CEQA ENVIRONMENTAL CHECKLIST FORM (REVISED JANUARY 7, 2019)

1.	**Project Title:**	Walnut and Grayson Creeks Desilting Project
2.	**Lead Agency Name and Address:**	Contra Costa County Department of Conservation and Development 30 Muir Rd. Martinez, CA 94553
3.	**Contact Person and Phone Number:**	Alex Nattkemper (925) 313-2364
4.	**Project Location:**	The Project is located in unincorporated Contra Costa County, the City of Concord, and the City of Pleasant Hill (Figure 1).
5.	**Project Sponsor's Name and Address:**	Contra Costa County Flood Control and Water Conservation District 255 Glacier Drive Martinez, CA 94553
6.	**General Plan Designation:**	Open Space, Public/Semi-public
7.	**Zoning:**	Open Space (Concord), Retail Business (Pleasant Hill), Heavy Industrial, Light Industrial, Mobile Home/Manufactured Home Park, Retail Business, and Single Family Residential (Unincorporated County)

8. Introduction:

In 1965 and 1963 the U.S. Army Corps of Engineers conducted a project to engineer Walnut and Grayson Creeks respectively to reduce flood risks to the surrounding land uses and support development of the area. After completion, responsibility for operation and maintenance of the channels was turned over to the Contra Costa County Flood Control and Water Conservation District (District). During normal flows and the rise and fall of the water level in the rainy season, sediment from the upper watershed travels in the water and eventually settles out forming sediment bars on either side of the flowing channel sometimes referred to as the low flow channel. The low flow channel is the part of the creek that continues to flow during the non-rainy season. Ultimately, vegetation grows on the sediment bars that flood periodically as the water level rises and falls creating more valuable vegetation communities such as wetlands and marshes, as well as less valuable vegetation communities including ruderal (weedy) vegetation. Ruderal vegetation typically develops on the highest portion of the silt bars that get the least amount of water. These sediment bars and resulting vegetation take up space in the channel and reduce the space for water to flow, which reduces the capacity of the channels to hold water between the banks, increasing the chance for flooding. Thus, periodic removal of deposited sediment (desilting) is necessary to restore capacity in the creek channels. Low flow channel and flowing channel are used interchangeably in this document as well as desilting and sediment removal, and creek and channel.

Description of Project:
The purpose of this Project is to remove sediment from Walnut and Grayson Creeks that has accumulated since the last desilt operation in 2006. This work is part of periodic maintenance of these channels as required by the U.S. Army Corps of Engineers. In their current state, the hydraulic capacity of both channels is reduced from the design capacity due to siltation. The hydraulic function of these channels is critical to the operations of the District facilities in the area, and this Project will help regain the hydraulic capacity of both channels. During project planning, four different alternatives were considered: 1) do nothing, 2) raise the levees and build floodwalls, 3) desilt the channels indiscriminately, or 4) selective desilting, which was the option chosen for this Project.

The proposed desilt locations are as follows:

- Grayson Creek from Chilpancingo Parkway to Imhoff Drive
- Walnut Creek from approximately 1,200 feet downstream of Diamond Boulevard to approximately 1,300 feet downstream of Concord Avenue

These reaches were chosen due to their cost-effectiveness and ability to provide the most flood risk reduction in high-priority areas of Concord, Pleasant Hill, Pacheco, and Vine Hill while minimizing impacts to Environmentally Sensitive Areas (ESAs) such as wetlands and marshes. The channels in these reaches were divided into regions for desilting, termed sediment bars (see Figure 2), which represent areas that are most beneficial to hydraulic capacity and least impactful to ESAs.

In order to minimize environmental impacts, ESAs were identified along Walnut and Grayson Creeks via a thorough set of procedures. Using LiDAR data from a 2018 drone survey, the lowest points of the channel were identified and highlighted for investigation as potential ESAs. Aerial photos on Google Maps (taken during the dry season in October 2017) were used to locate the banks of the channel and vegetation patches (greenery). The assumption was that areas of greenery must have available water and could contain ESAs. A 2-foot buffer was established around the low flow channel to minimize impacts to the flowing channel. In addition, District staff performed site investigations in September 2019 to evaluate channel conditions. Following the ESA delineation by biological consultant Nomad Ecology, the "Ordinary High Water Mark" (OHWM) was used to determine the extent of the low flow channel around which the 2-ft buffer was redrawn. The OHWM is a technical term for the physical indicators of the typical water level. Open water/freshwater marshes were also included as ESAs. The flowing channel will be avoided completely. Other ESAs will be avoided to the extent feasible.

The vertical limit of sediment removal will be to the original designed geometry of the channels, derived from the as-built plans (see Figure 3). There is approximately 2 to 7 feet of sediment to be removed on each of the sediment bars contributing to about 172,300 cubic yards (cy); 129,800 cy from Walnut Creek and 42,500 cy from Grayson Creek. The sediment removal activities will take place within District right-of-way.

Some large sediment bars were divided into smaller segments. The sediment bars were then divided into Rank 1 and Rank 2 sediment bars based on flood risk reduction. The Project currently has enough funding to desilt both Rank 1 and 2 sediment bars (known as the Large Desilt), with the potential of reducing the Project to exclude Rank 2 sediment bars if desilting costs come in high. The analysis in this document assumes the Large Desilt and therefore covers the greatest impact. The extent of the Large Desilt includes all the locations noted above. In contrast, the Small Desilt includes the following: Grayson Creek from 2nd Avenue South to SR-4, and Walnut Creek from approximately 1,700 feet downstream of Diamond Boulevard to approximately 300 feet downstream of Concord Avenue.

The current plan for the excavated material from Walnut Creek entails transporting it to the nearby Marathon Refinery and stockpiling the sediment in an upland location. The sediment from Grayson Creek will be disposed at the nearest permitted landfill. If Marathon Refinery cannot accept the Walnut Creek sediment, and another user cannot be identified, it will be properly managed and disposed of at an appropriate permitted landfill.

Nine bridges cross the Project area: Imhoff Drive, State Route 4, Interstate 680, Pacheco Boulevard, Center Avenue, 2nd Avenue South, Chilpancingo Parkway, Concord Avenue, and the Iron Horse Regional Trail. Trucks carrying sediment will be using surrounding city roads to access the identified sediment receiving sites. A staging area for trucks will not be necessary since they will be travelling in and out of the Project site. Other vehicles and equipment will be staged in the work area on levee access roads adjacent to the creeks.

Differences between the two creek locations will be accommodated through modifications to the sediment removal process and types of equipment used. Work along Grayson Creek, which has a rather narrow channel, is likely to move slower as a long armed excavator is planned to remove sediment from the top of bank. Along Walnut Creek and in some areas of Grayson Creek, an excavator will likely be positioned on sediment bars directly via access ramps where sediment bars are wide enough to allow equipment to operate. In these areas, temporary earthen ramps for equipment will be constructed on the banks, and removed following project completion. Soil for the access ramps will be collected from the sediment bars to be desilted via a long armed excavator positioned at the top of bank. In total, 16 access points (three for Walnut Creek, 13 for Grayson Creek) and 14 temporary access ramps (three for Walnut Creek, 11 for Grayson Creek) are anticipated. The quantity of material to be used for an access ramp is anticipated to be 340 cy, and the ramp will extend from the top of the trapezoidal channel into the sediment bars. The dimensions of the ramps will be approximately 15 feet wide by 170 feet long with 1V:3H side slopes, and some additional fill possibly needed for flaring the ramps at their ends to avoid wetlands. The access ramps will terminate near the toe of the creek bank, above both the OHWM and the water level of the dry season. Some adjustments may be needed due to field conditions; however, any impacts would be similar to those already discussed in this document. Anticipated locations of access ramps are shown on Figure 2. A biologist will go into the field before desilting starts and flag wetland areas so they can be avoided during construction

of the temporary ramps as much as possible. Temporary wetland crossing mats also may be installed to facilitate additional access for the movement of equipment if needed.

Access to Walnut Creek north of Concord Avenue is expected to be from underneath the Concord Avenue and Iron Horse Regional Trail bridges, with construction vehicles and equipment driving down the creek along designated haul routes that will be established for the Project. Between 1 to 3 feet of sediment will be removed beneath the bridges in order to provide sufficient clearance.

Work is proposed to occur from April to October of two consecutive years expected to start in 2022 such that only one side of the channel is desilted each year minimizing impacts to the ESAs. The contractor is anticipated to work sequentially on the channels, desilting each of them separately, with a single crew using all the equipment to complete work on one side before proceeding with the next. The estimated duration of Project work is a total of 192 days spent over two seasons (96 days per season). All ESAs in the vicinity will be separated from the work by a temporary fence or flagging, with an additional 2-foot berm buffering the creek channel from excavation. After desilting, the disturbed areas at all Project sites will be reseeded with a mixture of native plants. Prior to the rainy season, cuts will be made intermittently in the berm so that the flow of water will naturally erode the barrier following desilting activities. This will prevent ponding of water in desilted areas. The District is the Project applicant; however, the Project will be assigned to Contra Costa County Public Works Department's (CCCPWD) Design/Construction Division for Project implementation.

9. Surrounding Land Uses and Setting:

In the Project area, Grayson Creek is bordered by development on all sides, and is highly altered and disturbed. North of Pacheco Boulevard, the surrounding land uses are residential, industrial and commercial areas such as a quarry, a sanitary treatment plant, self-storage facilities, and a mobile home park. South of Pacheco Boulevard, the Project area is bordered by single-family residential neighborhoods to the west and shopping centers to the east. Gravel access roads run along the majority of Grayson Creek in the Project area. Seven bridges cross Grayson Creek in the Project area.

Within the Project area, Walnut Creek is also bordered by industrial and commercial uses including Buchanan Field Airport, auto dealerships, business parks, a waterslide park and a large home improvement store. The Iron Horse Regional Trail, a paved multi-use public trail, runs along the east side of Walnut Creek north of Concord Avenue and west of the channel south of Concord Avenue.

Grayson Creek north of 2nd Avenue is treeless and characterized by steep banks containing ruderal/non-native grassland vegetation. South of 2nd Avenue, scattered trees separate the channel from adjacent residential communities and commercial shopping centers. The trees include both native and non-native species. Walnut Creek is treeless for the entire length that is

in the Project area, with the exception of scattered trees that are planted along the Iron Horse Regional Trail adjacent to buildings.

10. **Other public agencies whose approval is required (e.g., permits, financing, approval, or participation agreement:**
U. S. Army Corps of Engineers (USACE), San Francisco Bay District of the Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW). Coordination and/or approval from the City of Concord and the City of Pleasant Hill may be needed.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**
Wilton Rancheria submitted a general request letter to be notified of Projects within Contra Costa County under Assembly Bill (AB) 52. The CCCPWD Environmental Division initiated contact with Wilton Rancheria on February 18, 2020 regarding the Project. No request for consultation nor information about potential resources was received from the tribe. No response was received from Wilton Rancheria within 30 days of receipt of this formal notification, therefore no AB52 consultation was initiated, as per California PRC section 21080.3.1(b).

Environmental Factors Potentially Affected		
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.		
☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities/Services Systems	☒ Wildfire	☒ Mandatory Findings of Significance

Environmental Determination

On the basis of this initial evaluation:

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

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

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

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

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

Telma B. Moreira

October 19, 2021

Telma Moreira
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Date

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. ***AESTHETICS*** *– Except as provided in Public Resources Code Section 21099,* ***would the project*****:**				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

SUMMARY:

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

According to the Contra Costa County General Plan 2005-2020 (General Plan), the County has two main scenic resources in addition to many localized scenic features: (1) scenic ridges, hillsides, and rock outcroppings; and (2) the San Francisco Bay/Delta estuary system (Contra Costa County 2005a).

The closest scenic ridgeline identified on Figure 9-1 of the General Plan is located approximately 2 miles southeast of the Project. Views of Mount Diablo and rolling hills are visible in the distance from some Project locations, particularly in the northernmost area to be desilted near Imhoff Drive, but views are obscured by urban development for Project areas further south. The Project will not have a substantial adverse effect on any scenic vista because it is limited to sediment removal from the channels and no modifications to a scenic vista or structures that might block a scenic vista are proposed.

Desilting activities will be visible to residents living adjacent to Grayson Creek in areas adjacent to Buchanan Airport, and south of Pacheco Boulevard. However, the work is temporary and is not expected to cause significant aesthetic impacts. The remainder of land use in the Project area is largely industrial and commercial. All disturbed areas will be seeded with a seed mix that includes native grasses and vegetation species. Following

the work, the Project site is expected to return to a similar vegetated appearance eventually returning to a pre-Project vegetated condition. The Project will not block or change views in any directions. Therefore, the Project will have **no impact.**

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

The Project is not located within a state scenic highway (Caltrans 2019). Although work will occur directly adjacent to a portion of State Route 4 that has been designated a scenic highway by the General Plan (Figure 5-4; Contra Costa County 2005b), the Project will not damage any scenic resources such as trees or rock outcroppings. All disturbed areas will be hydroseeded with a seed mix that includes native grasses and vegetation species. Following the work, the Project site is expected to return to a similar vegetated appearance eventually returning to a pre-Project vegetated condition. Therefore, the Project will have **a less than significant impact.**

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

The Project is located in the cities of Concord and Pleasant Hill and in the unincorporated areas of Pacheco and Vine Hill. These are urban areas. The applicable governing document for scenic quality in Concord is the Land Use Element of the Concord 2030 General Plan (Concord 2005). Scenic vistas within the City of Concord are not identified in their general plan, but there are policies related to the preservation of visible hillside and open space areas (General Plan Policy LU-1.1.9) and development and design standards related to viewshed protection in hillside areas, open space preservation, grading impacts, and height and massing of structures (General Plan Principle LU-11.1: Protect Ridgelines and Visible Hillsides).

The applicable governing document for visual quality in Pleasant Hill is the Community Development Element of the General Plan 2003 (Pleasant Hill 2003). A long-term goal in the Pleasant Hill General Plan (Community Development Program 9.5) is the following: "Consider an ordinance to identify and protect significant views of vistas and open space."

The applicable governing document for Pacheco and Vine Hill is the Contra Costa County General Plan described above in Section 1.a. According to the County's General Plan Land Use Element Map, the land use for most of the Grayson Creek within the Project area is designated as Public/Semi-Public, while a small portion at the northern end of the Project

near the confluence with Walnut Creek is considered Open Space. All of Walnut Creek within the Project area is designated as Open Space on the County's General Plan Land Use Element Map. In addition, both Walnut Creek and Grayson Creek are designated as Open Space on the General Plan Land Use Maps for the cities of Concord and Pleasant Hill, respectively.

Public views of the channels are available throughout the Project area. Gravel access roads run along the majority of Grayson Creek in the Project area, although only the section that runs between Pacheco Boulevard and Center Avenue is designated as a public walking path and is part of a linear feature named Pacheco Creekside Park. Publicly accessible vantage points are located along the entirety of Walnut Creek within the Project area. The paved Iron Horse Regional Trail parallels the east side of Walnut Creek north of Concord Avenue and the west side of the creek south of Concord Avenue.

The Project will not conflict with any of the general plans because the Project is limited to sediment removal along two existing creeks, which will result in temporary change to the way desilted portions of the creeks look but will not substantially alter their visual character or quality of public views of the creeks.

Currently the views of both creeks consist of scattered vegetation and a low flow channel. After the work, there will be more views of the water and less vegetation. All temporarily impacted areas along the banks will be restored by reseeding with native species. Eventually, vegetation will reestablish and grow back similar to the existing conditions and thus, the change in vegetation will be temporary. Ultimately, the views are of a creek channel and will continue to be of a creek channel as the sediment and vegetation removal will not affect the overall appearance or character of the area. Therefore, Project impacts will be **less than significant.**

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

The Project will not create a new permanent source of light or glare that would adversely affect day or nighttime views. No reflective surfaces or lights will be installed by the Project. Desilting activities are expected to take place during the daylight hours only and are not expected to occur at night and thus, supplemental lights will not be necessary. Therefore, Project impacts will be **less than significant**.

Sources of Information

California Department of Transportation (Caltrans 2019). 2019. *List of eligible and officially designated Scenic Highways*. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed August 6, 2021.

Concord. 2005. *2030 General Plan*. Chapter 3. Land Use. Planning Division, Concord, CA. (Concord 2005). Website: https://www.cityofconcord.org/463/2030-General-Plan. Accessed August 6, 2021.

Contra Costa County. (Contra Costa County 2005a, b). 2005. *Contra Costa County General Plan 2005-2020*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/4732/General-Plan. Accessed August 6, 2021.
2005a: Chapter 9. Open Space Element
2005b: Chapter 5. Transportation and Circulation Element

Pleasant Hill. 2003. *General Plan 2003*. Community Development Element. Planning Division, Pleasant Hill, CA. (Pleasant Hill 2003). Website: https://www.pleasanthillca.org/132/Current-General-Plan. Accessed August 6, 2021.

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

SUMMARY:

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

The Project will not affect any locally or statewide important farmland. According to the California Department of Conservation Farmland Mapping and Monitoring Program (DOC 2016), there is no farmland in the Project area and is not currently used for agricultural purposes. Since the area immediately adjacent to the Project consists of roadways and residential, commercial, and industrial properties, the entire Project area is designated as Urban and Built-Up Land. Therefore, the Project will have **no impact**.

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

There is no farmland in the Project area. Therefore, the Project will have **no impact.**

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

There is no forestland, or land zoned for timberland production in the Project area. Therefore, the Project will have **no impact.**

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

There is no forestland, or land zoned for timberland production in the Project area. Therefore, the Project will have **no impact.**

e) *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to non-agricultural use?*

There is no farmland in the Project area. Therefore, the Project will have **no impact.**

Sources of Information

California Department of Conservation (DOC 2016). 2016. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. 2016. Contra Costa County Important Farmland. Website: https://www.conservation.ca.gov/dlrp/fmmp/Pages/ContraCosta.aspx. Accessed August 6, 2021.

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

The information below comes from the June 2021 Air Quality & Greenhouse Gas Impact Assessment on the Project by AMBIENT Air Quality & Noise Consulting.

SUMMARY:

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

The proposed Project is located within the San Francisco Bay Area Air Basin (SFBAAB) and within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD is responsible for ensuring that state and federal ambient air quality standards are not violated within the SFBAAB. The BAAQMD prepared the 2017 Clean Air Plan (CAP) to address nonattainment of the national and state ozone standards in the SFBAAB. The 2017 CAP also serves as a multi-pollutant air quality plan to protect public health and the climate. BAAQMD recommends that consistency with the 2017 CAP be evaluated based on the following criteria:

- Does the project support the primary goals of the air quality plan?
- Does the project include applicable control measures from the air quality plan? and
- Does the project disrupt or hinder implementation of any 2017 CAP control measures?

If all the questions are concluded in the affirmative, the BAAQMD considers the Project to be consistent with the CAP. If the Project would not result in significant and unavoidable air quality impacts after the application of mitigation, then the Project would be considered consistent with the 2017 CAP. BAAQMD-recommended thresholds of significance for short-term activities are summarized in Table 1 (AMBIENT 2021).

As noted in Subsection (b) below, the Project would not result in new long-term operations-related emissions. Furthermore, with mitigation, the Project would not result in significant increases of short-term emissions that would exceed BAAQMD significance thresholds. No 2017 CAP control measures are directly applicable to the Project and no mitigation is required. Therefore, implementation of the proposed Project would not conflict with or obstruct implementation of the 2017 CAP. This impact is considered **less than significant**.

Table 1. Summary of BAAQMD Thresholds of Significance for Short-term Activities

Pollutant	Threshold of Significance
Criteria Air Pollutants & Precursors	
ROG:	54 lbs./day
NO_X:	54 lbs./day
CO:	--
PM_{10} (exhaust)*:	82 lbs./day
$PM_{2.5}$ (exhaust)*:	54 lbs./day
$PM_{10}/PM_{2.5}$ (fugitive dust):	Best Management Practices
Risk and Hazards for New Sources and Receptors	Same as Operational Thresholds
Odors	None
* Applies to short-term/construction exhaust emissions only. CO = carbon monoxide lbs./day = pounds per day NO_X = oxides of nitrogen $PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less ROG = reactive organic gases SO_2 = sulfur dioxide	

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

Implementation of the proposed Project would not result in long-term activities or the installation of new emission sources that would result in long-term increases in emissions. Increases in emissions would be short-term and of temporary duration, lasting only as long as the desilting activities occur. Emissions of ozone-precursor pollutants such as reactive organic gases (ROG) and NO_X (oxides of nitrogen) would be primarily associated with the use of off-road equipment (e.g., excavators, tractors, loaders), on-road vehicles

used for worker commute to and from the site, and on-road haul truck trips. Emissions of particulate matter (PM) would be largely associated with desilting activities and the movement of vehicles and equipment on unpaved surfaces.

Short-term emissions associated with the proposed Project are summarized in Table 2. Modeling assumed use of construction equipment that meet Tier 3 emission standards. As shown in Table 2, maximum daily emissions would total approximately 1.3 lbs./day of ROG, 28.8 lbs./day of NO_X, 1.2 lbs./day of PM_{10} and 0.5 lbs./day of $PM_{2.5}$. Daily emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would not exceed BAAQMD's significance thresholds. The BAAQMD recommends implementing basic construction measures for all projects regardless of emissions. The Project will implement these measures. Therefore, to further reduce emissions, implementation of **Best Management Practice AQ-1** and **Mitigation Measure AQ-2** would include BAAQMD-recommended measures for the control of short-term emissions.

