and stream banks, and near springs. The scrub-shrub wetland is located on a low bench below the OHWM of Arroyo Mocho in a stand of willows (Appendix A - Figure 3, Page 3). Vegetation within the wetland is dominated by narrowleaf willows (*Salix exigua*, FACW). Other non-dominant species include stinkwort (*Dittrichia graveolens*, NL) and cocklebur (*Xanthium strumarium*, FAC). The wetland sample point is located within an active flood plain where frequent sediment deposition occurs which can inhibit the formation of redoximorphic features. Hydric soils were assumed based on the presence of water within the channel at the time of the site visit and the fact that hydrophytic vegetation and indicators of wetland hydrology were met. Secondary indicators of wetland hydrology include Sediment Deposits (Riverine) (B2) and Drift Deposits (Riverine) (B3). Wetland boundaries were determined based on a shift in vegetation and a change in topography. Corps jurisdiction extends to the OHWM, while the RWQCB and CDFW jurisdiction under the Porter-Cologne Act and Section 1602 of the Fish and Game Code extends to the TOB or edge of riparian canopy, whichever is greater (Appendix A – Figures 3 and 4).

Scrub-shrub wetlands were classified as PSS1e: Palustrine (P), Scrub-shrub (SS), broad-leaved deciduous (1), and seasonally flooded/saturated (e).

4.5 Non-Wetland Waters

4.5.1 Intermittent Stream

Features in the intermittent stream category are linear features that have indicators of OHWM and within which water flows for a portion of the year, generally drying out during the driest time of the year. One intermittent stream, Arroyo Mocho, was mapped within the Study Area. It runs throughout the length Study Area, paralleling El Charro Road. OHWM indicators for Arroyo Mocho include a change in average sediment texture, change in vegetation species, change in vegetation cover, break in bank slope, scour, sediment deposits, and drift deposits. Arroyo Mocho contains an unvegetated cobble/gravel bed and sparse to dense woody riparian vegetation on the banks. It is a channelized stream with very steep banks at all reaches within the Study Area.

Arroyo Mocho is typically unvegetated or sparsely vegetated below OHWM. The southern reach of Arroyo Mocho within the Study Area was flowing at the time of the site visit on November 10, 2023. This flow is a result of summer releases of imported water upstream of the Study Area by the Zone 7 Water Agency, as described in Section 3.3. Corps jurisdiction extends to the OHWM, while the RWQCB and CDFW jurisdiction under the Porter-Cologne Act and Section 1602 of the Fish and Game Code extends to the TOB or edge of riparian canopy, whichever is greater (Appendix A – Figures 3 and 4).

Intermittent streams were classified as R4SB3: Riverine (R), intermittent (4), streambed (SB), and cobble-gravel (3).

5.0 CONCLUSION AND JURISDICTIONAL ANALYSIS

The results of this delineation of aquatic resources were based on conditions observed during the time of the assessment and information provided to WRA by Vulcan Materials Company. The delineation uses the federal methodology to determine the potential boundaries of wetlands and non-wetland features and is consistent with the approach used by the RWQCB to determine wetlands subject to the State Wetland Policy.

5.1 Potential Waters of the US

Based on the findings of the wetland delineation, the Study Area contains approximately 0.08- acre of scrub-shrub wetlands and 5.67 acres (10,390 linear feet) of intermittent stream (below OHWM) that would likely be considered jurisdictional by the Corps under Section 404 and 401 of the CWA as they have a continuous hydrological surface connection to a "traditional navigable water" (TNW) (San Francisco Bay). The scrub-shrub wetland has a continuous surface connection to Arroyo Mocho, an intermittent stream, which is considered to have connection to a TNW. There were no wetlands or streams within the Study Area determined to be hydrologically isolated from a TNW. These wetlands and non-wetland waters are also potential waters of the State per Section 401 of the Clean Water Act. Potential Waters of the U.S. are shown in Appendix A – Figure 3.

5.2 Potential RWQCB and CDFW Jurisdiction

Based on the findings of the wetland delineation, the Study Area contains approximately 16.93 acres (10,390 linear feet) which would likely be considered to be under RWQCB and CDFW Jurisdiction pursuant to the Porter-Cologne Act and Section 1602 of the Fish and Game Code (FGC). RWQCB and CDFW jurisdiction is measured up to the edge of riparian canopy and includes all areas below TOB of Arroyo Mocho. The RWQCB and CDFW jurisdiction is shown in Appendix A – Figure 4.

5.3 Features Determined Exempt from Both State and Federal Jurisdiction

Based on the findings of the wetland delineation, the Study Area contains a 3.73-acre portion of Pond 2. Pond 2 is the legacy quarry pit adjacent to the emergency repair reach of Arroyo Mocho. Pond 2 is a capped settling pond that is operated as part of the active quarry facility. The pond has steep slopes adjacent to Arroyo Mocho and the pond bottom is approximately 90 feet below the Arroyo Mocho TOB. Plant species observed above the water line on the steep slopes of the pond include patchy vegetative cover of blue gum (*Eucalyptus globulus*) and red gum (*E. camaldulensis*).

Pond 2 is federally exempt per 33 CFR 328.3(b), which states that *"waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body water meets the definition of waters of the United States"* are exempt. According to the State Wetland Policy, it is not defined as a water of the state because it is artificial and was constructed and is currently used as part of an active surface mining facility.

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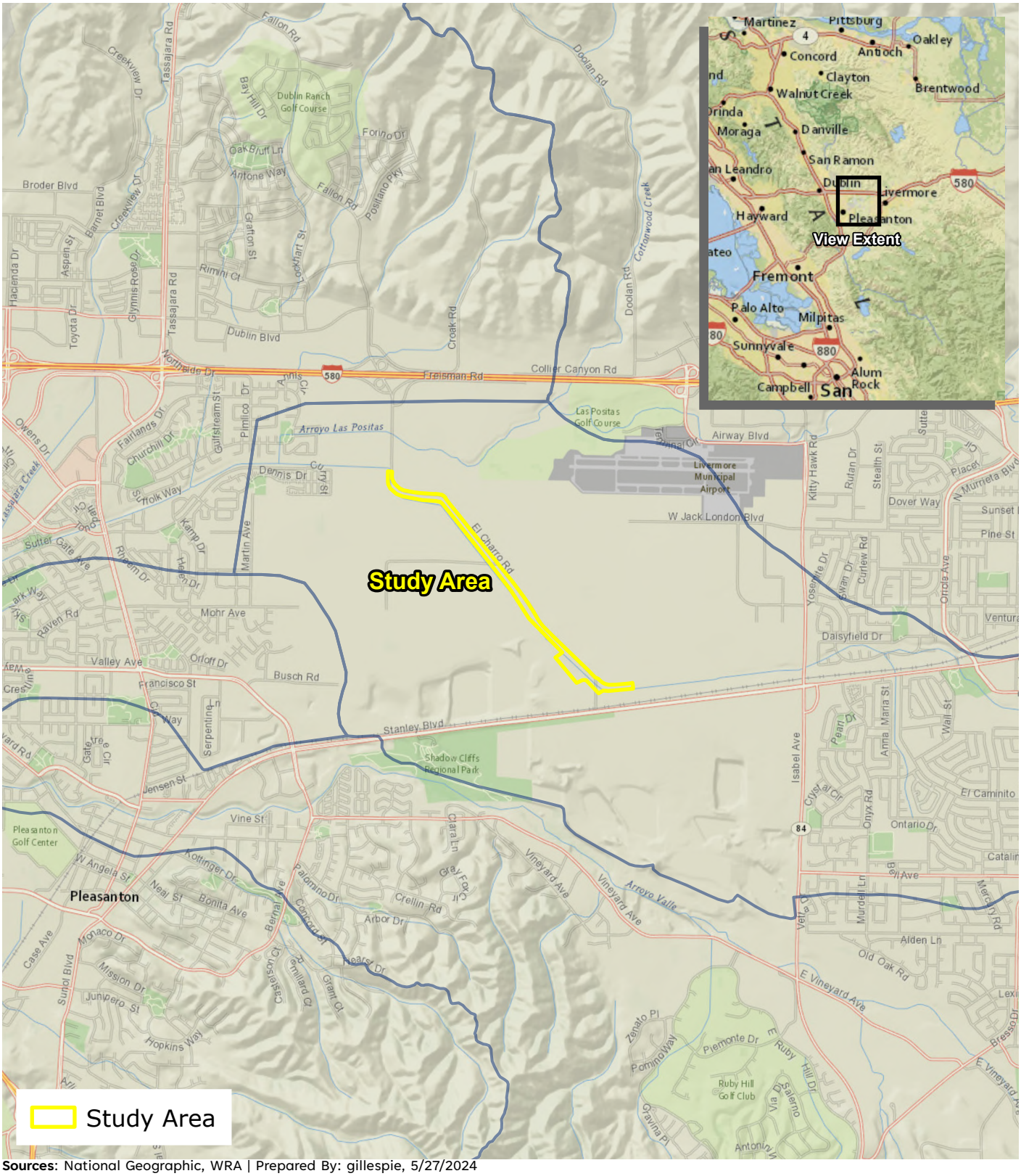
APPENDIX A. FIGURES