Table 2. Short-term Emissions of Criteria Air Pollutants without Mitigation

Year	Emissions (lbs./day)			
	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
2022				
On-Site Activities:	0.7	6.2	0.4	0.3
Off-Site Activities:	0.5	22.6	0.8	0.2
Total:	1.3	28.8	1.2	0.5
2023				
On-Site Activities:	0.7	5.5	0.4	0.2
Off-Site Activities:	0.4	17.4	0.8	0.2
Total:	1.1	22.9	1.2	0.4
Maximum Daily Emissions[1]:	1.3	28.8	1.2	0.5
BAAQMD Significance Threshold[2]:	54	54	82	54
Exceeds Threshold/Significant Impact?	No	No	No	No

1. Based on the highest daily emissions without the implementation of fugitive dust control measures.
2. On-site activities include desilting work along the channel using off-road vehicles. Off-site activities include worker, vendor, and haul-truck trips using on-road vehicles.

BEST MANAGEMENT PRACTICE AQ-1:
To further reduce emissions, the Project will incorporate the recommended BAAQMD basic construction measures that apply to the Project.

BEST MANAGEMENT PRACTICE AQ-1 The following BAAQMD-recommended "Basic Construction Mitigation Measures" shall be implemented for the control of short-term emissions, including fugitive dust and off-road equipment emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

- All vehicle speeds on unpaved roads shall be limited to 15 mph.

- All off-road equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

IMPACT AQ-2:
Without use of construction equipment meeting Tier 3 emission standards, Project emissions may exceed BAAQMD thresholds of significance**.**

MITIGATION MEASURE AQ-2:
The following measures shall be implemented to reduce construction-generated emissions:

- Idling of diesel-powered off-road equipment shall be limited to a maximum of two minutes when not in use. When not in use, diesel-powered off-road equipment shall not be allowed to idle when located within 1,000 feet of sensitive land uses (e.g., residential dwellings, daycare facilities, schools). When not in use, idling of diesel-powered on-road haul trucks shall be prohibited. Signs shall be posted at the project site entrance to remind equipment operators of idling limitations.

- The Project shall require off-road heavy-duty equipment (50 horsepower, or greater) to meet Tier 3 emission standards.

- To the extent locally available, use on-road heavy-duty trucks that meet year 2007, or cleaner, certification standards for on-road heavy-duty diesel engines.

With implementation of **Mitigation Measures AQ-1** and **AQ-2** impacts would be considered **less than significant with mitigation incorporated**.

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

With regard to public health and welfare, both the U.S. Environmental Protection Agency (EPA) and the State of California have developed Ambient Air Quality Standards (AAQS) for various pollutants. These standards define the maximum amount of air pollutants that can be present in ambient air. An AAQS is generally specified as a concentration averaged over a specific time period, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. In general, the standards adopted by the State of California are equivalent to or more health-protective than the national standards established by the U.S. EPA.

To assist local jurisdictions with the evaluation of localized pollutant concentrations and potential health-related impacts, the BAAQMD has developed recommended thresholds of significance and screening criteria for the pollutants of primary concern (e.g., PM_{10}, CO). Accordingly, project-generated emissions of PM_{10} that exceed 82 pounds per day (lbs./day) or $PM_{2.5}$ that exceed 54 lbs./day could result in a violation of the applicable AAQS at nearby receptors, which could result in or contribute to health-related impacts. In addition, ground-level concentrations of toxic air contaminants (TACs) that would result in an incremental increase in cancer risk of 10 in 1 million or a Hazard Index greater than 1 for the Maximally Exposed Individual would also be considered to result in a potentially significant impact to human health. Other localized pollutants of potential concern include exposure to naturally-occurring asbestos. Short-term localized air quality impacts are discussed in greater detail, as follows:

Fugitive Dust Emissions

Implementation of the Project would result in short-term emissions of fugitive PM associated with ground disturbance. However, as noted in Subsection (b), short-term emissions of PM would be significantly less than BAAQMD's daily significance thresholds. However, if uncontrolled, short-term emissions of PM could result in or contribute to localized concentrations that could adversely impact nearby sensitive receptors. As a result, the BAAQMD recommends that all projects resulting in ground disturbance include "Basic Construction Mitigation Measures". **Mitigation Measure AQ-1** will reduce potential impacts to **less than significant with mitigation incorporated**.

TACs (DPM Emissions)

The primary TAC of concern associated with short-term construction projects is diesel-exhaust particulate matter (DPM). Implementation of the Project would result in the generation of DPM emissions associated with the use of off-road diesel equipment and on-road haul trucks. Health-related risks associated with diesel-exhaust emissions are primarily associated with long-term exposure and associated risk of contracting cancer.

For residential land uses, the calculation of cancer risk associated with exposure to TACs is typically calculated based on a 70-year period of exposure. The use of diesel-powered construction equipment, however, would be temporary and episodic. Assuming that activities involving the use of diesel-fueled equipment and vehicles were to occur over a cumulative period of approximately one year, Project-related construction activities would constitute less than two percent of the typical exposure periods used for the evaluation of potential health risks. In addition, a majority of Project-generated PM emissions would be associated with on-road mobile sources and would be dispersed over a large area along area roadways. Implementation of Mitigation Measure AQ-2 includes the use of newer off-road equipment and on-road trucks, which would further reduce potential impacts to nearby receptors.

As a result, exposure to construction-generated DPM would not be anticipated to exceed applicable thresholds (i.e., incremental increase in cancer risk of 10 in one million or a hazard index greater than 1) and would have a **less-than-significant** impact to nearby receptors.

Naturally-Occurring Asbestos

Naturally-occurring asbestos, which was identified by the California Air Resources Board as a TAC in 1986, is located in many parts of California and is commonly associated with ultramafic rock. The Project site is not located near any areas that are likely to contain ultramafic rock (AMBIENT 2021). As a result, the risk of exposure to asbestos during the construction process would be considered **less than significant**.

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

Implementation of the Project would not result in the installation of any major sources of odors. In addition, no major sources of odors have been identified near the Project site. As a result, the implementation of the Project would not result in the long-term exposure of individuals to increased concentrations of odors. However, desilting operations would involve the use of a variety of gasoline or diesel-powered equipment that would emit exhaust fumes. Some people may consider exhaust fumes, particularly diesel-exhaust, objectionable. However, construction-generated emissions would occur intermittently and would dissipate rapidly with increasing distance from the source. As a result, short-term desilting activities would not expose a substantial number of people to frequent odorous emissions. For these reasons, this impact would be considered **less than significant**.

Sources of Information

AMBIENT Air Quality & Noise Consulting. (AMBIENT 2021). Air Quality & Greenhouse Gas Impact Assessment for the Walnut and Grayson Creeks Desilting Project, Contra Costa County, California. June 2021

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

SUMMARY:

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

The following analysis is based on the Biological Resources Assessment (BRA) prepared by Nomad Ecology for the Project. This report is based on the field investigations, review of available databases and literature, familiarity with local fauna, and on-site habitat suitability.

Two federally- or state-listed, proposed, candidate, or fully protected invertebrate species were determined to have the potential to occur within the Project area: western bumble bee (*Bombus occidentalis*) and Crotch bumble bee (*Bombus crotchii*). They are both candidates for listing as endangered under the California Endangered Species Act (CESA).

There are a few CNDDB occurrences of these species within Contra Costa County, though all of them are records of collections that occurred more than 50 years ago. There have been no recent verified observations of either the western bumblebee or the Crotch bumblebee in Contra Costa County (Nomad 2021a). However, both of these bumblebee species may occur in ruderal grassland habitats characterized by grassland within the Project area. Western and Crotch bumble bees could nest or seek nectar plants within the Project area. Impacts to listed bumblebee species potentially occurring onsite will be minimized and/or avoided by working on one side of the creek per year so that nectar plants remain available, by restoration of desilted areas with native plants, and through implementation of avoidance and minimization measures, including preconstruction surveys and biological monitoring.

BEST MANAGEMENT PRACTICE BIO-1:
The Project area contains habitat for special status species and other protected species that could be affected by Project implementation. The following general Best Management Practices (BMPs) will lessen the impact to all special status species.

BEST MANAGEMENT PRACTICE BIO-1:

- A qualified biologist will conduct an education program covering all the sensitive resources with potential to occur in the Project area and the avoidance and minimization measures requiring implementation for all Project personnel prior to the start of construction activities.

- Preconstruction surveys for all special status and common wildlife species will be conducted within the Project area by a qualified biologist immediately prior to equipment or material staging, pruning/grubbing, or surface-disturbing activities. The qualified biologist will search aquatic vegetation, the water's surface, leaf litter, logs, snags, and other habitat features for special status and common wildlife species. If species are found, individuals will be relocated outside of the Project area if the qualified biologist is permitted to do so by all regulatory agencies and determines that relocation is warranted. Although not expected, this includes dewatering activities. If water diversion systems are implemented, a qualified biologist will be on site to relocate all fish, turtles, invertebrates, and other wildlife observed outside of the work area.

- A qualified biologist will conduct biological monitoring during initial ground disturbance and as appropriate based on the results of the preconstruction surveys or as required by regulatory agencies.

- All work should be conducted during the dry season and when the water is at its lowest level. Therefore, work will occur between April 1and October 31, or as approved by the regulatory agencies.

Fish

One federally- or state-listed, proposed, candidate, or fully protected fish species was determined to have the potential to occur within the Project area: Central California Coast Distinct Population Segment (DPS) steelhead (*Oncorhynchus mykiss irideus*), which is federally listed as a threatened species and are the anadromous form of rainbow trout. In addition, the Project area is mapped as federally designated Essential Fish Habitat (EFH) for Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*), a California Species of Special Concern, and a National Marine Fisheries Service (NMFS) Species of Concern. Although it is not a listed species, Central Valley fall/late-fall run Chinook salmon is similar to steelhead in terms of anadromous habitat suitability and potential Project-related effects.

The 1996 Magnuson-Stevens Fishery Conservation and Management Act established essential fish habitat provisions to identify and protect important habitats of federally managed marine and anadromous fisheries. The act requires consultation with NMFS regarding the potential impacts on essential fish habitat of federal agency actions. However, the Project area does not provide suitable habitat as defined by the Magnuson-Stevens Act as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity". The Project will not result in adverse effects to essential fish habitat for any species.

Both Grayson Creek and Walnut Creek are highly degraded within the Project area. The channel bottom of both creeks within the Project area is silty/muddy, lacking the gravelly substrate necessary for successful egg development in salmonids. The banks consist primarily of short grasses and ruderal vegetation which provides little if any complexity or cover to the channel. A lack of trees or other tall riparian vegetation also exposes the water to continual sunlight, resulting in elevated water temperatures.

Based on previous assessments and the presence of open water habitat, both Central California Coast steelhead and Central Valley Fall/Late Fall-run Chinook salmon have potential to occur in the portions of Grayson Creek and Walnut Creek that are within the project area. However, because these channels have been highly degraded by channelization, urbanization, and the presence of passage barriers, these species are not expected to spawn or rear juveniles within the project area. Therefore, the Project would

not result in the loss or temporary disturbance of spawning or rearing habitat for anadromous fish.

Individual adults may occasionally migrate through the Project area during high-flow periods, but are not expected to spend any significant length of time there. Thus, it is possible that individual fish could stray into the portions of the flowing channel where the desilt will take place, however, no work will occur in the flowing channel and a two-foot berm will buffer the stream channel from the desilting activities.

Sediment plumes caused by the removal of silt in Grayson and Walnut Creeks could potentially affect water quality and other fish habitat downstream of the Project area. The two-foot buffer berm and implementation of **Mitigation Measures BIO-1** and **BIO-2** will reduce potential sediments from flowing downstream during the work and reduce impacts to less than significant. Implementation of **Mitigation Measure BIO-2** includes BMPs for materials management and to minimize sediment mobilization and during Project implementation.

BEST MANAGEMENT PRACTICE BIO-2:
Special status fish and other species could be affected by sediment mobilization into the flowing channel. The following general Best Management Practices (BMPs) will lessen the impact to all special status species.

BEST MANAGEMENT PRACTICE BIO-2:
A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented in accordance with the National Pollution Discharge Elimination System (NPDES) Construction General Permit as required under Section 402 of the Clean Water Act. The SWPPP will identify water pollution control and construction-waste containment measures to be implemented during Project construction, including but not limited to:

- Trash generated by the Project will be promptly and properly removed from the site daily.

- All refueling of construction and maintenance vehicles will occur in paved or gravel areas away from the top of bank of the Walnut Creek and Grayson Creek channels. Runoff from these paved or gravel areas will not be allowed to flow into the channels.

- Hazardous material absorbent pads and similar materials will be available on site in the event of a spill that could potentially impact jurisdictional waters.

- Stabilization methods for disturbed areas will be implemented.

- No erodible materials will be deposited into watercourses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks.

- Active construction areas will be watered regularly.

- Disturbed areas will be seeded with a native seed mix suitable for riparian and wetland habitats.

Sensitive And Locally Rare Wildlife Species
Invertebrates
Two sensitive or locally rare invertebrate species were determined to have potential to occur within the Project area: obscure bumble bee (*Bombus caliginosus*) and Bridges' coast range shoulderband snail (*Helminthoglypta nickliana bridgesi*).

The obscure bumble bee (*Bombus caliginosus*), is included on CDFW's Special Animals List. There are no recent verified observations of this species in Contra Costa County (Nomad 2021a). However, the obscure bumble bee could nest or seek nectar plants in grassland habitats within the Project area. Impacts to obscure bumble bees potentially occurring onsite will be avoided through implementation of avoidance and minimization measures, including preconstruction surveys and biological monitoring.

The Bridges' coast range shoulderband snail (*Helminthoglypta nickliana bridgesi*) is included on CDFW's Special Animal List. Suitable habitat is present among ruderal vegetation within the Project area. The nearest occurrence is located 1.1 miles northeast of Grayson Creek and is from 2004 (Nomad 2021a). The Project would result in the temporary loss of annual and ruderal grassland present on the silt bars and creek bank that support tall, weedy vegetation inhabited by this species. The Project could result in the direct mortality or injury of individuals of this species. Impacts to shoulderbands potentially occurring onsite will be minimized through implementation of avoidance and minimization measures, including preconstruction surveys and biological monitoring.

Fish/Amphibians
No sensitive or locally rare fish or amphibian species were determined to have the potential to occur within the Project area.

Reptiles
One sensitive or locally rare reptile species was determined to have potential to occur within the Project area: western pond turtle (*Actinemys marmorata*), which is a California Species of Special Concern. There are known western pond turtle populations in Grayson and Walnut Creeks. There is a CNDDB occurrence from Grayson Creek within the Project area, and a western pond turtle individual was observed basking on a rock during the site visit in the southern portion of the Grayson Creek Project area, between 2nd Avenue and Chilpancingo Parkway. This species could use the aquatic habitat throughout the Project area within both Walnut and Grayson Creeks for foraging, migration, and

breeding. Nesting habitat is present in ruderal habitat that line the channels within the Project area.

Direct and indirect effects to the western pond turtle and their nests could occur, as turtles are known to occur within Walnut and Grayson Creek. **Mitigation Measure BIO-1, BIO-2,** and **BIO-3** will minimize potential effects to western pond turtle during Project implementation. In the event that any western pond turtle individuals are observed within a construction zone during the preconstruction surveys or construction monitoring, the individual will be relocated out of harm's way according to permit conditions.

IMPACT BIO-3:
Western pond turtles are known to occur in the Project area and may have nests in or near the Project site.

MITIGATION MEASURE BIO-3:
A qualified biologist will work with CCCPWD staff prior to the start of the Project to identify potential western pond turtle nesting habitat in the Project area and ensure all staging, access, and stockpile locations are located outside of potential nesting habitat, to the greatest extent possible. The work areas identified for use will be delineated with flagging, fencing, or other material as deemed necessary to ensure that work activities do not occur outside of these approved areas. In the event that any western pond turtle individuals are observed within a construction zone during the preconstruction surveys or construction monitoring, the individual will be relocated out of harm's way according to permit conditions.

Birds
Two sensitive or locally rare bird species were determined to have the potential to nest, roost, or forage within the Project area: Cooper's hawk (*Accipiter cooperii*) and western burrowing owl (*Athene cunicularia*). Cooper's hawk is included on the CDFW Watchlist. Suitable nesting habitat is present in the large trees lining Grayson Creek, towards the southern portion of the Project area. They could utilize the Project area for foraging. No Cooper's hawks were observed during the site visit.

Western burrowing owl is a California Species of Special Concern. Suitable habitat is present in the open ruderal vegetation of the Project area. No suitable burrowing owl burrows were observed during the site visit, and vegetation was higher than typically preferred by burrowing owl. However, it is possible when the vegetation is shorter during certain times of the year or maintained more regularly that burrowing owls could be present along the banks of Walnut or Grayson Creeks. The nearest occurrence is from 2008 at the Buchanan Field Airport, located approximately 0.3 mile east of Grayson Creek and 0.6 mile west of Walnut Creek.

One federally- or state-listed, proposed, candidate, or fully protected bird species was determined to have the potential to nest/winter, roost and forage within the Project area: white-tailed kite (*Elanus leucurus*), whose nesting sites are designated as fully protected by the California Fish and Game Code. This species receives additional protection under the Migratory Bird Treaty Act (MBTA). Suitable nesting habitat is present in the few mature trees on site, and suitable foraging habitat is present throughout the Project area. The nearest CNDDB occurrence was recorded in 2005 in Antioch, approximately 12 miles east of the Project area. White-tailed kites are known to breed throughout all of Contra Costa County. No white-tailed kites were observed during the site reconnaissance (Nomad 2021a).

The Project would result in the temporary loss of foraging habitat and could result in harassment to individual white-tailed kites and disrupt nesting and foraging activities. Preconstruction surveys for nesting birds, and the implementation of no-work buffers around any active nests that are found will avoid impacts to this species.

IMPACT BIO-4:
If migratory and other bird species (including Cooper's hawk, burrowing owl, and white-tailed kite) nest within the Project area, the Project could result in short-term impacts such as failure to breed, nest abandonment, reduced fecundity and decreased survivorship from noise and movement of personnel and equipment that exceeds normal background conditions within the Project area. Disturbance may alter the birds' behavior in ways that result in injury, mortality and reduced foraging success, such as the temporary loss of habitat due to avoidance of areas with intolerable levels of disturbance, and altered activity patterns.

MITIGATION MEASURE BIO-4:
If work activities cannot be timed to avoid the breeding season, then preconstruction surveys for nesting bird species will be conducted as detailed below to minimize impacts to these species. Active nests will be avoided and a non-disturbance buffer zone will be established around them or monitored for disturbance. Therefore, the Project will not adversely affect migratory bird species (including Cooper's hawk and white-tailed kite). Preconstruction surveys for burrowing owl will be conducted as detailed below to minimize impacts to this species. Active burrows will be avoided and a non-disturbance buffer zone will be established around them. Therefore, the Project will not adversely affect burrowing owl.

- If tree or vegetation removal, pruning, or grubbing activities are necessary, such activities may be conducted during the non-nesting season (September 1 – January 31) to avoid impacts to nesting birds. If all Project work is conducted during this work window, preconstruction surveys would only be required for wintering burrowing owls and not nesting birds.

- If Project work begins during the breeding season (February 1 – August 31), preconstruction surveys will be conducted by a qualified biologist within the Project area and adjacent habitats up to 300 feet from the Project boundary where access available, no more than one week prior to equipment or material staging, pruning/grubbing or surface-disturbing activities. The surveys will entail a variety of search techniques, such as incidental flushing of an adult from the nest, watching parental behavior (e.g., carrying nest material or food), systematically searching nesting substrates, and use of call-broadcasts. If no active nests are found within the survey area, no further mitigation is necessary.

- If active nests, i.e. nests with eggs or young present, are found within the survey area, non-disturbance buffers should be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. No work should occur within the non-disturbance buffers until the young have fledged as determined by a qualified biologist. If buffers are established and it is determined that Project activities are resulting in nest disturbance, work in the nearby vicinity of the nest would cease immediately and CDFW would be contacted for further guidance.

- Burrowing owl surveys will be conducted prior to any work activities, regardless of season. If active burrowing owl burrows are found (i.e. sign of use or individuals are observed), they will be monitored to ensure active status and a non-disturbance buffer will be implemented and monitored. The no-work buffer will be dependent on whether the owl is present during the nesting or wintering seasons. If buffers are established and it is determined that Project activities are resulting in burrowing owl disturbance, work would cease in the nearby vicinity and CDFW would be contacted for further guidance.

Mammals

Three sensitive or locally rare mammal species were determined to have the potential to occur within the Project area: pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), and hoary bat (*Lasiurus cinereus*). Pallid bat and western red bat are both California Species of Special Concern, and are considered a High Priority species by the Western Bat Working Group. Hoary bat is designated a Medium Priority species by the Western Bat Working Group. Specific habitat requirements for the three special status bat species that have nearby CNDDB occurrences is provided below. In addition, several other bat species have the potential to occur within the Project area based on range, habitat, and recorded occurrences in the region. Because bat species in general are underreported to CNDDB relative to their actual abundance in the environment due to their nocturnality, difficulty to detect, and difficulty to positively identify and count when

detected, habitat suitability and Project-related effects are analyzed generally for all roosting bat species.

Foliage-roosting bats, including the western red bat and hoary bat may roost in the tree canopy, particularly in large, mature trees. Both of these species roost in foliage under overhanging leaves, particularly in riparian areas. Females raise pups solitarily or in very small groups, and may move their young among multiple roost locations. Crevice and cavity-roosting bats such as pallid bat, big brown bat (*Eptesicus fuscus*), and several species of myotis bats (*Myotis spp*.) may use any available cracks or holes in trees as roosting habitat, in addition to the bridge structures within the Project area. In addition to roosting habitat, bats may forage for insects almost anywhere in the Project area. No sign of roosting bats was observed during the site visit; however, a thorough bat roost survey was not conducted. Bats could be roosting in the bridges or trees in the Project area. Since removal of these structures is not proposed as part of the Project, bats could be affected by noise by human and equipment presence that occurs near their roosts. However, temporary disturbance from noise and human and equipment presence should be insignificant due to the short duration of work that would occur underneath the bridge structures or nearby trees within the Project area. Foraging habitat for bats will not be affected. Nevertheless, to minimize potential for disturbance to roosting bats to the greatest extent possible, the following Mitigation Measure will be implemented.