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Sources: National Geographic, WRA | Prepared By: gillespie, 5/27/2024

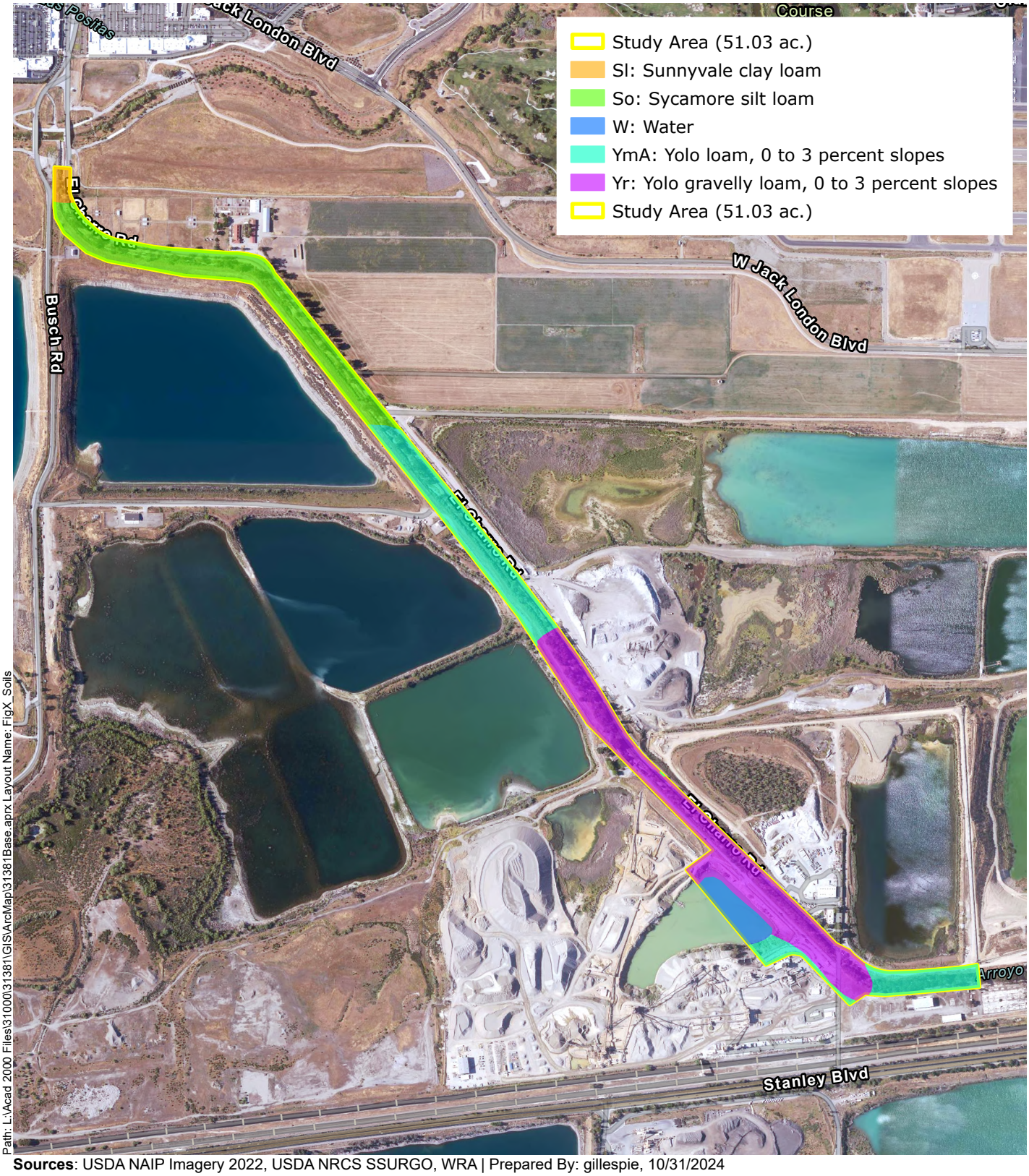
Figure 1. Study Area Regional Location Map

Arroyo Mocho Emergency Levee Repair
Vulcan Pleasanton Quarry
Alameda County, CA

0 0.5 1 Miles

N

wra Environmental Consultants



Sources: USDA NAIP Imagery 2022, USDA NRCS SSURGO, WRA | Prepared By: gillespie, 10/31/2024

Figure 2. Soil Types within the Study Area

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

0 750 1,500 Feet

N

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 3. Potential Jurisdictional Features

Page 1

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

0 100 200 Feet

N

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 3. Potential Jurisdictional Features
Page 2

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

0 100 200 Feet

N

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 3. Potential Jurisdictional Features

Page 3

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

0 100 200 Feet

N

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 3. Potential Jurisdictional Features

Page 4

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

0 100 200 Feet

N

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 3. Potential Jurisdictional Features

Page 5

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

0 100 200 Feet

N

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 3. Potential Jurisdictional Features
Page 6

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 4. Section 1602 Jurisdiction

Page 1

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 4. Section 1602 Jurisdiction
Page 2

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 4. Section 1602 Jurisdiction
Page 3

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

wra Environmental Consultants

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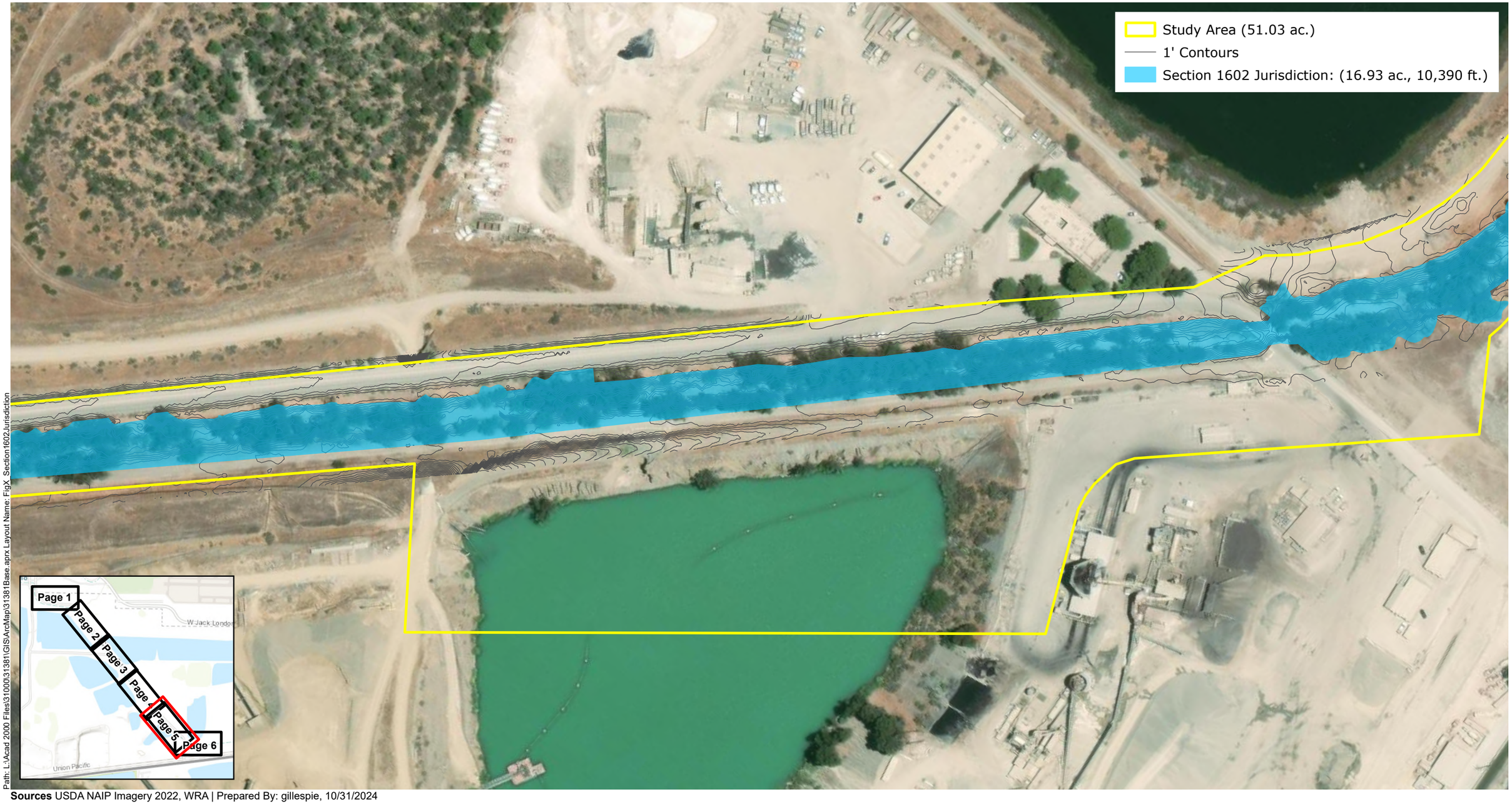
Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 4. Section 1602 Jurisdiction