IMPACT BIO-5:
If roosting bats are present in the bridges or trees in the Project area, they could be disturbed by staging or Project activities.

MITIGATION MEASURE BIO-5:
Roosting bat habitat assessments and preconstruction surveys will be conducted to ensure the absence of roosting bats before construction, as detailed below.

- Prior to the start of construction, a bat habitat assessment will be conducted to identify suitable bat roosting habitat including bridges, snags, rotten stumps, and trees with broken limbs, exfoliating bark, cavities, etc. Potential roosting habitat will be avoided to the maximum extent practicable. If no suitable roost sites are identified, no further minimization measures are necessary.

- If suitable roosting habitat is identified and will be disturbed by presence and noise of equipment and workers for more than two hours (i.e. near bridges), a qualified biologist will be present to monitor the bat roosting habitat and will stop work if any disturbance to bats is detected and contact CDFW for further guidance.

- Although not anticipated, if suitable roosting habitat is identified and will be removed by the Project, a qualified biologist will survey potential suitable roost sites immediately prior to the removal. If any sign of roosting bats or observation of

individual bats is observed, the roost will be removed in coordination with CDFW or according to permit conditions. Typical removal methods include first removing non-habitat features such as limbs smaller than 3 inches in diameter. The tree is left overnight to allow any bats using the tree/snag to find another roost during their nocturnal activity period. A qualified biologist would survey the trees/snags a second time the following morning prior to felling and removal.

Critical Habitat

The Project is not located in critical habitat for any federally-listed species. The Southern DPS of Green sturgeon (*Acipenser medirostris*), an anadromous fish that is federally listed as threatened, has critical habitat that is immediately adjacent to the Project area. The critical habitat ends at Walnut Creek's junction with Grayson Creek and therefore is just outside the Project area. The species is not expected to occur in Grayson Creek or the reach of Walnut Creek within the Project area. Past communications from NMFS with the U.S. Army Corps of Engineers for a similar project in 2006 stated that these channels within the Project area no longer provide sufficient conditions for self-sustaining anadromous populations of steelhead.

Based on the field investigations, review of available databases and literature, familiarity with local flora, and on-site habitat suitability, no federal and/or state listed or California Native Plant Society ranked species were observed on site nor considered to have the potential to occur within the Project area. Therefore, no further rare plant surveys are warranted.

Federal/State Listed, Proposed, Candidate, or Fully Protected Fish and Wildlife Species

Four federally/state-listed, proposed, Candidate or fully protected fish or wildlife species were determined to have the potential to occur within the Project area: western bumble bee, Crotch bumble bee, steelhead Central California Coast DPS, and Central Valley Fall/Late-Fall Run Chinook salmon. The Project is not anticipated to substantially impact any special status species with implementation of **Mitigation Measures BIO-1 to BIO-5**. Therefore, Project impacts will **be less than significant with mitigation incorporated**.

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

Sensitive Natural Communities are characterized as plant assemblages that are unique in constituent components, restricted in distribution, supported by distinctive soil conditions, considered locally rare, potentially support special status plant or wildlife species, and/or receive regulatory protection from municipal, county, state and/or federal

entities. The regulatory framework that protects sensitive natural communities is derived from local, state, and federal laws and regulations including Section 10 of the federal Rivers and Harbors Act, sections 401 and 404 of the federal Clean Water Act, Section 1600 et seq. of the California Fish and Game Code, Section 15065 of the CEQA guidelines, and various other city or county codes. Implementation and enforcement of these regulations are conducted by their respective regulatory entities such as the U.S. Army Corps of Engineers, California Regional Water Quality Control Board, California Department of Fish and Wildlife, lead agency, and/or various cities or counties. Natural Communities with ranks of S1, S2, and S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents (Nomad 2021a).

In the Project area, creeping ryegrass stands are growing within a matrix of ruderal non-native grassland vegetation on disturbed levee banks and in the benches adjacent to the low flow channels of Grayson Creek and Walnut Creek. Creeping ryegrass stands (*Leymus triticoides* Herbaceous Alliance) is considered of high inventory priority as it has a Subnational Conservation Status Rank of S3 (Nomad 2021a). A rank of S3 indicates a vegetation alliance or association as "Vulnerable" meaning it is at moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.

Vegetation communities in the Project area include ruderal, seasonal wetland, and freshwater marsh. Although not considered a sensitive natural community by CDFW, freshwater marsh, seasonal wetlands, and open water are treated as sensitive natural communities as they are jurisdictional wetland features regulated by the U.S. Army Corps of Engineers and the California State Water Resources Control Board. Additionally, all channels and drainages on site exhibit ordinary high water marks and evidence of scour. They are considered sensitive natural communities and are regulated by the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and the California State Water Resources Control Board.

Impacts to creeping ryegrass grassland, seasonal wetlands, and potentially freshwater marsh may occur in varying degrees during Project activities. All impacts are temporary and these habitats are expected to recolonize any areas where they are disturbed following desilting activities. Removal of sediment bars from the channel will improve and increase wetland habitat as the sediment is currently occupied by ruderal, upland vegetation, which will likely be converted to wetland vegetation and hydrology following Project implementation. Impacts will be minimized by implementing BMPs including minimizing the disturbance areas to the minimum necessary to complete the Project, revegetating the site following construction, and implementing erosion control. All work will follow regulatory permit conditions. With regard to seasonal wetlands and freshwater marsh, the Project is designed to be self-mitigating, as the site will be revegetated with

appropriate native species. Creeping ryegrass will be incorporated to reestablish that species in appropriate areas. **Mitigation Measure BIO-6** clarifies that ESAs will be avoided to the extent feasible, and the type of vegetation to be used to reestablish seasonal wetland, freshwater marsh, and creeping rye grass species after desilting work.

IMPACT BIO-6:
The Project could have negative impacts on sensitive natural communities.

MITIGATION MEASURE BIO-6:

- Prior to the start of desilting activities, areas containing freshwater marsh and seasonal wetlands, that are near but outside of the work area will be delineated and conspicuously flagged or fenced to minimize impacts to these resources.

- A qualified restoration biologist or botanist will create a seed and plant palate appropriate for reestablishing impacted vegetation.

- The seed and plant palate will include creeping ryegrass in appropriate locations.

Further, temporary impacts to the riparian habitat or other sensitive natural communities will be minimized through implementation of **Mitigation Measures BIO-1, BIO-2** and **BIO-6**. Therefore, Project impacts will **be less than significant with mitigation incorporated**.

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

The Project was specifically designed to avoid freshwater marsh and seasonal wetlands as much as possible while still meeting the Project objective of flood protection. Nevertheless, temporary impacts to seasonal wetlands will occur and impacts to freshwater marsh may occur during Project construction through direct removal and potential filling for access ramps, though filling for access ramps will be avoided if feasible. Hydraulically, all areas will continue to be subject to inundation during high flows and after the planned eroding of the 2-foot berms that protect the flowing channel from the work area. Overall, removal of sediment bars from the channel is expected to improve and increase wetland habitat as many of the targeted sediment bars are currently occupied by ruderal, upland vegetation, which are expected to convert to wetland vegetation and hydrology following Project implementation and revegetation. This expectation is based on planned revegetation efforts and on the results of past desilting operations, which successfully re-established wetland communities using the same or similar practices.

Over time, sediment and ruderal vegetation will fill back in, but this takes years to happen. For example, the last desilt was in 2006. The District periodically and selectively removes sediment from the channels for flood control purposes, as is required by the operation manual, and completes an environmental review and obtains regulatory permits each time. The District has a Programmatic Routine Maintenance Program that allows smaller areas of desilting on a programmatic level, but the amount of sediment removal is limited.

Temporary impacts of this Project will be minimized by fencing or flagging areas to be avoided, general BMPs including, but not limited to, preparation of a SWPPP that outlines measures to minimize mobilization of sediment, as well as measures to reduce construction materials and fluids from entering the channels. The impacted areas will be revegetated with a plant palate intended to restore and increase wetland vegetation and habitat back to pre-Project conditions. These measures are described in **Mitigation Measures BIO-1**, **BIO-2**, and **BIO-6**. Therefore, impacts will be **less than significant with mitigation incorporated**.

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

Habitat loss, fragmentation, and degradation resulting from land use changes or habitat conversion can alter the use and viability of wildlife movement corridors (i.e. linear habitats that naturally connect and provide passage between two or more otherwise disjunct larger habitats or habitat fragments).

Wildlife use in the vicinity of the Project area is likely moderate. Grayson Creek and Walnut Creek within the Project area are connected to the rest of the Walnut Creek watershed and provide an aquatic and terrestrial movement corridor surrounded by urban development. The perennial creeks provide habitat for large-scale migratory movement, daily travel, and dispersal for common and rare fish and wildlife species. Because the Project area is surrounded by development, it is likely that terrestrial wildlife commonly occurs in these relatively protected and lower human-use areas of these channels and their banks. Western pond turtles (*Actinemys marmorata*) are also known to occur and nest in the area.

Overall, the Project is not expected to affect the area's utility as a movement corridor for wildlife in the long term. During the desilting work, the temporary disturbance may discourage some movement during the day when work is taking place. This will be minimized by working on one side of the creek one year, then the other side the next year, leaving one side available for movement.

No significant impacts on wildlife habitat or movement corridors are anticipated given the temporary nature of the Project, which is not expected to significantly alter the channels or surrounding habitats. The Project is not permanently removing channel habitat or creating new wildlife movement barriers. The Project area will be available for common wildlife to move through during and after desilting activities. Fish, turtles, and other aquatic species would likely be able to swim away from the immediate work zone and therefore should not be impacted during construction. Siltation would be controlled through required best management practices and **Mitigation Measure BIO-2** so the water quality should not be impacted such that it could significantly harm any aquatic species. Common ground-mobile species such as eastern fox squirrel (*Sciurus niger*), striped skunk (*Mephitis mephitis*), gray fox (*Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), and mule deer (*Odocoileus hemionus*) should be able to leave the Project site on their own once work starts and, due to the temporary nature of the Project, therefore should not be impacted during construction. There is a chance that less mobile, leaf litter species such as California slender salamander (*Batrachoseps attenuatus*) or Sierran tree frog (*Pseudacris sierra)* could be impacted during construction, but these species are relatively abundant and preconstruction surveys will help minimize impacts to these types of species.

Native fish that are not listed as endangered, threatened, species of species concern, or special animal, are likely to occur within Grayson and Walnut Creeks. Native species that could occur within the Project area include Sacramento sucker (*Catostomus occidentalis*), central California roach (Lavinia symmetricus symmetricus), three-spined stickleback (*Gasterosteus aculeatus*), and prickly sculpin (*Cottus asper*). These fish could utilize the channels within the Project area for foraging, spawning, rearing, and migration, and they provide prey for turtles and an abundance of bird species.

The Project will avoid impacts to the flowing channel. The Project is likely to expand open water and wetland habitat by desilting areas that are currently filled by sediment, which will be an overall benefit for native fish species. The Project biologist will conduct preconstruction surveys and relocate native fish, if found in any of the wetted portions of the silt bars. The Project is expected to have minimal effects to native fish populations due to the temporary nature of the Project, the implementation of avoidance and minimization measures, and the increased habitat that will be available to fish post-desilting. These measures are described in **Mitigation Measures BIO-1** and **BIO-2.** Therefore, impacts will be **less than significant with mitigation incorporated**.

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

The Project will not conflict with any local policies or ordinances protecting biological resources. Tree removal is not anticipated. Therefore, the Project will have a **less than significant impact**.

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

The Project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the Project will have **no impact**.

Sources of Information

Nomad Ecology, LLC. (Nomad 2021a). Biological Resource Assessment for the Walnut and Grayson Creeks Desilting Project, Contra Costa County, California. June 2021

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

SUMMARY:

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to California Environmental Quality Act Guidelines Section 15064.5?

To determine if the Project site contains potential significant historic resources and to evaluate the Project's potential to impact those resources, Pacific Legacy, Inc. conducted an investigation of the Project's Area of Potential Effect (APE), which included archival research of historic period data, a record search, and an intensive pedestrian survey. The results are detailed in the Phase I Archaeological Survey Report (Pacific Legacy 2021). The horizontal APE for activities on Grayson Creek is 2.21 miles long and includes the area between the levees from Chilpancingo Parkway to the confluence with Walnut Creek. The horizontal APE for activities along Walnut Creek is 0.87 miles long and spans both levees from 1,200 ft. downstream of Diamond Boulevard to 1,300 ft. downstream of Concord Avenue. The vertical APE is 7 feet, the maximum depth of excavation related to sediment removal.

The records search of the California Historical Resources Information System (CHRIS) was conducted at the Northwest Information Center (NWIC) at Sonoma State University. The record search collected information on prior studies and known cultural resources within the APE and a 0.25-mile buffer. Although the records search revealed one previously recorded historic period cultural resource within the APE, the Walnut Creek and Grayson Creek Levees (P-07-002731), this resource has been previously determined not eligible for listing in the National Register of Historic Places (NRHP). Since the criteria for the California Register of Historic Resources (CRHR) eligibility are very similar to those of the NRHP, the levees resource is unlikely to be eligible for the CRHR.

Pacific Legacy conducted an intensive pedestrian survey of the Project APE on May 15, 2020. The purpose of the survey was to identify any new cultural resources within the APE that may be affected by the Project. The total area surveyed was approximately

three miles. No signs of prehistoric or undocumented historic period deposits, features, or artifacts were observed during the survey.

There has been extensive disturbance of the Project area due to the channelization of both creeks and fill for the adjacent levees in the early 1960s, and previous desilting activities in 1993, 1995, 1997 and 2006. Project construction documents for the desilting work will not allow excavation below the design level for the channels. Therefore, all areas that will be disturbed by the Project have been previously impacted, and new findings of cultural importance are not anticipated. However, the potential for unanticipated subsurface historical resources cannot be ruled out completely. Therefore, **Mitigation Measure CUL-1** will be followed in the event that subsurface resources are discovered during Project activities.

IMPACT CUL-1:
Project activities could impact previously unidentified historical resources during ground-disturbing activities.

MITIGATION MEASURE CUL-1:
The following will be implemented during Project activities if unanticipated potential historic or prehistoric archaeological resources are encountered.

- Prior to the start of Project activities, cultural resource sensitivity training regarding identification of archaeological and historical resources in the field will be provided for construction personnel in the unexpected event that inadvertent discoveries are made during sediment removal.

- If any suspected cultural or historic resources are located during Project activities, specifications will require all work to be halted within 100 feet of the discovery and the location of the discovery will be secured.

- The Contractor will immediately notify the CCCPWD Resident Engineer, who will then request a qualified archaeologist to evaluate the finding(s) before advising the Resident Engineer to either continue work or recommend further review of the discovery.

With implementation of **Mitigation Measure CUL-1**, Project impacts on historical resources would be **less than significant with mitigation incorporated**.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to California Environmental Quality Act Guidelines Section 15064.5?*

The records search at the NWIC did not identify any recorded archaeological resources within the Project APE. One prehistoric period midden site had been previously recorded within 0.25 miles of the APE, but is located well beyond the Project area and will not be impacted. Pacific Legacy also completed a Native American Consultation and Sacred Land database search. The Native American Heritage Commission's (NAHC) review of the Sacred Land database was negative in the Project APE. The NAHC provided a list of 10 Native American tribal contacts who might have information about cultural materials within the APE. Pacific Legacy sent letters requesting information from these tribal representatives on April 15, 2020. To date, one Project specific response was received via follow-up phone call on April 20, 2020. The response came from the Chairperson of the Amah Mutsun Tribal Band, who requested that all work crews on the Project receive sensitivity training, and that archaeologists be contacted in case of cultural resources.

Based on the results of the investigation described above, the Project should have no impact on known cultural resources and no monitoring during Project activities is warranted. However, the Project may unearth unanticipated prehistoric subsurface resources. Therefore, with implementation of **Mitigation Measures CUL-1,** provided above in subsection 5(a), and **CUL-2** provided in subsection 5(c) below, Project impacts on potential archaeological resources would be **less than significant with mitigation incorporated**.

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

No formal cemeteries are present within or adjacent to the Project area. As part of the cultural review conducted for the Project, the NAHC did not identify any recorded sites within or adjacent to the Project APE and contacts with the Native American tribal representative did not reveal any unrecorded Native American burial sites. Despite the investigations previously described, Project activities could unearth unanticipated historical or prehistoric archaeological resources. However, with implementation of **Mitigation Measures CUL-1,** provided above in subsection 5(a), and **CUL-2,** provided below, Project impacts on archaeological resources, including Native American resources, would be **less than significant with mitigation incorporated**.

IMPACT CUL-2:
The Project could impact previously undiscovered human remains.

MITIGATION MEASURE CUL-2:
If human remains are encountered (or are suspected) during any Project-related activities, construction personnel will be advised to stop all work within 100-feet of the discovery and immediately contact the CCCPWD Resident Engineer, who will contact the Contra Costa County Coroner. At the same time, the Resident Engineer will contact an

archaeologist to assess the situation. The discovery location will be secured without touching or removing the remains or any associated artifacts. In addition, any associated spoils will be secured and left undisturbed so that they can be examined. The Resident Engineer will record the location of the find and keep notes of all calls and events. The find will be treated as confidential and the location will not be publicly disclosed.

If the Coroner determines that the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the CCCPWD and the NWIC.

Sources of Information

Pacific Legacy, Inc. (Pacific Legacy 2021). Phase I Archaeological Survey Report for the Walnut and Grayson Creeks Desilting Project, Contra Costa County, California. June 2021

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

SUMMARY:

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

The Project is limited to the removal of sediment along the channels and will not require energy use once constructed. Project construction will result in an incremental increase in energy usage associated with construction equipment (i.e., fuel in vehicles and power generators). However, energy usage during construction would be minimal and would not require excessive amounts of wasteful usage of energy. Therefore, Project impacts will be **less than significant**.

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

Although the Project will result in a temporary increase in energy usage during construction, the operation of the Project would not require change from the existing condition. As such, the Project does not have potential to conflict with or obstruct a state or local plan for renewable energy or energy efficiency (The Cadmus Group 2018). Therefore, Project impacts will be **less than significant**.

Sources of Information

The Cadmus Group. (The Cadmus Group 2018). 2018. *Contra Costa County Renewable Resource Potential Study*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/6997/Renewable-Resource-Potential-Study. Accessed October 1, 2021.

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

SUMMARY:

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

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

The Project area is just outside of an Alquist-Priolo Fault Zone (SCDC 2019). The main trace of the Concord Fault runs in a northwest-southeast direction immediately east of the Project area. The Concord Fault is capable of producing earthquakes and may cause strong ground shaking within the Project area. However, the Project is limited to sediment removal, which will not introduce new land uses that could be impacted by fault rupture. Therefore, Project impacts will be **less than significant**.

ii) Strong seismic ground shaking?

Contra Costa County is located within a region of high seismicity. As noted above, the main trace of the Concord Fault runs immediately east of the Project area and is capable of producing earthquakes and may cause strong ground shaking within the Project area. The possibility of ground shaking from fault rupture near the Project area is considered high based on available geological and seismic data. The duration and intensity of shaking will depend upon both the magnitude of the earthquake, distance from the epicenter, and ground conditions. However, the Project is limited to sediment removal, which will not introduce new land uses that could be impacted by ground shaking. Therefore, Project impacts will be **less than significant**.

iii) Seismic-related ground failure, including liquefaction?

According to Figure 10-5 of the County's General Plan, the general Project area ranges from generally high potential to generally moderate to low potential for liquefaction (Contra Costa County 2005c). However, the Project is limited to sediment removal, which will not introduce new land uses that could be impacted by unstable soil. Therefore, Project impacts will be **less than significant**.

iv) Landslides?

According to Figure 10-6 of the General Plan, the Project area is not located within a potential landslide area (Contra Costa County 2005c). The topography of the Project area is generally flat. Therefore, the Project impacts will be **less than significant**.

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

Grading and excavation associated with the Project will result in a minor change in topography in the channel, and temporarily increase the exposure of soils to wind erosion. However, adherence to standard dust and erosion control practices, including, but not limited to, general watering of exposed areas, will minimize impacts and are

incorporated in **Mitigation Measures AQ-1** and **BIO-2**. Contract specifications will require a two-foot berm/buffer zone between the limits of excavation and the low flow channel to prevent soil from entering this area during sediment removal activities. This measure will be incorporated into the construction contract and is memorialized in **Mitigation Measure HYD-1**. Therefore, Project impacts will be **less than significant with mitigation incorporated**.

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

According to Figure 10-5 of the County's General Plan, the Project area ranges from generally high potential to generally moderate to low potential for liquefaction (Contra Costa County 2005c). However, the Project is limited to sediment removal, which will not introduce new land uses that could be impacted by unstable soil. Desilting of the Project area will not result in unstable earth conditions or change geologic substructures. Excavation depths will not go below surfaces that were established when channels were built, so in-situ soil layers will not be disturbed. In order to stabilize exposed soils, all areas left exposed due to the desilting work will be hydroseeded with a mix that includes native species, at the earliest practicable date. Hydroseeding will stabilize the exposed sediment in the channel until vegetation is naturally established. Vegetation in the channel is expected to establish quickly, as it has in past desilting operations. Therefore, Project impacts will be **less than significant**.