Page 4

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

wra Environmental Consultants



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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 4. Section 1602 Jurisdiction

Page 5

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

wra Environmental Consultants

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Sources USDA NAIP Imagery 2022, WRA | Prepared By: gillespie, 10/31/2024

Figure 4. Section 1602 Jurisdiction

Page 6

Arroyo Mocho Levee Repair Project
Vulcan Pleasanton Quarry
Alameda County, CA

wra Environmental Consultants

APPENDIX B. WETLAND DETERMINATION DATA FORMS

Wetland Determination Data Form - Arid West Region

Project/Site: Vulcan Materials Arroyo Mocho | City: Pleasanton | County: Alameda | Sampling Date: 11/10/2023

Applicant/Owne: Vulcan Materials Company | State: CA | Sampling Point: **P01**

Investigator(s): Scott Batiuk, Katie Tyree | Section,Township,Range: 00, 3S, 1E

Landform (hillslope, terrace, etc: stream channel | cal Relief (concave, convex, none): variable | Slope(%): 0

Subregion(LRR): LRR C (Medit. CA) | Lat: 37.686541 | Long: -121.838213 | Datum: WGS 84

Soil Map Unit Name: Yolo loam, calcareous substratum, 0 to 6 percent slopes, MLRA14 | NWI classification: R4SBCx

Are climatic/hydrologic conditions on-site typical for this time of ye: ☒ Yes ☐ No (If no, explain in remarks

Are any of the following significantly disturbe: ☐ Vegetatio ☐ Soil ☐ Hydrolog | re "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problemat: ☐ Vegetatio ☐ Soil ☐ Hydrolog (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?** ☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No	
Wetland Hydrology Present?	☒ Yes ☐ No	

Remarks: Sample point is within a small patch of *Salix exigua* on a low bench below the Ordinary High Water Mark (OHWM). Paired with P02.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** -	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** 15' x 25'			
1. *Salix exigua*	60	Y	FACW
2. *Dittrichia graveolens*	1	N	NL
3. *Xanthium strumarium*	1	N	FAC
4.			
Sapling/Shrub Stratum Total Cover:	62		
HERB STRATUM **Plot Size:** -			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:			
WOODY VINE STRATUM **Plot Size:**			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 98 | % cover of biotic crust: 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 1 (A)

Total number of dominant species across all strata? 1 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of		Multiply by:	
OBL species		x1	
FACW species		x2	
FAC species		x3	
FACU species		x4	
UPL species		x5	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☒ Dominance Test is >50%
- ☐ Prevalence Index is </= 3.0[1]
- ☐ Morphological adaptations (provide supporting data in remarks)
- ☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☒ Yes ☐ No

Remarks: Hydrophytic vegetation indicator is met. Herbaceous layer made up less than 5% cover, so species are included in the shrub stratum.

SOIL

Sampling Point P01

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-4	7.5 YR 3/1	100						cobbles from 0-2 inches
4-8	7.5 YR 3/1	93	10 YR 4/1	7	D	M	fine sandy loam	
8-12	7.5 YR 3/1	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon
- ☐ Black Histic
- ☐ Hydrogen Sulfide
- ☐ Stratified Layers (A5)(LRR
- ☐ 1cm Muck (A9)(LRR
- ☐ Depleted Below Dark Surface
- ☐ Thick Dark Surface
- ☐ Sandy Mucky Mineral
- ☐ Sandy Gleyed Matrix
- ☐ Sandy Redox
- ☐ Stripped Matrix
- ☐ Loamy Mucky Mineral
- ☐ Loamy Gleyed Matrix
- ☐ Depleted Matrix
- ☐ Redox Dark Surface
- ☐ Depleted Dark Surface
- ☐ Redox Depressions
- ☐ Vernal Pools

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR
- ☐ 2cm Muck (A10)(LRR
- ☐ Reduced Vertic
- ☐ Red Parent Material
- ☒ Other (explain in

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☒ Yes ☐ No

Remarks: Problematic hydric soil is present. Vegetation and hydrology meet, and this point is located within an active flood plain where frequent sediment deposition occurs.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water
- ☐ High Water Table
- ☐ Saturation
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Surface Soil Cracks
- ☐ Inundation Visible on Aerial Imagery
- ☐ Water-Stained Leaves
- ☐ Salt Crust
- ☐ Biotic Crust
- ☐ Aquatic Invertebrates
- ☐ Hydrogen Sulfide Odor
- ☐ Oxidized Rhizospheres along Living Roots
- ☐ Presence of Reduced Iron
- ☐ Recent Iron Reduction in PLowed Soils
- ☐ Other (Explain in

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Drainage Patterns
- ☐ Dry-Season Water Table
- ☐ Thin Muck Surface
- ☐ Crayfish Burrows
- ☐ Saturation Visible on Aerial Imagery
- ☐ Shallow Aquitard
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☒ Yes ☐ No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sediment deposits (Riverine) and drift deposits (Riverine) are present, meeting two secondary wetland hydrology indicators.

Wetland Determination Data Form - Arid West Region

Project/Site: Vulcan Materials Arroyo Mocho | City: Pleasanton | County: Alameda | Sampling Date: 11/10/2023

Applicant/Owner: Vulcan Materials Company | State: CA | Sampling Point: **P02**

Investigator(s): Scott Batiuk, Katie Tyree | Section,Township,Range: 00, 3S, 1E

Landform (hillslope, terrace, etc.): stream bank | Local Relief (concave, convex, none): none | Slope(%): 1-100

Subregion(LRR): LRR C (Medit. CA) | Lat: 37.686580 | Long: -121.838188 | Datum: WGS 84

Soil Map Unit Name: Yolo loam, calcareous substratum, 0 to 6 percent slopes, MLRA14 | NWI classification: none

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetatio ☐ Soil ☐ Hydrolog | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetatio ☐ Soil ☐ Hydrolog | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?** ☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No	
Wetland Hydrology Present?	☒ Yes ☐ No	

Remarks: Steep upland bank and adjacent bench above wetland in P01. Bench portion received streamflow but is above OHWM.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** -	Absolute % cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:** -			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' radius			
1. *Hirschfeldia incana*	45	Y	NL
2. *Avena* sp.	2	N	NL
3. *Dittrichia graveolens*	7	N	NL
4. *Rubus armeniacus*	1	N	FAC
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:			
WOODY VINE STRATUM **Plot Size:**			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 44 | % cover of biotic crust: 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 0 (A)

Total number of dominant species across all strata? 1 (B)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is </= 3.0[1]
- ☐ Morphological adaptations (provide supporting data in remarks)
- ☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Hydrophytic vegetation wetland indicator is not met.

SOIL

Sampling Point P02

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[1]	Texture	Remarks
0-12	10 YR 3/2	100					loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon
- ☐ Black Histic
- ☐ Hydrogen Sulfide
- ☐ Stratified Layers (A5)(LRR
- ☐ 1cm Muck (A9)(LRR
- ☐ Depleted Below Dark Surface
- ☐ Thick Dark Surface
- ☐ Sandy Mucky Mineral
- ☐ Sandy Gleyed Matrix
- ☐ Sandy Redox
- ☐ Stripped Matrix
- ☐ Loamy Mucky Mineral
- ☐ Loamy Gleyed Matrix
- ☐ Depleted Matrix
- ☐ Redox Dark Surface
- ☐ Depleted Dark Surface
- ☐ Redox Depressions
- ☐ Vernal Pools

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR
- ☐ 2cm Muck (A10)(LRR
- ☐ Reduced Vertic
- ☐ Red Parent Material
- ☐ Other (explain in

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: No hydric soil indicators are present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water
- ☐ High Water Table
- ☐ Saturation
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Surface Soil Cracks
- ☐ Inundation Visible on Aerial Imagery
- ☐ Water-Stained Leaves
- ☐ Salt Crust
- ☐ Biotic Crust
- ☐ Aquatic Invertebrates
- ☐ Hydrogen Sulfide Odor
- ☐ Oxidized Rhizospheres along Living Roots
- ☐ Presence of Reduced Iron
- ☐ Recent Iron Reduction in PLowed Soils
- ☐ Other (Explain in

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Drainage Patterns
- ☐ Dry-Season Water Table
- ☐ Thin Muck Surface
- ☐ Crayfish Burrows
- ☐ Saturation Visible on Aerial Imagery
- ☐ Shallow Aquitard
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☒ Yes ☐ No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sediment deposits (Riverine) and drift deposits (Riverine) are met as indicators of wetland hydrology.

Wetland Determination Data Form - Arid West Region

Project/Site: Vulcan Materials Arroyo Mocho | City: Pleasanton | County: Alameda | Sampling Date: 11/10/2023

Applicant/Owner: Vulcan Materials Company | State: CA | Sampling Point: **P03**

Investigator(s): Scott Batiuk, Katie Tyree | Section,Township,Range: 00, 3S, 1E

Landform (hillslope, terrace, etc.): channel bank | Local Relief (concave, convex, none): convex | Slope(%): 50

Subregion(LRR): LRR C (Medit. CA) | Lat: 37.691187 | Long: -121.843046 | Datum: WGS 84

Soil Map Unit Name: Sycamore silt loam, 0 to 2 percent slopes, MLRA 14 | NWI classification: none

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetatio ☐ Soil ☐ Hydrolog | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetatio ☐ Soil ☐ Hydrolog | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?** ☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No	
Wetland Hydrology Present?	☐ Yes ☒ No	

Remarks: Representative of upland channel banks in the northern portion of the Study Area.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** 15' x 100'	Absolute % cover	Dominant Species?	Indicator Status
1. *Juglans hindsii*	5	Y	FAC
2. *Eucalyptus camaldulensis*	1	N	FAC
3.			
4.			
Tree Stratum Total Cover:	6		
SAPLING/SHRUB STRATUM **Plot Size:** -			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 5' radius			
1. *Hirschfeldia incana*	40	Y	NL
2. *Dittrichia graveolens*	3	N	NL
3.			
4.			
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	43		
WOODY VINE STRATUM **Plot Size:** -			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 57 | % cover of biotic crust: 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 1 (A)

Total number of dominant species across all strata? 3 (B)

% of dominant species that are OBL, FACW, or FAC? 33 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:	
OBL species	x1	
FACW species	x2	
FAC species	x3	
FACU species	x4	
UPL species	x5	
Column Totals (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is </= 3.0[1]
- ☐ Morphological adaptations (provide supporting data in remarks)
- ☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Hydrophytic vegetation wetland indicator is not met.

SOIL

Sampling Point P03

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[1]	Texture	Remarks
0-12	10 YR 4/3	100					sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon
- ☐ Black Histic
- ☐ Hydrogen Sulfide
- ☐ Stratified Layers (A5)(LRR
- ☐ 1cm Muck (A9)(LRR
- ☐ Depleted Below Dark Surface
- ☐ Thick Dark Surface
- ☐ Sandy Mucky Mineral
- ☐ Sandy Gleyed Matrix
- ☐ Sandy Redox
- ☐ Stripped Matrix
- ☐ Loamy Mucky Mineral
- ☐ Loamy Gleyed Matrix
- ☐ Depleted Matrix
- ☐ Redox Dark Surface
- ☐ Depleted Dark Surface
- ☐ Redox Depressions
- ☐ Vernal Pools

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR
- ☐ 2cm Muck (A10)(LRR
- ☐ Reduced Vertic
- ☐ Red Parent Material
- ☐ Other (explain in

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: No hydric soil indicators are present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water
- ☐ High Water Table
- ☐ Saturation
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Surface Soil Cracks
- ☐ Inundation Visible on Aerial Imagery
- ☐ Water-Stained Leaves
- ☐ Salt Crust
- ☐ Biotic Crust
- ☐ Aquatic Invertebrates
- ☐ Hydrogen Sulfide Odor
- ☐ Oxidized Rhizospheres along Living Roots
- ☐ Presence of Reduced Iron
- ☐ Recent Iron Reduction in PLowed Soils
- ☐ Other (Explain in

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Drainage Patterns
- ☐ Dry-Season Water Table
- ☐ Thin Muck Surface
- ☐ Crayfish Burrows
- ☐ Saturation Visible on Aerial Imagery
- ☐ Shallow Aquitard
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ Yes ☒ No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators are present.

Wetland Determination Data Form - Arid West Region

Project/Site: Vulcan Materials Arroyo Mocho | City: Pleasanton | County: Alameda | Sampling Date: 11/10/2023

Applicant/Owner: Vulcan Materials Company | State: CA | Sampling Point: **P04**

Investigator(s): Scott Batiuk, Katie Tyree | Section,Township,Range: 00, 3S, 1E

Landform (hillslope, terrace, etc.): stream channel | Local Relief (concave, convex, none): variable | Slope(%): 3

Subregion(LRR): LRR C (Medit. CA) | Lat: 37.676283 | Long: -121.826636 | Datum: WGS 84

Soil Map Unit Name: Yolo gravelly loam, 0 to 3 percent slopes | NWI classification: R4SBCx

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetatio ☐ Soil ☐ Hydrolog | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetatio ☐ Soil ☐ Hydrolog | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?** ☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No	
Wetland Hydrology Present?	☐ Yes ☒ No	

Remarks: Sample point located on bank of channel within a eucalyptus patch adjacent to active quarry and roads. Point is located at the southern end of the Study Area.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** 20' x 10'	Absolute % cover	Dominant Species?	Indicator Status
1. *Eucalyptus globulus*	70	Y	NL
2. *Xanthium strumarium*	1	N	FAC
3. *Datura wrightii*	1	N	UPL
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:**			
1.			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:**			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:			
WOODY VINE STRATUM **Plot Size:**			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 90 | % cover of biotic crust: 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 0 (A)

Total number of dominant species across all strata? 0 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:	Multiply by:
OBL species	x1
FACW species	x2
FAC species	x3
FACU species	x4
UPL species	x5
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is </= 3.0[1]
- ☐ Morphological adaptations (provide supporting data in remarks)
- ☐ Problematic hydrophytic vegetation[1] (explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present ? ☐ Yes ☒ No

Remarks: Herbaceous vegetation less than 5% cover so included in tree stratum. Mostly leaf litter. Hydrophytic vegetation wetland indicator is not met.

SOIL

Sampling Point P04

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[1]	Texture	Remarks
0-12	10 YR 4/3	100					sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon
- ☐ Black Histic
- ☐ Hydrogen Sulfide
- ☐ Stratified Layers (A5)(LRR
- ☐ 1cm Muck (A9)(LRR
- ☐ Depleted Below Dark Surface
- ☐ Thick Dark Surface
- ☐ Sandy Mucky Mineral
- ☐ Sandy Gleyed Matrix
- ☐ Sandy Redox
- ☐ Stripped Matrix
- ☐ Loamy Mucky Mineral
- ☐ Loamy Gleyed Matrix
- ☐ Depleted Matrix
- ☐ Redox Dark Surface
- ☐ Depleted Dark Surface
- ☐ Redox Depressions
- ☐ Vernal Pools

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR
- ☐ 2cm Muck (A10)(LRR
- ☐ Reduced Vertic
- ☐ Red Parent Material
- ☐ Other (explain in

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: No redoximorphic features present in the soil profile. Hydric soil indicator is not present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water
- ☐ High Water Table
- ☐ Saturation
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Surface Soil Cracks
- ☐ Inundation Visible on Aerial Imagery
- ☐ Water-Stained Leaves
- ☐ Salt Crust
- ☐ Biotic Crust
- ☐ Aquatic Invertebrates
- ☐ Hydrogen Sulfide Odor
- ☐ Oxidized Rhizospheres along Living Roots
- ☐ Presence of Reduced Iron
- ☐ Recent Iron Reduction in PLowed Soils
- ☐ Other (Explain in

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Drainage Patterns
- ☐ Dry-Season Water Table
- ☐ Thin Muck Surface
- ☐ Crayfish Burrows
- ☐ Saturation Visible on Aerial Imagery
- ☐ Shallow Aquitard
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ Yes ☒ No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No wetland hydrology indicators present.

APPENDIX C. OHWM DATASHEETS

APPENDIX D. STUDY AREA PHOTOGRAPHS

Photo 1. Dry portion of Arroyo Mocho, at the western extent of the Study Area. Riparian vegetation is visible on both sides of the stream. Photo taken on November 10, 2023.

Photo 2. Repaired portion of Arroyo Mocho (near the quarry entrance) at the eastern reach of the Study Area. Photo taken on November 10, 2023.