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

According to Figure 5 of the Aquatic Resource Delineation Report (Nomad 2021b), the Project is mostly located on Omni clay loam, Sycamore silty clay loam, and Laugenor loam. Clay tends to be an expansive soil, while loamy soils are usually a very stable soil that shows little change with the increase or decrease of moisture temperature. However, the Project is limited to removal of existing sediments along the channels, which will not create substantial risk to life or property from expansive soils. Hydroseeding will stabilize the exposed sediment in the channel until vegetation is naturally established. Vegetation in the channel is expected to establish quickly, as it has in past desilting operations. Exposure of people or property to geologic hazards is not expected to occur as a result of the Project. Therefore, Project impacts will be **less than significant**.

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

Septic tanks and alternative wastewater disposal systems are not part of the Project. Therefore, the Project will have **no impact**.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Based on the Geologic Map of the Walnut Creek Quadrangle (Dibblee, T.W., and Minch, J.A., 2005), the Project is located on surficial sediments characterized as "alluvial gravel, sand, and clay of valley areas." Holocene alluvial deposits and fill are generally considered too recent to contain significant paleontological resources and therefore have low paleontological sensitivity. Further, the Project will only remove deposited sediment and Project contract specifications will stipulate that construction shall stop in the area if such potential resources are discovered. In addition, **Mitigation Measure CUL-1** will be followed in the event subsurface resources are discovered during Project construction. Therefore, Project impacts on paleontological resources would be **less than significant with mitigation incorporated**.

Sources of Information

Contra Costa County. (Contra Costa County 2005c). 2005. *Contra Costa County General Plan 2005-2020*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/4732/General-Plan Accessed August 6, 2021. 2005c: Chapter 10. Safety Element

Nomad Ecology, LLC. (Nomad 2021b). Aquatic Resource Delineation Report for the Walnut and Grayson Creeks Desilting Project, Contra Costa County, California. June 2021

State of California Department of Conservation (SCDC 2019). 2019 *California Geologic Survey – EQ Zapp: California Earthquake Hazards Zone Application*. Website: https://www.conservation.ca.gov/cgs/geohazards/eq-zapp Accessed August 6, 2021

Dibblee, T.W., and Minch, J.A., 2005, Geologic map of the Walnut Creek quadrangle, Contra Costa County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-149, scale 1:24,000. Website: https://ngmdb.usgs.gov/Prodesc/proddesc_71826.htm

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

SUMMARY:

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

The following analysis is based on AMBIENT Air Quality & Noise Consulting's Air Quality & Greenhouse Gas Impact Assessment prepared for the Project:

Currently the BAAQMD does not have thresholds for GHG emissions specific to construction activities. Nevertheless, short-term emissions associated with the proposed Project were quantified using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. Emissions were quantified based on Project-specific data and default modeling parameters contained in the model for Contra Costa County. Construction-generated greenhouse gas (GHG) emissions are summarized below in Table 3. As depicted, the proposed Project would generate a total of approximately 308.7 metric tons of carbon dioxide equivalent ($MTCO_2e$) in 2022 and approximately 300.3 $MTCO_2e$ in 2023. Construction-generated emissions would vary, depending on the final construction schedules, equipment required, and activities conducted. Project-generated GHG emissions would be short term and would not exceed the significance threshold of 1,100 $MTCO_2e$ per year as established by the BAAQMD for operational emissions for land use development projects. As a result, the proposed Project would not result in GHG emissions that would have a significant impact on the environment and mitigation would not be required. Further, implementation of **Mitigation Measure AQ-2**, which would require the use of newer off-road equipment and on-road trucks, would help to further reduce diesel-exhaust emissions. Project impacts would be **less than significant**.

Table 3. Unmitigated Construction-Generated GHG Emissions

Year	Annual GHG Emissions ($MTCO_2e$/year)
2022	308.7
2023	300.3
Maximum Annual Emissions	308.7
Significance Threshold	1,100
Exceeds Significance Threshold?	**No**

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

As previously stated, the BAAQMD has adopted a recommended GHG significance threshold of 1,100 $MTCO_2e$ per year for operational emissions for land use development projects. Annual operational emissions that exceed this threshold would be considered to result in a cumulatively considerable contribution of GHG emissions that could potentially interfere with GHG-reduction planning efforts. The BAAQMD has not adopted a recommended mass-emissions GHG significance threshold for short-term/construction-related activities. In the absence of a recommended mass-emissions threshold for short-term/construction activities, this Project analysis relies on the annual significance threshold for long-term operational activities. As a result, construction generated emissions in excess of 1,100 $MTCO_2e$ per year would be considered to have a potentially significant impact on the environment that could potentially conflict with GHG-reduction planning efforts. As shown in Table 3 above, Project-generated GHG emissions would be short term and would not exceed the significance threshold of 1,100 $MTCO_2e$ per year, nor would the Project conflict with applicable GHG-reduction plans, policies or regulations. Therefore, Project impacts would be **less than significant**.

Sources of Information

AMBIENT Air Quality & Noise Consulting. (AMBIENT 2021). Air Quality & Greenhouse Gas Impact Assessment for the Walnut and Grayson Creeks Desilting Project, Contra Costa County, California. June 2021

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

SUMMARY:

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

In order to classify the sediment within the Project area for off-site disposal, Ninyo & Moore collected a total of six samples in Grayson Creek and twenty-seven samples in Walnut Creek (Ninyo & Moore 2020). Based on the results of the sediment sampling activities in their report, the channel sediments are classified as non-hazardous waste and would be acceptable at a Class II or potentially Class III, or cover materials at a

Class II landfill facility. No health and safety precautions were recommended as long as contractors removing the materials keep dust concentrations below the BAAQMD's fence line action level (FAL) of 50 micrograms per meters cubed. The project is not expected to generate large amounts of dust and **Mitigation Measures AQ-1, BIO-2**, and standard BMPs will further minimize generation of dust.

The current plan for the excavated material from Walnut Creek entails transporting it to the nearby Marathon Refinery and stockpiling the sediment in an upland location. Because Marathon has their own permitted project which requires additional soil, they will accept and handle soil from Walnut Creek in accordance with their approved plan and grading permit. It is anticipated that the material will be stockpiled temporarily at the Marathon site before being used elsewhere on the property. The stockpile will have BMPs installed around the perimeter and be routinely inspected to prevent sediment transport. During soil placement, the pile will be graded, sloped and track-walked to prevent erosion. There is ample open space at this location so soil can be spread out rather than steeply sloped. The stockpile area is also flat with well-established vegetation to capture any sediment in storm water runoff.

The sediment from Grayson Creek will be disposed at the nearest permitted landfill. If Marathon Refinery cannot accept the Walnut Creek sediment, and another user cannot be identified, it will be properly managed and disposed of at an appropriate permitted landfill.

During sediment removal, construction vehicles will travel to and from the Project site. Examples of construction vehicles include diesel-powered trucks, loaders, dump trucks, long- and short-arm excavators, water trucks, and pick-up trucks. This equipment may require the use of fuels and other common liquids that have hazardous properties (e.g., fuels, oils, fluids that are flammable) but they would be handled in small quantities that would not create a substantial hazard for construction workers and/or the public. Compliance with federal, state, and local hazardous materials regulations would minimize the risk to the public presented by these potential hazards during desilting. The Project would not involve routine transport, use, or disposal of hazardous materials or involve potential releases of hazardous materials into the environment. Therefore, Project impacts will be **less than significant**.

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

The Project has the potential to release hazardous substances, such as accidental petroleum spills from equipment, during construction. Per the contract specifications, standard construction safety practices will be followed during construction to ensure no

accidental release of hazardous substances occurs and no increase in the potential for exposure to these substances occurs. Underground utilities within the Project area include high-risk, 8-inch-diameter Kinder-Morgan and 16-inch-diameter Phillips 66 petroleum pipelines that are bored under the channel on the southern side of the existing Highway 4 bridge that crosses Grayson Creek. There may also be a 30-inch-diameter water line owned by the Contra Costa Water District on the southern side. Next to the Walnut Creek channel, there may be an existing 21-inch-diameter Central Contra Costa Sanitary District line running north-south along the eastern levee. These utility lines will be marked in the field. The maximum excavation depth will not go below the surfaces that were established when the channels were originally built, so all utilities should be beneath that level and not be disturbed by desilting activities. In addition, nine bridges cross the Project area, which may contain utility lines. Project construction documents will require the contractor to identify these utility crossings so that their locations can be clearly marked in the field, and avoided by construction activities. Therefore, Project impacts will be **less than significant.**

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

There are no schools within one-quarter mile of the Project area. The closest schools to the Walnut Creek portion of the Project are Mt. Diablo High School (0.5 miles away) and Queen of All Saints Elementary School (0.8 miles away). The closest schools to the Grayson Creek portion of the Project are Diablo Valley College (0.3 miles away), Valley View Middle School (0.6 miles away), College Park High School (0.6 miles away), and Valhalla Elementary School (0.8 miles away). Therefore, Project impacts will be **less than significant**.

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

If hazardous materials were present in the sediment to be removed, disturbance of that sediment could mobilize the contaminants into the environment or into the air where they might be inhaled or ingested by humans. In order to determine if sediment slated for removal may have been contaminated by upstream sources of hazardous substances, the District contracted Ninyo & Moore to conduct sediment sampling to characterize the sediment that would be disturbed during the desilting activities.

Government Code Section 65962.5 requires the California Department of Toxic Substances Control (DTSC) to compile and update at least annually a list regarding the location of hazardous materials release sites. The list is maintained through EnviroStor,

which is DTSC's online data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known or suspected contamination issues. Similarly, GeoTracker is the SWRCB's data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Prior to the sampling activities, Ninyo & Moore reviewed the state's GeoTracker and EnviroStor databases to determine if any current or former environmental cases were located in the vicinity of the Project site. No environmental cases were found; however, the site is located near several highways which are historically known sources of elevated lead concentrations due to prior uses of leaded gasoline.

The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) established Environmental Screening Levels (ESLs) to determine what concentrations of certain chemicals could pose a threat to human health and/or the environment. The ESLs take into account different exposure scenarios anticipated to be encountered at the Project site. The Tier 1 ESL is the most conservative of the ESLs available for a particular chemical, and is the first one to be reviewed to determine if chemicals could pose a risk at the Project site. However, the presence of a chemical at concentrations in excess of a Tier 1 ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring; this simply indicates that a potential for adverse risk may exist and that additional evaluation is warranted. Following the Tier 1 ESL review, additional exposure pathways are reviewed and the most appropriate are selected based on anticipated site usage. As this is a desilting project and materials are being removed from the site, the receptor for the site will be a construction worker, so the Construction Worker ESLs were also reviewed. Concentrations are compared to the 2019 (SFRWQCB) Tier 1 ESLs, and Direct Exposure Human Health Risk Levels for Construction Worker ESLs (Construction Worker ESLs). Concentrations are also compared to the state and federal waste classification criteria.

A total of 33 sediment samples were collected and analyzed for the following constituents for waste classification:

- Total Petroleum Hydrocarbons (TPH) as diesel-range organics (TPHd) and as motor oil range organics (TPHmo) by United States Environmental Protection Agency (US EPA) Method 8015B.

- TPH as gasoline range organics (TPHg) and volatile organic compounds (VOCs) using US EPA Method 8260B.

- Title 22 metals by US EPA Methods 6020/7471A.

THPs

Concentrations of TPHd and TPHmo were detected at low levels above their respective laboratory reporting limits (the smallest concentration of a chemical that can be reported by a laboratory), but did not exceed their Tier 1 ESLs. TPHg was not detected above its laboratory reporting limit during this sampling event.

VOCs

VOCs detected during this sampling event are as follows. One sample reported low levels of 2-Butanone (methyl ethyl ketone) and 4-isopropyltoluene above their reporting limits. 2-Butanone was not detected above its Tier 1 ESL, and ESLs have not been established for 4-isopropyl toluene. No other VOCs, including benzene, toluene, ethylbenzene and xylenes (BTEX) or methyl tert-butyl ether (MTBE), were reported above their respective laboratory reporting limits during this sampling event.

Title 22 Metals

Concentrations of 13 metals (arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, vanadium and zinc) were detected above their respective laboratory reporting limits. Detections exceeding screening levels are discussed further below:

Arsenic

Arsenic was detected in each sample at concentrations ranging from 1.0 milligrams per kilogram (mg/kg) to 7.9 mg/kg. These concentrations are below the background concentration of arsenic of 11 mg/kg in Bay Area soils, which has been accepted by the RWQCB. In this case, a background concentration refers to the amount of chemicals found in the soils of a particular area that are naturally occurring and have not been elevated by human activities.

Lead

Lead was detected in each sample at concentrations ranging from 2.3 mg/kg to 32 mg/kg. One concentration was detected at the Tier 1 ESL of 32 mg/kg. No samples exceed the Construction Worker ESL of 160 mg/kg.

Vanadium

Vanadium was detected in each sample at concentrations ranging from 5.6 mg/kg in WC4-0.5 to 46 mg/kg in WC5-1.0. Twenty-one (21) of the samples, collected from both Grayson and Walnut Creeks exceed the Tier 1 ESL of 18 mg/kg and none of these concentrations exceed the Construction Worker ESL of 470 mg/kg. In addition, the highest concentration detected (46 mg/kg) is below the arithmetic mean of background concentrations of vanadium in California soils, which is 112 mg/kg (Bradford et al. 1996).

Based on the sediment sampling results, it is unlikely that the desilting activities pose significant hazard to the public or the environment and Project impacts would be **less than significant**.

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

The nearest airport to the Project site is Buchanan Field Airport, located approximately 0.2 miles from the Grayson Creek portion of the Project site and approximately 0.01 miles from the Walnut Creek portion of the Project site. According to the Buchanan Field Airport Master Plan (Buchanan Field Airport Master Planning Program 2008), the Project is not located within any of the noise contours surrounding the airport, therefore construction workers would not be exposed to excessive noise levels from airport activities. As described below in Section 13(a), the Project will not generate long-term excessive noise levels beyond existing conditions. Therefore, Project impacts will be **less than significant.**

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

No interference with an emergency response plan or evacuation plan is expected to result from the Project. Maintenance roads parallel the Project site at both channels, enabling maintenance vehicles to avoid public thoroughfares during the excavation work. The desilting of the channels will not change the nature of the Project area. Emergency vehicles will have access at all times during construction. Therefore, Project impacts will be **less than significant**.

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

The Project is located in an urban area. According to the California Department of Forestry and Fire Protection (Cal Fire), the Project is not located in a Very High Fire Hazard Severity Zone (Cal Fire 2009). The Project will reduce fuel load for a number of years by replacing ruderal vegetation that tends to be dry in the summer with more wetland varieties. Over time, sediment and ruderal vegetation will fill back in, but this takes years to happen. For example, the last desilt was in 2006. Additionally, no residences, gathering places, or structures are proposed by the Project and the Project does not propose uses that would put residences in danger or increase the risk of wildland fire hazards beyond what currently exists for the public. Therefore, Project impacts will be **less than significant**.

Sources of Information

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Buchanan Field Airport (Buchanan Field Airport Master Planning Program 2008). Contra Costa County Public Works Department, Buchanan Field Airport. Website: https://www.contracosta.ca.gov/4016/Buchanan-Field-Master-Plan-RevOct-2008. Accessed August 10, 2021.

California Department of Forestry and Fire Protection (Cal Fire 2009). Very High Fire Hazard Severity Zones in Local Responsible Area, Contra Costa County. Website: https://frap.fire.ca.gov/mapping/pdf-maps/. Accessed August 10, 2021.

California Department of Toxic Substances Control (DTSC 2021). EnviroStor. Website: http://www.envirostor.dtsc.ca.gov/public/. Accessed August 10, 2021.

Ninyo & Moore. (Ninyo & Moore 2020). Sediment Sampling and Analysis Letter Report, Grayson Creek and Walnut Creek, Various Cities and Unincorporated Areas – Contra Costa County, California. December 2, 2020

State Water Resources Control Board (SWRCB 2021). GeoTracker. Website: http://geotracker.waterboards.ca.gov/. Accessed August 10, 2021.

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

SUMMARY:

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

The Project is located within the Walnut Creek watershed. This approximately 145 square mile watershed drains the east side of the East Bay Hills and the west side of Mount Diablo. The upper watershed is formed of steeply sloped canyons, and the lower watershed is formed of gently sloping alluvial floodplains with residential and urban development. Walnut Creek drains the Walnut Creek Watershed, which is fed by several

major tributaries including San Ramon Creek, Bollinger Creek, Las Trampas Creek, Lafayette Creek, Grayson Creek, Murderer's Creek, Pine Creek and Galindo Creek. Walnut Creek flows from the City of Walnut Creek, through Pleasant Hill, Concord and into unincorporated Contra Costa County. The Walnut Creek channel flows north and merges with Grayson Creek to form Pacheco Creek, which then empties into Suisun Bay approximately 3.6 miles north of the northern boundary of the Project area at Imhoff Drive.

Grayson Creek drains the approximately 24 square mile Grayson Creek/Murderers Creek sub-watershed, which is contained in the Walnut Creek watershed. The Grayson Creek watershed drains the eastern flank of the Briones Hills. This watershed includes all of Pleasant Hill and portions of Martinez, Walnut Creek, and unincorporated Contra Costa County. Hidden Valley Creek and Murderer's Creek join the main stem of Grayson Creek before it flows into Walnut Creek just downstream of Highway 4.

Walnut Creek is designated as an impaired waterbody under the Federal Clean Water Act due to the presence of diazinon, which is a pesticide. The drainage area in the Project area is expected to be subject to regulation by the United States Army Corps of Engineers (USACE), the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), and the State Water Resources Control Board (SWRCB). Impacts to the channels and associated wetlands require authorization with a Section 404 Individual Permit from the USACE, and a Section 401 Water Quality Certification from the SFBRWQCB. The 401 Water Quality Certification will address the waste discharge requirements of the SFRWQCB. Total disturbance due to the Project will be greater than an acre; therefore, in order to comply with the State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements, a Storm Water Pollution Prevention Plan (SWPPP) will be required by the contract plans and specifications and has been required by **Mitigation Measure BIO-2**. The SWPPP will specify the Best Management Practices (BMPs) that will be used during Project construction to ensure water quality impacts are minimized. The SWPPP will address erosion control, sediment control, non-storm water management, accidental spills, and other sources of potential contamination that could occur from construction vehicles or materials. As discussed in Section 9 (d) above, sediment does not contain hazardous substances in excess of SFRWQCB standards. Adherence to BMPs in the SWPPP, and obtaining a 401 certification from the SFRWQCB will address compliance with water quality standards and discharge requirements.

Avoidance and minimization measures will be undertaken in the design of the Project to avoid adverse impacts to water quality, such as creating a two-ft. berm/buffer that will be flagged around the low flow channel of both channels. Contract specifications will require these measures to be implemented to ensure that sediment will not enter the waterway. Contract specifications will also require preparation of a SWPPP, which will

outline specific measures to protect water quality during construction. Examples of measures include, but are not limited to, the storage, servicing and fueling of construction equipment outside of the channel and practices to reduce the possibility of a spill of gasoline, oil, or other pollutant that could have a significant impact on water quality. Normal channel flows will be maintained during the Project, so a dewatering system will not be needed. The low flow channel will not be impacted by the sediment removal, and no changes to the alignment of the channels are proposed. Therefore, no change in drainage patterns are expected. Excavation of sediment deposits from the benches adjacent to the low flow channels will allow water to move more efficiently during high flow events. Project work will occur at the driest part of the year (April to October) to reduce the likelihood of rain interrupting the sediment removal activities. The Project will not create substantial sediment laden run-off to the channel, as vegetation is expected to re-establish itself quickly after the activities are completed. At the completion of the Project, all disturbed areas will be stabilized using hydroseeding with a mix of native species.

The excavated material from Walnut Creek will be transported to the nearby Marathon Refinery and stockpiled in an upland location according to their approved plans and grading permit.

The sediment from Grayson Creek will be disposed at the nearest permitted landfill. If Marathon Refinery cannot accept the Walnut Creek sediment, and another user cannot be identified, it will be properly managed and disposed of at an appropriate permitted landfill.

For the reasons stated above, the Project will not adversely affect surface or ground water quality. Therefore, Project impacts will be **less than significant with mitigation incorporated**.

IMPACT HYD-1:
Project activities could cause sediment to enter the channels and affect water quality.

MITIGATION MEASURE HYD-1:
A two-foot berm/barrier will be left between the low flow channel and construction areas in both Walnut Creek and Grayson Creek. This berm will prevent sediment from entering the channel during construction, and affecting water quality.

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

The Project will not require any withdrawals from an aquifer or groundwater table and will have a negligible effect on groundwater recharge, as the desilting will not change the nature of the Project site. Therefore, the Project will have **no impact**.

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

i) *Result in substantial erosion or siltation on- or off-site?*

The Project will not increase the impervious surface area within the Walnut Creek watershed. An increase in impervious area could result in additional runoff water thus increasing the flow volumes, rates, and peak durations from the loss of unpaved overland flow and native infiltration. However, the Project will not result in any changes to runoff patterns in the Walnut Creek or Grayson Creek watersheds, and therefore associated impacts will not occur. BMPs for erosion and sediment control as identified in **Mitigation Measures BIO-2** and **HYD-1,** and standard BMP**s** will be implemented during the Project. As noted above, the excavated material from Walnut Creek will be transported to the nearby Marathon Refinery, where it will be stockpiled in an upland location and handled in accordance with their approved plans and grading permit. Therefore, Project impacts will be **less than significant with mitigation incorporated**.

ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

As discussed in Subsection (i), above, the Project would not result in an increase in impervious surface as compared to existing conditions. Surface runoff would not increase. Following desilting activities, the risk of flooding on- and off-site will decrease substantially compared to the risk under current conditions. The Project will not increase exposure of people or property to flooding. In fact, the goal of the Project is to lessen the potential exposure of people and property to flooding by restoring capacity to the flood control channel. Therefore, Project impacts will be **less than significant**.

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

As discussed in Subsection (i), above, the Project would not result in an increase in impervious surface as compared to existing conditions. Surface runoff would not increase. Following desilting activities, stormwater drainage systems adjacent to

the Project and pollutant discharges from existing impervious surfaces would be identical to those under current conditions. Therefore, the Project will have **no impact**.

iv) Impede or redirect flood flows?

As discussed in Subsection (a) above, the Project will improve the hydraulic capacity of the channels and reduce flood risk to adjacent properties by excavating sediment deposits from the channels which will facilitate movement of water during high flow events. Therefore, the Project will have **no impact**.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The confluence of Grayson Creek with Walnut Creek is located just north of the Project area. Approximately 1.5 miles north of this location, the channel merges with Pacheco Creek and then travels an additional 1.8 miles north to empty into Suisun Bay. Suisun Bay is drained by the Carquinez Strait, which feeds into San Pablo Bay, a northern extension of the San Francisco Bay, which connects to the open ocean. Waterfront areas along Suisun Bay and the Carquinez Strait could have possible risk of inundation from seiches or tsunamis. According to the Hazard Viewer Map on the Association of Bay Area Governments (ABAG) website, the Project area is outside the Tsunami Evacuation Zone (ABAG 2021). Furthermore, the Project will be limited to desilting activities and will not introduce new land uses that could be subject to inundation.

The Federal Emergency Management Agency (FEMA) produced Flood Insurance Rate Maps (FIRMs) which show Special Flood Hazard Areas (SFHAs). According to the associated FIRMs, the Project area along Walnut Creek is located within Zone A, which represent areas within the 100-year base floodplain where the base flood elevation has not been determined. Much of the land just west of the Walnut Creek segment of the Project is within Zone X, which represents areas subject to the 500-year flood event. Grayson Creek north of SR-4 is also within Zone A, while south of SR-4 the Project area is a regulatory floodway located in Zone AE, which has a base flood elevation ranging from 18 to 26 feet (FEMA 2009; 2017). Most of the commercial and residential areas immediately east of the Project area along Grayson Creek are also within Zone AE. The FEMA FIRMs show levees along both sides of Walnut Creek beginning north of Concord Avenue. Levees along the west side of Grayson Creek begin approximately 400 feet south of Pacheco Boulevard and continue along both sides of the channel north of Pacheco Boulevard to the confluence with Walnut Creek.

Although the Project site is located within flood hazard areas, the Project would have no adverse impacts to flood conditions. The Project will improve the hydraulic capacity of

the channels and reduce flood risk to adjacent properties by excavating sediment deposits from the channels, which will facilitate movement of water during high flow events. As described in Subsection (iii) above, the pollutant load would not be different from the existing conditions because there would be no additional impervious surfaces that the Project would construct and no new land uses are proposed that could increase potential for pollutants during flood conditions. Therefore, the Project would not risk release of pollutants due to inundation and Project impacts will be **less than significant**.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

This Project is located in the cities of Concord and Pleasant Hill, and in the unincorporated areas of Pacheco and Vine Hill. These areas of Contra Costa County are within the limits of the San Francisco RWQCB, which established the Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board San Francisco Bay Region (SFRWQCB 2018).

The Basin Plan identifies general water quality objectives for inland surface waters. The Basin Plan lists the following beneficial uses for Walnut Creek: cold freshwater habitat, fish migration, preservation of rare and endangered species, fish spawning, warm freshwater habitat, wildlife habitat, and some types of recreation[1]. Beneficial uses identified for Grayson Creek are the same with the exception of fish spawning which is not identified for Grayson Creek. The Project is limited to selective desilting that is required to provide flood protection. The desilt areas were carefully chosen to avoid the most sensitive ESAs. Vegetation removal will be limited to only that which is necessary for the work and there will be no large tree removal or removal of overhanging riparian vegetation. There will be no work in the flowing channel and a 2-foot berm will buffer the work area from the flowing channel. Because there is vegetation on the silt bars that will be removed with the sediment, implementation could temporarily affect water temperature until the new vegetation grows in. Changes in temperature will be minimized by phasing the Project over two years. Work will occur on one side of the channels one year, the disturbed areas will be seeded, and then work will occur on the other side the next year. Working on one side of the channel each year will help minimize impacts to the channel in general. Other potential impacts during the desilting include suspended sediment, suspended materials, toxicity, temperature, and turbidity. These potential impacts will be minimized by working in the dry season, standard BMPs, and **Mitigation Measures BIO-1**, **BIO-2**, and **HYD-1**.

By avoiding the most sensitive ESAs, phasing the Project over two years, and implementation of mitigation measures, impacts to beneficial uses and the channels in

[1] Many areas of the channels are not publically accessible. All posted signs must be adhered to.

general will be minimized. As such, the Project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, Project impacts will be **less than significant with mitigation incorporated**.

Sources of Information

Association of Bay Area Governments (ABAG 2021). ABAG Hazard Viewer Map. Website: https://abag.ca.gov/our-work/resilience/data-research/hazard-viewer. Accessed: August 10, 2021

Federal Emergency Management Agency (FEMA 2009; 2017). June 2009; March 2017. Flood Insurance Rate Maps, Contra Costa County, California and Incorporated Areas, Panels 06013C0281F and 06013C0277F; Panel 06013C0089H

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. ***LAND USE AND PLANNING – Would the project:***				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

SUMMARY:

a) Would the project physically divide an established community?

The Project would not physically divide an established community; rather, it will improve the hydraulic capacity of the channels to reduce flood risk to adjacent properties. Therefore, the Project will have **no impact**.

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

The Project will not result in an alteration of the present or planned land use of the area and does not conflict with any applicable land use plan, policy or regulation. The Project is consistent with the following ordinances, programs, principles, and policies of the County's General Plan, the City of Pleasant Hill's General Plan, or the City of Concord's General Plan:

- County Floodplain Management Ordinance (County Ord. #82-28) (Contra Costa County 2021).
- Safety and Noise Policy 1B. Reduce flood damage potential in areas known to be prone to flooding (Pleasant Hill 2003).
- Safety and Noise Program 1.1. Continue to clear drainage systems regularly (inlets, culverts, swales, channels, and channels), both public and private, to remove debris buildup that can exacerbate flooding impacts (Pleasant Hill 2003).
- Goal S-4: Flood Risk Reduction, Principle S-4.1. Protect the community from risks to lives and property posed by flooding and stormwater runoff (Concord 2005).

- Goal S-4: Flood Risk Reduction, Policy S-4.14. Design storm drainage facilities to meet the Contra Costa County Flood Control and Water Conservation District standards and ensure adequate and safe flow to minimize flooding (Concord 2005).

CCCPWD has an adopted Habitat Conservation Plan/Natural Community Conservation Plan; however, the Project is not within the plan's inventory area. Based on the analysis above, the Project is consistent with environmental land use policies or plans. Therefore, the Project will have **no impact**.

Sources of Information

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Pleasant Hill. 2003. *General Plan 2003*. Safety and Noise Element. Planning Division, Pleasant Hill, CA. (Pleasant Hill 2003). Website: https://www.pleasanthillca.org/132/Current-General-Plan. Accessed August 6, 2021.

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

SUMMARY:

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

The Project will not involve quarrying, mining, or extraction of any known regionally or locally important mineral, oil, or gas resources on site, nor will it deplete any non-renewable natural resource. According to the Conservation Element chapter in the County General Plan (Contra Costa County 2005d), there are no mapped mineral resource areas near the Project. Therefore, the Project will have **no impact**.

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

There are no mapped mineral resource areas near the Project. Therefore, the Project will have **no impact**.

Sources of Information

Contra Costa County. (Contra Costa County 2005d). 2005. *Contra Costa County General Plan 2005-2020*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/4732/General-Plan. Accessed August 6, 2021. 2005d: Chapter 8: Conservation Element.

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

SUMMARY:

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

Noise is usually defined as unwanted sound. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound as heard by the human ear. Sound levels in dB are calculated on a logarithmic basis. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness though the noise is actually ten times more intense. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense. Sound intensity is normally measured through the A-weighted sound level in decibels (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level.

Desilting of the flood control channels will not result in any long-term noise impacts due to the limited scope of the Project. However, noise will be generated by heavy equipment during desilting. Table 4 shows typical noise levels of construction equipment anticipated for the Project as measured at a distance of 50 feet from the operating equipment.

Table 4. Typical Construction Equipment Maximum Noise Levels

Type of Equipment	Impact Device? (Yes/No)	Typical Maximum Noise Levels (dBA at 50 feet)
Pickup Truck	No	55
Front-End Loaders	No	80
Dump Truck	No	84
Excavators	No	85
Source: FHWA 2006.		

There is a variety of land uses in the Project vicinity, including commercial, industrial, and residential. These properties range from small shopping centers to large box stores, from a water treatment plant to an airport, and from a mobile home park to single- and multi-family residential housing. Interstate 680 and State Route 4, both major freeways, are located next to the Project.

The closest residential properties to the Project area are located on the west side of Grayson Creek between Pacheco Boulevard and Chilpancingo Parkway. Equipment and vehicles operating from the gravel access road within 50 feet of these properties would be limited to the removal of less than 10,000 cubic yards of sediment and would be spread out over nearly 1 mile along the channel. The anticipated amount of time to desilt this area is relatively short and is estimated to take approximately 3 weeks in total. As desilting activities progress along the channel and move to other Project locations, work at each sediment bar would last for a fraction of that time. Therefore, the amount of time spent within 50 feet of each property would be considerably shorter than 3 weeks. Furthermore, the presence of trees between these residential properties and the gravel access road will help attenuate equipment and vehicle noise.

Contra Costa County does not have a noise ordinance for construction noise. However, the Noise Element of the County's General Plan specifies that construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods (Contra Costa County 2005e). The City of Pleasant Hill noise ordinance allows construction work within a residential land use district on Monday through Friday, 7:30 a.m. to 7:00 p.m. and weekends, 9:00 a.m. to 6:00 p.m. The City of Concord noise ordinance states that the Concord Municipal Code section 62-32(1)cc restricts the hours that construction work can take place to the following times: Monday through Friday, 7:30 a.m. to 6:00 p.m., and weekends, 8:00 a.m. to 5:00 p.m. Therefore, working hours will be limited to Monday through Friday 7:30 a.m. to 6:00 p.m. and if necessary, weekends 9:00 a.m. to 5:00 p.m. These working hours will be incorporated as part of the construction contract. Contract specifications will also require the use of properly tuned and muffled equipment to minimize noise due to construction activities.

Implementation of **Mitigation Measure NOI-1a**, as described below, complies with the County Noise Element and noise ordinances for both the City of Concord and the City of Pleasant Hill.

Consistent with the provisions outlined in the Noise Element of the Contra Costa General Plan, construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and will be required to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods. Therefore, compliance with restrictions on permissible hours of construction, as well as compliance with best management practices for construction noise reduction measures outlined in **Mitigation Measure NOI-1a**, would ensure that construction noise would not result in sleep disturbance of sensitive receptors or exposure of persons to noise levels in excess of established standards. Impacts would be less than significant with the implementation of mitigation.

There will be a limited number of additional vehicle trips during desilting activities resulting from worker vehicles accessing the site. The transport of workers and construction equipment and materials to the Project area would incrementally increase noise levels on adjacent roads. The average number of anticipated vehicle trips related to the Project would be approximately 100 per day. However, this will be a minor and temporary impact that would not significantly increase the ambient noise level at the Project area and therefore is deemed less than significant.

The Project will cause a temporary increase in ambient noise associated with desilting activities. This increase, however, would be short-term and temporary in nature. As shown in Table 4, noise from desilting activities for the Project will fall within a typical range of 55 to 85 dBA at 50 feet from nearby residences. According to the City of Pleasant Hill's General Plan, Pleasant Hill residents are frequently exposed to noise ranging from 35 to 80 decibels (Pleasant Hill 2003). See Table 5 below for examples of typical noise levels from existing noise sources and environments that may be found near the Project site. As a result, Project activities will temporarily increase noise levels by at least 5 decibels. A difference of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, construction noise is expected to be noticeable to residents. Implementation of **Mitigation Measures NOI-1a** and **NOI-1b** would reduce this short-term noise impact to a less-than-significant level. Therefore, Project impacts will be **less than significant with mitigation incorporated**.

Table 5. Typical Noise Levels

Type of Noise or Environment	**Decibels**
Soft Whisper; Quiet Bedroom	30
Busy Open-plan Office	55
Normal Conversation	60-65

Automobile *at 20 mph 25 ft. away*	65
Vacuum Cleaner *at 10 ft. away*	70
Dump Truck *at 50 mph[1] 50 ft. away*	90
Source: City of Pleasant Hill General Plan, 2003	

[1]Note that dump trucks driving on unpaved roads at the Project site will be limited to 15 mph

IMPACT NOI-1:
Project activities will result in a temporary increase in ambient noise levels.

MITIGATION MEASURE NOI-1a:
Construction activities shall be limited to non-sensitive hours for adjacent land uses (generally between 7:00 a.m. to 6:00 p.m. in unincorporated areas and 7:30 a.m. to 6:00 p.m. in neighboring cities) consistent with the Contra Costa County General Plan Noise Element and noise ordinances for the City of Concord and City of Pleasant Hill. If work is necessary outside of these hours, approvals from impacted jurisdictions will be obtained as needed to extend work hours.

MITIGATION MEASURE NOI-1b:
The Project Contractor shall employ the following noise-reducing practices during Project construction:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive areas nearest the active Project site during all Project activities.
- A visible sign will be posted at the Project site with the hours of construction and the name and telephone number of the contact person to address any noise complaints.

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

Excessive ground-borne vibration from construction activities resulting from equipment such as pile drivers will not be used to for the Project. Some ground-borne vibration may result from desilting, but will not be excessive based on the types of construction equipment that will be used and will be short term in nature. Therefore, Project impacts will be **less than significant**.

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

The nearest airport to the Project site is Buchanan Field Airport, located approximately 0.2 miles from the Grayson Creek portion of the Project site and approximately 0.01 miles from the Walnut Creek portion of the Project site. The Federal Aviation Administration (FAA), through the Federal Aviation Regulations (FAR) Part 150 Noise Compatibility Plan prepared for the airport, has developed generalized guidelines for land use compatibility for planning purposes. According to the Buchanan Field Airport Master Plan (Buchanan Field Airport Master Planning Program 2008), the Project is not located within the 65 Community Noise Equivalent Level (CNEL) noise contour surrounding the airport, which is the threshold contour for land use analysis. Based on these guidelines, residential uses and schools are compatible with noise up to 65 CNEL. Therefore, construction workers would not be exposed to excessive noise levels from airport activities. Further, no new land uses are proposed that might expose people to excessive noise levels generated by airport activities. Therefore, Project impacts will be **less than significant.**

Sources of Information

Contra Costa County. (Contra Costa County 2005e). 2005. *Contra Costa County General Plan 2005-2020*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/4732/General-Plan. Accessed August 6, 2021. 2005e: Chapter 11. Noise Element

Buchanan Field Airport (Buchanan Field Airport Master Planning Program 2008). Contra Costa County Public Works Department, Buchanan Field Airport. Website: https://www.contracosta.ca.gov/4016/Buchanan-Field-Master-Plan-RevOct-2008. Accessed August 10, 2021.

Federal Highway Administration (FHWA 2006). *Highway Construction Noise Handbook.* Website:https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm. Accessed August 6, 2021.

Pleasant Hill. 2003. *General Plan 2003*. Safety and Noise Element. Planning Division, Pleasant Hill, CA. (Pleasant Hill 2003). Website: https://www.pleasanthillca.org/132/Current-General-Plan. Accessed August 6, 2021.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. ***POPULATION AND HOUSING – Would the project:***				
a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SUMMARY:

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

The goal of the Project is to provide flood control protection to the area. This goal will be achieved without creating additional infrastructure that could encourage population growth. Downstream of the proposed flood control improvements (the location the Project will benefit), the area is essentially built-out with industrial uses, and the improvements will not induce further population growth. The Project does not include new homes or businesses that could directly induce population growth. In addition, the Project does not conflict with with the Growth Management Element of the County's General Plan, including the 65/35 Land Preservation Standard and Urban Limit Line (Contra Costa County 2005f). Therefore, the Project will have **no impact**.

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

The Project will not result in the displacement of any homes or residents, nor will it result in a change in the location, distribution, density or growth rate of human population in the area; as such, no replacement housing is necessary. Therefore, the Project will have **no impact**.

Sources of Information

Contra Costa County. (Contra Costa County 2005f). 2005. *Contra Costa County General Plan 2005-2020*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/4732/General-Plan. Accessed August 6, 2021. 2005f: Chapter 4. Growth Management Element

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

SUMMARY:

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

a) *Fire Protection?*

The Project will not result in new development that could increase demand on public services and therefore will not necessitate the construction of new facilities or the alteration of facilities that could result in environmental impacts. Because the Project will not result in population growth or propose land uses that increase demand on police and fire services, there will be no impact on service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. During Project work, residents and emergency service vehicles will be able to access the surrounding streets and all adjacent neighborhoods at all times. Furthermore, the Project does not conflict with the Public Facilities/Services Element of the County's General Plan (Contra Costa County 2005g). Therefore, the Project will have **no impact**.

b) *Police Protection?*

Please refer to the discussion and response in Subsection (a) above.

c) *Schools?*

Please refer to the discussion and response in Subsection (a) above.

d) *Parks?*

Please refer to the discussion and response in Subsection (a) above.

e) Other public facilities?

Please refer to the discussion and response in Subsection (a) above.

Sources of Information

Contra Costa County. (Contra Costa County 2005g). 2005. *Contra Costa County General Plan 2005-2020*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/4732/General-Plan Accessed August 6, 2021. 2005g: Chapter 7. Public Facilities/Services Element

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

SUMMARY:

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

The Project is adjacent to one existing neighborhood park in the area. Shadowood Park is a 2.6-acre park with a lawn, playground and picnic area owned and maintained by the Pleasant Hill Recreation and Park District.

The Project is adjacent to two trails. Pacheco Creekside Park, located along Grayson Creek, and the Iron Horse Regional Trail, next to Walnut Creek. Pacheco Creekside Park features a gravel trail that runs along Aspen Drive between Center Avenue and Pacheco Boulevard. The Iron Horse Regional Trail is a multi-use hiking and bicycle trail that is managed and maintained by the East Bay Regional Park District (EBRPD). The Project does not include new land uses or other features that could increase the use of the existing park or recreational trails listed above. Therefore, no physical deterioration of the facilities would occur or be accelerated. Based on the information above, the Project will have **no impact**.

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

The Project is limited to sediment removal along two creek channels and does not include recreational facilities or require the construction or expansion of recreational facilities. There would be no adverse physical effect on the environment related to new recreational facilities. Therefore, the Project will have **no impact**.

Sources of Information

Pleasant Hill Recreation and Park District (Pleasant Hill Rec 2021). 2021. Website: https://pleasanthillrec.com/facilities/facility/details/Shadowood-Park-7. Accessed October 8, 2021.

East Bay Regional Park District (EBRPD 2021). 2021. Website: https://www.ebparks.org/parks/trails/iron_horse/default.htm. Accessed October 8, 2021.

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

SUMMARY:

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

The majority of the Project will take place in the flood control channels, which are paralleled by access roads that are not open to cars owned by the public. The local roads in the vicinity of the Project channels receive traffic from day use shoppers, due to the location of various box store and mini-mall locations, and local residents. The Project will not result in long-term impacts to circulation however, access to and from the Project site by workers and equipment will be necessary during the desilting work. Increase in traffic from construction workers will be negligible. A relatively small number of truck trips will be generated (approximately 100 per day) over a limited number of days. Work at the Project site is estimated to take approximately 192 days over the course of two years (96 days per year). Traffic on adjacent roadways may need to be temporarily stopped in order to allow dump trucks and other deliveries to enter and exit the access roads at the work site along various access points at the Project site. Traffic control flaggers will be used when necessary to adjust vehicle flow. Although traffic impacts are expected to be minimal, construction documents will require the contractor to submit a traffic control plan for approval by the CCCPWD.

All of Pacheco Creekside Trail along Grayson Creek and a portion of the Iron Horse Regional Trail that parallels Walnut Creek will be closed during the desilting activities. Pacheco Creekside Trail is a gravel trail that runs along Aspen Drive between Center Avenue and Pacheco Boulevard and is approximately 0.2 miles long. There is an existing sidewalk parallel to the trail on the west side of Aspen Drive that will be available as an alternate route for pedestrians. The Iron Horse Regional Trail is a multi-use hiking and bicycle trail that is managed and maintained by the EBRPD, who will be advised of the

Project, and will be advised of path closures. Pedestrians and bike riders using the recreational trail for alternative transportation will be temporarily affected by the Project; however, alternate street routes are available around the affected portion of the trail.

For the reasons stated above, the Project does not conflict with applicable plans. Furthermore, the Project does not conflict with the Transportation and Circulation Element of the County's General Plan (Contra Costa County 2005b). Therefore, Project impacts will be **less than significant**.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?

CEQA Guidelines Section 15064.3 (b) provides criteria for analyzing transportation impacts. As stated in Section 15064.3(b)(2), transportation projects that reduce, or have no impact on, vehicle miles traveled (VMT) should be presumed to cause a less than significant impact. The proposed Project is limited to sediment removal along two creek channels and is not considered a transportation project. The Project will have no impact on vehicle capacity, or create long-term changes to traffic patterns or VMT on adjacent roads. Therefore, the Project will have **no impact**.

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

The Project will not increase hazards due to a design feature or incompatible use. The purpose of the Project is to remove sediment from creek channels and does not involve redesigning of roadways. Therefore, the Project will have **no impact**.

d) Would the project result in inadequate emergency access?

Emergency vehicles will have access to the roads adjacent to the Project site at all times. Roadway closures are not expected and traffic control measures, if needed, will comply with the industry standards allowing access for emergency vehicles. Therefore, Project impacts will be **less than significant**.

Sources of Information

Contra Costa County. (Contra Costa County 2005b). 2005. *Contra Costa County General Plan 2005-2020*. Contra Costa County Community Development Department. Martinez, CA. Website: https://www.contracosta.ca.gov/4732/General-Plan. Accessed August 6, 2021. 2005b: Chapter 5. Transportation and Circulation Element

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

SUMMARY:

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

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

As discussed in Section V (Cultural Resources), there are no tribal cultural resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, present in the Project's Area of Potential Effect (APE). Therefore, the Project impacts will be **less than significant with mitigation incorporated**.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

Subdivision (c) of Public Resources Code Section 5024.1 stipulates that a resource may be listed as an historical resource in the California Register of Historical Resources if it meets any of the following National Register of Historic Places criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history.

The Wilton Rancheria Tribe has submitted a general request letter to be notified of projects within Contra Costa County under AB52. On February 18, 2020, an offer to consult was sent to the AB52 contact designated in the Wilton Rancheria general request letter. No responses were received from Wilton Rancheria in regards to AB52 consultation. Therefore, no request for consultation nor information about potential resources was received from the tribe.

Pacific Legacy completed a Native American Consultation and Sacred Land database search. The Native American Heritage Commission's (NAHC) review of the Sacred Land database was negative in the Project APE. The NAHC provided Pacific Legacy with a list of 10 Native American tribal contacts who might have information about cultural materials within the APE. Pacific Legacy sent letters requesting information from these tribal representatives on April 15, 2020. One response has been received to date. The response did not speak to resources in the area but requested that all work crews on the project receive sensitivity training, and that archaeologists be contacted in case unknown cultural resources are discovered (Pacific Legacy 2021).

Mitigation Measures CUL-1 and **CUL-2** will be implemented to minimize unanticipated impacts to previously undiscovered resources. Therefore, Project impacts will be **less than significant with mitigation incorporated**.

Sources of Information

Pacific Legacy, Inc. (Pacific Legacy 2021). Phase I Archaeological Survey Report for the Walnut and Grayson Creeks Desilting Project, Contra Costa County, California. June 2021

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

SUMMARY:

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

The Project is limited to sediment removal and does not include nor will it require construction of new water or wastewater treatment facilities or expansion of existing facilities. Underground utilities within the Project area include high-risk, 8-inch-diameter Kinder-Morgan and 16-inch-diameter Phillips 66 petroleum pipelines that are bored under the channel on the southern side of the existing Highway 4 bridge that crosses Grayson Creek. There may also be a 30-inch-diameter water line owned by the Contra Costa Water District on the southern side. Next to the Walnut Creek channel, there may be an existing 21-inch-diameter Central Contra Costa Sanitary District line running north-south along the eastern levee. These utility lines will be marked in the field. The maximum

excavation depth will not go below the surfaces that were established when the channels were originally built, so all utilities should be beneath that level and not be disturbed by desilting activities and no relocation is necessary.

There are overhead utility lines at a few points along Grayson Creek and one underground marker on 2nd Avenue South. Overhead lines cross above Grayson Creek just north of the Target shopping center on Contra Costa Boulevard but no relocation is necessary. Accommodations will be made to provide space for desilting equipment. No utility or storm water drainage relocations are proposed or are necessary for Project implementation. Therefore, the Project will have **no impact**.

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

The Project will not require water service, and water trucks from off-site water sources would provide any water needed during desilting activities. Therefore, the Project will have **no impact**.

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

The Project does not require wastewater treatment services. Therefore, the Project will have **no impact**.

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

The Project will not generate operational waste. However, a large amount of sediment and vegetative matter will be removed during excavation. The County has active solid waste facilities with capacity to accommodate any construction waste that may be generated (CalRecycle 2019). In addition, Project contract specifications will require that the Contractor dispose of solid waste, including sediment, in accordance with all federal, state and local regulations. Therefore, Project impacts will be **less than significant.**

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

As stated above, Project contract specifications will require that the Contractor dispose of solid waste in accordance with all federal, state and local regulations. Therefore, Project impacts will be **less than significant**.

Sources of Information

California Department of Resources Recycling and Recovery (CalRecycle 2019). 2019. Walnut Website: https://www2.calrecycle.ca.gov/SolidWaste/Site/Search. Accessed August 25, 2021.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
20. ***WILDFIRE*** *– If located in or near state responsibility areas or lands classified as very high fire hazard severity zones,* ***would the project:***				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby, expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☒	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

SUMMARY*:*

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

According to the California Department of Forestry and Fire Protection, the Project is not located in a Very High Fire Hazard Severity Zone (Cal Fire 2009). Further, the Project will not change the nature of the Project site or roadways. Emergency vehicles will have access at all times during desilting work. Therefore, the Project will have **no impact**.

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

According to the California Department of Forestry and Fire Protection, the Project is not located in a Very High Fire Hazard Severity Zone (Cal Fire 2009). Further, the Project will

not change the nature of the Project site. No improvements are proposed that would exacerbate a wildfire risk. However, use of equipment during the desilting activities have the potential to result in unanticipated fires.

IMPACT FIRE-1: Construction activities could result in the ignition of a wildfire.

MITIGATION MEASURE FIRE-1: Prior to construction, the contractor shall prepare a Fire Safety Plan for use during construction. The Fire Safety Plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:

- Dry grass shall be cut low or removed from construction equipment staging areas.
- Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition.
- Equipment parking areas (staging areas) shall be cleared of all extraneous flammable materials.
- Smoking shall be limited to paved areas or areas cleared of all vegetation.

With implementation of **FIRE-1**, Project impacts will be **less than significant with mitigation incorporated**.

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

According to the California Department of Forestry and Fire Protection, the Project is not located in a Very High Fire Hazard Severity Zone (Cal Fire 2009). Further, the Project will not change the nature of the Project site. No improvements are proposed that would exacerbate a wildfire risk. Therefore, Project impacts will be **less than significant**.

d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

According to the California Department of Forestry and Fire Protection, the Project is not located in a Very High Fire Hazard Severity Zone (Cal Fire 2009). Further the sediment removal activities will not change the nature of the Project site. The existing amount of runoff, level of fire risk, and drainage patterns will remain unchanged post-construction. Therefore, the Project will have **no impact**.

Sources of Information

California Department of Forestry and Fire Protection (Cal Fire 2009). Very High Fire Hazard Severity Zones in Local Responsible Area, Contra Costa County. Website: https://frap.fire.ca.gov/mapping/pdf-maps/. Accessed August 10, 2021.

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

SUMMARY:

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

Non-wetland areas (uplands) will be excavated to lower elevations, where re-establishment of wetlands can occur and increase wetland habitat in the channels. The Project will temporarily impact wetlands in Walnut and Grayson Creeks, but will return the floodplain to elevations more conducive to the formation of wetlands. Seasonal wetlands in these channels are frequently inundated during winter flows. The low flow channels will be protected by 2-foot berms/buffers, separating them from construction activities. Vegetation in the excavated areas is expected to regenerate quickly following hydro-seeding at the start of the rainy season.

The Project has been designed as self-mitigating. Overall, removal of sediment bars from the channel is expected to improve and increase wetland habitat as many of the targeted sediment bars are currently occupied by ruderal, upland vegetation, which are expected to convert to wetland vegetation and hydrology following Project implementation and revegetation. This expectation is based on planned revegetation efforts and on the results of past desilting operations, which successfully re-established wetland communities using the same or similar practices. This results in a cyclical management strategy that balances habitat with flood protection. Wetlands created, and upland areas restored to wetland elevations on Walnut and Grayson Creeks, will mitigate for the impacts to wetlands. **BIO-1 through BIO-5**, and **HYD-1** will be implemented to minimize impacts to species and their habitats.

No cultural resources were identified in the Project area. **CUL-1** and **CUL-2** will be implemented to minimize impacts to unknown cultural resources. Therefore, impacts will be **less than significant with mitigation incorporated**.

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

The District conducts desilting in the channels periodically to reestablish flood capacity. The last desilt occurred in 2006. The recurring desilts can have cumulative effects on habitat in the channels and, thus, species. However, without periodic desilting, flooding impacts could occur. The Project has been designed to have the least amount of impact to ESAs as possible. As noted above, periodic desilting results in a cyclical management strategy that balances habitat considerations with flood protection. **BIO-1 through BIO-5**, and **HYD-1** will be implemented to minimize temporary impacts and the disturbed areas will be reseeded with appropriate seed mix to reestablish native wetland vegetation.

The District has a levee remediation project that is slated to construct the same year along existing levees on the lower portion of Grayson and Walnut Creeks. Work would not occur in the flowing channel and BMPs will be implemented to reduce impacts. In addition, the District conducts routine maintenance on the Walnut and Grayson channels through its permitted Routine Maintenance Program. This work, along with the Project, are maintenance and rehabilitation activities on existing facilities that are necessary for flood protection. Without the work, flood risk and other risks would increase, such as accidental release of hazardous substances that can be mobilized during inundation of surrounding land uses. During all work, BMPs are implemented to reduce impacts to

habitats, species, air quality, noise, and transportation during work. Impacts would be **less than significant with mitigation incorporated**.

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

The Project will not have any long term effect on humans. Temporary air quality and noise impacts would be mitigated to less than significant levels through implementation of **AQ-1**, **AQ-2**, **NOI-1a** and **NOI-1b**, and **FIRE-1**. Therefore, impacts would be **less than significant with mitigation incorporated**.

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ATTACHMENTS

1. **Project Regional Location Map**
2. **Project Vicinity Maps**
3. **Desilt Profile**

Walnut and Grayson Creeks Desilting Project

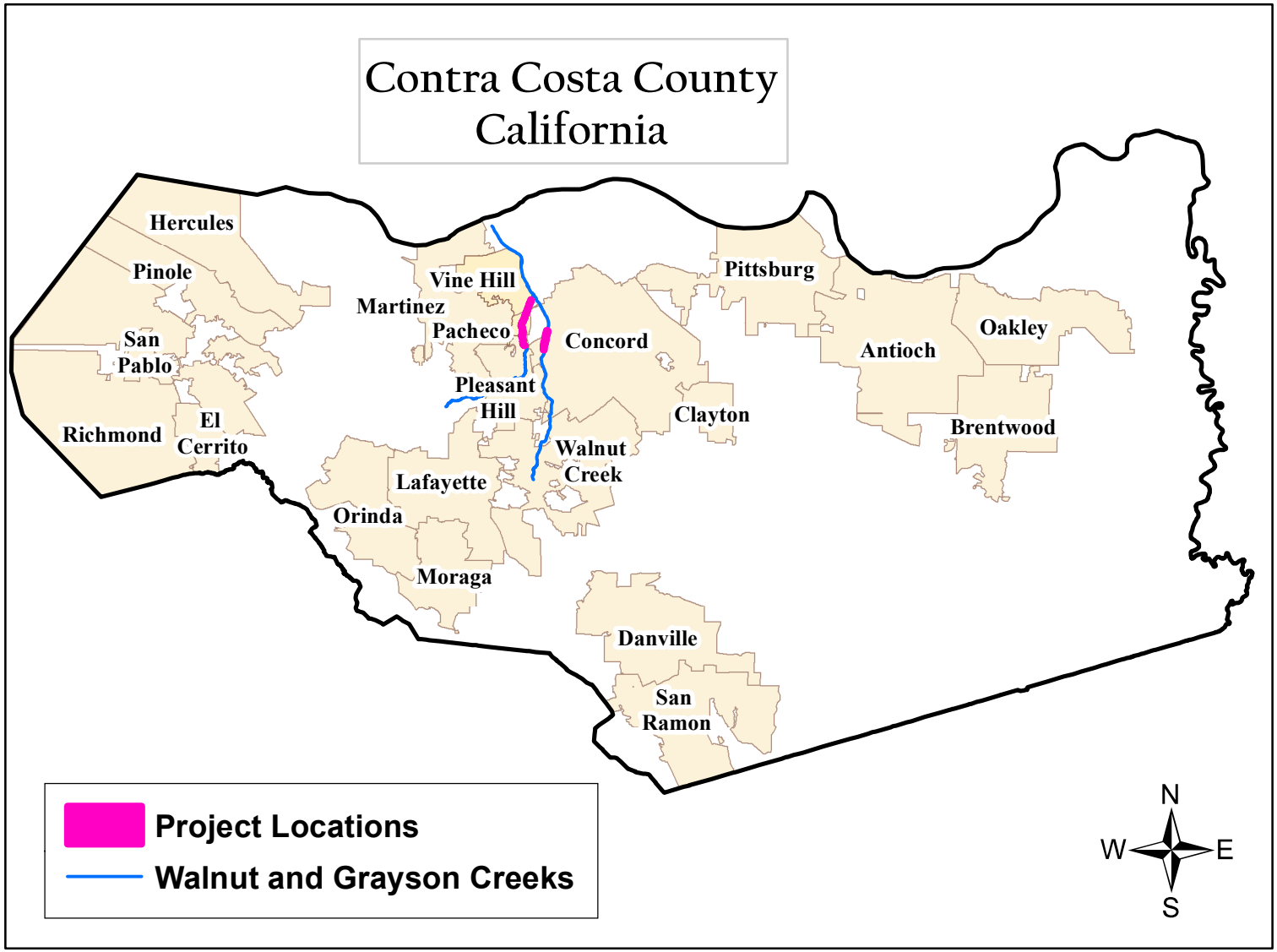


Figure 1

Grayson Creek & Walnut Creek Desilt Vicinity Map

Grayson 1

N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

- Points of Access
- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 200 400 800 1,200 1,600 Feet

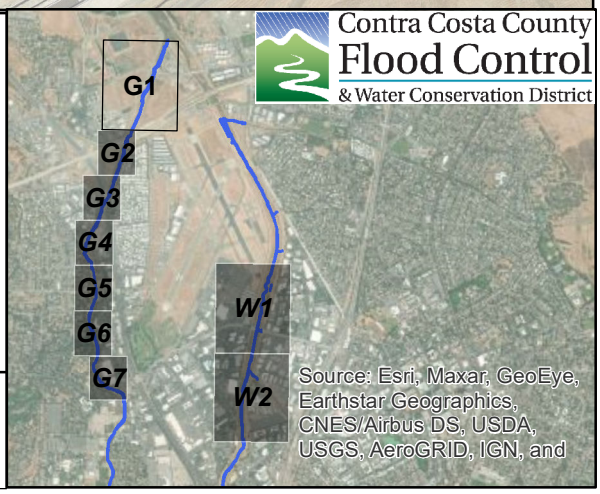
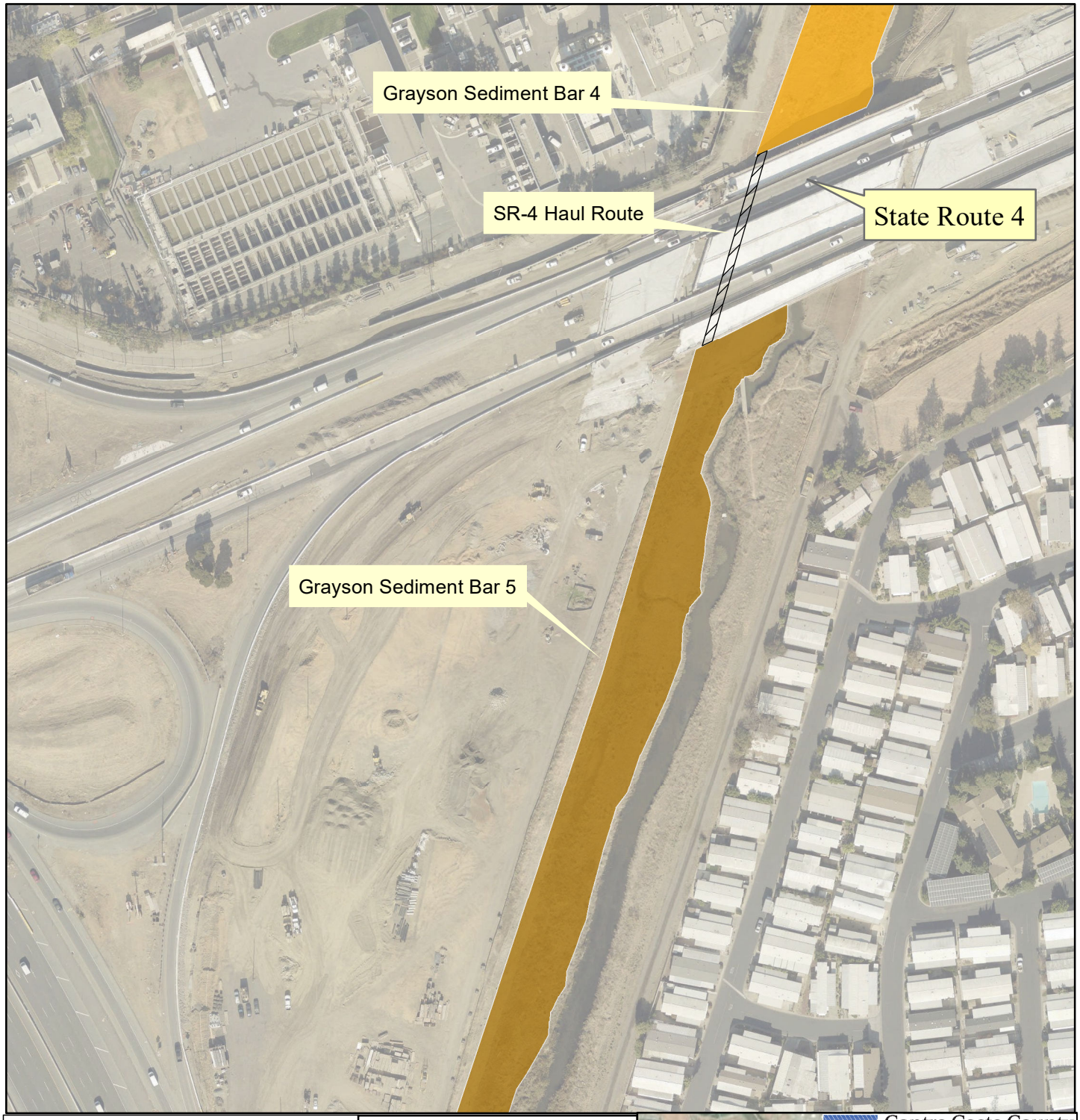


Figure 2

Grayson Creek & Walnut Creek Desilt Vicinity Map



Grayson 2

N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

- Points of Access
- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 100 200 400 600 800 Feet

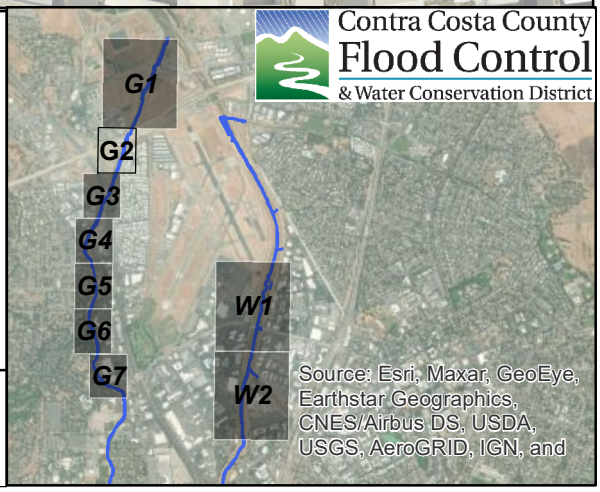
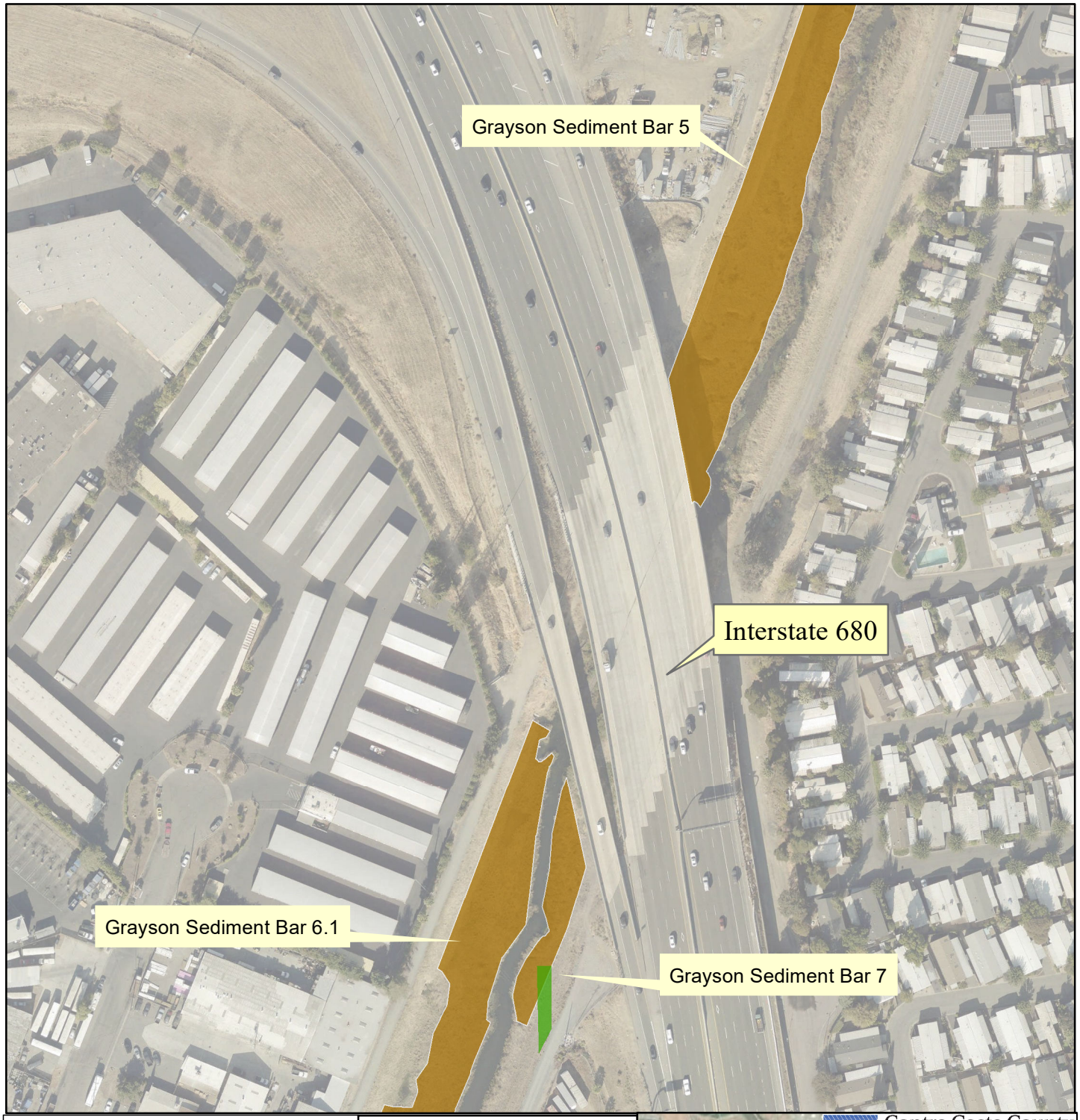