Photo 3. Flowing portion of Arroyo Mocho, at the eastern extent of the Study Area. Riparian vegetation is visible on both sides of the stream. Photo taken on November 10, 2023.

Photo 4. Sandbar willows within the scrub-shrub wetland, bordering upland coyote brush (on the right). Photo taken on November 10, 2023.

Photo 4. Photo taken facing downstream toward the scrub-shrub wetland (on the right). Photo taken on November 10, 2023.

Photo 6. Sandbar willows within the scrub-shrub wetland. Photo taken on November 10, 2023.

Photo 7. Pond 2 is a non-discharge process pond that is operated as part of the active quarry facility. Photo taken on March 27, 2024.

APPENDIX E. PLANT SPECIES OBSERVED WITHIN THE STUDY AREA

Appendix E. Species observed within the Study Area on August 23 and November 10, 2023.

PLANTS						
SCIENTIFIC NAME	**COMMON NAME**	**ORIGIN**	**FORM**	**RARITY STATUS[1]**	**CAL-IPC STATUS[2]**	**WETLAND STATUS[3]**
Aesculus californica	Buckeye	native	tree	-	-	-
Amaranthus albus	Tumbleweed	non-native	annual herb	-	-	FACU
Artemisia californica	Coastal sage brush	native	shrub	-	-	-
Artemisia douglasiana	California mugwort	native	perennial herb	-	-	FAC
Asclepias fascicularis	Narrow leaved milkwed	native	perennial herb	-	-	FAC
Baccharis pilularis	Coyote brush	native	shrub	-	-	-
Baccharis salicifolia ssp. *salicifolia*	Mule fat	native	shrub	-	-	FAC
Bromus diandrus	Ripgut brome	non-native (invasive)	annual grass	-	Moderate	-
Bromus hordeaceus	Soft chess	non-native (invasive)	annual grass	-	Limited	FACU
Bromus madritensis	Foxtail brome	non-native	annual grass	-	-	UPL
Carduus pycnocephalus ssp. pycnocephalus	Italian thistle	non-native (invasive)	annual herb	-	Moderate	-
Centaurea calcitrapa	Purple star thistle	non-native (invasive)	annual, perennial herb	-	Moderate	-
Centaurea solstitialis	Yellow starthistle	non-native (invasive)	annual herb	-	High	-
Chenopodium album	Lambs quarters	non-native	annual herb	-	-	FACU
Cirsium vulgare	Bullthistle	non-native (invasive)	perennial herb	-	Moderate	FACU
Conium maculatum	Poison hemlock	non-native (invasive)	perennial herb	-	Moderate	FACW
Croton setiger	Turkey-mullein	native	perennial herb	-	-	-
Crypsis schoenoides	Swamp grass	non-native	annual grass	-	-	FACW
Cynodon dactylon	Bermuda grass	non-native (invasive)	perennial grass	-	Moderate	FACU

PLANTS						
SCIENTIFIC NAME	**COMMON NAME**	**ORIGIN**	**FORM**	**RARITY STATUS[1]**	**CAL-IPC STATUS[2]**	**WETLAND STATUS[3]**
Cyperus eragrostis	Tall cyperus	native	perennial grasslike herb	-	-	FACW
Datura wrightii	Jimsonweed	native	perennial herb	-	-	UPL
Dittrichia graveolens	Stinkwort	non-native (invasive)	annual herb	-	Moderate	-
Dysphania ambrosioides	Mexican tea	non-native	annual, perennial herb	-	-	FAC
Echinochloa crus-galli	Barnyard grass	non-native	annual grass	-	-	FACW
Elymus triticoides	Beardless wild rye	native	perennial grass	-	-	FAC
Epilobium brachycarpum	Panicled willow herb	native	annual herb	-	-	FAC
Epilobium ciliatum	Slender willow herb	native	perennial herb	-	-	FACW
Erigeron bonariensis	Flax-leaved horseweed	non-native	annual herb	-	-	FACU
Erigeron canadensis	Horseweed	native	annual herb	-	-	FACU
Eschscholzia californica	California poppy	native	annual, perennial herb	-	-	-
Eucalyptus camaldulensis	Red gum	non-native (invasive)	tree	-	Limited	FAC
Eucalyptus globulus	Blue gum	non-native (invasive)	tree	-	Limited	-
Euphorbia maculata	Spotted spurge	non-native	annual herb	-	-	UPL
Euphorbia serpillifolia ssp. *serpillifolia*	Thyme-leafed spurge	native	annual, perennial herb	-	-	-
Euthamia occidentalis	Western goldenrod	native	perennial herb	-	-	FACW
Festuca myuros	Rattail sixweeks grass	non-native (invasive)	annual grass	-	Moderate	FACU
Festuca perennis	Italian rye grass	non-native (invasive)	annual, perennial grass	-	Moderate	FAC
Ficus carica	Common fig	non-native (invasive)	tree	-	Moderate	FACU
Foeniculum vulgare	Fennel	non-native (invasive)	perennial herb	-	High	-

PLANTS						
SCIENTIFIC NAME	**COMMON NAME**	**ORIGIN**	**FORM**	**RARITY STATUS[1]**	**CAL-IPC STATUS[2]**	**WETLAND STATUS[3]**
Fraxinus latifolia	Oregon ash	native	tree	-	-	FACW
Heliotropium curassavicum var. *oculatum*	Alkali heliotrope	native	perennial herb	-	-	FACU
Helminthotheca echioides	Bristly ox-tongue	non-native (invasive)	annual, perennial herb	-	Limited	FAC
Hirschfeldia incana	Short-podded mustard	non-native (invasive)	perennial herb	-	Moderate	-
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	non-native (invasive)	annual grass	-	Moderate	FAC
Hordeum murinum	Foxtail barley	non-native (invasive)	annual grass	-	Moderate	FACU
Juglans hindsii	Northern California black walnut	native	tree	-	-	FAC
Kickxia elatine	Sharp point fluellin	non-native	perennial herb	-	-	UPL
Lactuca serriola	Prickly lettuce	non-native	annual herb	-	-	FACU
Lepidium latifolium	Perennial pepperweed	non-native (invasive)	perennial herb	-	High	FAC
Leptochloa fusca ssp. *fascicularis*	Bearded sprangletop	native	annual grass	-	-	FACW
Lycopersicon esculentum	Tomato	non-native	annual, perennial herb	-	-	-
Lysimachia arvensis	Scarlet pimpernel	non-native	annual herb	-	-	FAC
Lythrum hyssopifolia	Hyssop loosestrife	non-native (invasive)	annual, perennial herb	-	Limited	OBL
Medicago polymorpha	Bur clover	non-native (invasive)	annual herb	-	Limited	FACU
Melilotus albus	White sweetclover	non-native	annual, biennial herb	-	-	-
Nicotiana acuminata var. *multiflora*	Many flowered tobacco	non-native	annual herb	-	-	-
Nicotiana glauca	Tree tobacco	non-native (invasive)	tree, shrub	-	Moderate	FAC
Persicaria lapathifolia	Common knotweed	native	annual herb	-	-	FACW

PLANTS						
SCIENTIFIC NAME	**COMMON NAME**	**ORIGIN**	**FORM**	**RARITY STATUS[1]**	**CAL-IPC STATUS[2]**	**WETLAND STATUS[3]**
Persicaria maculosa	Spotted ladysthumb	non-native	annual herb	-	-	FACW
Phalaris aquatica	Harding grass	non-native (invasive)	perennial grass	-	Moderate	FACU
Phragmites australis	Common reed	native	perennial grass	-	-	FACW
Plantago lanceolata	Ribwort	non-native (invasive)	perennial herb	-	Limited	FAC
Plantago major	Common plantain	non-native	perennial herb	-	-	FAC
Polygonum aviculare	Prostrate knotweed	non-native	annual, perennial herb	-	-	FAC
Polypogon interruptus	Ditch beard grass	non-native	perennial grass	-	-	FACW
Polypogon monspeliensis	Annual beard grass	non-native (invasive)	annual grass	-	Limited	FACW
Populus fremontii ssp. *fremontii*	Fremont cottonwood	native	tree	-	-	FAC
Pseudognaphalium luteoalbum	Jersey cudweed	non-native	annual herb	-	-	FAC
Quercus lobata	Valley oak	native	tree	-	-	FACU
Raphanus sativus	Wild radish	non-native (invasive)	annual, biennial herb	-	Limited	-
Robinia pseudoacacia	Black locust	non-native (invasive)	tree	-	Limited	FACU
Rosa californica	California wild rose	native	shrub	-	-	FAC
Rubus armeniacus	Himalayan blackberry	non-native (invasive)	shrub	-	High	FAC
Rumex californicus	California dock	native	perennial herb	-	-	FACW
Rumex crispus	Curly dock	non-native (invasive)	perennial herb	-	Limited	FAC
Salix exigua	Narrowleaf willow	native	tree, shrub	-	-	FACW
Salix gooddingii	Goodding's black willow	native	tree	-	-	FACW
Salix laevigata	Red willow	native	tree	-	-	FACW

PLANTS						
SCIENTIFIC NAME	**COMMON NAME**	**ORIGIN**	**FORM**	**RARITY STATUS[1]**	**CAL-IPC STATUS[2]**	**WETLAND STATUS[3]**
Salix lasiolepis	Arroyo willow	native	tree, shrub	-	-	FACW
Salix tracyi	Tracy's willow	native	tree, shrub	-	-	NL
Sambucus mexicana	Blue elderberry	native	shrub	-	-	FACU
Schoenoplectus acutus var. *occidentalis*	Tule	native	perennial grasslike herb	-	-	OBL
Setaria parviflora	Marsh bristlegrass	native	perennial grass	-	-	FAC
Silybum marianum	Milk thistle	non-native (invasive)	annual, perennial herb	-	Limited	-
Solanum americanum	White nightshade	native	annual, perennial herb	-	-	FACU
Sonchus asper ssp. *asper*	Prickly sow thistle	non-native	annual herb	-	-	FAC
Sonchus oleraceus	Common sow thistle	non-native	annual herb	-	-	UPL
Stachys albens	Cobwebby hedge nettle	native	perennial herb	-	-	OBL
Stipa miliacea var. *miliacea*	Smilo grass	non-native (invasive)	perennial grass	-	Limited	-
Tamarix ramosissima	Tamarisk	non-native (invasive)	tree, shrub	-	High	FAC
Tribulus terrestris	Puncture vine	non-native (invasive)	annual herb	-	Limited	-
Trichostema lanatum	Woolly bluecurls	native	shrub	-	-	-
Trifolium hirtum	Rose clover	non-native (invasive)	annual herb	-	Limited	-
Urtica dioica	Stinging nettle	native	perennial herb	-	-	FAC
Verbascum thapsus	Woolly mullein	non-native (invasive)	perennial herb	-	Limited	FACU
Verbena lasiostachys	Western vervain	native	perennial herb	-	-	FAC
Veronica anagallis-aquatica	Water speedwell	non-native	perennial herb	-	-	OBL
Vinca major	Greater periwinkle	non-native (invasive)	perennial herb	-	Moderate	FACU

PLANTS						
SCIENTIFIC NAME	**COMMON NAME**	**ORIGIN**	**FORM**	**RARITY STATUS[1]**	**CAL-IPC STATUS[2]**	**WETLAND STATUS[3]**
Vitis californica	California wild grape	native	vine, shrub	-	-	FACU
Xanthium strumarium	Cocklebur	native	annual herb	-	-	FAC

All species identified using the *Jepson Flora Project* (Jepson eFlora 2024*)*; nomenclature follows Jepson eFlora. Sp.: "species," intended to indicate that the observer was confident in the identity of the genus but uncertain which species.

[1]Rare Status:

The CNPS Inventory of Rare and Endangered Plants (CNPS 2024b)

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
Rank 1A:	Plants presumed extirpated in California and either rare or extinct elsewhere
Rank 1B:	Plants rare, threatened, or endangered in California and elsewhere
Rank 2A:	Plants presumed extirpated in California, but more common elsewhere
Rank 2B:	Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3:	Plants about which we need more information – a review list
Rank 4:	Plants of limited distribution – a watch list

[2]Invasive Status: California Invasive Plant Inventory (Cal-IPC 2024)

High:	Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.
Moderate:	Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited-moderate distribution ecologically
Limited:	Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically
Assessed:	Assessed by Cal-IPC and determined to not be an existing current threat

[3]Wetland Status: National List of Plant Species that Occur in Wetlands, Arid West Region (Corps 2022)

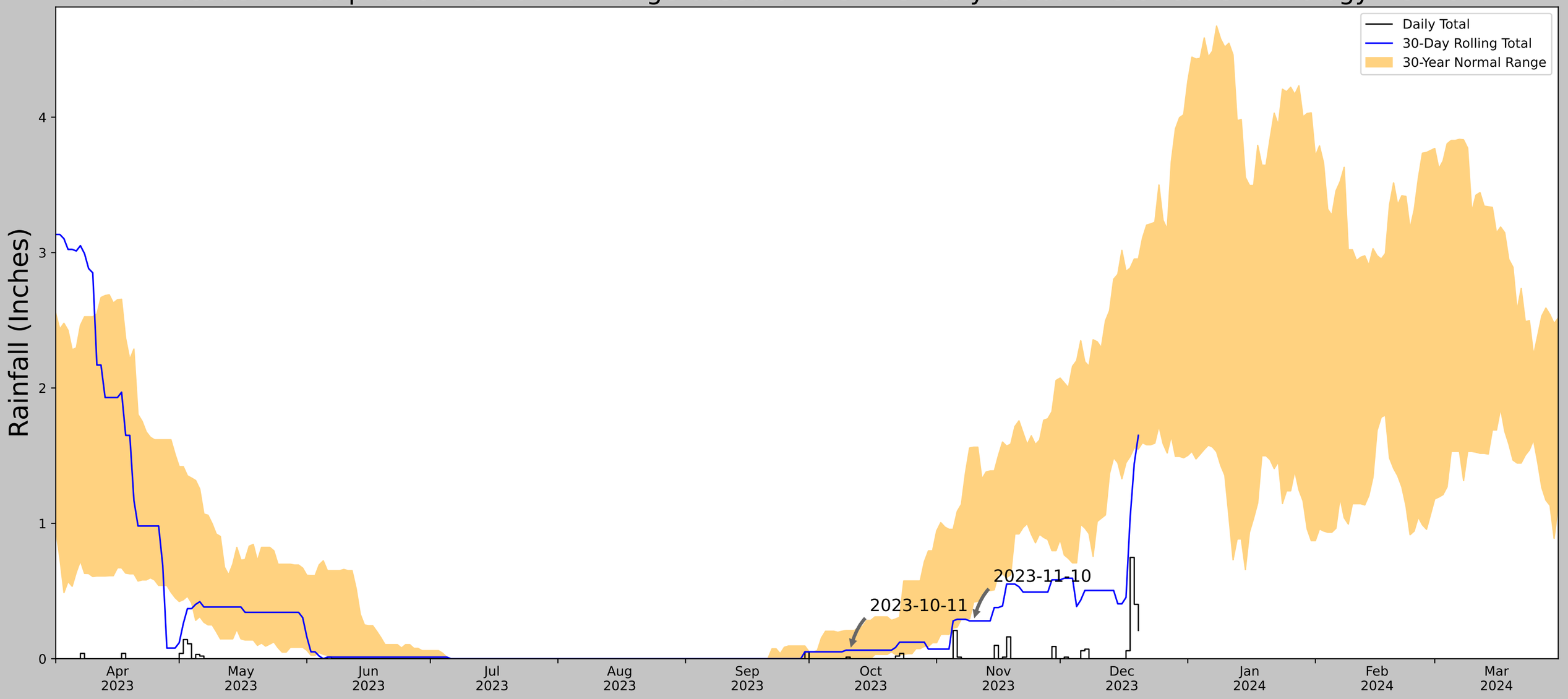
OBL:	Almost always a hydrophyte, rarely in uplands
FACW:	Usually a hydrophyte, but occasionally found in uplands
FAC:	Commonly either a hydrophyte or non-hydrophyte
FACU:	Occasionally a hydrophyte, but usually found in uplands
UPL:	Rarely a hydrophyte, almost always in uplands
NL:	Rarely a hydrophyte, almost always in uplands
NI:	No information; not factored during wetland delineation

PLANTS						
SCIENTIFIC NAME	COMMON NAME	ORIGIN	FORM	RARITY STATUS[1]	CAL-IPC STATUS[2]	WETLAND STATUS[3]

[4] **Lake, D [compiler]. 2022. Rare, Unusual, and Significant Plants of Alameda and Contra Costa Counties (web application). Berkeley, California: East Bay Chapter of the California Native Plant Society. Online at: https://rareplants.ebcnps.org/; most recently accessed: December 2023.**

A1:	Locally Rare Species. Species occurring in two or fewer regions in Alameda and Contra Costa counties
A1x:	Locally Rare Species. Species presumed extirpated from Alameda and Contra Costa counties
A1?:	Locally Rare Species. Species possibly occurring in Alameda and Contra Costa counties. Identification or location is uncertain
A2:	Locally Rare Species. Plants occurring in three to five regions or are otherwise threatened in Alameda and Contra Costa counties.
B:	High Priority Watch List. Plants occurring in six to nine regions in Alameda and Contra Costa counties.
C:	Second Priority Watch List. Plants occurring in ten to fifteen regions in Alameda and Contra Costa counties.
*:	Ranks preceded by an asterisk (e.g. "*A1") also have a statewide rarity ranking