Figure 2 (continued)

Grayson Creek & Walnut Creek Desilt Vicinity Map



Grayson 3

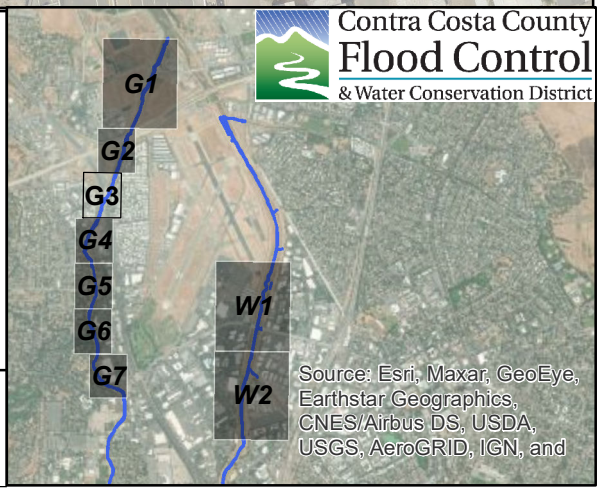
N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

- Points of Access
- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 100 200 400 600 800 Feet



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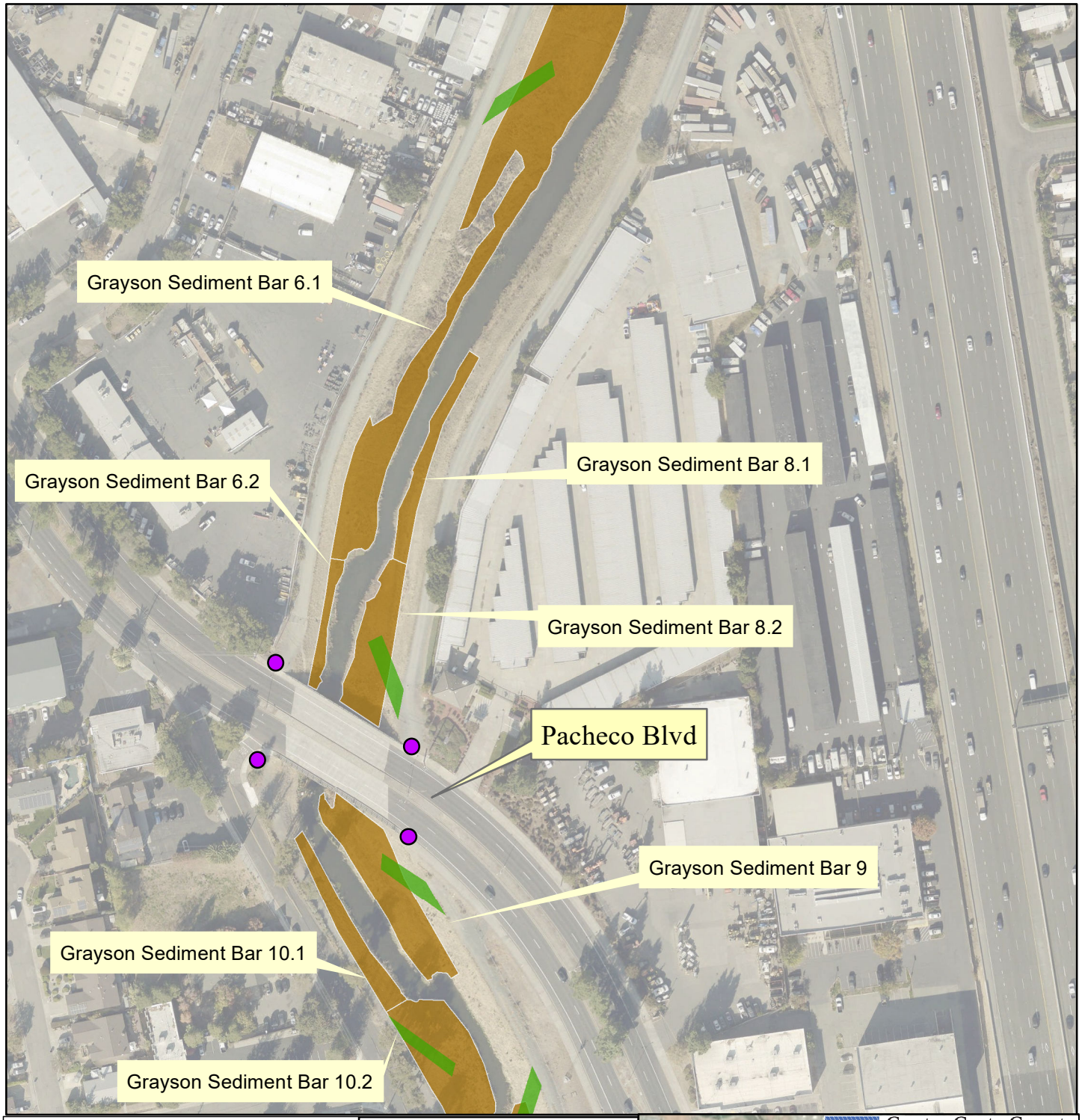

Grayson 4

N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

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- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 100 200 400 600 800 Feet

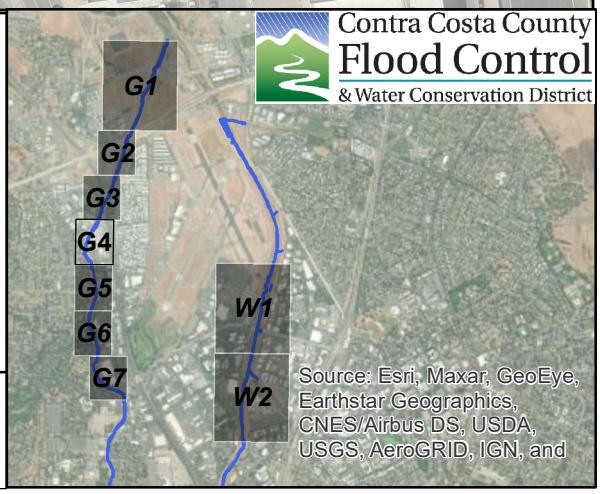
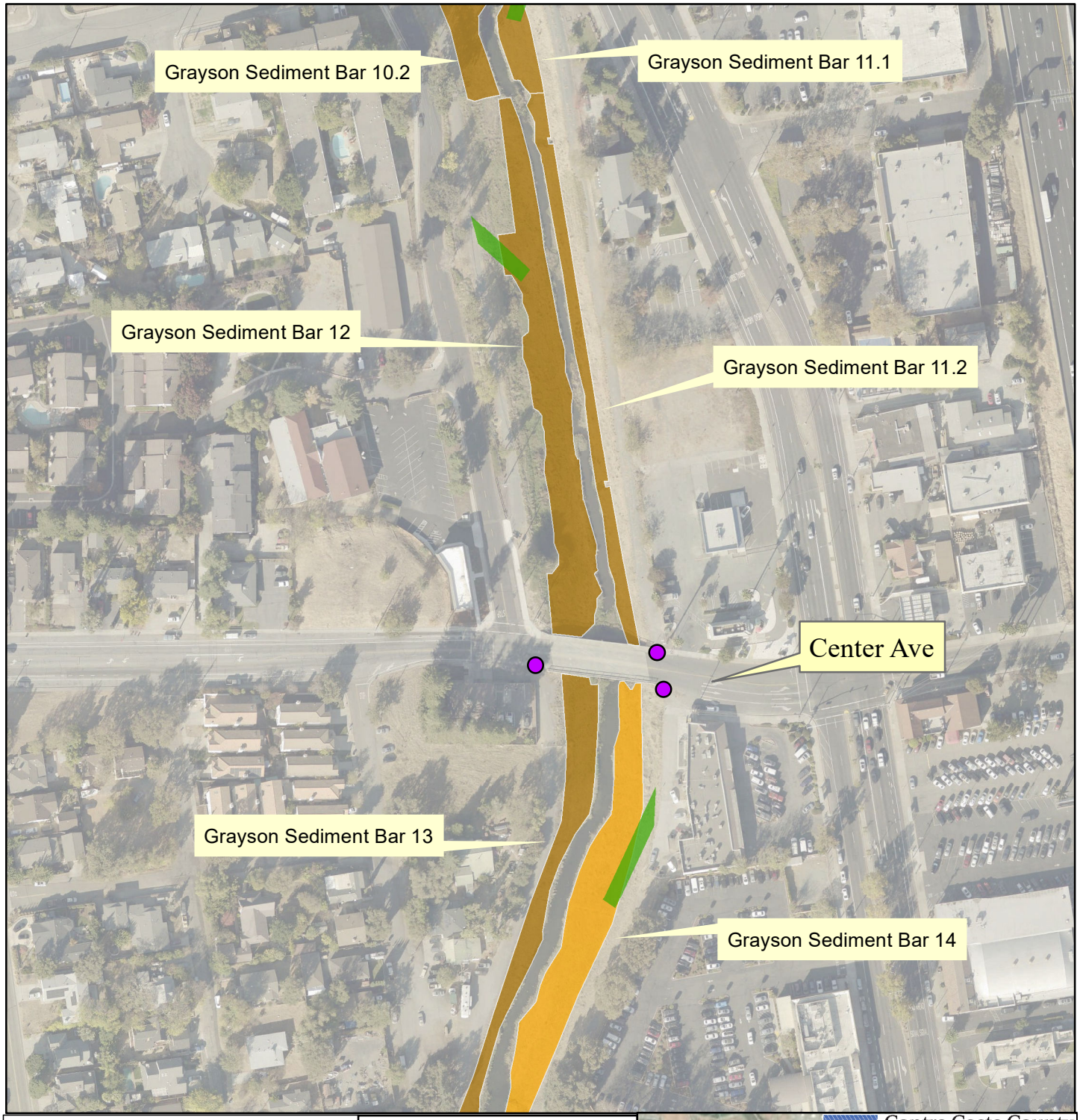


Figure 2 (continued)

Grayson Creek & Walnut Creek Desilt Vicinity Map



Grayson 5

N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

- Points of Access
- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 100 200 400 600 800 Feet

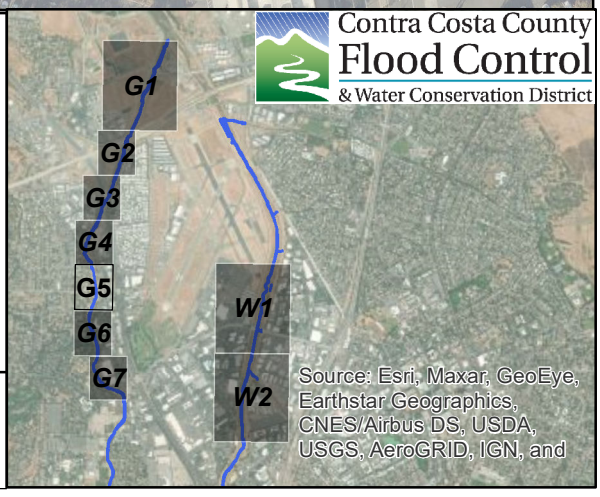


Figure 2 (continued)

Grayson Creek & Walnut Creek Desilt Vicinity Map

Grayson 6

N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

- Points of Access
- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 100 200 400 600 800 Feet

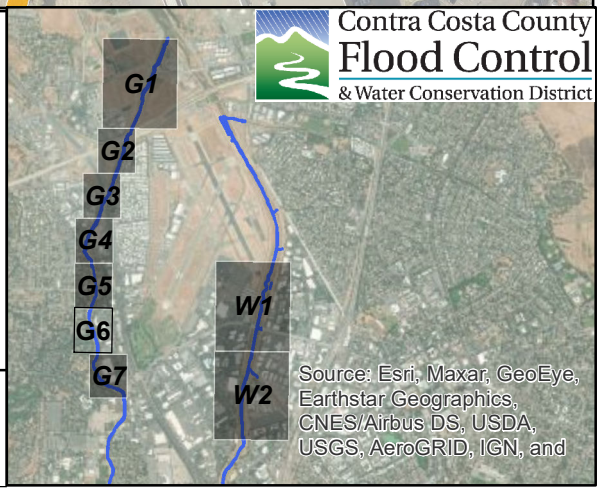


Figure 2 (continued)

Grayson 7

N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

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- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 100 200 400 600 800 Feet

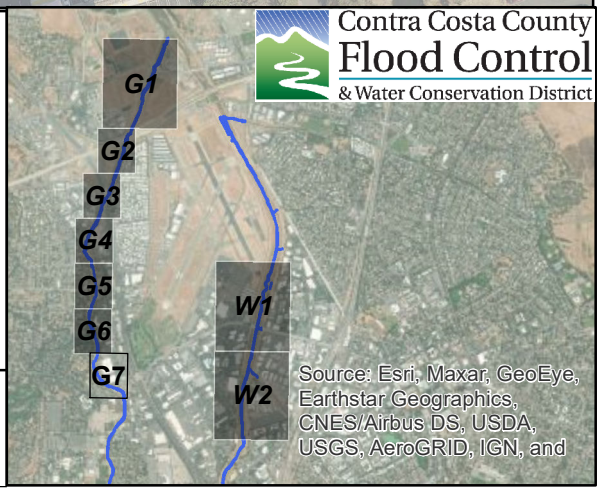
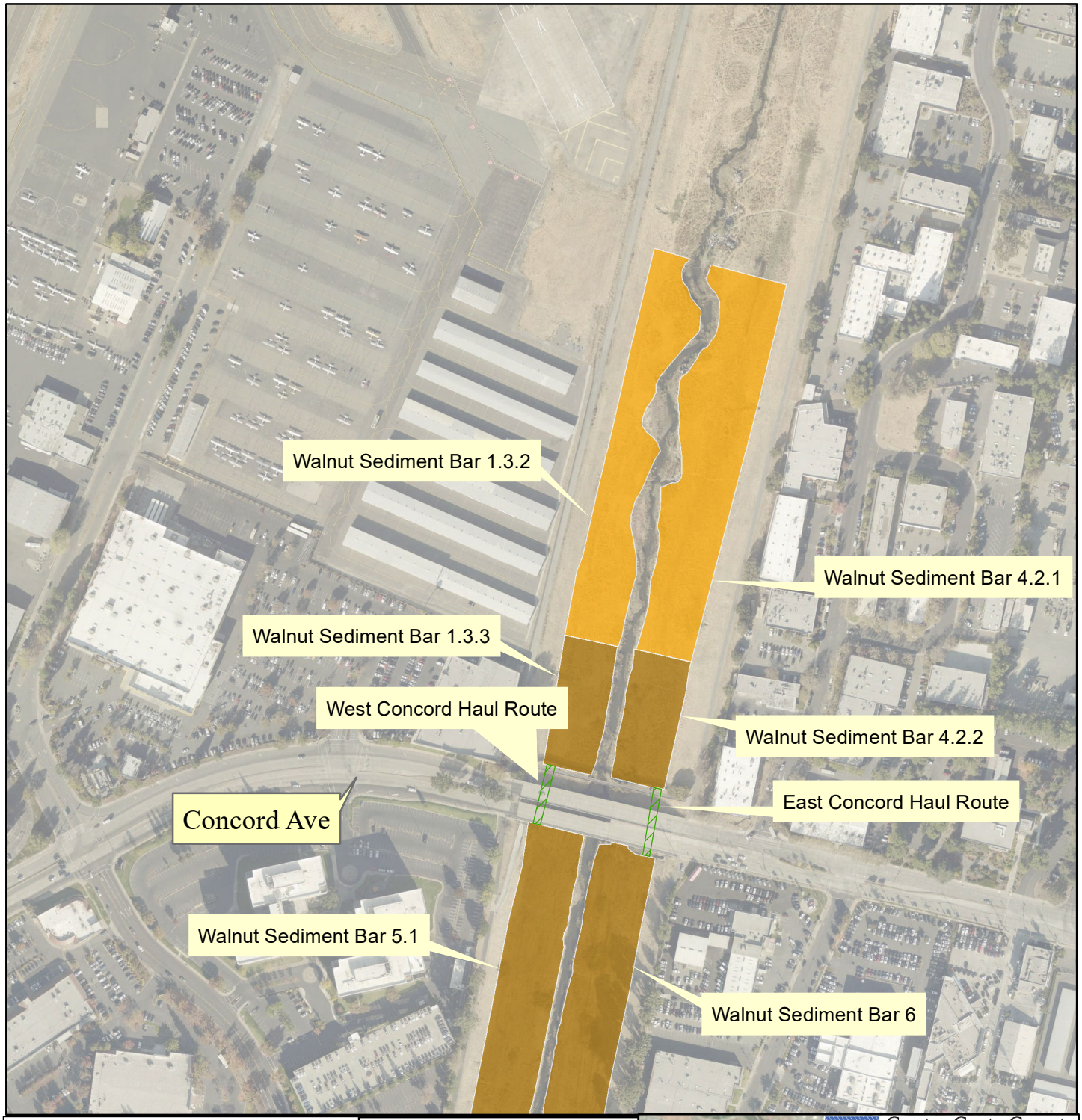


Figure 2 (continued)

Grayson Creek & Walnut Creek Desilt Vicinity Map



Walnut 1

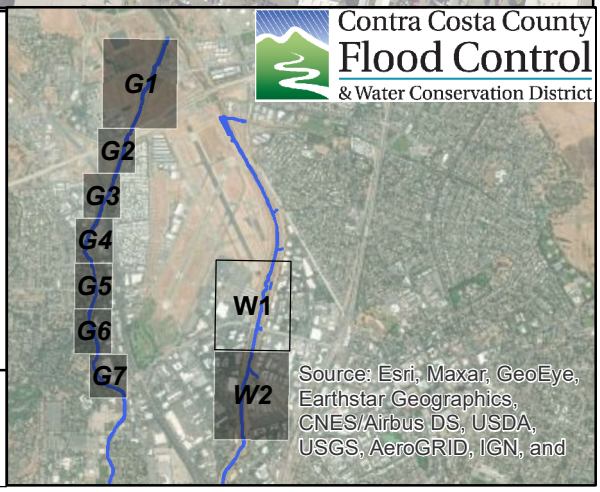
N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

- Points of Access
- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

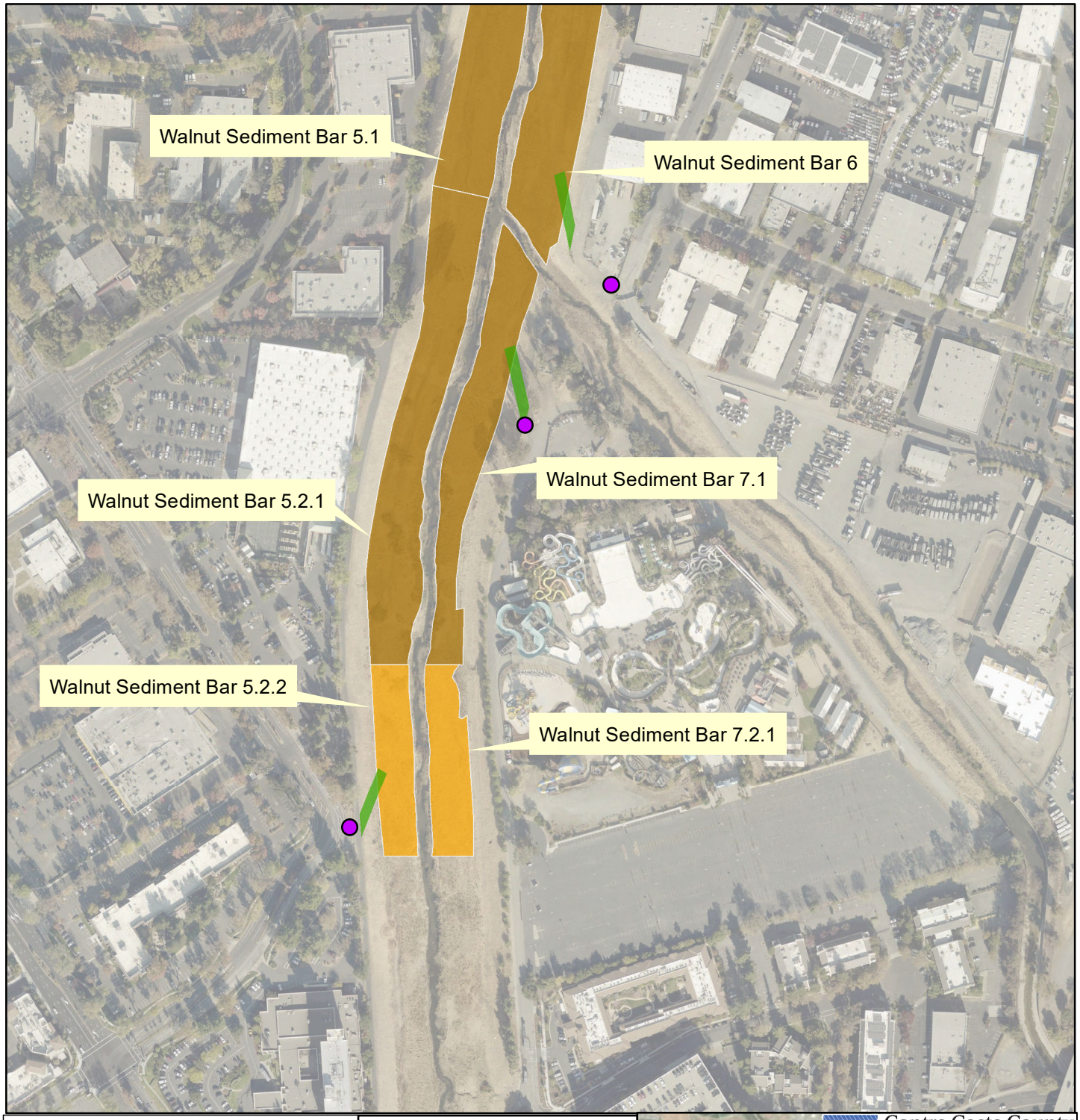
0 200 400 800 1,200 1,600 Feet



Contra Costa County Flood Control & Water Conservation District

Figure 2 (continued)

Grayson Creek & Walnut Creek Desilt Vicinity Map



Walnut 2

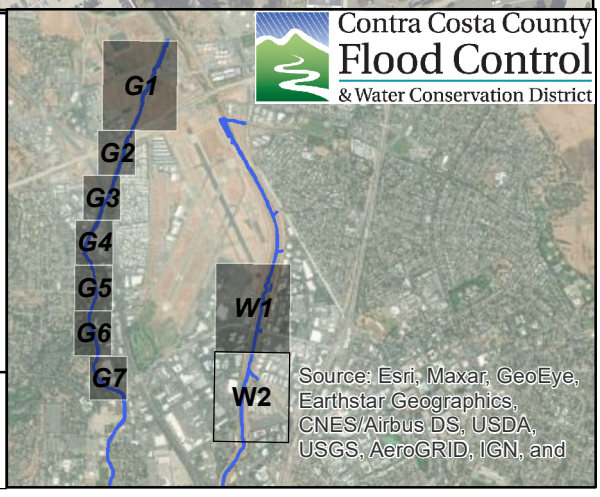
N

By Anthony DiSilvestre
Date: 4/21/2021

Legend

- Points of Access
- Haul Route (Existing)
- Haul Route (Proposed)
- Access Ramp
- Rank 1 Bars
- Rank 2 Bars

0 200 400 800 1,200 1,600 Feet



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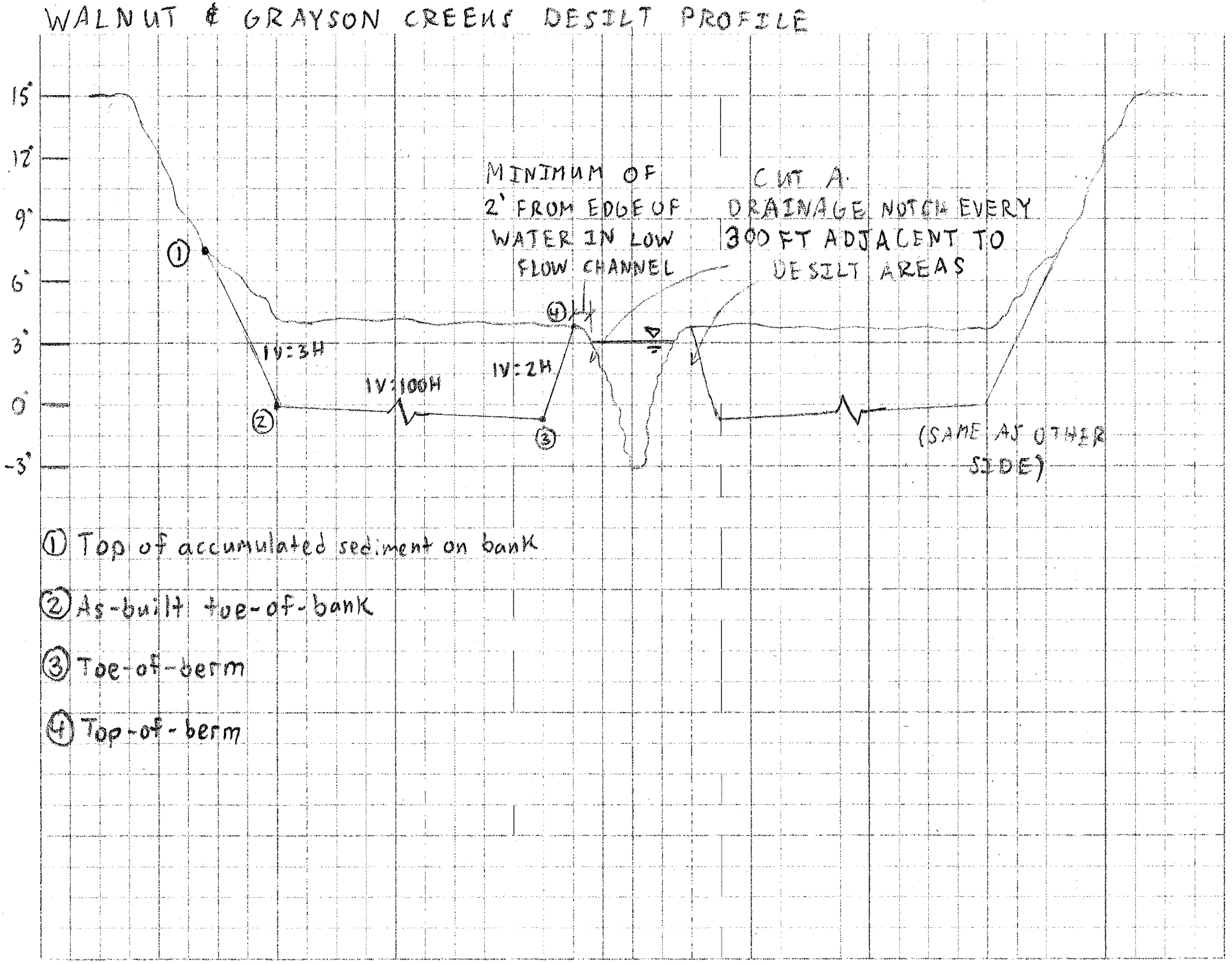

Anthony DiSilvestre
4/15/2021

Figure 3

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APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
III. Air Quality					
BEST MANAGEMENT PRACTICE AQ-1: To further reduce emissions, the Project will incorporate the recommended BAAQMD basic construction measures that apply to the Project.	**BEST MANAGEMENT PRACTICE AQ-1** The following BAAQMD-recommended "Basic Construction Mitigation Measures" shall be implemented for the control of short-term emissions, including fugitive dust and off-road equipment emissions: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.	During construction	Contractor and CCCPWD	Resident Engineer and CCCPWD	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

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Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	• All vehicle speeds on unpaved roads shall be limited to 15 mph. • All off-road equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.				

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

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Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
IMPACT AQ-2: Without use of construction equipment meeting Tier 3 emission standards, Project emissions may exceed BAAQMD thresholds of significance**.**	**MITIGATION MEASURE AQ-2:** The following measures shall be implemented to reduce construction-generated emissions: • • Idling of diesel-powered off-road equipment shall be limited to a maximum of two minutes when not in use. When not in use, diesel-powered off-road equipment shall not be allowed to idle when located within 1,000 feet of sensitive land uses (e.g., residential dwellings, daycare facilities, schools). When not in use, idling of diesel-powered on-road haul trucks shall be prohibited. Signs shall be posted at the project site entrance to remind equipment operators of idling limitations.	During construction	Contractor and CCCPWD	Resident Engineer and CCCPWD	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

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Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	• The Project shall require off-road heavy-duty equipment (50 horsepower, or greater) to meet Tier 3 emission standards. • To the extent locally available, use on-road heavy-duty trucks that meet year 2007, or cleaner, certification standards for on-road heavy-duty diesel engines.				
IV. Biological Resources					
BEST MANAGEMENT PRACTICE BIO-1: The Project area contains habitat for special status species and other	**BEST MANAGEMENT PRACTICE BIO-1:** • A qualified biologist will conduct an education program covering all the sensitive resources with potential to occur in the Project area and the avoidance and minimization measures requiring implementation for all Project personnel prior to the start of construction activities.	Prior to and during construction	Biologist and CCCPWD	Resident Engineer and CCCPWD	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
protected species that could be affected by Project implementation. The following general Best Management Practices (BMPs) will lessen the impact to all special status species.	• Preconstruction surveys for all special status and common wildlife species will be conducted within the Project area by a qualified biologist immediately prior to equipment or material staging, pruning/grubbing, or surface-disturbing activities. The qualified biologist will search aquatic vegetation, the water's surface, leaf litter, logs, snags, and other habitat features for special status and common wildlife species. If species are found, individuals will be relocated outside of the Project area if the qualified biologist is permitted to do so by all regulatory agencies and determines that relocation is warranted. Although not expected, this includes dewatering activities. If water diversion systems are implemented, a qualified biologist will be on site to relocate all				

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	fish, turtles, invertebrates, and other wildlife observed outside of the work area. • A qualified biologist will conduct biological monitoring during initial ground disturbance and as appropriate based on the results of the preconstruction surveys or as required by regulatory agencies. • All work should be conducted during the dry season and when the water is at its lowest level. Therefore, work will occur between April 1and October 31, or as approved by the regulatory agencies.				
BEST MANAGEMENT	**BEST MANAGEMENT PRACTICE BIO-2:** A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented in accordance with the	During and after construction	Contractor and CCCPWD	Resident Engineer	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
PRACTICE BIO-2: Special status fish and other species could be affected by sediment mobilization into the flowing channel.	National Pollution Discharge Elimination System (NPDES) Construction General Permit as required under Section 402 of the Clean Water Act. The SWPPP will identify water pollution control and construction-waste containment measures to be implemented during Project construction, including but not limited to: • Trash generated by the Project will be promptly and properly removed from the site daily. • All refueling of construction and maintenance vehicles will occur in paved or gravel areas away from the top of bank of the Walnut Creek and Grayson Creek channels. Runoff from these paved or gravel areas will not be allowed to flow into the channels.			and CCCPWD	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	• Hazardous material absorbent pads and similar materials will be available on site in the event of a spill that could potentially impact jurisdictional waters. • Stabilization methods for disturbed areas will be implemented. • No erodible materials will be deposited into watercourses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. • Active construction areas will be watered regularly.				

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	• Disturbed areas will be seeded with a native seed mix suitable for riparian and wetland habitats.				
IMPACT BIO-3: Western pond turtles are known to occur in the Project area and may have nests in or near the Project site.	**MITIGATION MEASURE BIO-3:** A qualified biologist will work with CCCPWD staff prior to the start of the Project to identify potential western pond turtle nesting habitat in the Project area and ensure all staging, access, and stockpile locations are located outside of potential nesting habitat, to the greatest extent possible. The work areas identified for use will be delineated with flagging, fencing, or other material as deemed necessary to ensure that work activities do not occur outside of these approved areas. In the event that any western pond turtle individuals are observed within a construction zone during the preconstruction surveys or construction monitoring, the	During construction	Biologist and CCCPWD	Resident Engineer and CCCPWD	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	individual will be relocated out of harm's way according to permit conditions.				
IMPACT BIO-4: If migratory and other bird species (including Cooper's hawk, burrowing owl, and white-tailed kite) nest within the Project area, the Project could result in short-term impacts such as failure to breed, nest abandonment, reduced fecundity	**MITIGATION MEASURE BIO-4:** If work activities cannot be timed to avoid the breeding season, then preconstruction surveys for nesting bird species will be conducted as detailed below to minimize impacts to these species. Active nests will be avoided and a non-disturbance buffer zone will be established around them or monitored for disturbance. Therefore, the Project will not adversely affect migratory bird species (including Cooper's hawk and white-tailed kite). Preconstruction surveys for burrowing owl will be conducted as detailed below to minimize impacts to this species. Active burrows will be avoided and a non-disturbance buffer zone will be established around them. Therefore, the Project will not adversely affect burrowing owl.	Prior to and during construction	Biologist and CCCPWD	Resident Engineer and CCCPWD	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
and decreased survivorship from noise and movement of personnel and equipment that exceeds normal background conditions within the Project area. Disturbance may alter the birds' behavior in ways that result in injury, mortality and reduced foraging success, such as the	• If tree or vegetation removal, pruning, or grubbing activities are necessary, such activities may be conducted during the non-nesting season (September 1 – January 31) to avoid impacts to nesting birds. If all Project work is conducted during this work window, preconstruction surveys would only be required for wintering burrowing owls and not nesting birds. • If Project work begins during the breeding season (February 1 – August 31), preconstruction surveys will be conducted by a qualified biologist within the Project area and adjacent habitats up to 300 feet from the Project boundary where access available, no more than one week prior to equipment or material staging, pruning/grubbing or surface-disturbing				

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
temporary loss of habitat due to avoidance of areas with intolerable levels of disturbance, and altered activity patterns.	activities. The surveys will entail a variety of search techniques, such as incidental flushing of an adult from the nest, watching parental behavior (e.g., carrying nest material or food), systematically searching nesting substrates, and use of call-broadcasts. If no active nests are found within the survey area, no further mitigation is necessary. • If active nests, i.e. nests with eggs or young present, are found within the survey area, non-disturbance buffers should be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. No work should occur within the non-disturbance buffers until the young have fledged as determined by a				

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	qualified biologist. If buffers are established and it is determined that Project activities are resulting in nest disturbance, work in the nearby vicinity of the nest would cease immediately and CDFW would be contacted for further guidance. • Burrowing owl surveys will be conducted prior to any work activities, regardless of season. If active burrowing owl burrows are found (i.e. sign of use or individuals are observed), they will be monitored to ensure active status and a non-disturbance buffer will be implemented and monitored. The no-work buffer will be dependent on whether the owl is present during the nesting or wintering seasons. If buffers are established and it is determined that Project activities are resulting in burrowing owl disturbance, work				

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	would cease in the nearby vicinity and CDFW would be contacted for further guidance.				
IMPACT BIO-5: If roosting bats are present in the bridges or trees in the Project area, they could be disturbed by staging or Project activities.	**MITIGATION MEASURE BIO-5:** Roosting bat habitat assessments and preconstruction surveys will be conducted to ensure the absence of roosting bats before construction, as detailed below. • Prior to the start of construction, a bat habitat assessment will be conducted to identify suitable bat roosting habitat including bridges, snags, rotten stumps, and trees with broken limbs, exfoliating bark, cavities, etc. Potential roosting habitat will be avoided to the maximum extent practicable. If no suitable roost sites are identified, no further minimization measures are necessary.	Prior to and during construction	Biologist and CCCPWD	Resident Engineer and CCCPWD	

APPENDIX A: MITIGATION MONITORING REPORTING PLAN

The following Mitigation Measures will be implemented according to Section 15097 of the CEQA guidelines. Contra Costa County Public Works (PWD) is responsible for ensuring these measures are implemented by PWD staff and by Contractors working on behalf of PWD.

Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	• If suitable roosting habitat is identified and will be disturbed by presence and noise of equipment and workers for more than two hours (i.e. near bridges), a qualified biologist will be present to monitor the bat roosting habitat and will stop work if any disturbance to bats is detected and contact CDFW for further guidance. • Although not anticipated, if suitable roosting habitat is identified and will be removed by the Project, a qualified biologist will survey potential suitable roost sites immediately prior to the removal. If any sign of roosting bats or observation of individual bats is observed, the roost will be removed in coordination with CDFW or according to permit conditions. Typical removal methods include first removing				

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Mitigation, Avoidance, and Minimization Measures

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	non-habitat features such as limbs smaller than 3 inches in diameter. The tree is left overnight to allow any bats using the tree/snag to find another roost during their nocturnal activity period. A qualified biologist would survey the trees/snags a second time the following morning prior to felling and removal.				
IMPACT BIO-6: The Project could have negative impacts on sensitive natural communities.	**MITIGATION MEASURE BIO-6**: • Prior to the start of desilting activities, areas containing freshwater marsh and seasonal wetlands, that are near but outside of the work area will be delineated and conspicuously flagged or fenced to minimize impacts to these resources.	Prior to, during, and after construction	Biologist and CCCPWD	Resident Engineer and CCCPWD	

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Mitigation, Avoidance, and Minimization Measures

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	• A qualified restoration biologist or botanist will create a seed and plant palate appropriate for reestablishing impacted vegetation. • The seed and plant palate will include creeping ryegrass in appropriate locations.				
V. Cultural Resources					
IMPACT CUL-1: Project activities could impact previously unidentified historical resources during ground-disturbing activities.	**MITIGATION MEASURE CUL-1:** The following will be implemented during Project activities if unanticipated potential historic or prehistoric archaeological resources are encountered. • Prior to the start of Project activities, cultural resource sensitivity training regarding identification of archaeological and historical resources in the field will be provided for construction personnel in the unexpected event	Prior to and during construction	Archeological Monitor and CCCPWD	Resident Engineer and CCCPWD	

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Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	that inadvertent discoveries are made during sediment removal. • If any suspected cultural or historic resources are located during Project activities, specifications will require all work to be halted within 100 feet of the discovery and the location of the discovery will be secured. • The Contractor will immediately notify the CCCPWD Resident Engineer, who will then request a qualified archaeologist to evaluate the finding(s) before advising the Resident Engineer to either continue work or recommend further review of the discovery.				
IMPACT CUL-2: The Project could impact previously	**MITIGATION MEASURE CUL-2**: If human remains are encountered (or are suspected) during any Project-related activities, construction	During construction	Contractor and CCCPWD	Resident Engineer	

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Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
undiscovered human remains.	personnel will be advised to stop all work within 100-feet of the discovery and immediately contact the CCCPWD Resident Engineer, who will contact the Contra Costa County Coroner. At the same time, the Resident Engineer will contact an archaeologist to assess the situation. The discovery location will be secured without touching or removing the remains or any associated artifacts. In addition, any associated spoils will be secured and left undisturbed so that they can be examined. The Resident Engineer will record the location of the find and keep notes of all calls and events. The find will be treated as confidential and the location will not be publicly disclosed. If the Coroner determines that the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Most Likely Descendant (MLD) to inspect			and CCCPWD	

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Mitigation, Avoidance, and Minimization Measures

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	the site and provide recommendations for the proper treatment of the remains. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the CCCPWD and the NWIC.				
X. Hydrology / Water Quality					
IMPACT HYD-1: Project activities could cause sediment to enter the channels and	**MITIGATION MEASURE HYD-1:** A two-foot berm/barrier will be left between the low flow channel and construction areas in both Walnut Creek and Grayson Creek. This berm will prevent sediment from entering the channel during construction, and affecting water quality.	During construction	Contractor and CCCPWD	Resident Engineer and CCCPWD	

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Mitigation, Avoidance, and Minimization Measures

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affect water quality.					
XIII. Noise					
IMPACT NOI-1: Project activities will result in a temporary increase in ambient noise levels.	**MITIGATION MEASURE NOI-1a:** Construction activities shall be limited to non-sensitive hours for adjacent land uses (generally between 7:00 a.m. to 6:00 p.m. in unincorporated areas and 7:30 a.m. to 6:00 p.m. in neighboring cities) consistent with the Contra Costa County General Plan Noise Element and noise ordinances for the City of Concord and City of Pleasant Hill. If work is necessary outside of these hours, approvals from impacted jurisdictions will be obtained as needed to extend work hours. **MITIGATION MEASURE NOI-1b:** The Project Contractor shall employ the following noise-reducing practices during Project construction:	During construction	Contractor and CCCPWD	Resident Engineer and CCCPWD	

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Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
	• Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. • Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive areas nearest the active Project site during all Project activities. • A visible sign will be posted at the Project site with the hours of construction and the name and telephone number of the contact person to address any noise complaints.				
XX. Wildfire					
IMPACT FIRE-1: Construction activities could result in the	**MITIGATION MEASURE FIRE-1**: Prior to construction, the contractor shall prepare a Fire Safety Plan for use during construction. The Fire Safety Plan	Prior to and during construction	Contractor and CCCPWD	Resident Engineer and CCCPWD	

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Mitigation, Avoidance, and Minimization Measures

Impact	Mitigation Measure:	Implementation Timing	Implementation Entity	Verification Entity	Compliance Verification Date
ignition of a wildfire.	shall contain notification procedures and emergency fire precautions including, but not limited to, the following: • Dry grass shall be cut low or removed from construction equipment staging areas. • Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition. • Equipment parking areas (staging areas) shall be cleared of all extraneous flammable materials. • Smoking shall be limited to paved areas or areas cleared of all vegetation.				

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