APPENDIX F. ANTECEDENT PRECIPITATION TOOL ANALYSIS



Coordinates	37.685185, -121.836434
Observation Date	2023-11-10
Elevation (ft)	366.447
Drought Index (PDSI)	Incipient wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-11-10	0.41811	1.562598	0.279528	Dry	1	3	3
2023-10-11	0.0	0.208661	0.062992	Normal	2	2	4
2023-09-11	0.0	0.0	0.0	Normal	2	1	2
Result							Drier than Normal - 9

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
LIVERMORE MUNI AP	37.6931, -121.815	393.045	1.293	26.598	0.616	9302	90
PLEASANTON 0.4 ESE	37.6702, -121.8814	344.16	3.961	48.885	1.976	4	0
LIVERMORE	37.6819, -121.7514	528.871	3.563	135.826	2.087	2016	0
UPPER SAN LEANDRO FILTERS	37.7719, -122.1675	394.029	20.017	0.984	9.027	30	0

ATTACHMENT C. EMERGENCY PROCLAMATION

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EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS beginning December 27, 2022, severe winter storms related to a series of atmospheric river systems struck California, bringing high winds, substantial precipitation, and river and urban flooding; and

WHEREAS it is forecasted that additional and continuing storms related to this series of atmospheric river systems threaten California, bringing heavy rainfall, expected flooding, strong winds and wind gusts, falling debris, downed trees, and widespread power outages; and

WHEREAS in preparation for the forecasted storms, multiple California Conservation Corps flood fight crews, fire swift water rescue, and urban search and rescue teams have been strategically prepositioned for emergency response; sandbags have been made available throughout the State; and shelters are opening for displaced individuals; and

WHEREAS these storms forced the closure and caused damage to highways and roads, as well as caused levee and culvert failures, and mandatory evacuations in severely impacted counties, and such impacts will likely continue to be caused by the forecasted storms; and

WHEREAS these storms threatened and continue to threaten critical infrastructure, movement of resources, burn scars from recent wildfires potentially causing mud and debris flows; resulted in and threaten power outages to thousands of households and businesses; and caused and continue to threaten river and urban flooding due to excessive and prolonged rainfall; and

WHEREAS due to the series of atmospheric river systems continuously impacting counties throughout the State, the counties have not had time to mitigate the cascading impacts of these storms; and

WHEREAS under the provisions of Government Code section 8558(b), I find that conditions of extreme peril to the safety of persons and property exist due to these storms; and

WHEREAS under the provisions of Government Code section 8558(b), I find that the conditions caused by these storms, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under the provisions of Government Code section 8625(c), I find that local authority is inadequate to cope with the magnitude of the damage caused by these storms; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Proclamation would prevent, hinder, or delay the mitigation of the effects of these storms.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist throughout California.

IT IS HEREBY ORDERED THAT:

1. All agencies of the state government utilize and employ state personnel, equipment, and facilities for the performance of any and all activities consistent with the direction of the Office of Emergency Services and the State Emergency Plan. Also, all residents are to obey the direction of emergency officials with regard to this emergency in order to protect their safety.

2. The Office of Emergency Services shall provide assistance to local governments, if appropriate, under the authority of the California Disaster Assistance Act, Government Code section 8680 et seq., and California Code of Regulations, Title 19, section 2900 et seq.

3. As necessary to assist local governments and for the protection of public health and the environment, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly assist with the response to and recovery from the impacts of these storms. Applicable provisions of the Government Code and the Public Contract Code, including but not limited to travel, advertising, and competitive bidding requirements, are suspended to the extent necessary to address the effects of these storms.

4. Any fairgrounds the Office of Emergency Services determines suitable to assist individuals impacted by these storms shall be made available to the Office of Emergency Services pursuant to the Emergency Services Act, Government Code section 8589. The Office of Emergency Services shall notify the fairgrounds of the intended use and may immediately utilize the fairgrounds without the fairground board of directors' approval.

5. The California Department of Transportation shall formally request immediate assistance through the Federal Highway Administration's Emergency Relief Program, United States Code, Title 23, section 125, in order to obtain federal assistance for highway repairs or reconstruction.

6. The California National Guard may be mobilized under Military and Veterans Code section 146 to support disaster response and relief efforts, as directed by the Office of Emergency Services, and to coordinate with all relevant state agencies and state and local emergency responders and law enforcement within the impacted areas. Sections 147 and 188 of the Military and Veterans Code are applicable during the period of participation in this mission, exempting the California Military Department from applicable procurement rules

for specified emergency purchases, and those rules are hereby suspended.

7. Any state-owned properties the Office of Emergency Services determines suitable for staging of debris as a result of these storms shall be made available to the Office of Emergency Services for this purpose in accordance with Government Code section 8570.

8. Drivers may exceed the hours-of-service limits specified in California Vehicle Code section 34501.2 and California Code of Regulations, Title 13, section 1212.5 while operating a vehicle engaged in fuel transportation in support of emergency relief efforts, subject to the following conditions:

    a. Motor carriers or drivers currently subject to an out-of-service order are eligible for the exemption once the out-of-service order expires or when they have met the conditions for its rescission.

    b. In accordance with Section 1214, Title 13, California Code of Regulations, no motor carrier operating under the terms of this Proclamation will require or allow an ill or fatigued driver to operate a motor vehicle. A driver who notifies a motor vehicle carrier that they need immediate rest shall be given at least ten consecutive hours off-duty before being required to return to service.

    c. Drivers shall maintain a driver's record of duty status, regardless of number of hours worked each day. These records shall be prepared, submitted, and maintained as required by Section 1213, Title 13, California Code of Regulations.

9. Consistent with Parts 390 and 395, Title 49, Code of Federal Regulations, drivers may exceed the hours-of-service limits specified while operating a vehicle engaged in fuel transportation in support of emergency relief efforts. These waivers shall be in effect for the duration of the driver's direct assistance in providing emergency relief, or thirty (30) days from the date of this Proclamation, whichever is less.

10. In order to allow out-of-state contractors and other utilities driving their own vehicles to provide mutual aid assistance for the restoration of electrical power within the counties impacted by these storms, applicable provisions of the Vehicle Code including, but not limited to, Vehicle Code section 34620 requiring a motor carrier permit [licensing] and imposition of certain fees, are suspended for motor carriers providing such assistance. Also, the requirements for motor carriers and drivers in Vehicle Code sections 1808.1 [pull-notice program that checks for driver's license violations], 27900 [display name on vehicle], 27901 [size and color of display name on vehicle], 34505.5 [requirement to have been inspected within 90 days], and 34501.12 [requirement to set up home base in California] are suspended while providing mutual aid assistance for the emergency restoration of services.

I FURTHER DIRECT that as soon as hereafter possible, this Proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Proclamation.

This Proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 4th day of January 2023.

GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, Ph.D.
Secretary of State

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS on March 1, March 8, March 12, and March 14, 2023, I proclaimed a State of Emergency to exist in 43 counties, cumulatively, as a result of a series of ongoing winter storms that initially struck California beginning in late February and continue to significantly impact the counties identified in my Proclamations, as well as additional counties across California; and

WHEREAS on March 9, 2023, I requested a Presidential Emergency Declaration, which President Biden issued forthwith, for direct federal assistance to make federal resources available to meet the State's critical emergency protection requirements; and

WHEREAS California must meet certain Federal validated damage thresholds to secure a Presidential Major Disaster Declaration and is working expeditiously to determine whether those thresholds have been met, and I will act swiftly to request a Presidential Major Disaster Declaration when it is determined they have been met; and

WHEREAS Alameda, Marin, Modoc, and Shasta counties have experienced significant storm-related impacts, including flooding, toppled trees, downed power lines and power outages, damage to commercial and residential structures, roads, and other critical infrastructure; and

WHEREAS under the provisions of Government Code section 8558(b), I find that conditions of extreme peril to the safety of persons and property exist due to these storms; and

WHEREAS under the provisions of Government Code section 8558(b), I find that the conditions caused by these storms, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under the provisions of Government Code section 8625, I find that local authority is inadequate to cope with the magnitude of the damage caused by these storms; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Proclamation would prevent, hinder, or delay the mitigation of the effects of these storms.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in Alameda, Marin, Modoc, and Shasta counties.

IT IS HEREBY ORDERED THAT:

All operative provisions contained in my March 1, March 8, March 12, and March 14, 2023, State of Emergency Proclamations are hereby incorporated and applicable, as appropriate, to Alameda, Marin, Modoc, and Shasta

counties as a result of the storms identified in this and the previous Proclamations.

I FURTHER DIRECT that as soon as hereafter possible, this Proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Proclamation.

This Proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 28th day of March 2023.

GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, Ph.D.
Secretary of State

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS on February 4, 2024, I proclaimed a State of Emergency to exist in Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura counties due to the early February 2024 winter storms; and

WHEREAS these severe winter storms also struck Alameda, Butte, Glenn, Lake, Mendocino, Monterey, Sacramento, San Francisco, Santa Cruz, Sonoma, and Sutter counties causing widespread river and coastal flooding, flash flooding, high surf conditions, mudslides, and debris flows threatening life and safety, structures, and other critical infrastructure; and

WHEREAS the impacts from these winter storms caused significant damage to highways and roadways and widespread damage to public property; and

WHEREAS these winter storms have predominantly impacted public infrastructure and resulted in significant costs to state and local governments; and

WHEREAS state and federal tax postponement is intended to provide targeted tax relief to individuals and businesses impacted by State-declared emergencies or disasters; and

WHEREAS under the provisions of Government Code section 8558(b), I find that conditions of extreme peril to the safety of persons and property exist due to these winter storms; and

WHEREAS under the provisions of Government Code section 8558(b), I find that the conditions caused by these winter storms, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under the provisions of Government Code section 8625(c), I find that local authority is inadequate to cope with the magnitude of the damage caused by these winter storms; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Proclamation would prevent, hinder, or delay the mitigation of the effects of these winter storms.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in Alameda, Butte, Glenn, Lake, Mendocino, Monterey, Sacramento, San Francisco, Santa Cruz, Sonoma, and Sutter counties due to the impacts of these winter storms.

IT IS HEREBY ORDERED THAT:

1. All operative provisions contained in my February 4, 2024, State of Emergency Proclamation are hereby incorporated and applicable to Alameda, Butte, Glenn, Lake, Mendocino, Monterey, Sacramento, San Francisco, Santa Cruz, Sonoma, and Sutter counties as a result of the storms identified in this and the previous Proclamation.

2. The California Department of Transportation shall formally request immediate assistance, as appropriate, through the Federal Highway Administration's Emergency Relief Program, United States Code, Title 23, section 125, in order to obtain federal assistance for highway repairs, reconstruction, or restoring access to roadways impacted by these winter storms.

3. The restrictions set forth in Penal Code section 396, which are automatically triggered upon proclamation of a State of Emergency, are suspended, and no such restrictions are imposed, for Alameda, Mendocino, San Francisco, and Sonoma counties in connection with these winter storms.

4. Revenue and Taxation Code section 18572, relating to the postponement of certain tax-related deadlines pursuant to Internal Revenue Code section 7508A, is suspended and shall not apply in connection with an Emergency Declaration or Presidential Major Disaster Declaration providing only Public Assistance in response to these winter storms and/or the State of Emergency proclaimed on February 4, 2024, and herein in connection with these winter storms.

I FURTHER DIRECT that as soon as hereafter possible, this Proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Proclamation.

This Proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 22nd day of March 2024.

GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, PH.D.
Secretary of State

ATTACHMENT D. EXEMPTION LANGUAGE

Section 15629. Emergency Projects

The following emergency Projects are exempt from the requirements of CEQA.

(a) Projects to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster in a disaster stricken area in which a state of emergency has been proclaimed by the Governor pursuant to the California Emergency Services Act, commencing with Section 8550 of the Government Code. This includes Projects that will remove, destroy, or significantly alter an historical resource when that resource represents an imminent threat to the public of bodily harm or of damage to adjacent property or when the Project has received a determination by the State Office of Historic Preservation pursuant to Section 5028(b) of Public Resources Code.

(b) Emergency repairs to publicly or privately owned service facilities necessary to maintain service essential to the public health, safety or welfare. Emergency repairs include those that require a reasonable amount of planning to address an anticipated emergency.

(c) Specific actions necessary to prevent or mitigate an emergency. This does not include long-term Projects undertaken for the purpose of preventing or mitigating a situation that has a low probability of occurrence in the short-term, but this exclusion does not apply (i) if the anticipated period of time to conduct an environmental review of such a long-term Project would create a risk to public health, safety or welfare, or (ii) if activities (such as fire or catastrophic risk mitigation or modifications to improve facility integrity) are proposed for existing facilities in response to an emergency at a similar existing facility.

(d) Projects undertaken, carried out, or approved by a public agency to maintain, repair, or restore an existing highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide, provided that the Project is within the existing right of way of that highway and is initiated within one year of the damage occurring. This exemption does not apply to highways designated as official state scenic highways, nor any Project undertaken, carried out, or approved by a public agency to expand or widen a highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide.

(e) Seismic work on highways and bridges pursuant to Section 180.2 of the Streets and Highways Code, Section 180 et seq.

Section 15301. Existing Facilities

Class 1 consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. The types of “existing facilities” itemized below are not intended to be all-inclusive of the types of Projects which might fall within Class 1. The key consideration is whether the Project involves negligible or no expansion of use. Examples include but are not limited to:

(a) Interior or exterior alterations involving such things as interior partitions, plumbing, and electrical conveyances;

(b) Existing facilities of both investor and publicly owned utilities used to provide electric power, natural gas, sewerage, or other public utility services;

(c) Existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities (this includes road grading for the purpose of public safety), and other alterations such as the addition of bicycle facilities, including but not limited to bicycle parking, bicycle-share facilities and bicycle lanes, transit improvements such as bus lanes, pedestrian crossings, street trees, and other similar alterations that do not create additional automobile lanes);

(d) Restoration or rehabilitation of deteriorated or damaged structures, facilities, or mechanical equipment to meet current standards of public health and safety, unless it is determined that the damage was substantial and resulted from an environmental hazard such as earthquake, landslide, or flood;

(e) Additions to existing structures provided that the addition will not result in an increase of more than:

(1) 50 percent of the floor area of the structures before the addition, or 2,500 square feet, whichever is less; or

(2) 10,000 square feet if:

(A) The Project is in an area where all public services and facilities are available to allow for maximum development permissible in the General Plan and

(B) The area in which the Project is located is not environmentally sensitive.

(f) Addition of safety or health protection devices for use during construction of or in conjunction with existing structures, facilities, or mechanical equipment, or topographical features including navigational devices;

(g) New copy on existing on and off-premise signs;

(h) Maintenance of existing landscaping, native growth, and water supply reservoirs (excluding the use of pesticides, as defined in Section 12753, Division 7, Chapter 2, Food and Agricultural Code);

(i) Maintenance of fish screens, fish ladders, wildlife habitat areas, artificial wildlife waterway devices, streamflows, springs and waterholes, and stream channels (clearing of debris) to protect fish and wildlife resources;

(j) Fish stocking by the California Department of Fish and Game;

(k) Division of existing multiple family or single-family residences into common-interest ownership and subdivision of existing commercial or industrial buildings, where no physical changes occur which are not otherwise exempt;

(l) Demolition and removal of individual small structures listed in this subdivision:

(1) One single-family residence. In urbanized areas, up to three single-family residences may be demolished under this exemption.

(2) A duplex or similar multifamily residential structure. In urbanized areas, this exemption applies to duplexes and similar structures where not more than six dwelling units will be demolished.

(3) A store, motel, office, restaurant, or similar small commercial structure if designed for an occupant load of 30 persons or less. In urbanized areas, the exemption also applies to the demolition of up to three such commercial buildings on sites zoned for such use.

(4) Accessory (appurtenant) structures including garages, carports, patios, swimming pools, and fences.

(m) Minor repairs and alterations to existing dams and appurtenant structures under the supervision of the Department of Water Resources.

(n) Conversion of a single-family residence to office use.

(o) Installation, in an existing facility occupied by a medical waste generator, of a steam sterilization unit for the treatment of medical waste generated by that facility provided that the unit is installed and operated in accordance with the Medical Waste Management Act (Section 117600, et seq., of the Health and Safety Code) and accepts no offsite waste.

(p) Use of a single-family residence as a small family day care home, as defined in Section 1596.78 of the Health and Safety Code.

Section 15302. Replacement or Reconstruction

Class 2 consists of replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity of the structure replaced, but not limited to:

(a) Replacement or reconstruction of existing schools and hospitals to provide earthquake resistant structures which do not increase capacity more than 50 percent.

(b) Replacement of a commercial structure with a new structure of substantially the same size, purpose, and capacity.

(c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.

(d) Conversion of overhead electric utility distribution system facilities to underground including connection to existing overhead electric utility distribution lines where the surface is restored to the condition existing prior to the undergrounding.